DESIGN-BUILD AGREEMENT

DAWSON CREEK AND DISTRICT HOSPITAL REPLACEMENT

NORTHERN HEALTH AUTHORITY

- AND -

GRAHAM DESIGN BUILDERS LP

CONFIDENTIAL

DESIGN-BUILD AGREEMENT

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DESIGN-BUILD AGREEMENT

THIS AGREEMENT (the "**Agreement**") is made as of June 26, 2023 (the "**Effective Date**"),

BETWEEN:

NORTHERN HEALTH AUTHORITY

(the "**Authority**")

AND:

GRAHAM DESIGN BUILDERS LP

(the "**Design-Builder**")

WHEREAS:

A. The Authority has selected the Design-Builder to perform all Work for the Project referred to as the "Dawson Creek and District Hospital Replacement", as further described in this Agreement; and

B. The parties wish to enter into this Agreement to set out their respective rights and obligations.

NOW THEREFORE, in consideration of the premises and the mutual obligations contained in this Agreement, the parties agree as follows:

PART A – DEFINITIONS AND INTERPRETATION

SECTION 1
DEFINITIONS AND INTERPRETATION

Whenever used in this Agreement, the following terms have the following meanings:

"**Agreement**" means this agreement, including the documents referred to in Section 1.2;

"**Apprenticeship Policy**" has the meaning set out in Schedule 10 - Apprenticeship Policy;

"**Approved Building Performance Professional**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Architect**" means a professional architect registered and in good standing under the *Architects Act* (British Columbia);

"**Authority**" has the meaning set out on the first page of this Agreement;

"**Authority's Consultant**" means Stantec Architecture Ltd., unless replaced in accordance with Section 5.5;

"**Authority's Representative**" has the meaning set out in Section 5.1;

"BC Hydro" means the British Columbia Hydro and Power Authority;

"**Bonds**" has the meaning set out in Section 60.1;

"**Building**" means the new Dawson Creek and District Hospital;

"**Business Day**" means a day other than a Saturday, Sunday or statutory holiday in British Columbia;

"**Change**" means a change in the Work, including any addition, deletion, alteration, revision or substitution;

"**Change Directive**" means a written instruction referenced as a "Change Directive" executed by the Authority and directing the Design-Builder to proceed with a Change;

"**Change Order**" means a written document referenced as a "Change Order" executed by the Authority and the Design-Builder and setting out a Change and the value or method of valuation of a Change and any adjustments to the Contract Price and Contract Time;

"**Commissioning Plan**" has the meaning set out in Section 33.1;

"**Confidential Information**" means information of a party that the party has designated as confidential at the time of disclosure and which is supplied, or to which access is granted, to or on behalf of the other party (whether before or after the Effective Date), either in writing, or in any other form, directly or indirectly pursuant to discussions with the other party and includes all analyses, compilations, studies and other documents whether prepared by or on behalf of a party which contain or otherwise reflect or are derived from such designated information;

"**Construction**" means all things, other than Design, necessary to complete the Work;

"**Contaminants**" means any materials, substances or hazardous wastes, the storage, manufacture, disposal, treatment, generation, use, transport, remediation or release into the environment of which is now or hereafter prohibited, controlled or regulated under *the Environmental Management Act* (British Columbia) and regulations;

"**Contract Price**" means the price set out in Section 2.1;

"**Contract Time**" means the time within which the Design-Builder will achieve Substantial Completion as set out in Section 3.1;

"**COVID-19 Change in Law**" means a change to applicable Laws or Standards which imposes, modifies or removes measures to minimize or mitigate the spread of, and human health effects from, the novel coronavirus COVID-19;

"**COVID-19 Event**" means an event, other than a COVID-19 Change in Law, arising after the Financial Submission Date and caused by the COVID-19 Pandemic;

"**COVID-19 Pandemic**" means the novel coronavirus COVID-19 pandemic declared March 11, 2020 by the World Health Organization until such time as the World Health Organization designates or declares the COVID-19 post-pandemic phase;

"**Credit Provider**" has the meaning set out in Section 12.2;

"**Design**" means the design for the Work;

"**Design-Builder**" has the meaning set out on the first page of this Agreement;

"**Design-Builder's Consultant**" means HDR Architecture Associates, Inc. as the principal Architect and coordinating professional and any other architectural or engineering firm or person, including any Architect or Professional Engineer, engaged by the Design-Builder to prepare the Drawings and Specifications, or to otherwise consult to the Design-Builder on the Project;

"**Design-Builder's Representative**" has the meaning set out in Section 5.2;

"**Disclosed Data**" means any information, data and documents (including in PLS-CADD or any other electronic format) made available or issued to the Design-Builder or any Subcontractor or other person on behalf of the Design-Builder or any Subcontractor in connection with the Project by or on behalf of the Authority, including any information relating to the Land or the requirements of any governmental authority, before the Effective Date;

"**Dispute**" means any disagreement, failure to agree or other dispute between the Authority and the Design-Builder arising out of or in connection with this Agreement, including in respect of the interpretation, breach, performance, validity or termination of this Agreement, whether in the law of contract or any other area of law;

"**Drawings**" means all drawings for the Project that are prepared by or for the Design-Builder and submitted to the Authority under the Review Procedure and that the Design-Builder is entitled to proceed with under the Review Procedure;

"**Effective Date**" has the meaning set out on the first page of this Agreement;

"**End Date**" means the date described in Section 4.1;

"**Energy**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Energy Consumption**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Energy Model**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Energy Target**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Environmental Credit**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Environmental Reports**" has the meaning set out in Section 30.1(a);

"**Epidemic**" means an epidemic or pandemic of infectious disease of humans, including one that is either declared by the World Health Organization or that is a "regional event" as defined in the Public Health Act (British Columbia) for which the Provincial Health Officer gives notice under Section 52 of that Act, but excluding the COVID-19 Pandemic;

"**Epidemic Change in Law**" means a change to applicable Laws and Standards which in respect of an Epidemic imposes, modifies or removes measures to minimize or mitigate the spread of, and human health effects from, relevant infectious disease;

"**Epidemic Event**" means an event, other than an Epidemic Change in Law, arising after the Financial Submission Date and caused by an Epidemic;

"**Existing Hospital**" means the existing Dawson Creek and District Hospital;

"**Facility**" means the buildings, related structures, utility connections, landscaping and other improvements to be constructed by the Design-Builder pursuant to this Agreement;

"**FIPPA**" means the *Freedom of Information and Protection of Privacy Act* (British Columbia);

"**Financial Submission Date**" means May 23, 2023;

"**Force Majeure**" means COVID-19 Events, Epidemic Events, labour disputes, strikes, lock-outs, fires, tornadoes, overland floods, earthquakes, hurricanes, unusual delay by common carriers or unavoidable casualties or, without limiting any of the foregoing, by a cause beyond the Design-Builder's reasonable control, but excludes:

(a) any event that is the result of breach of this Agreement or Law;

(b) economic hardship or lack of financing;

(c) equipment failure;

(d) unavailability of personnel, labour or Subcontractors, unless and to the extent caused by a COVID-19 Event or an Epidemic Event;

(e) unavailability of materials, unless and to the extent caused by a COVID-19 Event or an Epidemic Event;

(f) labour disputes, strikes or lock-outs of the personnel of the Design-Builder or the Subcontractors (excluding industry-wide labour disputes, strikes or lock-outs);

(g) delays resulting from adverse weather conditions, unless and to the extent that such adverse weather conditions directly give rise to a declaration of a state of emergency by the Province of British Columbia pursuant to Section 9 of the *Emergency Program Act* (British Columbia); and

(h) unsuitable or unanticipated Site conditions, including subsurface conditions (but excluding any remnants from the Royal Canadian Air Force Station Dawson Creek);

"**GST**" means the goods and services tax imposed pursuant to Section IX of the *Excise Tax Act* (Canada);

"**Health and Safety Plan**" has the meaning set out in Section 31.5;

"**Indemnified Parties**" has the meaning set out in Section 58.1;

"**Independent Energy Consultant**" has the meaning set out in Section 1.1 of Schedule 9 – Energy Guarantee;

"**Insurance Conditions**" means the terms and conditions set out in Schedule 4 – Insurance Conditions;

"**Key Individuals**" means the persons identified in Schedule 6 – Key Individuals;

"**Land**" means the lands legally described as Block A, Section 10, Township 78 Range 15 West of the 6th Meridian, Peace River District, Parcel Identifier: 031-899-196;

"**Laws**" means the common law and any and all laws, statutes, enactments, by-laws, regulations, rules, orders, directives, policies, permits, licences, codes and rulings of any government, and any ministries, agencies, board, commission or tribunal of any government;

"**LD Holdback**" has the meaning set out in Section 43.1;

"**LEED Certifier**" means the Canada Green Building Council or other organization authorized by the Canada Green Building Council to administer and award LEED Gold Certification;

"**LEED Gold Certification**" means the award of a LEED Gold certification from the LEED Certifier under the LEED Rating System;

"**LEED Rating System**" means LEED v4 for Building Design and Construction (BD + C); Healthcare;

"**Lien Holdback**" means the 10% holdback required under the *Builders Lien Act* (British Columbia);

"**Other Contractor**" means any person employed by or having a separate contract directly or indirectly with the Authority for work related to the Project, other than the Work;

"**Payment Certifier**" means SSA Quantity Surveyors Ltd. unless replaced in accordance with Section 5.4;

"**Performance Holdbacks**" has the meaning set out in Section 43.1;

"**PNG**" means Pacific Northern Gas Ltd.;

"**Professional Engineer**" means a professional engineer registered and in good standing under the *Engineers and Geoscientists Act* (British Columbia);

"**Project**" means the design, construction, testing and commissioning of the Facility and all other works in accordance with this Agreement;

"**Project Binder**" has the meaning set out in Section 45.1;

"**Project Credits**" means any incentive, income, credit, rebate, right, benefit or advantage provided by a governmental authority or industry group relating to energy, design, materials or environmental matters, including means of production of energy, input sources, use of products or materials, efficiencies, type and level of emissions, and compliance with any energy or environmental laws, regulations, rules or orders;

"**Project Management Plan**" means the management plan that (i) sets out a high level workplan to describe the manner in which the Design-Builder will manage the Project, including to address related matters such as traffic management and communications, and (ii) is prepared by or for the Design-Builder and submitted to the Authority;

"**Proposal Extracts**" means Schedule 8 – Proposal Extracts;

"**PST**" means the tax under the *Provincial Sales Tax Act* (British Columbia) and any regulation thereunder, including any transition provisions;

"**Quality Management Plan**" means the plan for quality management including quality control and quality assurance with respect to the Work, with such plan prepared by the Design-Builder and submitted to the Authority under the Review Procedure and that the Design-Builder is entitled to proceed with under the Review Procedure;

"**Record Drawings**" means the as-built Drawings and Specifications that record the completed Facility;

"**Review Procedure**" means Schedule 2 – Review Procedure;

"**Schedule of Values**" means the schedule to be provided by the Design-Builder pursuant to Section 40.4 and reviewed by the Authority under the Review Procedure that allocates the Contract Price set out in Schedule 7 – Schedule of Prices over the course of the Project and that is the basis for monthly payments by the Authority for Work properly performed pursuant to this Agreement;

"**Site**" means the place where the Construction is to be performed on the Land as indicated on the Site Plan, together with, as indicated from time to time, other such areas that the Design-Builder may be permitted to access for purposes of Construction in accordance with a Work Plan pursuant to Section 25.2;

"**Site Occupation Date**" means the date that is the third Business Day after the Effective Date unless otherwise agreed by the Authority and the Design-Builder;

"**Site Plan**" means the plan of the Site attached as Schedule 11 to this Agreement;

"**Site Reports**" means:

1. the geotechnical assessment dated September 25, 2019 entitled "Geotechnical Assessment for Dawson Creek Hospital Alternate Location – Northern Lights College Lands 11401 8 Street, Dawson Creek, BC"; and

2. the geotechnical assessment dated January 10, 2023 entitled "Geotechnical Report – Dawson Creek and District Hospital Redevelopment Project – Substructure Building Permit Submission";

"**Specifications**" means all construction and other specifications for the Project prepared by or for the Design-Builder and submitted to the Authority under the Review Procedure and that the Design-Builder is entitled to proceed with under the Review Procedure;

"**Standards**" means any and all Laws, professional standards and specifications applicable to the Work, or to work such as the Project, as they are in force from time to time in the latest current version thereof;

"**Statement of Requirements**" means Schedule 1 – Statement of Requirements;

"**Subcontract**" means a contract with a Subcontractor;

"**Subcontractor**" means a person or entity, including the Design-Builder's Consultant, having a contract with the Design-Builder or with a subcontractor of any tier to perform a part or parts of the Work or to supply products or materials for the Work;

"**Submittal**" means any and all items, documents and anything else required or specified by this Agreement and any and all subsequent revisions, amendments and changes thereto, in respect of the Design and the Construction to be submitted to, reviewed, accepted or otherwise processed or considered by the Authority;

"**Submittal Schedule**" has the meaning set out in Section 1.1 of Schedule 2 – Review Procedure;

"**Substantial Completion**" has the meaning set out in Section 44.2;

"**Substantial Completion Certificate**" means the certificate issued to the Design-Builder by the Authority's Consultant upon the achievement of Substantial Completion;

"**Substantial Completion Date**" means the date that Substantial Completion has been achieved by the Design-Builder, as set out in the Substantial Completion Certificate;

"**Target Substantial Completion Date**" has the meaning set out in Section 3.1, subject to an adjustment of such date in accordance with this Agreement;

"**Term**" means the period commencing on the Effective Date and ending on the End Date;

"**Time Schedule**" means the general schedule for timing of the Work as set out in the Proposal Extracts and as updated pursuant to Section 7;

"**Total Completion**" has the meaning set out in Section 44.11;

"**Total Completion Certificate**" means the certificate issued to the Design-Builder by the Authority's Consultant upon the achievement of Total Completion;

"**Total Completion Date**" means the date that Total Completion has been achieved, as set out in the Total Completion Certificate;

"**User Consultation Group**" has the meaning set out in Section 4 of Schedule 2 – Review Procedure;

"**Warranty Holdback**" has the meaning set out in Section 43.1;

"**Warranty Period**" means the applicable period defined in Section 38.1 during which the Design-Builder is required to repair any deficiencies or defects that arise in the Work;

"**Work**" means everything to be undertaken by the Design-Builder under this Agreement;

"**Work Plan**" has the meaning set out in Section 25.2; and

"**Workers' Compensation Board**" or "**WorkSafe BC**" means the board constituted pursuant to the *Workers Compensation Act* (British Columbia);

"**60% Design**" means the Design documentation obtained by the Authority from HDR Architecture Associates, Inc. prior to the Effective Date that reflects the Submittal requirements for the 60% level of Design under the Statement of Requirements;

"**60% Design Deficiency"** means a non-compliance of the 60% Design with the Statement of Requirements in respect of the 60% Key Elements only, other than (i) non-compliances identified in the 60% Design Review Response or (ii) non-compliances where the 60% Design exceeds the requirements of the Statement of Requirements;

"**60% Design Review Response**" means the documentation provided by the Authority to the HDR Architecture Associates, Inc. prior to the Effective Date to reflect the indication of "Reviewed", "Not Reviewed", "Correct Deficiencies", and "Rejected" status of the 60% Design under Schedule 2; and

"**60% Key Elements**" means:

(a) master site plan in respect of the location of the Building and site circulation;

(b) building area and department layouts as indicated in floor plans;

(c) floor to floor heights as indicated in exterior and floor elevations; and

(d) concrete structure and building foundation design and scope of work.

1.2 This Agreement includes the following schedules and all sub-schedules, appendices and attachments to those schedules:

(a) Schedule 1 – Statement of Requirements;

(b) Schedule 2 – Review Procedure;

(c) Schedule 3 – Management Plans;

(d) Schedule 4 – Insurance Conditions;

(e) Schedule 5 – Communication Roles;

(f) Schedule 6 – Key Individuals;

(g) Schedule 7 – Schedule of Prices;

(h) Schedule 8 – Proposal Extracts;

(i) Schedule 9 – Energy Guarantee;

(j) Schedule 10 – Apprenticeship Policy;

(k) Schedule 11 – Site Plan; and

(l) Schedule 12 – Monthly Labour Reporting Table.

1.3 This Agreement will be interpreted according to the following provisions, except to the extent the context or the express provisions of this Agreement otherwise require:

(a) no rule of law will apply that would construe this Agreement or any part of it against the party who (or whose counsel) drafted, prepared or put forward the Agreement or any part of it;

(b) the table of contents, headings and sub-headings, marginal notes and references to them in this Agreement are for convenience of reference only, do not constitute a part of this Agreement and will not be taken into consideration in the interpretation or construction of, or affect the meaning of, this Agreement;

(c) neither the organization of the Statement of Requirements, the Proposal Extracts or any other documents included in this Agreement into divisions, sections and parts, or the arrangement of drawings or specifications included in this Agreement will control the Design-Builder in dividing the Work among Subcontractors or in establishing the Work to be performed by a trade;

(d) each reference to a Section or Schedule is a reference to a Section of or Schedule to this Agreement;

(e) a Schedule includes all of the sub-schedules, appendices and other attachments attached to that Schedule;

(f) each reference to an agreement, document, standard, principle or other instrument includes (subject to all relevant approvals and any other provisions of this Agreement expressly concerning such agreement, document, standard, principle or other instrument) a reference to that agreement, document, standard, principle or instrument as amended, supplemented, substituted, novated or assigned;

(g) each reference to a statute or statutory provision (including any subordinate legislation) includes any statute or statutory provision which amends, extends, consolidates or replaces the statute or statutory provision or which has been amended, extended, consolidated or replaced by the statute or statutory provision and includes any orders, regulations, by-laws, ordinances, orders, codes of practice, instruments or other subordinate legislation made under the relevant statute;

(h) each reference to time of day is a reference to Pacific Standard Time or Pacific Daylight Saving Time, as the case may be;

(i) words, including "they", "them" and "their", which may import the plural include the singular and vice versa;

(j) words which may import gender are interpreted as gender neutral;

(k) each reference to a public organization is deemed to include a reference to any successor(s) to such public organization or any organization or entity or organizations or entities which has or have taken over the functions or responsibilities of such public organization;

(l) unless the context otherwise requires, each reference to "parties" means the parties to this Agreement and each reference to a "party" means any one of the parties to this Agreement, provided however that a reference to a third party does not mean a party to this Agreement;

(m) all monetary amounts are expressed in Canadian Dollars;

(n) whenever this Agreement obliges a party (the "**Payor**") to pay any amount to the other party (the "**Payee**") in respect of any costs, expenses, fees, charges, liabilities, losses, claims or other sums incurred by the Payee:

(i) such obligation will be construed as applying only to so much of such sums as have been properly incurred on an arm's length commercial basis or, where not incurred on an arm's length commercial basis (including when the payment is made to an affiliate of the Payee), so much of them as are proper and reasonable; and

(ii) the Payee will, when requested by the Payor, provide supporting evidence of such costs, expenses, fees, charges, liabilities, losses, claims or other sums;

(o) the Authority will not be imputed with knowledge of any fact, matter or thing unless that fact, matter or thing is within the actual knowledge of any of those of its employees or agents (including the Authority's Representative) who have responsibilities in connection with the conduct of the Work;

(p) without limiting the extent of its actual knowledge, the Design-Builder will for all purposes of this Agreement be deemed to have such knowledge in respect of the Work as is held (or ought reasonably to be held) by all persons involved in carrying out the Work including the Design-Builder and the Subcontractors (including the Design-Builder's Consultant) and the officers, agents, employees or workers of any of them;

(q) each requirement for a thing or action to be "in accordance with" or "in compliance with" any standard, code or specification or other requirement or stipulation means that such thing or action is to exceed or at least equal that standard, code, specification or other requirement or stipulation;

(r) the words "include", "includes" and "including" are to be construed as meaning "include without limitation", "includes without limitation" and "including without limitation", respectively;

(s) the terms "will", "shall" and "must" are synonymous;

(t) the Statement of Requirements includes provisions written in the imperative, and all such provisions will be construed as obligations of the Design-Builder;

(u) when a party has "discretion", it means that party has the sole, absolute and unfettered discretion, with no requirement to act reasonably or provide reasons unless specifically required under the provisions of this Agreement;

(v) any consent contemplated to be given under this Agreement must be in writing;

(w) general words are not given a restrictive meaning:

(i) if they are introduced by the word "other", by reason of the fact that they are preceded by words indicating a particular class of act, matter or thing; or

(ii) by reason of the fact that they are followed by particular examples intended to be embraced by those general words;

(x) words or abbreviations which have well-known technical or trade meanings are used in accordance with those meanings;

(y) the expression "all reasonable efforts" and expressions of like import, when used in connection with an obligation of either of the parties, means taking in good faith and with due diligence all commercially reasonable steps to achieve the objective and to perform the obligation, including doing all that can reasonably be done in the circumstances taking into account each party's obligations hereunder to mitigate delays and additional costs to the other party, and in any event taking no less steps and efforts than those that would be taken by a commercially reasonable and prudent person in comparable circumstances but where the whole of the benefit of the obligation and where all the results of taking such steps and efforts accrued solely to that person's own benefit, provided that the foregoing will not require the Authority to:

(i) take any action which is contrary to the public interest, as determined by the Authority in its discretion; or

(ii) undertake any mitigation measure that might be available arising out of its status as a public body that would not normally be available to a private commercial party;

(z) the expressions "by the Design-Builder" and "by or through the Design-Builder" and expressions of like import are synonymous and mean by the Design-Builder or by anyone employed by or through the Design-Builder, including the Design-Builder and all Subcontractors and their respective officers, agents, employees and workers;

(aa) all accounting and financial terms used herein are, unless otherwise indicated, to be interpreted and applied in accordance with GAAP, consistently applied;

(bb) if the time for doing an act falls or expires on a day that is not a Business Day, the time for doing such act will be extended to the next Business Day;

(cc) each provision of this Agreement will be valid and enforceable to the fullest extent permitted by law. If any provision of this Agreement is held to be invalid, unenforceable or illegal to any extent, such provision may be severed and such invalidity, unenforceability or illegality will not prejudice or affect the validity, enforceability and legality of the remaining provisions of this Agreement. If any such provision of this Agreement is held to be invalid, unenforceable or illegal, the parties will promptly endeavour in good faith to negotiate new provisions to eliminate such invalidity, unenforceability or illegality and to restore this Agreement as nearly as possible to its original intent and effect; and

(dd) each release, waiver of liability and indemnity in this Agreement expressed to be given in favour of a person is and will be interpreted as having been given in favour of and may be enforced by that person and, in the case of the Authority, by the Indemnified Parties.

1.4 All documents forming this Agreement are complementary, and what is required by any one will be as binding as if required by all.

1.5 If there is a conflict within the documents forming this Agreement:

(a) the provisions establishing the higher quality, manner or method of performing the Work, using the more stringent standards, will prevail, with the intent that the provisions which produce the higher quality with the higher levels of safety, reliability, durability, performance and service will prevail;

(b) the order of priority of documents from highest to lowest will be:

(i) the part of this Agreement from the first page to the page with the signatures of the persons executing this Agreement;

(ii) the schedules (including appendices, sub-schedules and attachments to the schedules), except Schedule 8 – Proposal Extracts, in the order in which they are listed in Section 1.2;

(iii) Schedule 8 - Proposal Extracts;

(c) specifications will govern over drawings;

(d) drawings of a larger scale will govern over those of a smaller scale of the same date;

(e) dimensions shown in drawings will govern over dimensions scaled from drawings; and

(f) later dated documents will govern over earlier dated documents of the same type.

PART B – PRICE, TIME AND TERM

SECTION 2
CONTRACT PRICE

2.1 The Authority will pay the Contract Price of $478,555,952 plus applicable GST to the Design-Builder for performance of the Work.

2.2 The Contract Price is the entire compensation to the Design-Builder for performance of the Work.

2.3 The Contract Price is subject to adjustments as provided in this Agreement.

2.4 The Authority will pay the Contract Price to the Design-Builder as provided in this Agreement.

SECTION 3
CONTRACT TIME

3.1 The Design-Builder will commence the Work within 7 days after the Effective Date and will thereafter diligently perform the Work in accordance with this Agreement and achieve Substantial Completion on or before November 30, 2026 (the "**Target Substantial Completion Date**") and Total Completion on or before the date that is 150 days after Substantial Completion.

3.2 The Design-Builder will perform the Work in compliance with the Time Schedule, as may be modified in accordance with the terms of this Agreement.

3.3 Delay Liquidated Damages

(a) If the Design-Builder fails to achieve Substantial Completion on or before the Target Substantial Completion Date and the Authority has not extended the Target Substantial Completion Date in the Time Schedule in accordance with this Agreement, the Design-Builder will pay to the Authority by way of liquidated damages and not as a penalty the sum of per day for each and every day after the Target Substantial Completion Date that Substantial Completion is not achieved (or if the Authority has extended the Target Substantial Completion Date in the Time Schedule in accordance with this Agreement, such other date established for the Target Substantial Completion Date).

(b) The maximum aggregate amount of such liquidated damages will be of the Contract Price at any one time. If this Agreement is terminated, the reference in this Section 3.3 to the "Contract Price" will be deemed only for purposes of this Section 3.3 to be the amount to which the Design-Builder would have been entitled if the Design-Builder had properly performed and completed the Work and this Agreement had not been terminated. The liquidated damages will be the Authority's sole claim for damages against the Design-Builder for failure to achieve Substantial Completion by the Target Substantial Completion Date. The liquidated damages will not relieve the Design-Builder from its obligation to complete the Work or from any other duties, obligations or responsibilities of the Design-Builder under this Agreement, and will not limit the Authority's rights to terminate this Agreement for default of the Design-Builder under this Agreement.

(c) If the Design-Builder provides a notice to the Authority at least one hundred and eighty (180) days prior to the Target Substantial Completion Date that it will not achieve the Target Substantial Completion Date, respectively, the Authority will extend such date(s) in the Time Schedule and the above 3.3(a) delay liquidated damages will only be applicable to the revised date of the Target Substantial Completion Date as was provided by the Design-Builder in such notice. Within such notice, the Design-Builder may only extend the current Target Substantial Completion Date by a maximum of ninety (90) days. The Design-Builder may only provide the notice contemplated by this paragraph 3.3(c) once.

3.4 The Authority and the Design-Builder agree that the amounts in Section 3.3 represent genuine pre-estimates of the damages and expenses that the Authority is likely to incur for such failure to meet the Target Substantial Completion Date and both parties expressly agree that such amount is not a penalty. The Authority may, in its discretion, either deduct the daily sums in respect of liquidated damages from the Performance Holdbacks or any amounts payable to the Design-Builder under this Agreement or may require payment thereof by the Design-Builder on demand.

SECTION 4
TERM

4.1 With the exception of provisions that are expressly stated to survive the expiry of the Term, this Agreement is effective for the period commencing on the Effective Date and ending on the date (the "**End Date**") that (i) this Agreement is terminated in accordance with its terms or (ii) all of the following conditions are fulfilled:

(a) the Design-Builder and the Authority have performed all obligations required under this Agreement;

(b) the Total Completion Certificate has been issued in accordance with Section 44.12; and

(c) the Design-Builder has fulfilled all of its obligations pursuant to Section 38.

SECTION 5
REPRESENTATIVES, AUTHORITY'S CONSULTANT AND KEY INDIVIDUALS

5.1 Within 7 days after the Effective Date, the Authority will give written notice to the Design-Builder designating its representative (the "**Authority's Representative**") for the purposes of this Agreement, such notice shall include the email address, telephone number, address and any additional contact information required for such representative. The Authority will give written notice to the Design-Builder of any change of the Authority's Representative. The Authority or the Authority Representative may by written notice delegate any or all of the functions of the Authority's Representative to any other person, including for a specified period of time in the absence of the Authority's Representative.

5.2 The representative of the Design-Builder for the purposes of this Agreement (the "**Design-Builder's Representative**") will be the person designated as such in Schedule 6 – Key Individuals, unless otherwise agreed by the Authority. The Design-Builder's Representative may by written notice delegate any or all of the functions of the Design-Builder's Representative to any other person, including for a specified period of time in the absence of the Design-Builder's Representative. The email address, telephone number, address and any additional contact information required for the Design-Builder's Representative or any person appointed to perform any or all tasks of the Design-Builder's Representative must be provided to the Authority at the Effective Date or at the time of such delegation of responsibilities as noted in this Section 5.2 occurs.

5.3 The Design-Builder's Representative will represent the Design-Builder at the Site and written instructions given to the Design-Builder's Representative by the Authority will be deemed to have been given to the Design-Builder.

5.4 The Authority will engage the Authority's Consultant to provide, without limitation, the following services, duties and responsibilities:

(a) determining of amounts owing to the Design-Builder based on the Authority's Consultant's observations and evaluations of the Design-Builder's applications for payment;

(b) issuing of certificates of payment;

(c) interpreting, in the first instance, of the requirements of this Agreement and the making of findings as to the performance hereunder by both the Authority and the Design-Builder without showing partiality to either the Authority or the Design-Builder, and in no event incurring liability for the result of such interpretations or findings rendered in good faith in such capacity;

(d) interpreting and finding, in the first instance, of Disputes;

(e) assisting the Authority with advisory team services, including assisting with review of the Design;

(f) rejecting Work which does not conform to the requirements of this Agreement;

(g) overseeing testing and inspection of the Construction by the Authority's Consultant, whether or not such Construction has been fabricated, installed, or completed;

(h) determining the dates of substantial performance under the *Builders Lien Act* (British Columbia), Substantial Completion and Total Completion and the issuing of certificates for same;

(i) verification of the Design-Builder's applications for release of the Performance Holdbacks;

(j) reviewing any defects or deficiencies in the Work at Substantial Completion and the issuance of appropriate instructions for the correction of same; and

(k) such other work that may be required by the Authority from time to time and that is acceptable to the Authority's Consultant.

The Authority reserves the right, on notice from the Authority to the Design-Builder, to perform or appoint an alternate advisor or consultant to perform, the services, duties and responsibilities identified in paragraphs (a), (b), (d), (g) and (h) above (including determining amounts owing, schedule of cash allowance, evaluating applications for payment and issuing certificates of payment), and similar or ancillary services, duties and responsibilities, and upon any such notice the applicable provisions of this Agreement will be deemed to refer to the Authority or such alternate advisor or consultant in place of the Authority's Consultant.

5.5 If the Authority's Consultant's engagement is terminated, the Authority will engage a new Authority's Consultant to provide the Authority's Consultant's services. The Authority will notify the Design-Builder in writing before appointing a new Authority's Consultant and the Authority will not appoint any person to be the new Authority's Consultant to whom the Design-Builder may reasonably object.

5.6 Attached as Schedule 6 - Key Individuals is a list of Key Individuals that the Design-Builder will utilize in undertaking the Design and Construction as described in that Schedule. Unless agreed by the Authority, no individual will hold more than one position set out in Schedule 6 - Key Individuals.

5.7 With respect to each of the Key Individuals:

(a) The Design-Builder will use all reasonable efforts to retain the Key Individuals to perform the duties described in Schedule 6 - Key Individuals; and

(b) if for any reason a Key Individual resigns or is otherwise unavailable to perform the duties described in Schedule 6 - Key Individuals then the Design-Builder will use all reasonable efforts to retain a replacement with similar expertise and experience to the unavailable Key Individual satisfactory to the Authority acting reasonably, and the Design-Builder will not replace such Key Individual without the Authority's consent, acting reasonably.

5.8 Within 10 days of the Design-Builder having knowledge that a Key Individual is or will be unavailable, the Design-Builder will:

(a) notify the Authority; and

(b) immediately commence the process to retain a replacement prior to the unavailability of such Key Individual or promptly thereafter and will replace the Key Individual no later than 20 Business Days after the unavailability of such Key Individual.

5.9 If either the Authority or the Design-Builder reasonably considers that a replacement cannot reasonably be retained within such 20 Business Days, the Design-Builder will deliver to the Authority a reasonable program (set out, if appropriate, in stages) for retaining the replacement. The program will specify in reasonable detail the manner in, and the latest date, by which the replacement will be retained.

5.10 The Authority will have 10 Business Days from receipt of the program within which to notify the Design-Builder that the Authority, acting reasonably, does not accept the program, failing which the Authority will be deemed to have accepted the program. If the Authority notifies the Design-Builder that it does not accept the program as being reasonable, the parties will use all reasonable efforts within the following five Business Days to agree to any necessary amendments to the program put forward. In the absence of an agreement within such five Business Days, the question of whether the program (as it may have been amended by agreement) will result in the retainer of a replacement in a reasonable manner and within a reasonable time period (and, if not, what would be a reasonable program) may be referred by either party for resolution in accordance with Section 63 - Dispute Resolution.

5.11 The Design-Builder acknowledges that if any of the Key Individuals are not available and are not replaced as required by this Agreement, the Authority will not be obtaining the Design and Construction at the quality and level assumed to be included in the payments to be made to the Design-Builder hereunder and that in addition the Authority may incur costs and expenses.

5.12 If (i) the Authority has not accepted a program under Section 5.10 and the position of any Key Individual remains unfilled for more than 20 Business Days after the applicable individual Key Individual ceased to hold the position or ceased to perform the functions of that position, or (ii) the Authority has accepted a program under Section 5.10 and the Design-Builder at any time fails to comply with any part of the program:

(a) the Design-Builder will pay the Authority's reasonable internal administrative and personnel costs and all reasonable out-of-pocket costs related to any measures the Authority has reasonably incurred in relation to the position being unfilled, including the costs to ensure that Design-Builder meets its requirements for Design and Construction and for the Authority to review and consider any replacement under this Section 5; and

(b) the Authority at its election may deem the position of the Key Individual to be a Change (other than the requirements to comply with this Section 5) and for the period of time that the Key Individual position has remained unfilled the Authority will be credited with the amount of the cost (wages, benefits, fees and other costs) that would have been incurred by the Design-Builder and Subcontractors in respect of the Key Individual plus a markup as set out in Section 49.2(b).

PART C – THE WORK

SECTION 6
GENERAL

6.1 The Design-Builder will perform the Work in accordance with the requirements of this Agreement, including Schedule 1 – Statement of Requirements.

6.2 The Design-Builder will perform and provide all professional design services, construction administration and construction work and all labour, services, products, materials, tools, water, heat, light, power, transportation, equipment, machinery and other facilities and services and everything else necessary for the performance of the Work.

SECTION 7
TIME SCHEDULE

7.1 The Design-Builder will submit for review by the Authority, by no later than 14 days after the Effective Date and, in any event, before the Authority is required to make the first payment, a Time Schedule consistent with the form of Time Schedule included in the Proposal Extracts.

7.2 The Design-Builder will ensure that the Time Schedule will be consistent with and meet the Target Substantial Completion Date and the date required for Total Completion and all other applicable requirements of this Agreement including Schedule 1 - Statement of Requirements.

7.3 The Design-Builder will submit for review by the Authority an updated Time Schedule at intervals of 1 month, reflecting progress to date and including a comparison to the previously submitted Time Schedule, the reasons for any changes from the previous Time Schedule and a forecast to achieving Substantial Completion and Total Completion.

7.4 If at any time the actual progress of the Work does not materially conform with the Time Schedule, the Design-Builder will:

(a) submit to the Authority a report identifying the reasons for such non-conformity; and

(b) submit to the Authority a revised Time Schedule that meets all applicable requirements of this Agreement and provides for the Work to be pursued diligently to Substantial Completion and Total Completion.

SECTION 8
CONTROL AND SUPERVISION OF THE WORK

8.1 The Design-Builder will effectively direct and supervise the Work. The Design-Builder will be solely liable and responsible for:

(a) all design and all construction means, methods, techniques, sequences and procedures with respect to the Work; and

(b) coordinating all parts of the Work under this Agreement and for coordinating the Work with work of Subcontractors and, in accordance with Section 22.2, with work of Other Contractors,

in accordance with generally accepted management and supervisory practices in British Columbia.

8.2 The Design-Builder will have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities and the design and execution of construction methods required in their use. The Design-Builder will engage and pay for Professional Engineers and Architects to perform these functions where required by Law, and in all cases where such temporary facilities and their method of construction are of such a nature that the education, training and qualifications of the Architect or Professional Engineer are required to produce safe and satisfactory results.

8.3 The Design-Builder will execute the Work in a continuous and diligent manner, and perform all its obligations in conformance with this Agreement, including the Project Management Plan and the Time Schedule.

8.4 Unless otherwise stated in this Agreement, the Design-Builder will perform the Work at the times, in the order of procedure and in the manner and method that the Design-Builder considers appropriate provided such Work is in conformance with this Agreement, including the Project Management Plan, Phasing Plan, Work Plan, Site Plan and the Time Schedule.

8.5 The Design-Builder will employ a competent construction manager, and necessary assistants, at the Site at all times during the progress of the Work.

8.6 The Design-Builder will employ or cause the Subcontractors to employ a sufficient number of sufficiently skilled workers to perform the Construction in compliance with this Agreement.

8.7 The Design-Builder will at all times maintain good order and discipline among its employees engaged on the Work.

8.8 Before commencing the Work, the Design-Builder will:

(a) purchase and deliver the Bonds as set out in Section 60 to the Authority; and

(b) file with the Authority certificates of all insurance policies and necessary endorsements to comply with the Insurance Conditions.

8.9 The Design-Builder will not perform any Construction on the Site prior to the Site Occupation Date and will not commence any Construction until the Design-Builder has submitted a Design for that portion of the Work to be constructed that is in conformance with this Agreement, submitted to the Authority under the Review Procedure and that the Design-Builder is entitled to proceed with under the Review Procedure.

8.10 If agreed to in writing by the Authority, the Design-Builder may perform necessary limited investigative and preparatory activities on the Site prior to the Site Occupation Date.

8.11 The Design-Builder will comply with the provisions of Schedule 10 - Apprenticeship Policy.

SECTION 9
QUALITY MANAGEMENT

9.1 The Design-Builder is solely responsible for the quality of the Work and will diligently implement its Quality Management Plan.

9.2 The Design-Builder will establish, implement and submit for the review by the Authority, by no later than 30 days after the Effective Date, a Quality Management Plan consistent with the form of Quality Management Plan included in the Proposal Extracts and the requirements of this Section 9. The Design-Builder will perform the Work in accordance with, and meet the requirements of, the Quality Management Plan.

9.3 The Quality Management Plan will:

(a) meet all applicable requirements of this Agreement;

(b) reflect the Design-Builder's organizational chart and demonstrate the integration of the Design-Builder's Consultant with the Design-Builder and its Subcontractors;

(c) outline the procedures to be implemented to ensure robust and thorough quality control and quality assurance by the Design-Builder and its Subcontractors;

(d) clearly indicate the processes, testing, certification and auditing that will be performed to verify all parts of the Work comply with this Agreement;

(e) clearly indicate the timing of the elements of the Quality Management Plan and the documentation to demonstrate compliance that will be obtained by the Design-Builder and its Subcontractors and provided to the Authority;

(f) include all processes, testing, certification, auditing and documentation reasonably required by the Authority's Consultant; and

(g) ensure that the Work will meet the requirements of this Agreement.

9.4 The Design-Builder will not commence any Construction until:

(a) the quality control and quality assurance procedures applicable to that part of the Work have been developed and included in the Quality Management Plan and the Design-Builder is entitled to proceed with the Quality Management Plan in accordance with the Review Procedure; and

(b) such quality control and quality assurance procedures are fully implemented by the Design-Builder.

9.5 The Authority may at any time audit the Quality Management Plan and its implementation and may, at the Authority's expense, carry out independent quality control testing at any time.

9.6 Nothing in this Section 9 and no review, audit, inspection, acceptance, comment, approval, action or inaction by the Authority, the Authority's Representative, the Authority's Consultant or any person on behalf of the Authority or by or on behalf of any governmental authority will derogate from or relieve the Design-Builder from its obligations under this Agreement including sole responsibility for the quality of the Work, the Quality Management Plan and implementation of the Quality Management Plan.

9.7 The Authority, the Authority's Representative, the Authority's Consultant and other persons designated by the Authority will, subject to the terms of this Agreement relating to health and

safety, have access to the Work at all times at the Site and wherever the Work is in preparation or progress and the Design-Builder will provide reasonable facilities for such access.

9.8 If any of the Work requires tests, inspections or approvals by this Agreement, or by the written instructions of the Authority or the Authority's Consultant, or by applicable Laws, the Design-Builder will give the Authority reasonable notice of when such Work is ready for review and inspection. The Design-Builder will arrange for and will give the Authority reasonable notice of the date and time of inspections by any governmental authorities.

9.9 The Design-Builder will furnish promptly to the Authority, on request, a copy of certificates and inspection reports relating to the Work.

9.10 If the Design-Builder covers, or permits to be covered, Work that has been designated for tests, inspections or approvals before such tests, inspections or approvals are made, given or completed, the Design-Builder will, if so directed, uncover such Work, have the inspections or tests satisfactorily completed, and make good the covering work at the Design-Builder's expense.

9.11 Subject to Section 9.10, the Authority may order any portion or portions of the Construction to be examined to confirm that such Construction is in accordance with the requirements of this Agreement. If the Construction is not in accordance with the requirements of this Agreement, the Design-Builder will correct the Construction and pay the cost of examination and correction. If the Construction is in accordance with the requirements of this Agreement, the Authority will pay all costs incurred by the Design-Builder as a result of such examination and the restoration of the Construction.

9.12 If the results of any testing or other aspect of the Quality Management Plan or implementation of the Quality Management Plan disclose that any part of the Work is incomplete or defective in any way, the Design-Builder will immediately complete that part of the Work or correct the defect at its own expense.

9.13 If the Authority's Consultant or other representatives of the Authority makes more than one review of any aspect of the Work as a result of such Work being incomplete or defective or reviews more than one test, inspection or approval in respect of any aspect of the Work as a result of such Work being incomplete or defective, the Design-Builder will bear the costs and expenses of the Authority, the Authority's Consultant and other representative.

9.14 Prior to Total Completion, the Design-Builder will deliver to the Authority all tests and results taken and generated by the implementation of the Quality Management Plan.

9.15 The Design-Builder will permit access to the Site and to the Design and the Construction to persons designated by the Authority including persons representing other governmental authorities.

SECTION 10
LEED GOLD CERTIFICATION

10.1 The Design-Builder will obtain LEED Gold Certification of the Facility in accordance with the following:

(a) The Design-Builder acknowledges that the Authority has registered the Facility with the LEED Certifier for purposes of LEED Gold Certification under the LEED Rating System

and for the pilot alternative compliance path for the Optimize Energy Performance credit (Alternative Energy Performance Metric).

(b) The Design-Builder will use the LEED Certifier's split review certification process.

(c) If at any time after the Effective Date the requirements to achieve LEED Gold Certification under the LEED Rating System change and the Design-Builder is required to comply with such change in order to achieve LEED Gold Certification for the Facility, then the Design-Builder will forthwith notify the Authority of such change and such change will be a Change.

(d) The Design-Builder will achieve all necessary prerequisites, credits and points under the LEED Rating System required to achieve the LEED Gold Certification and may in its discretion determine which of the credits and points to pursue.

(e) Subject to Section 10.1(f), the Design-Builder will not include any prerequisites, points or credits which require any action by or on behalf of the Authority without the Authority's prior written consent. If the Authority consents to the inclusion of prerequisites, points or credits which require any action by the Authority, the Authority will take reasonable steps, consistent with the nature of the Facility and the Authority's operations and maintenance, to cooperate with the Design-Builder in respect of its achievement of such prerequisites, points and credits; provided however that such cooperation will not require the Authority to obtain such prerequisites, points or credits or to incur any liability, cost or expense.

(f) The Authority acknowledges that the Design-Builder's achievement of LEED Gold Certification for the Facility is subject to the Authority agreeing to develop before Substantial Completion, and to implement and maintain after Substantial Completion, the following commitments, programs and policies in the Facility, to the satisfaction off the LEED Certifier, which may be relevant to the Design-Builder obtaining prerequisites, credits or points related to LEED Gold Certification of the Facility:

(i) a building-level water metering program (LEED Prerequisite WEp3D) that provides data to the LEED Certifier for a period of 5 years beginning on the date of Substantial Completion, provided that the systems in the Facility are configured to make readily available the required data, and a signed letter of commitment required by the LEED Certifier;

(ii) a building-level energy metering program (LEED Prerequisite EAp3D) that provides data to the LEED Certifier for a period of 5 years beginning on the date of Substantial Completion, provided that the systems in the Facility are configured to make readily available the required data, and a signed letter of commitment required by the LEED Certifier;

(iii) a commitment that the Authority will describe the dedicated recycling storage areas for the Facility (LEED Prerequisite MRp1D), including:

(A) describing the size of the areas, accessibility and expected volume for the Facility;

(B) demonstrating that the recycling storage areas are appropriately sized and located;

(C) demonstrating that safe storage and collection has been provided for two of the following three items: 1) batteries, 2) mercury-containing lamps and/or 3) electronic waste; and

(D) confirming that the storage areas are sized for the following items: mixed paper, corrugated cardboard, glass, plastics and metals, provided that the Design-Builder designs and constructs the recycling storage areas to meet the above requirements; and

(iv) a commitment that the Authority will not use mercury containing equipment including thermostats, switching devices, and other building system sources, excluding lamps, provided that the Facility does not contain mercury-containing equipment, subject to the Authority conforming to the prerequisite outlined under PBT Source Reduction – Mercury (LEED prerequisite MRp3D) requirements for projects reusing existing mercury-containing equipment and lamps;

(v) a policy (LEED Prerequisite IEQp2D) prohibiting smoking at the Site and in the Facility that:

(A) prohibits smoking inside the Building;

(B) prohibits smoking outside the Building except in designated smoking areas located at least 7.5 metres (or the maximum extent allowable by local codes) from all entries, outdoor air intakes, and operable windows; and

(C) communicates the no-smoking policy to occupants and has in place provisions for enforcement or no-smoking signage;

(vi) a commitment to permit installation of education signage throughout the Building and provide visitors to the Building the opportunity to take part in a self-guided audio tour if required to achieve the Green Building Education innovation credit (LEED Credit IDc1.3C) and contribute to the development of Building specific signage or audio guide content required to achieve that credit.

The Authority will implement and maintain the above commitments, programs and policies but makes no representation as to whether they are sufficient to meet the Design-Builder's obligation to obtain LEED Gold Certification for the Facility.

(g) Upon payment of amounts, if any, owing under this Section 10 the Design-Builder will have no further obligations in respect of obtaining LEED Gold Certification, except to provide the Authority with such information and administrative assistance as the Authority may reasonably require in relation to obtaining LEED Gold Certification, and for greater certainty the failure to obtain LEED Gold Certification will not be a default by the Design-Builder under this Agreement.

(h) If for any reason the Design-Builder fails to obtain LEED Gold Certification for the Facility within 36 months of the Substantial Completion Date then the Design-Builder will, upon written demand from the Authority, and in addition to any other payment owing under this Section 10.1 immediately pay to the Authority

(i) The Authority and the Design-Builder expressly agree that the amounts payable from the Design-Builder in this Section 10.1 are liquidated damages that represent a genuine pre-estimate of the damages and expenses that the Authority is likely to incur for such failure to achieve the LEED credits/points referred to in this Section 10.1 and LEED Gold Certification and both parties expressly agree that such amounts are not a penalty.

10.2 As a condition of Substantial Completion, the Design-Builder will deliver to the Authority:

(a) a LEED project checklist, generally in accordance with the LEED Certifier's requirements, together with a written confirmation that, in the Design-Builder's judgment:

(i) the LEED credits/points required by Section 10.1 will be achieved for the Facility; and

(ii) LEED Gold Certification will be achieved for the Facility; and

(b) a written opinion from a LEED accredited professional supporting the confirmation described in Section 10.2(a) above.

SECTION 11
ENERGY

11.1 The parties will comply with the provisions of Schedule 9 – Energy Guarantee.

11.2 The Design-Builder acknowledges that PNG and/or BC Hydro will provide to the Authority a rebate or other Project Credits in respect of energy modelling of the Facility, and the Design-Builder will assist the Authority in obtaining such rebate and any other Project Credits, including:

(a) registering the Facility with all applicable PNG and/or BC Hydro programs;

(b) engaging a consultant acceptable to PNG and/or BC Hydro;

(c) submitting the Design and conducting any baseline testing, if necessary;

(d) conducting all energy modelling that may be required by PNG and/or BC Hydro, or the Authority;

(e) engaging with PNG and/or BC Hydro during the development of design to create a BC Hydro and/ or PNG energy compliance checklists;

(f) completing the Work in accordance with the PNG and/or BC Hydro energy compliance checklists;

(g) facilitating any PNG and/or BC Hydro inspections or reviews of Construction and construction materials; and

(h) any other steps necessary to obtaining PNG and/or BC Hydro rebates and other Project Credits.

11.3 As a condition of Substantial Completion, the Design-Builder will deliver to the Authority:

(a) PNG and/or BC Hydro energy modelling compliance checklists together with a written confirmation that:

(i) the Project has been designed and constructed to maximize available PNG and/or BC Hydro rebates and other Project Credits; and

(ii) all steps have been performed, including providing all required documentation and information to the Authority, BC Hydro and PNG, to obtain BC Hydro and PNG rebates and other Project Credits (other than those steps that may only be performed by the Authority).

The Authority acknowledges that PNG and/or BC Hydro rebates and other Project Credits may be received after Substantial Completion.

11.4 This Section 11 will not limit any requirements of the Statement of Requirements for energy modelling for any purpose.

SECTION 12
PROJECT CREDITS

12.1 The Authority will be entitled to any and all Project Credits related to the Work, the Facility and its operation.

12.2 The Design-Builder will, on behalf of the Authority, apply to BC Hydro and PNG (subject to Section 11, the LEED Certifier, and any other applicable incentive programs ("**Credit Provider**") and take all reasonable steps to obtain for the Authority the maximum benefits (funding, rebates, incentives and cost savings) offered by each Credit Provider under such program(s).

12.3 Without limitation, the Design-Builder will:

(a) meet with Credit Providers at an early stage of the design of the Project;

(b) carry out any required studies and modelling;

(c) collaborate with each Credit Provider to identify potential improvements to the Facility design and methods of performing the Work that may achieve greater Project Credits; and

(d) use all commercially reasonable efforts to maximize available Project Credits through the design and construction of the Facility (to the extent possible while maintaining consistency with the Statement of Requirements).

SECTION 13
PRE-CONSTRUCTION SURVEY

13.1 The Design-Builder will:

(a) prior to the start of any Construction, conduct a pre-Construction survey of existing structures, buildings, roadways, services, infrastructure and adjacent properties, in a form and detail satisfactory to the Authority, acting reasonably, which will without limitation

include field observations and photographs of existing conditions, with spot elevations by a British Columbia Land Surveyor (BCLS) registered surveyor at locations that will be accessible throughout and following Construction for ongoing settlement monitoring, and deliver a copy of the pre-Construction survey report to the Authority; and

(b) re-survey the spot elevations at regular intervals throughout Construction and at 6 months following Substantial Completion to determine ongoing long-term settlement effects, and deliver monitoring surveys to the Authority in a form and detail satisfactory to the Authority, acting reasonably.

13.2 The Design-Builder will protect the Work, the Site and property adjacent to the Site from settlement, will be responsible for all settlement caused by the Work by the Design-Builder and the Subcontractors and the Facility from and after the Effective Date and will make good all damage to the Work, the Site and property adjacent to the Site at its own expense or pay all costs incurred by the Authority or others in making good such damage. Nothing in this Section 13.2 limits the responsibility of the Design-Builder to take into account in the Design and Construction possible post-Warranty Period settlement and to take measures to minimize such settlement.

SECTION 14
EQUIPMENT AND FURNISHINGS

14.1 Without limiting the requirements of the Statement of Requirements in respect of equipment and furnishings, the Design-Builder will complete the Design and Construction to integrate and accommodate all equipment and furnishings in the Facility as identified in the Statement of Requirements, including all required electrical, mechanical and plumbing connections, structural support, seismic restraints and space for efficient access, all to the tolerances and specifications as may be specified and required by the manufacturers or vendors of the equipment (which may be of a higher standard than specified in this Agreement). The Design-Builder will include equipment and furnishings identified in the Statement of Requirements as part of the development of Design under this Agreement.

SECTION 15
REVIEW PROCEDURE

15.1 The Review Procedure will apply to all Submittals and the parties will comply with the requirements of that Schedule.

SECTION 16
GENERAL DESIGN REQUIREMENTS

16.1 The Design-Builder is responsible for the means, methods, techniques, sequences and procedures necessary to properly complete the Design in conformance with this Agreement, including the Project Management Plan and the Time Schedule.

16.2 The Design-Builder will:

(a) ensure that the Work, including the Design, is fully compliant with all requirements of this Agreement (including the Statement of Requirements) and all applicable Laws; and

(b) perform and complete the Design and the Work so as to provide the completed Project that is fit for the intended uses as described in the Statement of Requirements.

16.3 The Design-Builder will:

(a) cause all portions and aspects of the Drawings and Specifications to be prepared under the direction of, and to be sealed under the professional seal of, the Design-Builder's Consultant;

(b) cause the Design-Builder's Consultant to confirm to the Authority, under his or her professional seal (if applicable), that in the opinion of the Design-Builder's Consultant:

(i) the Drawings and Specifications implement and otherwise conform to the Statement of Requirements;

(ii) the Drawings and Specifications implement and otherwise conform to the Proposal Extracts;

(iii) the Drawings and Specifications have been prepared in accordance with, and substantially comply with, all Standards; and

(iv) the Design-Builder's Consultant has carried out the general reviews of the progress of the Construction, to the extent necessary, in order to determine to the Design-Builder's Consultant's satisfaction that the Construction is performed in general conformity with the requirements of the Agreement (including the Statement of Requirements), the Drawings and Specifications, Standards and applicable Laws; and

(c) provide the Authority and all applicable governmental authorities with all letters of professional assurance as required pursuant to applicable Laws.

16.4 The Design-Builder will not construct any part of the Work that is not based on the most recent Drawings and Specifications or that does not meet the Statement of Requirements and other requirements of this Agreement. To the extent that the Drawings and Specifications conflict with, modify or deviate from the Statement of Requirements and other requirements of this Agreement, the Design-Builder will revise the Drawings and Specifications and submit them to the Authority under the Review Procedure.

16.5 The Design-Builder will make, or cause the Design-Builder's Consultant to make, any revisions to the Drawings or Specifications as are necessary from time to time due to Changes and, for clarity, the Design-Builder will comply with Section 16.3 with respect to any such revisions.

16.6 Nothing in this Section 16, or otherwise in or under this Agreement, makes the Authority, the Authority's Representative, the Authority's Consultant or any other person on behalf of the Authority responsible for the Design of the Project, including compliance of the Drawings and Specifications with the Statement of Requirements and all Standards, and the Design-Builder will, notwithstanding any review or acceptance under the Review Procedure or this Section 16 or other act of the Authority, the Authority's Representative, the Authority's Consultant or any other person on behalf of the Authority, remain solely liable and responsible for compliance of the Drawings and Specifications with the Statement of Requirements and all Standards.

16.7 Without limiting any of the obligations of the Design-Builder under this Agreement, the duties and responsibilities of the Design-Builder with respect to the Design include:

(a) review of the documents, reports, drawings, Statement of Requirements and other information provided by the Authority and reporting promptly to the Authority any error, inconsistency or omission the Design-Builder may discover;

(b) preparation of a Design that meets the Statement of Requirements, all Standards, all applicable Laws and all terms of this Agreement;

(c) the coordination required to integrate all parts of the Design in the Work;

(d) preparation of all reports, documents, information, schemes and presentation materials as required by this Agreement;

(e) inspecting the progress of the Construction in order to determine that the Work is in compliance with the requirements of the Design, Specifications, all Standards and all terms of this Agreement;

(f) liaising with the Authority and local authorities having jurisdiction as required during the Design and Construction and providing copies of all correspondence with such local authorities to the Authority; and

(g) providing all required assurances to local authorities having jurisdiction respecting substantial conformance of the Design with all Standards and as may be required for the issuance of or compliance with any permits, licenses or approvals.

16.8 The Design-Builder will ensure that the Design-Builder's Consultant and all other Architects, Professional Engineers and other professionals performing professional services related to the Design and engaged directly or indirectly by the Design-Builder fulfill their duties and responsibilities to the standard of diligence, skill and care that such persons would customarily provide in accordance with their professional and legal obligations in similar circumstances and in the same general geographic location as the Site. Any failure by any of the Design-Builder's Consultants or other Architects, Professional Engineers or professionals performing professional services in relation to the Design will not relieve the Design-Builder of any responsibility for ensuring that the Work is carried out in conformance with this Agreement including the Statement of Requirements, the Design and all Standards.

16.9 If the Design-Builder's Consultant's engagement is terminated, the Design-Builder will engage a new Design-Builder's Consultant to provide the Design. The Design-Builder will notify the Authority in writing before appointing or re-appointing the Design-Builder's Consultant, and the Design-Builder will not appoint any Design-Builder's Consultant to whom the Authority may reasonably object.

SECTION 17
DESIGN PROCESS

17.1 *Intentionally deleted.*

SECTION 18
OWNERSHIP OF DOCUMENTS

18.1 The Design-Builder acknowledges and agrees that this Agreement contains intellectual property that is protected by copyright and that this intellectual property is intended to be used solely for the purposes of the Project. The Design-Builder will obtain prior written permission and will require the Design-Builder's Consultant and any other Subcontractors to obtain prior written permission for any other use.

18.2 Copyright for the Design and Drawings belongs to the Design-Builder, the Design-Builder's Consultant or other consultants who prepared them.

18.3 Plans, sketches, Drawings, graphic representations and Specifications, including computer generated designs, when prepared by the Design-Builder's Consultant or other consultants are instruments of their service and will remain their property whether the construction for which they are made is executed or not.

18.4 Submission or distribution of the Design-Builder's Consultants' or other consultants' plans, sketches, Drawings, graphic representations and Specifications to meet official regulatory requirements or for other purposes in connection with the Work is not to be construed as publication in derogation of their reserved rights.

18.5 The Authority may retain copies, including reproducible copies, of all plans, sketches, Drawings, graphic representations and Specifications and other material including the Record Drawings. The Design-Builder hereby grants to the Authority a non-exclusive, royalty-free, fully paid, world-wide, perpetual and irrevocable licence to use the Design and any and all such material for any purpose related to the use and ownership of the Facility and the Land (including any renovations, additions or alterations to the Facility), for completion of any Work in the event of termination of this Agreement and for reference purposes in connection with other operations, projects and facilities of the Authority. Such licence may be sublicensed, assigned, at the discretion of the Authority, to any third party who has or may acquire an interest or obligation related to the Facility, including for any facilities maintenance, life cycle repair/replacement or other services to the Authority or others in relation to the Facility. The Design-Builder at the Authority's request, and prior to any payment after such request is made, will deliver to the Authority a consent and acknowledgement signed by the Design-Builder's Consultant confirming such licence.

18.6 Models and renderings furnished by the Design-Builder are the property of the Authority.

SECTION 19
ERRORS IN DESIGN

19.1 The Design-Builder is responsible for the Design, including all errors, omissions or deficiencies in the Design.

19.2 The Design-Builder will give written notice to the Authority immediately upon becoming aware of any error, omission or deficiency in the Design.

19.3 The Design-Builder will remedy at its own cost any error, omission or deficiency identified in the Design, including any resulting error, omission or deficiency in the Design that results in defects or deficiencies in any part of the Construction that has been commenced or completed. The Design-Builder will ensure that such remediation will conform to the requirements of this Agreement.

SECTION 20
LABOUR AND PRODUCTS

20.1 Unless otherwise expressly provided in this Agreement, the Design-Builder will provide and pay for all labour, products, materials, tools, equipment, machinery, water, heat, light, power, transportation and all other facilities, things and services (including services for Design) necessary for the performance of the Work in accordance with this Agreement.

20.2 All products, materials, equipment and machinery provided will be new unless otherwise expressly specified in this Agreement.

SECTION 21
SUBCONTRACTS

21.1 The Design-Builder will preserve and protect the rights of the Authority under this Agreement with respect to any Work to be performed by a Subcontractor, so that the subcontracting does not prejudice the Authority's rights under this Agreement.

21.2 The Design-Builder will be responsible to the Authority for the performance of all Subcontractors and will require the Subcontractors to perform their work in accordance with the terms and conditions of this Agreement.

21.3 The Design-Builder will be as fully responsible to the Authority for acts and omissions of Subcontractors and of persons directly or indirectly employed by them as for the acts and omissions of persons directly employed by the Design-Builder.

21.4 Nothing contained in this Agreement will create any contractual relationship between the Authority and any Subcontractors or their officers, agents, employees or workers.

21.5 The Design-Builder will require every Subcontractor to observe the terms of this Agreement so far as they apply to that portion of the Work to be performed directly or indirectly by that Subcontractor. The Design-Builder will require that the terms of this Agreement that are applicable to the portion of the Work to be performed by a Subcontractor will form part of that Subcontract.

21.6 The Design-Builder will require that every Subcontract for designers and Subcontractors require such designers and Subcontractors, where requested by either the Authority or the Design-Builder, to attend any Dispute resolution process including discussions, negotiations, mediation or arbitration between the Design-Builder and the Authority; provide frank, candid and timely disclosure of relevant information and documentation; and, bona fide negotiations to resolve such Disputes.

SECTION 22
OTHER CONTRACTORS

22.1 The Authority reserves the right to enter into separate contracts with Other Contractors in relation to the Project or to perform work itself. The Design-Builder will cooperate with and coordinate the Work with all concurrent construction activities by the Authority or Other Contractors on the Site or adjacent to the Site.

22.2 The Design-Builder will:

(a) coordinate the Work with that of Other Contractors and connect the Work with the work of Other Contractors as applicable; and

(b) ensure that performance of the Work is carried out in accordance with the Time Schedule so that Other Contractors are not delayed in their work.

22.3 The Design-Builder will promptly report to the Authority any apparent deficiencies in Other Contractors' work that could affect the Work as soon as they come to the Design-Builder's attention, and will confirm such report in writing promptly.

22.4 Where a Change is required as a result of the coordination and connection of the work of Other Contractors or the Authority with the Work, the Changes will only be made as provided in Section 47.

22.5 The Authority will require Other Contractors to coordinate and schedule their construction activities at the Site in accordance with the reasonable instructions of the Design-Builder acting as prime contractor that are applicable to health and construction safety at the Site and that are in accordance with the *Workers Compensation Act* (British Columbia).

22.6 The Design-Builder acknowledges that other persons working at the Site may be union or non-union and that the Authority wishes to ensure that labour peace is maintained. The Design-Builder will comply with all requirements of the Authority in respect of labour relations and the Design-Builder will take all reasonable precautions to avoid labour disruptions caused by, or contributed to by the Design-Builder, its Subcontractors or any persons performing the Work. The Design-Builder will bear the sole cost and expense of preventing, avoiding or removing any matter or events giving rise to such a labour disruption.

22.7 The Authority will assure, where possible, that Other Contractors are bound to equivalent terms as those found in this Section 22.

22.8 Claims, disputes, and other matters in question between the Design-Builder and Other Contractors will be dealt with as provided in Section 63 provided the Other Contractors have reciprocal obligations. The Design-Builder will be deemed to have consented to arbitration of any dispute with any Other Contractor whose contract with the Authority contains a similar requirement to Section 63.

SECTION 23
ACCESS TO AND USE OF SITE

23.1 Subject to the Site Plan, Project Management Plan and Work Plan and any limitations in this Agreement, the Authority grants to the Design-Builder a licence to enter and be upon the Site from the Site Occupation Date until Substantial Completion, to perform the Work that is required to be performed on the Site. This licence excludes the right to access, enter and be upon the Existing Hospital.

23.2 After Substantial Completion, the Authority will provide access to the Building and the Site as reasonably required for completion of the Work and rectification of deficiencies including warranty deficiencies in respect of the Building, taking into account the Authority's use and occupancy of the Building and the Site.

23.3 After Substantial Completion, the Design-Builder will:

(a) coordinate with the Authority to ensure timely completion of the Work and rectification of deficiencies including warranty deficiencies;

(b) comply with the Authority's requirements as set out in Section 32 with respect to dust, noise and vibration;

(c) minimize disruption to the Authority's use and occupancy of the Facility and will comply with all directions of the Authority with respect to timing, security and access for the rectification of deficiencies including warranty deficiencies; and

(d) comply with the security requirements of the Authority.

23.4 The Design-Builder will:

(a) limit its activities to the areas within the Site which are identified in the Site Plan, Project Management Plan and Work Plan as required to perform the particular aspect of Work, unless the Design-Builder obtains permission to occupy or use other lands;

(b) not access any areas of the Site or adjacent properties, including airspace, which it is not permitted to access under the Site Plan, Project Management Plan or Work Plan, without the prior written permission of the Authority; and

(c) obtain any construction easements and permits that may be required for construction of the Project. When requested to do so by the Design-Builder, the Authority may at its discretion provide reasonable assistance to the Design-Builder in obtaining such construction easements and permits required for the construction of the Project but, in no circumstance will the Authority be required to incur any costs or make any payments.

23.5 The Design-Builder will:

(a) not remove or disturb trees or other vegetation for purposes of the Work, including for the purpose of providing a lay down area unless expressly permitted to do so under this Agreement or approved by the Authority in writing and in accordance with any applicable Laws and the Statement of Requirements. The Design-Builder will obtain any required tree cutting permits; and

(b) rehabilitate all construction lay down areas to a standard not less than that observed for pre-existing conditions before Site Occupation Date and recorded in the pre-condition survey as described in Section 13.1.

23.6 Except as expressly indicated on the Site Plan, the Design-Builder acknowledges that no parking is available at or near the Existing Hospital and agrees that the Design-Builder, the Subcontractors and their respective workers will not park on any of the parking areas which exist at the Effective Date. The Design-Builder shall be permitted to establish temporary construction parking in Work Area A, as identified in Schedule 11 [Site Plan] and in doing so shall make reasonable efforts to limit the impact to natural habitation of surrounding areas and to incorporate such temporary parking into green areas that promote the surrounding natural habitat. Such temporary construction parking may remain in place until Substantial Completion.

SECTION 24
PHASED CONSTRUCTION

24.1 The Design-Builder will carry out the Construction in accordance with the Project Management Plan which will include, among other things:

(a) all Site preparation;

(b) Construction of the Facility, including the requirements and timing for construction and commissioning (including all systems and equipment);

(c) Site landscaping;

(d) parking, access and traffic flows, including maintaining adequate vehicle, delivery and pedestrian access; and

(e) compliance with all requirements of this Agreement,

and the Design-Builder will submit the Project Management Plan to the Authority within 30 days after the Effective Date and will not proceed until the Project Management Plan has received the notation "Reviewed" under Schedule 2 - Review Procedure. If the Design-Builder proposes revisions to the Project Management Plan, the Design-Builder will submit the proposed revised Project Management Plan to the Authority and will not proceed with revised Project Management Plan until it has received the notation "Reviewed" under Schedule 2 - Review Procedure.

24.2 The Design-Builder will:

(a) comply with the reviewed Project Management Plan;

(b) construct the Building within Work Area A of the Site as indicated in the Site Plan;

(c) install at least a six foot high fence around the perimeter of the area in which it is performing the Work and such hoarding and lighting as may be required by the Authority including any hoarding required to protect the public and separate the area of the Work from the other portions of the Site and the phasing requirements;

(d) provide video surveillance on all sides of the Site;

(e) perform all Construction activities within the areas of the Site provided in the Site Plan and Project Management Plan, except as approved by the Authority for any work required in other areas of the Site;

(f) perform all Construction activities without blocking or disrupting vehicle, delivery or pedestrian access, except as may be permitted pursuant to the Project Management Plan;

(g) cause the Design-Builder's personnel, Construction workers, Subcontractors and suppliers to enter or exit the Site only at the access routes indicated on the Site Plan and Project Management Plan, unless otherwise approved by the Authority;

(h) not use any explosives without the Authority's consent;

(i) take reasonable steps to ensure that Construction workers or suppliers do not smoke or otherwise consume any tobacco, e-cigarettes or cannabis products on any portion of the Site;

(j) provide a 24-hour hotline (and post the phone number in a prominent location on the Site) for:

(i) Authority staff to notify the Design-Builder of any Construction related emergencies; and

(ii) neighbours and passers-by to contact the Design-Builder,

and the Design-Builder will respond to any phone calls made on the hotline within 1 hour of receipt;

(k) provide a community liaison officer to provide a single point of contact regarding construction and development issues; and

(l) before commencing the Construction, prepare and implement in co-operation with the Authority a construction fire safety plan for the Project, which plan will describe emergency access routes to and from the Facility and the Site during an emergency.

24.3 If the Design-Builder performs any Construction outside of the area designated at the Site, the Design-Builder will comply with all policies and other requirements of the Authority and the Authority shall have the right to review and revise any plans or other documents related to such Construction outside of the area designated at the Site.

SECTION 25
INTEGRATION

25.1 The Existing Hospital must remain fully operational until the Building is fully operational and the patients have been moved into the Building.

25.2 Without limiting the other requirements of this Agreement, the Design-Builder will:

(a) adhere to all Authority policies and procedures relating to the operations of and access to the Existing Hospital established from time to time;

(b) prior to performing any Work in or around the Site that is not indicated in the Site Plan or Project Management Plan or proceeding with any proposed shutdown of any services, deliver to the Authority and obtain the Authority's approval of a work plan (the "**Work Plan**") clearly identifying:

(i) the activity that may interfere with the operation of the Existing Hospital or Northern Lights College, including a description of the nature, timing and extent of interference;

(ii) the steps the Design-Builder intends to take to minimize the extent of such interference;

(iii) the temporary measures that the Authority will be required to take to accommodate the interference;

(iv) any specific reporting relationships between the Design-Builder and the staff desirable or required to coordinate the interference; and

(v) any expansion of the area of the Site for the purpose of performing the Work indicated in the Work Plan,

unless the Authority, at its discretion, notifies the Design-Builder in writing that a Work Plan will not be required for particular work or a particular shutdown.

25.3 Prior to delivering a Work Plan, the Design-Builder will consult with the Authority and, upon reasonable request, the Authority will make appropriate staff available for such consultation to determine the Work Plan that minimizes interference to the Existing Hospital. The Design-Builder will not proceed with any work that causes any interference with the Existing Hospital or any proposed shutdown of services without:

(a) the Authority's prior written approval of a Work Plan under this Section 25, such approval not to be unreasonably withheld or delayed; or

(b) advance written notice from the Authority confirming that a Work Plan is not required.

SECTION 26
SIGNAGE

26.1 The Design-Builder may erect signage at the Site during Construction to identify the Design-Builder and Subcontractors provided such signage and its location(s) is acceptable to the Authority, acting reasonably. The Design-Builder will also erect the Authority's signage as required by the Authority.

SECTION 27
USE OF SITE

27.1 The Design-Builder will confine its construction machinery and equipment, tools, storage of materials and products, and the operations of workers to limits indicated in the Site Plan, Project Management Plan or Work Plan or by or under all applicable Laws, and will not unreasonably encumber the Site or other activities on the Site.

27.2 The Design-Builder will comply with the Authority's policies, procedures and instructions, including regarding parking, safety, harassment, fires, smoking, signs and advertisements.

27.3 The Design-Builder will not load or permit to be loaded any part of the Construction with a weight or force that endangers the safety of the Project.

27.4 The Design-Builder will ensure that the Work does not adversely impact the ongoing operations of the Authority, or any person on behalf of the Authority, near or adjacent to the Site, including the operation of the Existing Hospital.

27.5 The Design-Builder will confirm the location of all utilities and ensure that all of its labour force, employees, Subcontractors and any other workers at the Site:

(a) are made aware of the location of all utilities in connection with the Project and the importance of avoiding damage to those underground utilities;

(b) observe any instructions in connection with those utilities issued by the Authority on behalf of any applicable utility owners; and

(c) protect all such utilities.

SECTION 28
CONDITIONS AT SITE/DISCLOSED DATA

28.1 The Design-Builder acknowledges and agrees that it has received and reviewed a copy of all Site Reports.

28.2 It is the Design-Builder's responsibility to have conducted its own analysis and review of the Project and, before the execution of this Agreement, to have taken all steps it considers necessary to satisfy itself as to the accuracy, completeness and applicability of any Disclosed Data upon which it places reliance and to assess all risks related to the Project. Except with respect to the Site Reports, the Design-Builder will not be entitled to and will not make (and will ensure that no Subcontractor makes) any claim against the Authority or any Indemnified Party, whether in contract, tort or otherwise including any claim in damages for extensions of time or for additional payments under this Agreement on the grounds:

(a) of any misunderstanding or misapprehension in respect of the Disclosed Data;

(b) that the Disclosed Data was incorrect or insufficient; or

(c) that incorrect or insufficient information relating to the Disclosed Data was given to it by any person other than the Authority,

nor will the Design-Builder be relieved from any obligation imposed on or undertaken by it under this Agreement on any such ground.

28.3 If the Design-Builder is delayed in performing the Work as a result of inaccuracy in the Site Reports, the Design-Builder's entitlement to an extension of the Contract Time and reimbursement of costs will be determined in accordance with Section 51. If the Design-Builder is not delayed in performing the Work but incurs additional costs as a result of inaccuracy in the Site Reports, adjustment in the Contract Price will be agreed upon or determined in accordance with Section 48 (Valuation and Certification of Changes).

SECTION 29
ARCHAEOLOGICAL ITEMS

29.1 Upon discovery at the Site of any fossils, remains, coins, articles of value or antiquity, including all heritage objects (as defined in the *Heritage Conservation Act* (British Columbia)), the Design-Builder will:

(a) immediately notify the Authority;

(b) take all steps not to disturb the item and, if necessary, stop Construction to the extent required if performing the Construction would endanger the object or prevent or impede its excavation;

(c) take all necessary steps to preserve the item in the same position and condition in which it was found; and

(d) comply with all Laws and regulations and all requirements of governmental authorities with respect to such discovery including pursuant to the *Heritage Conservation Act* (British Columbia).

29.2 If the Design-Builder is delayed in performing the Work taking steps required under Section 29.1, the Design-Builder's entitlement to an extension of the Contract Time and reimbursement of costs will be determined in accordance with Section 51. If the Design-Builder is not delayed in performing the Work but incurs additional costs as a result of taking steps required under Section 29.1, adjustment in the Contract Price will be agreed upon or determined in accordance with Section 48 (Valuation and Certification of Changes).

SECTION 30
CONTAMINANTS AND ENVIRONMENTAL MANAGEMENT

30.1 The Design-Builder acknowledges and agrees:

(a) it has received and reviewed a copy of the Stage 1 Preliminary Site Investigation Dawson Creek and District Hospital Proposed Alternate Location dated August 2019 (the "**Environmental Reports**");

(b) it has had the opportunity to undertake examinations and investigations of the Site, including existing buildings and facilities, in order to satisfy itself as to Site conditions and the impact they could have on any or all of the Work (including Design and Construction), Contract Time, and Contract Price;

(c) it is responsible for all management, removal, abatement, containment and disposal of Contaminants disclosed in or reasonably inferred from the Environmental Reports; and

(d) neither the Authority nor the Authority's Representative nor any other person on behalf of the Authority is in any way responsible or liable for the completeness, interpretation or accuracy of the Environmental Reports.

30.2 The Design-Builder acknowledges that the Authority has made no representation or warranty as to the absence or presence on, in or under the Site of any Contaminant. If the Design-Builder, after commencing the Work, encounters or has reason to believe in the existence of any Contaminant on, in or under the Site, the Design-Builder will at once take all reasonable steps, including suspension of the Work, as necessary to ensure that no person or property suffers injury, sickness, death, damage or destruction as a result of exposure to, or the presence of, any Contaminant, and the Design-Builder will immediately report such Contaminant to the relevant governmental authorities and to the Authority.

30.3 If the Design-Builder is delayed in performing the Work due to discovery of Contaminants, other than those disclosed in or reasonably inferred from the Environmental Reports, by taking steps required under Section 30.2, the Design-Builder's entitlement to an extension of the Contract Time

and reimbursement of costs will be determined in accordance with Section 51. If the Design-Builder is not delayed in performing the Work but incurs additional costs due to discovery of such Contaminants, other than those disclosed in or reasonably inferred from the Environmental Reports, adjustment in the Contract Price will be agreed upon or determined in accordance with Section 48 (Valuation and Certification of Changes).

SECTION 31
SITE SAFETY

31.1 The Design-Builder agrees to be the "prime contractor" for the purposes of all applicable occupational health and safety Laws, including the *Workers Compensation Act* (British Columbia), and the Design-Builder is responsible for filing any documents necessary to comply with the *Workers Compensation Act* (British Columbia), including a notice of project. The Design-Builder will comply with all requirements of the *Workers Compensation Act* (British Columbia) and any other occupational health and safety Laws, applicable to the Project, the Work or to the Site. The Authority will comply, and will cause Other Contractors to comply, with occupational health and safety requirements established by the Design-Builder to fulfil the Design-Builder's obligations as "prime contractor".

31.2 Prior to commencing the Work and as a condition of receiving payment on Substantial Completion and on Total Completion, the Design-Builder will provide the Authority with satisfactory written evidence of compliance by the Design-Builder with all requirements under the *Workers Compensation Act* (British Columbia), including payments of assessments due under it to the Workers' Compensation Board. Without limiting the foregoing, the Authority may at any time require the Design-Builder to provide evidence of compliance with all requirements under the *Workers Compensation Act* (British Columbia), or payment of assessments due under it to the Workers' Compensation Board, or both.

31.3 When required to do so by the Authority, the Design-Builder will provide the Authority with evidence of its compliance and compliance of any or all of its Subcontractors under Section 31.2.

31.4 Following the Site Occupation Date, the Design-Builder will coordinate health and safety for the Site for all activities performed by its workers as well as those of Subcontractors, utilities, inspectors, the Authority, Other Contractors and any others performing any activities at the Site.

31.5 The Design-Builder will establish, implement and provide for the review by the Authority, by no later than 30 days after the Effective Date, a plan (the "**Health and Safety Plan**") that meets all applicable requirements of this Agreement with respect to health and safety at the Site and that addresses the safety of the Authority, patients and others who may be on the Site or property in the vicinity of the Site. The Design-Builder will provide safety fencing and hoarding as necessary to limit access to the Site in accordance with the Health and Safety Plan.

31.6 The Design-Builder will ensure that its Health and Safety Plan is consistent with, and accommodates any requirements of the Authority's policies regarding safety and that it specifically addresses the safety of the Authority, patients, visitors and others who may be on the Site or on property in the vicinity of the Site.

31.7 The Design-Builder will maintain and comply with the Health and Safety Plan in all material respects during execution of the Work

31.8 Prior to any person accessing the Site pursuant to this Agreement, the Design-Builder will provide health and safety orientation and information to such person in accordance with its Health and Safety Plan.

SECTION 32
DUST, NOISE AND VIBRATION

32.1 The Design-Builder will carry out its Construction to minimize dust, noise, vibration, noxious odours and fumes.

32.2 Without limiting Section 32.1, the Design-Builder will discuss with the Authority any expected vibration from the Construction activities, will plan operations to minimize disruption to the Authority's activities, the operations of the Existing Hospital and will carry out its Construction activities, so that dust, noise, vibration, noxious odours and fumes do not unreasonably and adversely affect the Authority's activities or use of properties in the vicinity of the Site.

SECTION 33
TESTING AND COMMISSIONING

33.1 The Design-Builder will prepare and deliver to the Authority, at 95% Design, for review under the Review Procedure, a detailed preliminary testing and commissioning plan (the "**Commissioning Plan**") that is consistent with the requirements for testing and commissioning of the Facility identified in the Statement of Requirements and that sets out the commissioning activities the Design-Builder intends to carry out to satisfy this Section 33 and to achieve Substantial Completion including:

(a) a description of the specific equipment and systems to be tested and commissioned, project roles and responsibilities, and the associated commissioning requirements, including those to be completed before Substantial Completion;

(b) no later than 180 days before the Target Substantial Completion Date, detailed Commissioning Plan(s) are to be delivered to the Authority including a draft schedule, related to the Time Schedule, showing the timing of all testing and commissioning activities; and

(c) supporting documentation, including as appropriate:

(i) communication protocols, plans for meetings, and details on commissioning program management;

(ii) summary on design review activities, functional test procedures, reporting and resolution processes and descriptions on accepting the building systems.

33.2 The Design-Builder will retain a qualified independent commissioning agent (acceptable to the Authority, acting reasonably), to test and commission equipment and systems in the Facility to demonstrate to the Authority that the Facility equipment and systems, including all major systems, are proven through testing and commissioning to be able to operate for their intended purposes and that the Authority may occupy the Facility for its intended use as described in the Statement of Requirements. The commissioning agent will prepare a written report to confirm the foregoing and confirm completion of all commissioning activities with the exception of testing and commissioning activities deferred until after Substantial Completion due to seasonal or system

loading limitations before, as applicable, Substantial Completion. Deferred testing and commissioning due to seasonal or operational loading limitations will include, among other things: (i) electrical spare capacity demonstrated for the emergency power system, Centralized UPS and the electrical distribution system, no later than twelve (12) months after Substantial Completion; (ii) mechanical full stress conditions verified as seasonal weather permits, no later than nine (9) months after Substantial Completion; and upon completion of deferred testing and commissioning the results will be summarize within an updated commissioning report issued no later than one (1) month after completion of deferred testing and commissioning. Testing and commissioning will include, among other things, the following:

(a) a complete and successful demonstration in real time under full stress conditions or simulated stress conditions for equipment and systems that require or are provided with redundancy or spare capacity;

(b) end to end testing and commissioning of key equipment and systems except where testing and commissioning activities are deferred by seasonal or system loading limitations, including but not limited to all equipment, communication systems (wireless communications, intercom, overhead paging, telephones) and door controls; and

(c) technical and clinical validation or proper functioning of all equipment and systems and all points of integration between such equipment and systems (including Integrated Systems Test to CAN-ULC-S1001-11).

SECTION 34
DOCUMENTS AT THE SITE

34.1 The Design-Builder will keep at least 1 copy of the following documents at the Site in good order and available to the Authority:

(a) a copy of this Agreement;

(b) a copy of all development, building, electrical and plumbing permits and inspection reports;

(c) up to date and current Drawings and Specifications, including any shop drawings prepared or obtained in respect of the Work and all redlined drawings for each applicable discipline;

(d) the Project Management Plan;

(e) the Time Schedule;

(f) the Quality Management Plan;

(g) the Work Plan; and

(h) the Health and Safety Plan.

SECTION 35
CLEANUP AND FINAL CLEANING OF WORK

35.1 The Design-Builder will maintain the Work in a tidy condition and free from the accumulation of waste products and debris, other than that caused by the Authority, Other Contractors or their employees.

35.2 The Design-Builder will promptly remove all surplus products, tools, construction machinery and equipment, and any waste and debris.

35.3 The Design-Builder will perform a construction level clean of the Building prior to Substantial Completion making it clean and suitable for occupancy and use by the Authority. The Design-Builder will also perform a subsequent construction level clean for any areas impacted by defect or deficiency work prior to Total Completion.

35.4 The Design-Builder will leave the remainder of the Facility and the Site clean and suitable for occupancy and use by the Authority by the Substantial Completion Date of the Project in accordance with the Authority's standards of cleanliness.

35.5 In connection with any Work performed in the Building or in the remainder of the Facility after the respective Substantial Completion Dates, the Design-Builder will at all times leave the Work and Site clean and suitable for occupancy and use by the Authority but is not required to remove waste caused by the Authority.

SECTION 36
REMEDIAL WORK

36.1 The Design-Builder will do all remedial work that may be required to make the several parts of the Work comply with the Statement of Requirements.

36.2 The Design-Builder will coordinate the Time Schedule for the Work to ensure that the requirement under Section 36.1 is kept to a minimum.

36.3 Remedial work will be performed by specialists familiar with the materials affected and will be performed in a manner to neither damage nor endanger any Work.

SECTION 37
REJECTED WORK

37.1 Defective Work, whether the result of poor design, poor workmanship, use of defective equipment or materials, or damage through carelessness, default or other acts of the Design-Builder or any Subcontractor, and whether incorporated in the Work or not, which has been rejected by the Authority as failing to conform to any of the Statement of Requirements, the Design or the Standards, will be removed promptly by the Design-Builder and replaced and re-executed promptly and properly at the Design-Builder's expense.

37.2 If the Design-Builder does not remove such defective Work within the time fixed by written notice by the Authority, the Authority may remove them and store any materials at the expense of the Design-Builder.

37.3 Other Contractor's work destroyed or damaged by such removals or replacements will be made good by the Design-Builder promptly at the Design-Builder's expense.

SECTION 38
WARRANTY

38.1 The Design-Builder will promptly correct, at its own expense, any Work that is not in accordance with this Agreement and any defects or deficiencies in the Work that appear during the period of 24 months after the Substantial Completion Date (the "**Warranty Period**").

38.2 The Design-Builder will correct defects or deficiencies at times and in a manner which causes as little inconvenience to the occupants of the Facility and the Authority's operations on and adjacent to the Site as is reasonably possible, and in accordance with Section 23.

38.3 The Authority may carry out, or have others carry out, rectification work at the Design-Builder's cost if:

(a) the Authority gives notice to the Design-Builder of a defect or deficiency and the Design-Builder does not correct the defect or deficiency within a reasonable time, not to exceed 14 days, unless the nature of the defect or deficiency is such that it cannot be corrected within such time and the Authority, acting reasonably, agrees to an extension of such time; or

(b) the nature of the defect or deficiency is such that it creates a risk to the health or safety of any occupant or user of the Facility, or risk of damage to the Facility, the environment or any property and the Authority gives notice to the Design-Builder within a reasonable time after the commencement or completion of the rectification work.

38.4 If the Authority carries out or has others carry out the rectification work pursuant to Section 38.3 the Design-Builder remains responsible for the Work (including the rectification work).

38.5 The Design-Builder will provide to the Authority extended warranties from Subcontractors where required by the Proposal Extracts or other provisions of this Agreement and any other extended warranties provided by Subcontractors.

38.6 The Design-Builder will correct, at its own cost, or pay the Authority for any damage resulting from the defects or deficiencies and the corrections required under Section 38.1.

38.7 Issuance of the Substantial Completion Certificate and the Total Completion Certificate, and final payment to the Design-Builder, do not relieve the Design-Builder from its responsibility under this Section 38.

SECTION 39
TITLE AND RISK

39.1 Title to the Work will vest only in the Authority. Without prejudice to any of the rights of the Authority under this Agreement, title to the Work or any part of the Work will vest in the Authority at the earliest of:

(a) the time that the Work or part of it is at the Site;

(b) the time that the Authority has paid for the Work or part of the Work; and

(c) the time of installation or construction of the Work or part of the Work.

39.2 The Work will remain under the care, custody and control of the Design-Builder and at the risk of the Design-Builder until, in respect of the Building, Substantial Completion or until such earlier date determined by the Authority, and notified in writing to the Design-Builder, for occupancy and use by the Authority. The Design-Builder will exercise all reasonable care to avoid loss of, or damage to, the Work.

39.3 The Design-Builder represents and warrants that title to the Work and any part of the Work will pass to the Authority free and clear of all liens, charges and encumbrances.

PART D – PAYMENT AND COMPLETION

SECTION 40
APPLICATIONS FOR PAYMENT

40.1 The Design-Builder will make applications for payment in accordance with this Section 40.

40.2 Applications for payment will be:

(a) submitted to the Authority's Consultant;

(b) dated the last day of the monthly period;

(c) for the value, proportionate to the amount of the Contract Price, of Work performed and material and equipment delivered to the Site or stored off-Site in accordance with Section 40.14, to and at the date of submission; and

(d) submitted no more than once per month during the performance of the Work.

40.3 Pending determination of the final result of any Change, the undisputed value of the Work performed as a result of a Change is eligible to be included with payment applications.

40.4 The Design-Builder will submit to the Authority's Consultant for review, at least 14 days before the first application for payment, a Schedule of Values of the various parts of the Work, aggregating to the total amount of the Contract Price and divided so as to facilitate evaluation of applications for payment. The Schedule of Values will be consistent with the information set out in the breakdown of the Contract Price set out in Schedule 7 – Schedule of Prices and made out in such form and supported by such evidence as to its correctness as the Authority's Consultant may reasonably require. The Authority's Consultant will provide comments to the Design-Builder on the Schedule of Values, the Design-Builder will revise the Schedule of Values to address the comments, and so on, until such time as the Authority's Consultant is satisfied with the Schedule of Values. The Schedule of Values will be used as the basis for all applications for payment, unless it is found at any time to be in error, in which case it will be corrected in accordance with the Authority's Consultant's directions. If the Schedule of Values is not finalized prior to an application for payment, the Authority's Consultant may consider the applications for payment on the basis of the Schedule of Values under review and the Authority's Consultant's comments on such Schedule of Values or such other basis as determined by the Authority's Consultant.

40.5 When making applications for payment, the Design-Builder will submit a statement based upon the Schedule of Values. Claims for material and equipment delivered to the Site but not yet

incorporated into the Work will be supported by such evidence as the Authority's Consultant may reasonably require to establish the value and their delivery.

40.6 Subject to any further information that may be required by the Authority, the application for payment will include:

(a) the amount applied for in the application;

(b) the value of Work performed and material and equipment delivered to the Site or approved as stored off-Site in a storage facility in Canada;

(c) payment amounts in respect of any Changes to which the Design-Builder is entitled under this Agreement, including under Section 40.3;

(d) any adjustments to the Contract Price under this Agreement;

(e) the balance of the Contract Price to complete the Work;

(f) the amount of Lien Holdback;

(g) the amount of Performance Holdbacks;

(h) the amount of any withholding or amount to be released under Section 40.8;

(i) certification by the Design-Builder that the Project Binder includes documentation current to within at least 30 days prior to the application, including all inspection reports;

(j) a statutory declaration of an officer or senior management employee of the Design-Builder stating that all accounts for labour, subcontracts, materials, construction machinery and equipment and other indebtedness which may have been incurred by the Design-Builder in performing the Work and for which the Authority might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute; and

(k) a clearance letter from the Workers' Compensation Board indicating that all current assessments due from the Design-Builder and all Subcontractors with subcontracts larger than $50,000 in value have been paid.

40.7 Applications for release of the Lien Holdback will be made under Section 42 (Lien Holdback) and applications for any payment at Substantial Completion or Total Completion will be made under Section 44 (Substantial Completion and Total Completion).

40.8 It is a condition of payment that the following, and all documentation, certification and requirements of the following, are complete and up to date as of the date of each application for payment:

(a) Health and Safety Plan;

(b) Project Management Plan;

(c) Time Schedule;

(d) Quality Management Plan;

(e) Project Binder updated as described in Section 45.3;

(f) issued for construction Drawings and Specifications, commencing with the first application for payment 180 days prior to the Target Substantial Completion Date; and

(g) Commissioning Plan commencing with the first application for payment 365 days prior to the Target Substantial Completion Date.

The Design-Builder will not be required to re-submit documentation previously provided. The Design-Builder will identify any changes to previously submitted documentation and at the Authority's request submit revised documentation.

The Authority acknowledges that the requirement in Section 40.8(f) for issued for construction Drawings and Specifications does not require the Design-Builder to provide such Drawings and Specifications prior to the date such Drawings and Specifications are required to perform the Work and in accordance with the other provisions of this Agreement.

If any of the foregoing listed items, including the required certification, documentation and certification for each listed item, is not complete and up to date, then the Authority may for each listed item that is not complete and up to date withhold from payment the amount of 3% of the total application for payment. This withholding will apply to each month for which such item or items is not complete and up to date. The applicable withholding will be released with the next monthly payment when such item is completed and up to date. In addition, in relation to the Quality Management Plan if the Authority's Consultant considers that the Design-Builder has not demonstrated that the Work to which the Quality Management Plan relates was satisfactorily performed then the Authority's Consultant may in accordance with Section 40.10 reduce the payment by the amount of such unsatisfactory Work and by the cost of the required processes, testing, certification, auditing and documentation required to ensure compliance with the Quality Management Plan.

40.9 Notwithstanding the actual progress, the following will apply:

(a) payment of the cost of the Bonds and cost of insurance will be made to the Design-Builder upon presentation of all bonding and insurance documentation required by this Agreement and upon presentation of satisfactory proof of payment of related fees or premiums; and

(b) payment for mobilization identified in the Schedule of Values will be a maximum of 1% of the Contract Price and payment will be made in two parts: 25% when the Design-Builder occupies the Site, and 75% when the Design-Builder has established a fully functional site office, construction equipment is on the Site and construction has commenced.

40.10 The Authority's Consultant, will, within 10 Business Days of receipt of the Design-Builder's application for payment, either:

(a) accept the amount set out in the application for payment; or

(b) adjust the amount of any payment to reflect the Authority's Consultant's estimate of Work satisfactorily performed as of the date of the application for payment.

If the Authority's Consultant amends the application for payment, the Authority's Consultant will promptly notify the Design-Builder in writing and give reasons for the amendment.

40.11 Provided the Design-Builder is not in material default of any provision in this Agreement, the Authority will pay the Design-Builder within 15 Business Days of the Authority's Consultant approving or adjusting the Design-Builder's application for payment in accordance with Section 40.10 and the Schedule of Values .

40.12 Whenever any sum of money is recoverable from or payable by the Design-Builder pursuant to this Agreement or is an amount for which the Authority may be liable on account of a default by the Design-Builder, the Authority may deduct or set off such sum from, or may reduce, any amounts then due or that may thereafter become due to the Design-Builder under this Agreement. Without limiting the generality of the foregoing, the Authority may set-off any amounts for liquidated damages set out in this Agreement.

40.13 Notwithstanding that the Authority is under no obligation to pay for any material and equipment that has not been delivered to the Site, the Design-Builder may make periodic requests, which will be considered by the Authority and which requests will not be unreasonably withheld, by the Authority in consenting to appropriate arrangements to facilitate payment for material and equipment that have been delivered to an off-Site storage facility within Canada. As a condition to providing its consent, the Authority will require additional information from the Design-Builder regarding the proposed arrangement, including but not limited to:

(a) if the Design-Builder or its direct subcontractors and vendors at which the material and/or equipment are to be stored, is the owner of the off-Site storage facility, evidence (in a form satisfactory to the Authority) confirming such ownership; and

(b) if the Design-Builder or its direct subcontractors and vendors lease or are otherwise not the owner of the off-Site storage facility, at which the material and/or equipment are to be stored, a direct agreement (in a form satisfactory to the Authority) from the landlord or owner of the off-Site storage facility disclaiming any right to seize the products, material or equipment in exercising its distress right.

40.14 In the event that the Authority provides such consent, the following will apply:

(a) the Authority's prior consent will be in writing;

(b) material and equipment will be stored at a location and in conditions that are to the satisfaction of the Authority and the Payment Certifier;

(c) material and equipment are adequately insured, noting the interests of the Authority;

(d) storage will be secure and safe and the material and equipment will be held apart, singly and solely for the purposes of the Project, in a facility that can maintain the correct temperature for such material and equipment and fully protected from the weather;

(e) all material and equipment shall be clearly labelled as "The Property of Northern Health Authority" and such labelling of the material and equipment will not damage, permanently deface or harm the material and equipment in any way;

(f) each item of material and equipment will be assigned and labelled with a unique identifier code such that the Payment Certifier will be able to identify the material and equipment in the Design-Builder's application for payment;

(g) the Design-Builder will provide a written summary of any material and equipment stored off-Site, and the Design-Builder will provide this to the Payment Certifier prior to inspection of the material and equipment;

(h) the Design-Builder will provide full access for the Authority and the Payment Certifier to the location where the material and equipment are stored and will pay any additional costs incurred by the Payment Certifier in visiting such location;

(i) payment for material and equipment not delivered to the Site does not imply or infer that the material and equipment has been inspected, verified, or accepted in any way, and the Design-Builder will retain the entire responsibility and expense for securing and protecting any material and equipment that has not been delivered to the Site and for ultimately transporting them to Site, irrespective of whether or not the Authority has made any payment in respect of the material and equipment; and

(j) within one Business Day of a written request by the Authority or the Payment Certifier, the Design-Builder will provide the Authority with written confirmation that the storage location and conditions meet the requirements of this Section 40.14.

SECTION 41
TAXES AND DUTIES

41.1 The Contract Price is inclusive of all applicable customs, duties and taxes (including PST), other than GST, in effect at the Effective Date.

41.2 The Design-Builder will remit all customs, duties and taxes to the applicable governmental authority as and when required by the relevant Law and will without limiting Section 58 (Indemnification), indemnify and hold the Indemnified Parties harmless from and against any customs, duties and taxes that the Design-Builder fails to remit as and when due, and from and against any costs and penalties and interest that may be levied against the Indemnified Parties.

41.3 Any increase or decrease in costs to the Design-Builder due to changes in customs, duties or taxes that are in effect at the Effective Date of this Agreement will increase or decrease the Contract Price accordingly.

41.4 Where an exemption or refund of customs, duties or taxes is applicable to this Agreement by way of the Design-Builder filing claims for, or cooperating fully with the Authority and the proper authorities in seeking to obtain such exemption or refund, the Design-Builder will make such applications and provide such cooperation.

41.5 Refunds that are properly due to the Authority and have been recovered by the Design-Builder will be promptly refunded to the Authority.

SECTION 42
LIEN HOLDBACK

42.1 The Authority will retain and release the Lien Holdback in accordance with the provisions of the *Builders Lien Act* (British Columbia).

42.2 Subject to Section 5.4, for the purposes of the *Builders Lien Act* (British Columbia), the Authority's Consultant will be the payment certifier for this Agreement.

42.3 Subject to Section 5.4, for the purposes of progressive release of portions of the Lien Holdback in respect of Subcontracts, the Authority's Consultant will be the payment certifier under the *Builders Lien Act* (British Columbia).

42.4 The Design-Builder will make application to the Authority's Consultant for certification under the *Builders Lien Act* (British Columbia). As a condition of making any application and as a condition of any certification, the Design-Builder will provide the Authority's Consultant with all information required by the Authority's Consultant.

42.5 Without limiting Section 58, the Design-Builder will, at its sole risk and expense, do everything necessary, including through the institution, prosecution or defence of legal proceedings, to promptly discharge from title to the Site any claims of builder's lien, builder's liens or certificates of pending litigation by any Subcontractor or other person claiming under or through the Design-Builder or Subcontractor. If the Authority becomes aware that any such claim of builder's lien, builder's liens or certificate of pending litigation is threatened or has been registered against title to the Site, the Authority may, withhold out of the Lien Holdback or any other monies payable to the Design-Builder such amounts as the Authority reasonably considers necessary in order to secure the discharge of such claim of builder's lien, builder's liens or certificate of pending litigation. The Authority will cooperate with the Design-Builder in securing the discharge of any of the foregoing, subject to such arrangements being made as the Authority reasonably considers necessary before any such additional holdback monies are paid to any person or into court. This Section 42.5 will not apply to a claim of builder's lien, builder's liens or certificates of pending litigation that arise due to the improper non-payment by the Authority.

SECTION 43
PERFORMANCE HOLDBACKS

43.1 In addition to the Lien Holdback and any amount retained under this Agreement (including for deficiencies under Section 44.4), the Authority will retain:

(a) a holdback of of the Contract Price (the "**LD Holdback**") if at any time after the date that is 12 months before the Target Substantial Completion Date (or if the Authority has extended the Time Schedule in accordance with this Agreement, such other date established for the Target Substantial Completion Date), the Authority's Consultant determines that the Substantial Completion Date is not reasonably likely to occur on or before the Target Substantial Completion Date (or if the Authority has extended the Time Schedule in accordance with this Agreement, such other date established for the Target Substantial Completion);

(b) a holdback of (the "**LEED Holdback**"); and

(c) a holdback of (the "**Warranty Holdback**")

(collectively, the "**Performance Holdbacks**").

43.2 The Performance Holdbacks will be retained by the Authority as follows:

(a) if the Payment Certifier makes a determination described in Section 43.1(a), the LD Holdback will be withheld from any payments due by the Authority; and

(b) the LEED Holdback and the Warranty Holdback will be withheld from any payments due by the Authority after the achievement of Substantial Completion, provided that if the amount of such payments due by the Authority is insufficient, the Design-Builder will immediately provide the Authority with such additional amount as necessary to ensure the Authority has security in the full amount of the LEED Holdback and the Warranty Holdback.

43.3 The Authority will release the LD Holdback, less liquidated damages payable by the Design-Builder under Section 3.3 upon the achievement of Substantial Completion.

43.4 The Authority will release the LEED Holdback, less liquidated damages payable by the Design-Builder under Section 10, upon the achievement of the points, credits or LEED Gold Certification, as applicable.

43.5 The Authority will release the Warranty Holdback, less deductions for amounts owing to the Authority, upon the completion of the Warranty Period and satisfaction of all obligations of the Design-Builder under Section 38.

43.6 The Authority may apply the Performance Holdbacks against any amount owing by the Design-Builder to the Authority either prior to the applicable Substantial Completion Date or during the Warranty Period. If any amount is applied against the Performance Holdbacks, the Design-Builder will at the Authority's option, acting reasonably, either pay such amount to the Authority to replenish the Performance Holdbacks then required to be withheld, or the Authority may withhold such amount from the next payment or payments due to the Design-Builder.

43.7 The Design-Builder will apply for payment of the applicable Performance Holdback and payment will be made in accordance with Section 40.

43.8 The Performance Holdbacks are not held in trust for the Design-Builder, property of the Design-Builder, earned by the Design-Builder or due and payable by the Authority until the conditions for release of the Performance Holdbacks are satisfied.

43.9 The Design-Builder as an alternative to the retention of the Performance Holdbacks may propose to the Authority to provide either a clean irrevocable standby letter of credit from a financial institution in Canada in a form acceptable to the Authority, or another form of performance security acceptable to the Authority. If the Authority accepts the proposal, the Authority will upon receipt of the performance security release the Performance Holdbacks to the Design-Builder.

SECTION 44
SUBSTANTIAL COMPLETION AND TOTAL COMPLETION

44.1 The Design-Builder may make application to the Authority for a Substantial Completion Certificate at any time after it believes it has achieved Substantial Completion, as described in this Section 44 and has provided to the Authority's Consultant the items as required in Section 44.2(b).

44.2 "Substantial Completion" means that all of the following have been achieved:

(a) the Authority's Consultant has certified that substantial performance of the Work under the *Builders Lien Act* (British Columbia) has been achieved;

(b) the Facility is ready for use by the Authority or is being used by the Authority for the purpose intended, and the following items have been submitted to the Authority or completed by the Design-Builder:

(i) equipment (including Category 2, 3, and 4 Equipment), mechanical and other Building systems (including medical gas systems) are in place, commissioned, except where testing and commissioning activities are deferred by seasonal or system loading limitations, received required certifications, and are proven through testing and commissioning to be able to operate for their intended purposes;

(ii) a complete Project Binder, provided that:

(A) the commissioning reports may be preliminary; and

(B) the inspections, certificates, guarantees and warranties, and certifications may exclude only the items of Work that remain to be completed;

(iii) up to date and current Drawings and Specifications;

(iv) maintenance and operating tools, replacement parts or products for the Building as specified in the Statement of Requirements;

(v) a clearance letter from the WorkSafeBC indicating that all current assessments due from the Design-Builder and all Subcontractors have been paid;

(vi) a statement reconciling all Change Orders and claims under this Agreement with respect to the Work to the date of the application for Substantial Completion;

(vii) all approvals necessary for the Project from local authorities having jurisdiction;

(viii) an occupancy permit for the Facility as required from local authorities having jurisdiction;

(ix) a statutory declaration of an officer or senior management employee of the Design-Builder stating that all accounts for labour, subcontracts, materials, construction machinery and equipment and other indebtedness which may have been incurred by the Design-Builder in performing the Work and for which the Authority might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute;

(x) demonstration and training of mechanical and electrically operated devices in the Building to the Authority's operating and maintenance staff, or has made reasonable efforts to schedule such prior to Substantial Completion;

(xi) all training for the Building's personnel required by the Statement of Requirements, or has made reasonable efforts to schedule such prior to Substantial Completion;

(xii) the LEED Project Checklist and written opinion as required by and in accordance with Section 10.2;

(xiii) the BC Hydro and PNG energy modelling compliance checklists, as required by and in accordance with Section 11.3;

(xiv) the requirements of Section 35 (Cleanup and Final Cleaning of Work) have been fulfilled to the extent required by the Substantial Completion; and

(xv) any other conditions specified in this Agreement with respect to achieving Substantial Completion;

(c) a comprehensive deficiency list, including an estimated value for each item, has been submitted to the Authority's Consultant by the Design-Builder which will be supplemented by the Authority's Consultant, acting reasonably; and

(d) a schedule for completion of all remaining Work has been submitted to the Authority by the Design-Builder and agreed to by the Authority, acting reasonably.

44.3 The Authority's Consultant with input from the Design-Builder's Consultant will, not later than 10 days after the receipt of an application from the Design-Builder for the Substantial Completion Certificate, review and assess the Work to verify that the application and the Work conform to the requirements set out in Section 44.2. The Authority's Consultant will, not later than 7 days after the review, notify the Design-Builder of approval, or the reasons for disapproval, of the application. In the event of disapproval, the Design-Builder will rectify all matters that prevent the issuance of the Substantial Completion Certificate and the Authority's Consultant will within 7 days after notice from the Design-Builder of rectification, approve or disapprove of the application, and so on, until such time as the Authority's Consultant determines that Substantial Completion has been achieved. When the Authority's Consultant determines that Substantial Completion has been achieved, the Authority's Consultant will issue the Substantial Completion Certificate. Following the issuance of the Substantial Completion Certificate, the Authority's Consultant, with input from the Design-Builder, will establish a reasonable date for work still to be satisfactorily performed or replaced as specified in the list of deficiencies and for Total Completion. The Design-Builder will be responsible for all costs of any additional reviews by the Authority's Consultant after the first review that are necessary under this Section, where such additional reviews reveal that previously identified deficiencies or non-conformances to the requirements set out in Section 44.2 have not been corrected or completed in a manner satisfactory to the Authority's Consultant. Such costs will be deducted from any monies then due to the Design-Builder.

44.4 The Authority may retain out of the amount due and owing to the Design-Builder upon of Substantial Completion:

(a) any sums required by law to satisfy any liens against the Work;

(b) an amount determined by the Authority's Consultant to be equal to 2 times the estimated value of the Work as determined by the Authority's Consultant that is still to be satisfactorily performed or rectified or replaced to address the issues specified in the list of deficiencies; and

(c) any amount withheld pursuant to Section 42.5.

44.5 No payment will be made to the Design-Builder from the applicable amounts withheld under Section 44.4(b) until the completion or rectification or replacement of all the deficiencies and incomplete work specified in the deficiency list.

44.6 The Design-Builder will perform the work specified in the list of deficiencies at times and in a manner which causes as little inconvenience to the occupants of the Facility and the Authority's operations on and adjacent to the Site as is reasonably possible.

44.7 The Authority may carry out, or have others carry out, the work specified in the list of deficiencies at the Design-Builder's cost if:

(a) the Design-Builder does not complete the work by the date established by the Authority's Consultant in Section 44.3 and if the Authority gives notice to the Design-Builder and the Design-Builder does not complete, correct or replace the defect, deficiency or incomplete work within a reasonable time, not to exceed 14 days, unless the nature of the defect, deficiency or incomplete work is such that it cannot be completed or corrected within such time and the Authority, acting reasonably, agrees to an extension of such time; or

(b) the nature of the work is such that it creates a risk to the health or safety of any occupant or user of the Facility, or risk of damage to the Facility, the environment or any property and the Authority gives notice to the Design-Builder within a reasonable time after the commencement or completion of the rectification work.

44.8 If the Authority carries out or has others carry out the work pursuant to Section 44.7 the Design-Builder remains responsible for the work.

44.9 The Design-Builder will correct, at its own cost, or pay the Authority for any damage resulting from the work specified in the list of deficiencies.

44.10 The Design-Builder may make application to the Authority for the Total Completion Certificate at any time it believes it has achieved Total Completion as described in Section 44.11 and has provided to the Authority's Consultant the items as required in Section 44.11(d).

44.11 "Total Completion" means that all of the following have been achieved:

(a) the entire Work has been performed to the requirements of this Agreement other than:

(i) work required to be performed under Section 38; and

(ii) achievement of the LEED credits/points and LEED Gold Certification from the LEED Certifier under Section 10;

(b) all deficiencies specified in the deficiency list(s) have been rectified or completed to the Authority's satisfaction;

(c) the requirements of Section 35 have been fulfilled; and

(d) the following items have been submitted by the Design-Builder and are acceptable to the Authority:

(i) all Submittals, including certified Record Drawings in accordance with Section 45 (Project Binder and Record Drawings)

(ii) the final Project Binder, including everything specified in Section 45.2;

(iii) a statutory declaration of an officer or senior management employee of the Design-Builder stating that all accounts for labour, subcontracts, materials, construction machinery and equipment and other indebtedness which may have been incurred by the Design-Builder in performing the Work and for which the Authority might in any way be held responsible have been paid in full, except for amounts properly retained as a holdback or as an identified amount in dispute, dated at least 45 days after the date of substantial performance under the *Builders Lien Act* (British Columbia);

(iv) a written statement of the Design-Builder that all claims for payment for Work done under this Agreement including claims and Change Orders have been presented to the Authority;

(v) a clearance letter from the Workers' Compensation Board indicating that all current assessments due from the Design-Builder and all Subcontractors have been paid; and

(vi) certification, acceptable to the Authority, that all taxes, employment assistance payments, Canada Pension Plan contributions, duties, royalties and all other monies required to be paid by law or statute have been paid in full.

44.12 Upon receipt by the Authority of the Design-Builder's application for the Total Completion Certificate:

(a) The Authority's Consultant will, subject to the conditions contained in Section 44.11, and not later than 10 days after the receipt of an application from the Design-Builder for the Total Completion Certificate, review and assess the Work to verify that the application and the Work conform to the requirements set out in Section 44.11.

(b) The Authority's Consultant will, and not later than 7 days after the review contemplated in Section 44.12(a), notify the Design-Builder of approval, or the reasons for disapproval, of the application. In the event of a disapproval, the Design-Builder will rectify all matters that prevent the issuance of the Total Completion Certificate and the Authority's Consultant will within 7 days after notice from the Design-Builder of rectification, review and assess the Work and approve or disapprove of the application, and so on, until such time as the Authority's Consultant determines that Total Completion has been achieved.

(c) The Design-Builder will be responsible for all costs of additional reviews required by Section 44.12(b), such costs to be deducted from the monies due to the Design-Builder, where any additional review undertaken by the Authority's Consultant pursuant to this Section reveals that previously identified deficiencies have not been corrected in a manner satisfactory to the Authority's Consultant.

When the Authority's Consultant determines that Total Completion has been achieved, the Authority's Consultant will issue the Total Completion Certificate and certify for payment the monies due to the Design-Builder under this Agreement, less any amount still retained for the Lien Holdback or the Performance Holdbacks, amounts withheld under Section 42.5 or any amount set-off in accordance with this Agreement. The date of Total Completion will be as stated in the Total Completion Certificate.

44.13 No payment made by the Authority under this Agreement, or partial or entire use or occupancy of the Work by the Authority, will constitute an acceptance of Work not in accordance with the requirements of this Agreement.

44.14 By issuing any certificate, the Authority and the Authority's Consultant do not guarantee, or otherwise become liable or responsible in any way for, the correctness or completeness of the Work, including the Design, and no certificate makes the Authority or Authority's Consultant in any way responsible or liable for adequacy of the Design or for the Work, all of which remain the responsibility of the Design-Builder.

44.15 As of the date of Total Completion, the Design-Builder expressly waives and releases the Authority from all claims against the Authority, including those that might arise from the negligence or breach of this Agreement by the Authority, except those made in writing prior to the Design-Builder's application for payment upon Total Completion and still unsettled and those arising in connection with the obligations of either party to be performed after Total Completion.

44.16 In the event of conflict between the provisions of this Section 44 and any other Section of this Agreement, the provisions of this Section 44 govern.

44.17 Without limiting any other withholding or set-off under this Agreement, the Authority may deduct from any payment to the Design-Builder under this Agreement the amount paid by the Authority to put the Design-Builder into compliance with the Insurance Conditions if the Design-Builder has defaulted in complying with the Insurance Conditions.

SECTION 45
PROJECT BINDER AND RECORD DRAWINGS

45.1 The Design-Builder will prepare and provide to the Authority a set of documentation that is bound in one or more binders (the "**Project Binder**").

45.2 The Project Binder will include the following:

(a) commissioning reports satisfactory to the Authority;

(b) all inspections, certifications, guarantees and warranties;

(c) maintenance manuals and operating instructions;

(d) certification by all testing, cleaning or inspection authorities or associations;

(e) confirmation of the Design-Builder's Consultant in accordance with Section 16.3(b);

(f) copies of all warranties and guarantees from Subcontractors;

(g) copies of all shop drawing cut-sheets;

(h) a monthly labour report in the form attached as SCHEDULE 12 MONTHLY LABOUR REPORTING TABLE, as updated from time to time by the Authority; and

(i) all other documentation that is reasonably required by the Authority or by any party on behalf of the Authority to operate and maintain the Facility.

45.3 The Project Binder will be updated on a monthly basis with all documentation to Work completed up to the date is updated. The updates may be submitted electronically. In addition, at each of Substantial Completion and Total Completion, the Design-Builder will provide and update 3 paper copies of the Project Binder and 3 flash drives each containing a copy of the Project Binder, unless directed to use a different format by the Authority, acting reasonably.

45.4 Within 60 days after achieving Substantial Completion, the Design-Builder will provide to the Authority the following in respect of completed Work:

(a) 2 complete sets of paper print Record Drawings, prepared by the Design-Builder's Consultant;

(b) 1 complete copy of digital pre-boarding images on a flash drive. The digital images will be 3D images viewable on a commercially available software viewer in a format acceptable to the Authority, showing every room and space in the Building prior to covering up or boarding that room or space. Image files will be organized and cataloged using room numbers corresponding to construction document room numbers; and

(c) 1 complete copy of the Record Drawings on a flash drive in both CAD and Adobe PDF format acceptable to the Authority, acting reasonably.

SECTION 46
CASH ALLOWANCES

46.1 This Section 46 applies only if cash allowances are stated in this Agreement.

46.2 The Contract Price includes cash allowances, if any, stated in this Agreement. The allowances will be expended, if at all, only as the Authority authorizes. The scope of work or costs included in such cash allowances will be as described in this Agreement.

46.3 Cash allowances cover the net cost to the Design-Builder of services (including design services), materials, products, construction machinery and equipment, freight, unloading, handling, storage, installation and other expenditures authorized by the Authority that are incurred in performing the work stipulated under the cash allowances but do not include GST payable by the Authority to the Design-Builder.

46.4 The Contract Price, and not the cash allowances, includes the Design-Builder's overhead and profit in connection with such cash allowances.

46.5 Where the actual costs expended by the Design-Builder for work under a cash allowance exceed the amount of the cash allowance, the Design-Builder will be compensated for any excess incurred

and substantiated plus an amount for overhead and profit as set out in Section 49.2(b). Where the actual costs expended by the Design-Builder for work under a cash allowance is less than the amount of the cash allowance, the Authority will be credited for the unexpended portion of the cash allowance, but not for the Design-Builder's overhead and profit on such amount. Multiple cash allowances will not be combined for the purpose of calculating the foregoing.

46.6 The Contract Price will be adjusted to provide for any difference between the amount of each cash allowance and the actual cost of the work under that cash allowance.

46.7 The value of the Work performed under a cash allowance is eligible to be included in the monthly applications for payment.

46.8 The Design-Builder and the Authority will jointly prepare a schedule that shows when the Authority, through the Authority's Consultant, must authorize the ordering of items called for under cash allowances to avoid delaying the progress of the Work.

46.9 The Agreement includes a cash allowance of for those items identified as cash allowance items in Appendix 1D(V) IMIT List of the Statement of Requirements.

46.10 The Agreement includes a cash allowance of for the Quonset hut dismantle/disposal option as described in Section 2.10 of the Statement of Requirements.

46.11 The Agreement includes a cash allowance of for a potential BC Hydro upgraded electrical service. This cash allowance will only apply if BC Hydro determines that an infrastructure upgrade is required to the existing electrical service to the new Facility and excludes applicable connection fees.

46.12 The Agreement includes a cash allowance of for the potential need to detain a 1:100 year storm event on-Site and / or other related improvements off-Site. This cash allowance will only apply if the City of Dawson Creek determines that additional work is required to deal with a 1:100 year storm event, either on or off Site, beyond the on-Site storage solution contemplated in the 60% Design.

46.13 The Agreement includes a cash allowance of associated with the following scope of work which will be undertaken in coordination with the Authority and Northern Lights College:

(a) moving the two power poles and lines that are within the hospital Site boundary across to the other side of the south access road;

(b) crossing across the south access road for the third pole that is outside of the Site boundary; and

(c) providing any temporary services, if required, to power the Northern Lights College Regional Administration Building and Student Residences, while the work is being undertaken.

PART E - CHANGES

SECTION 47
CHANGES

47.1 The Authority, without invalidating this Agreement, may require Changes, with the Contract Price and Contract Time adjusted in accordance with Section 48. The Authority may issue any Change Order or Change Directive, which can include a stop Work order or resume Work order, to the Design-Builder's Representative or to any other person authorized by the Design-Builder to receive a Change Order.

47.2 No Change will be made without a Change Order or Change Directive from the Authority.

47.3 The Design-Builder will not be entitled to a Change Order or Change Directive, or to any adjustments to the Contract Price or the Contract Time, for any Change for which the Design-Builder has not, prior to commencing the performance of a Change, obtained from the Authority a Change Order or Change Directive except where expressly allowed in this Agreement at Sections 29.2 and 30.2.

47.4 The Authority may, at any time, require the Design-Builder to assess the impact of a proposed Change on the Contract Price and the Contract Time and the Design-Builder will provide the Authority with such assessment within 10 Business Days after the Authority's request or such other time as may be agreed by the Authority, acting reasonably.

47.5 If a Change Order or Change Directive has any impact on the Energy Model, the Design Builder will promptly notify the Authority.

47.6 The Design-Builder acknowledges receipt of the 60% Design and the 60% Design Review Response and the Design-Builder will address all matters indicated in the 60% Design Review Response in accordance with Schedule 2.

47.7 The Authority acknowledges that the Contract Price and the Target Substantial Completion Date assumes that the 60% Design, subject to 60% Design Review Response, meets the requirements of the Statement of Requirements in respect of the 60% Key Elements.

47.8 The Design-Builder acknowledges that the Design must meet the Statement of Requirements, and agrees that any non-compliance (including those identified in the 60% Design Review Response), whether in respect of the 60% Key Elements or any other requirements, will be corrected no later than the 95% level of Design under the Statement of Requirements or such later date as agreed by the Authority.

47.9 If prior to the issuance by the Design-Builder of the 95% level of Design Submittal the Design-Builder identifies 60% Design Deficiencies, the Design-Builder will be entitled to a Change Order, with the Contract Price and Contract Time adjusted in accordance with Section 48, for Changes resulting from the 60% Design Deficiencies. Nothing in this Section 47.9 limits the Design-Builder's obligations to mitigate under Section 73.

SECTION 48
VALUATION AND CERTIFICATION OF CHANGES

48.1 The value of any Change will be determined by one or more of the following methods:

(a) by estimate and acceptance of a lump sum; or

(b) by unit prices or fee rates agreed upon (and which may include a maximum upset price).

48.2 The following process will be followed for Changes:

(a) where a Change is proposed or required by the Authority, the Design-Builder will promptly, and in any case within 10 Business Days after the Change is proposed or required by the Authority, present to the Authority its claims for any adjustment to the Contract Price or the Contract Time that arise from the Change;

(b) where the Design-Builder claims a Change in Contract Price, the Design-Builder will provide a full breakdown of labour, material and other cost information;

(c) where the Authority and Design-Builder agree to the Change, including adjustments in the Contract Price and Contract Time, or to the method to be used to determine the adjustments, such Change will be effective when recorded in a Change Order; and

(d) the value of the Work performed as the result of a Change Order will be included in payment applications.

48.3 In the case of Changes to be paid for under Section 48.2(c), the form of presentation of costs and methods of measurement will be agreed to by the Authority and the Design-Builder before proceeding with the Change. The Design-Builder will keep accurate records of quantities or costs as agreed upon and will present an account of the costs of the Change, together with vouchers where applicable, at least once each month during performance of the Change, and will present a final account upon completion of the Change.

48.4 If the methods of valuation, measurement and value of any Change or any adjustment to the Contract Time cannot be promptly agreed upon, and in any case within 10 Business Days after the proposed Change, and the Change is required by the Authority in writing to be proceeded with, then the Change will be performed by the Design-Builder and the value of the Change and adjustment to the Contract Time will be determined in accordance with the Dispute resolution process described in Section 63 by determining the cost of the Change in accordance with the Section 49 (other than Sections 49.1 and 49.4) and by determining the adjustment of the Contract Time as a reasonable time taking into account the critical path.

48.5 It is intended in all matters involving Changes that both the Authority and the Design-Builder will act promptly and in accordance with the times set out in this Section 48.

SECTION 49
DETERMINATION OF COST

49.1 Subject to Section 49.2 whenever it is necessary for the purposes of this Agreement to determine the cost of a Change, the cost will be the amount agreed upon by the Design-Builder and the Authority within a reasonable time after the issue arises in any given instance.

49.2 If the Design-Builder and the Authority cannot agree as to the cost of the Change as contemplated in Section 49.1, the sole cost to which the Design-Builder will be entitled for the Change will be equal to the aggregate of:

(a) all reasonable and proper amounts actually expended by or legally payable by the Design-Builder in respect of the labour, equipment or material (supported by invoices, purchase orders, timesheets and other customary industry documentation) that are directly attributable to the subject matter of the Change and that are within one of the classes of expenditures described in Section 49.3; plus

(b) to cover other costs, including overhead and profit, the following applicable markup on the amounts charged pursuant to Section 49.2(a).

(i) 5%, when the expenditure is a payment to a Subcontractor pursuant to Section 49.3(a); or

(ii) 10% when the Design-Builder performed the Change.

49.3 Classes of incremental expenditure that are allowable for the Work that is the subject matter of the Change (all without additional markups except as otherwise noted in Section 49) for the purposes of Section 49.2 are:

(a) payments to Subcontractors, including a maximum aggregate markup of 10% on the direct labour, equipment and material costs of the Subcontractors who directly perform the Work;

(b) wages, salaries and reasonable and traveling expenses of employees of the Design-Builder while they are actually and properly engaged on the Work, other than wages, salaries, bonuses, reasonable living and travelling expenses of personnel of the Design-Builder generally employed at the head office, or at a general office, of the Design-Builder unless such personnel is engaged at the site of the Work, with the approval of the Authority;

(c) payments for materials necessary for and incorporated in the Work or necessary for and consumed in the performance of the Work;

(d) payment for equipment necessary for and incorporated in the Work;

(e) payments for tools, other than tools customarily provided by tradespersons, necessary for and used in the performance of the Work;

(f) payments for preparation, inspection, delivery, installation, commissioning and removal of equipment and materials necessary for the performance of the Work;

(g) assessments payable under any statutory scheme relating to workers compensation, unemployment insurance or holidays with pay;

(h) payments for renting equipment (but not tools) and allowances for equipment (but not tools) owned by the Design-Builder, necessary for the performance of the Work, provided that such payments or allowances are reasonable or have been agreed to by the Design-Builder and the Authority; and

(i) other payments, made with the prior approval of the Authority, that are necessary for the performance of the Work, as determined by the Authority.

49.4 If the Design-Builder and the Authority cannot agree as to the cost of labour, equipment or material as contemplated in Section 49.1, and the Authority considers that a Change or series of related Changes may exceed $50,000, the Authority may require the Design-Builder, and the Design-Builder will, obtain a minimum of 3 competitive quotations or tenders for all or any part of such Change or Changes as directed by the Authority.

49.5 The applicable markup set out in this Section 49 will apply to any credit to the Authority for reductions in the costs relating to a Change. Where both increases and reductions in costs relate to a Change, the applicable markup will apply to the net increase or reduction in costs.

SECTION 50
CHANGE DIRECTIVE

50.1 The Authority may issue a Change Directive to the Design-Builder directing the Design-Builder to proceed with a Change. The Design-Builder will proceed with the Change and the valuation and adjustments to the Contract Price and the Contract Time will be made as soon as reasonably possible after the implementation of the Change in the same manner as a Change for which a Change Order would be issued under this Agreement.

50.2 The Authority may issue Change Directives at any time, including prior to commencing the process for a Change Order or if there is a Dispute in relation to a Change or Change Order (including a Dispute as to whether there is a Change).

PART F - DELAYS

SECTION 51
DELAYS

51.1 If the Design-Builder is delayed in performing the Work as a direct result of a failure of the Authority to provide access to the Site, or a material breach by the Authority of the terms of this Agreement or by an order issued by any court or public authority having jurisdiction (providing such order was not issued as the result of any act or fault of the Design-Builder or a Subcontractor), or the events referred to in Sections 29.2 or 30.3, then:

(a) the Contract Time will be extended for such reasonable time, taking into account the critical path as agreed by the Authority and the Design-Builder, acting reasonably, and the Design-Builder will be reimbursed for any costs directly incurred by it as the result of such delay, determined in accordance with Section 49; or

(b) if the Authority determines that the Target Substantial Completion Date can still be met and requests in writing that the Design-Builder accelerate the Work, the Design-Builder will accelerate its efforts to meet the Target Substantial Completion Date as directed by the Authority. The Design-Builder will be reimbursed for all reasonable and direct costs plus the markup set out in Section 49.2(b) incurred by it as a result of undertaking such acceleration efforts.

51.2 If the Design-Builder is delayed in performing the Work by an event of Force Majeure then:

(a) the Contract Time will be extended for such reasonable time taking into account the critical path, as agreed by the Authority, and the Design-Builder acting reasonably; or

(b) if the Authority determines that the Target Substantial Completion Date can still be met and requests in writing that the Design-Builder accelerate the Work, the Design-Builder will accelerate its efforts to meet the Target Substantial Completion Date as directed by the Authority. The Design-Builder will be reimbursed for all reasonable and direct costs plus the markup set out in Section 49.2(b) incurred by it as a result of undertaking such acceleration efforts.

Except as provided in Section 51.2(b) for acceleration of the Work required by the Authority, the Design-Builder will not be entitled to any costs incurred in relation to the Force Majeure or delays arising from the Force Majeure.

51.3 If the Design-Builder is delayed in the performance of the Work for any reason other than that for which an extension of time is permitted under this Section 51 or if the Design-Builder does not perform the Work substantially in accordance with the Time Schedule to meet the Target Substantial Completion Date, the Design-Builder will at its cost accelerate the Work to meet the Target Substantial Completion Date.

51.4 The Design-Builder is not entitled to any extension of time or any reimbursement of costs for delay under this Section 51 unless written notice is given to the Authority not later than 7 days after the date that the Design-Builder becomes aware of the event causing the delay. In the case of a continuing cause of delay only one notice is necessary. The notice will include the reason for the delay, the justification under this Agreement for the claim and an estimated value for the claim including all impacts of the delay and all steps taken or reasonably available to mitigate the delay and impact. The Design-Builder will provide a full, detailed, and organized account of the delay and amount claimed, including any supporting information or documentation, as required by the Authority or Authority's Consultant, before any delays or impacts will be considered. The information and documentation must be presented promptly to the Authority, and in any event, no later than 30 days or such later date as the parties may agree, after the date on which the Design-Builder delivered notice, and in the event of a continuing delay such information and documentation must be updated every 30 days. No such account or update will be deemed to extend the time for delivery of notice, or revive a claim that has been waived. The Design-Builder waives any claim for extension of Contract Time or adjustment to the Contract Price, or any other compensation, expenses, loss or damages incurred as the result of a delay unless the Design-Builder provides such notice of the delay within the time period specified and provides the account of the delay and amount claimed and all required updates within the time periods specified.

51.5 In the case of any delay under Section 51.1 or Section 51.2 the Design-Builder will use all reasonable efforts to mitigate the costs and impacts of the delay including removing the cause of the delay as promptly as practicable such that the Time Schedule is maintained and that acceleration efforts, if requested by the Authority, are minimized.

PART G – SUSPENSION AND TERMINATION

SECTION 52
NON-DEFAULT SUSPENSION/TERMINATION

52.1 Notwithstanding that the Design-Builder may not be in default of the terms of this Agreement, if conditions arise which in the Authority's reasonable opinion make it necessary, the Authority may suspend performance of the Work or terminate this Agreement by giving 5 days' written notice to that effect to the Design-Builder and the suspension or termination is effective in the manner specified in the notice.

52.2 Without limiting Section 52.1, the Authority may, if it determines that there is an emergency, by notice to the Design-Builder, do either or both of the following:

(a) suspend the Work whenever in its opinion such suspension may be necessary to ensure the safety or life of others or of the Work or neighbouring property; or

(b) make Changes, and order, assess and award the cost of such Changes that are extra to the Contract Price in accordance with Section 48 and Section 49 as determined to be necessary.

52.3 The Authority will within 2 Business Days after a Change under Section 52.2(b) confirm in writing any Change instructions and if a Change has been performed by order of the Authority, the Design-Builder retains its right to claim the value of such Change.

52.4 The Design-Builder upon receiving notice of suspension or termination from the Authority will immediately suspend all operations except those, which, in the Design-Builder's reasonable opinion, are necessary to ensure the safety of personnel and the public or for the care and preservation of the Work and materials. Subject to any directions in the notice of suspension or termination, the Design-Builder will discontinue ordering materials, will not enter into any further Subcontracts (except such Subcontracts as are necessary for the safety of personnel or for the care and preservation of the Work) and will make every reasonable effort in the event of termination to cancel existing Subcontracts and orders on the best terms available.

52.5 During the period of suspension the Design-Builder will not remove from the Site any of the Work, or any material, without the prior written consent of the Authority.

52.6 If the period of suspension is 30 days or less, the Design-Builder, upon the expiration of the period of suspension, will resume the performance of the Work and will be paid for all costs reasonably incurred by the Design-Builder in complying with the suspension, determined in accordance with Section 49 and for costs reasonably incurred for acceleration of the Work so that Substantial Completion is achieved by the Target Substantial Completion Date where the Authority requires such acceleration by written notice to the Design-Builder. If the Authority does not require the acceleration of the Work, or if it is not possible for the Design-Builder, using all reasonable efforts, to achieve Substantial Completion by the Target Substantial Completion Date despite an intended acceleration of the Work, the Authority and the Design-Builder will, acting reasonably, agree on a new Target Substantial Completion Date.

52.7 If the period of suspension is greater than 30 days and, before 120 days after the date of the notice of suspension, the Authority and the Design-Builder agree to continue with and complete the Work, the Design-Builder will resume operations and complete the Work in accordance with any terms and conditions agreed upon by the Authority and the Design-Builder and the Design-Builder will

be paid for all costs reasonably incurred by the Design-Builder in complying with the suspension, determined in accordance with Section 49.

52.8 If the period of suspension is greater than 30 days and the Authority and the Design-Builder do not agree to continue with and complete the Work, or they fail to agree on the terms and conditions upon which the Design-Builder is to resume operations and complete the Work, before 120 days after the date of the notice of suspension, this Agreement will be deemed to have been terminated.

52.9 If this Agreement is terminated pursuant to this Section 52:

(a) the Authority will pay the Design-Builder:

(i) in accordance with this Agreement, for all Work performed and for all of the Design-Builder's obligations under Subcontracts that it was unable to cancel, or asked by the Authority not to cancel, less any payments made by the Authority prior to termination; and

(ii) all costs reasonably incurred by the Design-Builder in complying with the suspension or termination order, determined in accordance with Section 49, less any costs already paid to the Design-Builder pursuant to Section 52.6; and

(b) the Authority will be entitled to:

(i) take possession of the Work or any part of the Work;

(ii) take possession of the Drawings and Specifications and make use of them in accordance with the rights granted under this Agreement; and

(iii) finish the Work or any part of the Work by whatever reasonable method the Authority may consider expedient.

52.10 The Design-Builder's obligations as to quality, correction and warranty of any portion of the Work performed prior to termination continue in force after termination under this Section 52.

52.11 The Design-Builder, by giving written notice to the Authority, may suspend performance of the Work to the extent the Work is stopped for a period in excess of 30 days by an order of any court or public authority having jurisdiction through no act or fault of the Design-Builder, its Subcontractors or for anyone whose acts the Design-Builder may be held liable.

SECTION 53
DEFAULT AND TERMINATION OF AGREEMENT

53.1 The Authority may give written notice to the Design-Builder of default under this Agreement if the Design-Builder:

(a) is adjudged bankrupt, makes a general assignment for the benefit of creditors, or a receiver is appointed on account of its insolvency, or fails to make payment to creditors when payment is due;

(b) abandons the Work;

(c) breaches a material term of this Agreement;

(d) makes a material misrepresentation of a representation or warranty set out in this Agreement;

(e) has delivered a statutory declaration in support of application for a payment under this Agreement that was false or materially inaccurate; or

(f) has made an assignment of this Agreement without the required consent of the Authority.

53.2 If a default referred to in Section 53.1 occurs, other than a default referred to in Section 53.1(a) or 53.1(b), the Design-Builder will remedy the default within a 7 day rectification period after the notice given under Section 53.1. If the nature of such default is that it cannot be remedied within such 7 day period, the Design-Builder will within such 7 day period provide the Authority with a schedule acceptable to the Authority for remedying the default and the Design-Builder will remedy the default in accordance with that schedule.

53.3 If a default referred to in Section 53.1(a) or 53.1(b) occurs or if the Design-Builder fails to remedy any other default within the rectification period described in Section 53.2 or in accordance with the schedule acceptable to the Authority, the Authority may without prejudice to any other right or remedy exercise any or all of the following:

(a) suspend all or part of the Work;

(b) terminate the Design-Builder's right to continue with the Work in whole or in part;

(c) remedy the default and deduct the cost thereof from any payment then or thereafter due to the Design-Builder; and

(d) terminate this Agreement.

53.4 If the Authority terminates the right to continue with all or part of the Work or terminates this Agreement pursuant to Section 53.3, the Authority will be entitled to:

(a) take possession of the Work or any part of the Work;

(b) take possession of the Drawings and Specifications and make use of them in accordance with the rights granted under this Agreement;

(c) use construction machinery and equipment, subject to the rights of third parties;

(d) finish the Work or any part of the Work by whatever reasonable method the Authority may consider expedient;

(e) charge the Design-Builder the amount by which the full cost of finishing the Work and a reasonable allowance to cover the cost of corrections to Work performed by the Design-Builder that may be required under Section 38 exceeds the unpaid balance of the Contract Price; and

(f) on expiry of the Warranty Period, charge the Design-Builder the amount by which the cost of corrections to Work under Section 38 exceeds the allowance provided for such

corrections, or reimburse the Design-Builder with the portion of the allowance unspent on the cost of corrections to the Work under Section 38 as applicable.

53.5 The termination of the right to continue with part of the Work does not relieve or discharge the Design-Builder from any obligations under this Agreement, except the obligation to perform the part of the Work removed from the Design-Builder.

53.6 The rights, powers and remedies conferred on the Authority under this Agreement are not intended to be exclusive but are cumulative, are in addition to, do not limit and are not in substitution for any other right, power and remedy existing under this Agreement, under any other agreement, at law or in equity. The exercise by the Authority of any right, power or remedy does not preclude the simultaneous or later exercise by the Authority of any other right, power or remedy.

SECTION 54
TERMINATION BY THE DESIGN-BUILDER

54.1 The Design-Builder may by giving written notice to the Authority declare the Authority in default of this Agreement for any of the following reasons:

(a) the Authority has failed to pay the Design-Builder within 45 days of the date that any payment becomes due to the Design-Builder in accordance with the terms of this Agreement, unless the Authority is bona fide disputing liability to make such payment and has provided notice to the Design-Builder of the basis for its dispute before the time provided in Section 40.10 for payment of invoices;

(b) the Authority has failed to substantially supply the Site to the Design-Builder, subject to any property availability restrictions identified in this Agreement, within 180 days following the Site Occupation Date; or

(c) substantially all of the Work is stopped by an order of any court or public authority having jurisdiction (providing that such order was not issued as the result of any act or fault of the Design-Builder or a Subcontractor) for a period of 90 days.

54.2 If a default referred to in Section 54.1 occurs, the Authority will remedy the default within a 21 day rectification period after the notice given under Section 54.1 or within such extension thereof established by the Design-Builder.

54.3 If the Authority fails to remedy the default within the rectification period described in Section 54.2 or any extension thereof established in accordance with that Section, the Design-Builder may exercise any or all of the following:

(a) waive the default;

(b) further extend the rectification period;

(c) suspend the Work; and

(d) terminate this Agreement.

54.4 If the Design-Builder terminates this Agreement in accordance with Section 54.3(d), the Design-Builder is entitled to be paid:

(a) in accordance with the terms of this Agreement for all Work satisfactorily performed to the date of termination; and

(b) expenses of the Design-Builder that are directly related to the termination and reasonable in the circumstances including the Design-Builder's obligations to other parties.

PART H – REPRESENTATIONS AND WARRANTIES

SECTION 55
REPRESENTATIONS AND WARRANTIES

55.1 The Design-Builder represents and warrants to the Authority:

(a) as of the Effective Date that:

(i) all necessary proceedings have been taken to authorize the Design-Builder to enter into this Agreement and to execute and deliver this Agreement;

(ii) this Agreement has been properly executed by an authorized signatory of the Design-Builder and is enforceable against the Design-Builder in accordance with its terms;

(iii) the Design-Builder has had sufficient time, opportunity and resources to investigate and has investigated and satisfied itself of the labour, equipment, material and other resources that may be necessary for the performance of the Work in a manner that will meet or exceed all requirements of this Agreement;

(iv) the Design-Builder has no knowledge of any fact that materially adversely affects or, so far as it can foresee, might materially adversely affect either its financial condition or its ability to fulfill its obligations under this Agreement;

(v) there is no bona fide proceeding pending or threatened against the Design-Builder, which would, if successful, materially adversely affect the ability of the Design-Builder to fulfill its obligations under this Agreement; and

(vi) the Design-Builder acknowledges that it has the responsibility for informing itself of all aspects of the Project and all information necessary to perform the Work; and

(b) as of the Effective Date (to the extent applicable as of the Effective Date) and at all times throughout the Term that:

(i) the Design-Builder has filed all tax, corporate information and other returns required to be filed by all applicable Laws, has complied with all workers' compensation legislation and other similar legislation to which it is subject, and has paid all taxes, fees and assessments due by the Design-Builder under those laws as of the Effective Date, except for Lien Holdback monies properly retained,

payments deferred by agreement and accounts withheld by reason of legitimate dispute;

(ii) the Design-Builder holds all permits, licences, consents and authorities issued by any level of government, or any agency of any level of government, that are required by all applicable Laws to perform the Work;

(iii) the Design-Builder has paid, as they became due, all accounts, expenses, wages, salaries, taxes, rates, fees and assessments required to be paid by it in respect of the Work and fulfillment of its obligations under this Agreement;

(iv) the Design-Builder is not in breach of any Law that is material to performance of the Design-Builder's obligations under this Agreement;

(v) the Key Individuals or any substitute with equivalent qualifications proposed by the Design-Builder who have first been expressly accepted in writing by the Authority will be available and fully involved in the performance of the Work; and

(vi) the Design-Builder is registered for the purposes of the GST.

55.2 The Authority represents and warrants to the Design-Builder as of the Effective Date that:

(a) it has been properly constituted pursuant to applicable legislation;

(b) it has been properly authorized to fulfill the obligations of the Authority under this Agreement; and

(c) it has the power, capacity and authority to enter into this Agreement and to carry out its obligations under this Agreement.

PART I – PROTECTION AND INDEMNITY

SECTION 56
PROTECTION OF WORK AND PROPERTY

56.1 The Design-Builder will protect the Work, the Site and property adjacent to the Site from damage that may arise as the result of the Design-Builder's operations under this Agreement, and will be responsible for such damage, except damage that occurs as the result of actions of the Authority, its agents, employees or Other Contractors.

56.2 Should any damage occur to the Work, the Site and property adjacent to the Site for which the Design-Builder is responsible as provided in Section 56.1, the Design-Builder will make good such damage at its own expense or pay all costs incurred by the Authority or others in making good such damage.

56.3 Should any damage occur to the Work, the Site and property adjacent to the Site for which the Design-Builder is not responsible as provided in Section 56.1, the Design-Builder will at the Authority's direction and expense make good such damage. The Contract Price and Contract Time will be adjusted in accordance with Section 48 and Section 49.

SECTION 57
EXCLUSIONS OF LIABILITY

57.1 Neither the Design-Builder nor the Authority will be liable to the other for any consequential or indirect damages in connection with this Agreement, whether based in contract, tort (including negligence), strict liability or otherwise and including loss of use, loss of revenues or profits and loss of opportunity. This Section 57.1 will not limit any liability the Design-Builder may have under this Agreement to pay liquidated damages.

57.2 Subject to Section 57.3 the maximum amount of the total aggregate liability of the Design-Builder to the Authority in connection with this Agreement, whether based in contract, tort (including negligence), strict liability or otherwise, is:

(a) in respect of a loss by the Indemnified Parties for which insurance is to be provided by the Authority under Section 1 or Section 3 of Schedule 4 - Insurance Conditions, the applicable limit or sub-limit of the Wrap-up Liability coverage or the Course of Construction coverage, whichever is applicable to the loss, with such limit or sub-limit calculated without reduction for the amount of any deductible; or

(b) in respect of any liability other than a loss referred to in Section 57.2(a) above, 50% of the Contract Price.

If this Agreement is terminated, the reference in this Section 57.2 to the "Contract Price" will be deemed only for purposes of this Section 57.2 to be the amount to which the Design-Builder would have been entitled if the Design-Builder had properly performed and completed the Work and this Agreement had not been terminated.

57.3 Section 57.2 will not limit the Design-Builder's liability in connection with:

(a) fraud, gross negligence or wilful, fraudulent or criminal misconduct;

(b) bodily injury, sickness, disease or death;

(c) liability to third parties in respect of tangible personal or real property;

(d) breach by the Design-Builder of its obligations of confidentiality under this Agreement; and

(e) penalties, fines or other liability imposed by a governmental authority, an administrative tribunal or a court of competent jurisdiction for breach of applicable Law.

57.4 Nothing in this Section 57 will be construed to limit the liability of an insurer under the insurance required to be maintained under this Agreement.

SECTION 58
INDEMNIFICATION

58.1 The Design-Builder will indemnify and save harmless the Authority and its officers, employees, representatives, consultants and agents including the Authority's Representative (collectively the "**Indemnified Parties**") from and against any and all losses, claims, damages, actions, causes of action, costs and expenses (including actual legal and other professional fees and disbursements)

that any of the Indemnified Parties may sustain, incur, suffer or be put to at any time either before or after the expiration or termination of this Agreement, where the same or any of them are based upon, arise out of or occur, directly or indirectly, by reason of any act or omission of the Design-Builder or of any representative, agent, employee, officer, director, consultant of the Design-Builder or of any Subcontractor, excepting only liability to the extent arising out of the independent acts of the Indemnified Parties.

58.2 The obligations of the Design-Builder under Section 58 will not be affected by completion or termination of this Agreement, whether for default or otherwise, or suspension of the Work or any withdrawal of services or labour from the Project.

58.3 Neither the requirement of the Design-Builder to purchase and maintain insurance as described in the Insurance Conditions nor the acceptance of evidence of such insurance by the Authority will, in any manner, limit or qualify the right of the Authority to make a claim and recover insurance proceeds under the insurance policies described in the Insurance Conditions or the liability and obligations otherwise assumed by the Design-Builder under this Agreement.

SECTION 59
DESIGN-BUILDER'S DISCHARGE OF LIABILITY

59.1 The Design-Builder will discharge all liabilities incurred by it, including for labour, equipment, materials or services used or reasonably required for use, in the performance of this Agreement, on or before the date each becomes due. In the case of bona fide disputed payments, the Design-Builder will discharge such liabilities when legally obliged to do so.

59.2 The Design-Builder will include as a condition of every Subcontract that the Subcontractor discharge all liabilities incurred by it, including for labour, equipment, materials, supplies or services used or reasonably required for use, in the performance of the Subcontract, on or before the date upon which each becomes due. In the case of bona fide disputed payments, the Design-Builder will discharge such liabilities when legally obliged to do so.

59.3 The Design-Builder will furnish the Authority with satisfactory evidence that its liabilities and those of Subcontractors have been discharged, such satisfactory evidence to be a statutory declaration in the form of CCDC 9A sworn by a knowledgeable officer or senior management employee of the Design-Builder or Subcontractor, as the case may be, or such other evidence as the Authority may require.

59.4 With the exception of any claim of builder's lien, builder's liens or certificates of pending litigation that arise due to an improper non-payment by the Authority, the Design-Builder will not directly or indirectly create, incur, assume or allow to be created by any of its Subcontractors or workers any lien, charge or encumbrance on the Site, Project or any part thereof or interest therein. The Design-Builder will immediately notify the Authority of any lien, charge or encumbrance asserted upon the Site, Project or any part thereof.

PART J – SECURITY, RECORDS, REPORTS AND AUDIT

SECTION 60
BONDS

60.1 Before commencing the Work, the Design-Builder will purchase and deliver to the Authority an executed performance bond and an executed labour and materials payment bond (the "**Bonds**").

The form of the Bonds will be in accordance with the latest edition of the CCDC approved bond form or in substantially equivalent form acceptable to the Authority.

60.2 Each Bond under Section 60.1 will be in the amount of 50% of the Contract Price and will be issued by a surety licensed to transact the business of a surety in British Columbia and acceptable to the Authority, acting reasonably.

60.3 Upon entering into a Subcontract with a Subcontractor, the Design-Builder will advise the Subcontractor that a labour and materials payment Bond is in effect and will supply a copy of that Bond to the Subcontractor on request.

60.4 The Design-Builder will pay for and maintain the Bonds in force during the Term.

60.5 If the surety notifies either party that the Bonds are or are going to be terminated or cancelled for any reason whatsoever, the Design-Builder will obtain and provide the Authority with valid bonds effective from the date of termination or cancellation of the original bonds that comply with the bonding requirements of this Agreement.

60.6 The Design-Builder will, if required by the surety, obtain the written consent of the surety to any Change and will upon request by the Authority provide confirmation from the surety of such consent or confirmation from the surety that such consent is not required.

60.7 For greater certainty, the amount of the Bonds and any claim under the Bonds will not limit the Authority from seeking additional claims, damages, or remedies the Authority may be entitled to by reason of the Design-Builder's failure to successfully complete the Agreement in accordance with its terms and conditions.

SECTION 61
INSURANCE

61.1 The Authority and the Design-Builder will obtain and maintain during the Term the insurance specified for each of them under the Insurance Conditions, and will otherwise comply with the Insurance Conditions.

61.2 Before beginning the Work, the Design-Builder will deliver to the Authority certified copies of all insurance coverage obtained by the Design-Builder in accordance with the Insurance Conditions, or such other proof of that insurance as is satisfactory to the Authority, acting reasonably.

SECTION 62
RECORDS AND AUDIT

62.1 The Design-Builder will, in connection with this Agreement retain for a minimum of 6 years after the expiry of the Warranty Period all records, reports, and other documentation required under this Agreement and the following records, reports and other documentation relating to the Project whether or not required under other provisions of this Agreement:

(a) all documents relating to permits;

(b) all notices, reports, results and certificates relating to completion of the Design and Construction and completion of all commissioning activities;

(c) all records relating to any inspections of the Facility conducted under applicable Laws or by or of any governmental authority;

(d) all orders or other requirements issued to the Design-Builder by any governmental authority in connection with the Work;

(e) all documents relating to applications for payment, Changes or delay or other claims by the Design-Builder.

The Design-Builder will permit the Authority and its consultants and representatives to inspect and copy any or all such records, reports and other documentation.

62.2 Without limiting the other provisions of this Agreement, the Design-Builder will provide to the Authority and its consultants and representatives all records, reports and other documentation reasonably required by the Authority to support any applications for payment, Changes or delay or other claims by the Design-Builder.

62.3 The Authority and its consultants and representatives may on request, and acting reasonably, audit all books and records of the Design-Builder that relate to any applications for payment, Changes or delay or Disputes or other claims by the Design-Builder.

62.4 The Design-Builder will fully cooperate with the Authority to conduct an audit pursuant to this Section 62.

PART K – DISPUTE RESOLUTION

SECTION 63
DISPUTE RESOLUTION

63.1 All Disputes will be resolved in accordance with the Dispute resolution process set out in this Section 63.

63.2 The Dispute resolution process set out in this Section 63 may be commenced by either party by giving notice to the other party briefly setting out the pertinent facts, the remedy or relief sought and the grounds on which such remedy or relief is sought.

63.3 Within 7 days of a notice under Section 63.2, the Design-Builder's Representative and the Authority's Representative will:

(a) make bona fide efforts to resolve any Dispute arising between them by amicable negotiations; and

(b) provide frank, candid and timely disclosure of all relevant facts, information and documents, including full written particulars of the nature, entitlement and magnitude of any Dispute including the relevant provisions of this Agreement.

63.4 If the Authority's Representative and the Design-Builder's Representative fail to resolve the Dispute within 10 days after receipt of the notice pursuant to Section 63.3, the parties will refer the Dispute and all information to a nominated senior officer of the Authority and a nominated senior officer of the Design-Builder for resolution.

63.5 If the nominated senior officer of the Authority and the nominated senior officer of the Design-Builder fail to resolve the Dispute within 10 days after the Dispute has been referred to them, unless otherwise agreed in writing by the parties, either party may refer the Dispute to the Authority's Consultant by notice in writing to both the Authority's Consultant and to the other party. The Authority will require the Authority's Consultant to give a decision in writing and within a reasonable period of time. Both parties reserve their rights to dispute the decision of the Authority's Consultant.

63.6 Where either or both parties dispute the Authority's Consultant's decision made pursuant to Section 63.5, the parties will abide by the Authority's Consultant's decision until such time as the Dispute is finally resolved under the other provisions of this Section 63.

63.7 If either party disputes the Authority's Consultant's decision made pursuant to Section 63.5, or if the Authority's Consultant's decision is not made within a reasonable period of time, either party may elect to give notice of its intention to submit the Dispute to binding arbitration. If within 10 days of such notice the other party does not give a notice of objection to arbitration, the Dispute will be resolved by arbitration. The Dispute will be referred to a single arbitrator and finally resolved by binding arbitration under the rules of the Vancouver International Arbitration Centre. The arbitrator will be chosen by mutual agreement between the Design-Builder and the Authority. If an arbitrator has not been appointed within 14 days of the date that the Dispute has been referred to an arbitrator, the arbitrator will be appointed by the Vancouver International Arbitration Centre.

63.8 Prior to receiving a notice of intention to submit a Dispute to binding arbitration or after giving a notice of objection to arbitration in accordance with Section 63.7 a party may commence proceedings in respect of the Dispute in the courts of British Columbia and serve the other party as required in respect of such proceedings.

63.9 Any of the times specified in this Section 63 may be varied by mutual agreement between the Design-Builder's Representative and the Authority's Representative.

63.10 Pursuit of the resolution of a Dispute under any part of this Section 63 does not relieve either party of its responsibility to ensure timely performance of its obligations under this Agreement. In relation to all Disputes, whether or not a notice under Section 63.2 has been given, the Design-Builder will diligently proceed with the Work and closely track all costs and impacts associated with the Dispute and may reserve its rights concerning the Dispute.

PART L – GENERAL PROVISIONS

SECTION 64
LAWS, NOTICE, PERMITS AND FEES

64.1 The Design-Builder will perform the Work in accordance with all applicable Laws and Standards and will comply with all Laws and Standards that may affect or relate to the Work.

64.2 The Design-Builder will apply for (except to the extent that the Authority has applied for a partial building permit prior to the Effective Date), pay for and obtain the building permit, the occupancy permit and all other permits, licences and approvals required for the performance of the Work. When requested to do so by the Design-Builder, the Authority may at its discretion provide reasonable assistance to the Design-Builder in obtaining permits, licences, and approval required for the performance of the Work but, in no circumstance will the Authority be required to incur any costs or make any payments pursuant to this Section.

64.3 All applicable Laws in force in British Columbia, as amended from time to time, govern the Work.

64.4 Except as otherwise provided in this Agreement, if after:

(a) the Financial Submission Date a COVID-19 Change in Law comes into effect;

(b) the Financial Submission Date an Epidemic Change in Law comes into effect; or

(c) the Financial Submission Date a change to applicable Laws or Standards comes into effect,

either party will be entitled to make a claim for an adjustment in the Contract Price or the Contract Time as a Change.

SECTION 65
INTELLECTUAL PROPERTY FEES

65.1 The Design-Builder will obtain and pay for all intellectual property rights (including of any patent, copyright, industrial design, trademark or trade secret) all royalties and licence fees required for the performance of the Work and will, without limiting Section 58, indemnify and hold the Authority harmless from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Design-Builder's performance of the Work under this Agreement that are attributable to infringement or an alleged infringement of any intellectual property right by the Design-Builder or its Subcontractors or anyone for whose acts the Design-Builder may be liable.

SECTION 66
CONFIDENTIALITY AND COMMUNICATIONS

66.1 Subject to Section 66.2, each party will hold in confidence any Confidential Information received from the other party, except that this Section 66 will not restrict:

(a) the Design-Builder from disclosing or granting access to such information to its professional advisors and consultants, to the extent necessary, to enable it to perform (or to cause to be performed) or to enforce its rights or obligations under this Agreement and provided further that the Design-Builder may, subject to obtaining confidentiality restrictions similar to those set out in this Agreement, provide to a Subcontractor and its advisors, or provide or cause to be provided to other third parties, Confidential Information which is necessary to enable the Design-Builder to perform (or to cause to be performed) its obligations under this Agreement; and

(b) the Authority from disclosing or granting access to such information to any provincial ministry, Infrastructure BC Inc. and any other governmental authority which require the information in relation to the Project;

66.2 Subject to any restrictions on the Confidential Information which are imposed by a third party that may own any Confidential Information, the obligation to maintain the confidentiality of the Confidential Information does not apply to:

(a) Confidential Information which the party that disclosed the Confidential Information confirms in writing is not required to be treated as Confidential Information;

(b) Confidential Information which is or comes into the public domain otherwise than through any disclosure prohibited by this Agreement;

(c) Confidential Information to the extent any person is required to disclose such Confidential Information by Law, including a disclosure required under FIPPA;

(d) Confidential Information to the extent consistent with any Authority's policy concerning the Authority's Confidential Information, the details of which have been provided to the Design-Builder in writing prior to the disclosure; or

(e) the material referred to in Section 18.5 and any Confidential Information that the Authority is entitled to receive from the Design-Builder pursuant to this Agreement.

66.3 Without prejudice to any other rights and remedies that the other party may have, each of the parties agrees that damages may not be an adequate remedy for a breach of Section 66.1 and that the other party will, in such case, be entitled to the remedies of injunction, specific performance or other equitable relief for any threatened or actual breach of Section 66.1 subject, in the case of a claim for any such remedy against the Authority, to the provisions of the *Crown Proceeding Act* (British Columbia).

66.4 Unless required by any Law, neither party will make or permit to be made any public announcement or disclosure whether for publication in the press, radio, television or any other medium of any Confidential Information, without the consent of the other party (which will not be unreasonably withheld or delayed).

66.5 Except to the extent required for compliance with any applicable securities laws, the Design-Builder will not make any public announcement relating to the Project or this Agreement without the prior written consent of the Authority. The Design-Builder, with the prior written consent of the Authority, may include the Project in its promotional materials.

66.6 The Design-Builder acknowledges that the Authority may, in its discretion and without consultation with the Design-Builder, make any public announcement relating to the Project.

66.7 The parties will comply with Schedule 5 – Communication Roles.

SECTION 67
NOTICE

67.1 Any notice or communication required or permitted to be given under this Agreement will be in writing and will be considered to have been sufficiently given if delivered by hand or transmitted by electronic transmission to the address or electronic mail address of each party set out below:

(a) if to the Authority:

Northern Health Authority
c/o Infrastructure BC
1220-800 West Pender Street
Vancouver, BC
V6C 2V6

Attention: Nathan Salomon, Project Director
Email: Nathan.Salomon@infrastructurebc.com

(b) if to the Design-Builder:

Graham Design Builders LP
Suite 110, 115 Quarry Park Road SE,
Calgary, AB,
T2C 5G9

Attention: Dave Corcoran, Vice-President, Healthcare
Email: Dave.Corcoran@graham.ca

or to such other address or electronic mail address as any party may, from time to time, designate in the manner set out above.

67.2 Any such notice or communication will be considered to have been received:

(a) if delivered by hand during business hours (and in any event, at or before 5:00 pm local time in the place of receipt) on a Business Day, upon receipt by a responsible representative of the receiver, and if not delivered during business hours, upon the commencement of business hours on the next Business Day; and

(b) if sent by electronic transmission during business hours (and in any event, at or before 5:00 pm local time in the place of receipt) on a Business Day, upon receipt, and if not delivered during business hours, upon the commencement of business hours on the next Business Day, provided that:

(i) the receiving party has, by electronic transmission or by hand delivery, acknowledged to the notifying party that it has received such notice; or

(ii) within 24 hours after sending the notice, the notifying party has also sent a copy of such notice to the receiving party by hand delivery.

67.3 Delivery by mail will not be considered timely notice under this Agreement.

67.4 In the event of an emergency or urgent matter, in addition to the notice required by this Section 67, a verbal notice will be given as soon as the party giving the notice becomes aware of any material event or circumstance that gives rise to the requirement for a written notice being given.

SECTION 68
LEGAL RELATIONSHIP

68.1 The Design-Builder is an independent contractor and not the servant, employee, partner or agent of the Authority.

68.2 The Design-Builder will not commit the Authority to the payment of any money to any person.

68.3 No partnership, joint venture or agency involving the Authority is created by this Agreement or under this Agreement.

68.4 All personnel engaged by the Design-Builder to design and construct the Project are at all times the employees or Subcontractors of the Design-Builder and not of the Authority. The Design-Builder is solely responsible for all matters arising out of the relationship of employer and employee.

SECTION 69
ASSIGNMENT

69.1 The Design-Builder will not, without the prior written consent of the Authority, assign, either directly or indirectly, any right or obligation of the Design-Builder under this Agreement.

69.2 The Authority may, upon notice to the Design-Builder, assign any or all of its rights or obligations under this Agreement to any other agency or organization that will assume responsibility for the operation of the Facility. Subject to the foregoing and subject to the right of assignment of the licence referred to in Section 18.5, the Authority will not, without the prior written consent of the Design-Builder, assign, either directly or indirectly, any right or obligation of the Authority under this Agreement.

SECTION 70
INTEREST

70.1 If payment by either party of any amount payable under this Agreement is not made when due, interest will be payable on such amount at 2% per annum over the prime rate, calculated from the date due under this Agreement until paid, compounded monthly. The party to whom payment is owed and overdue will notify the other party at least monthly of the overdue amount and the accrued interest on that amount. The prime rate is the annual rate of interest announced by the Royal Bank of Canada (or its successor), or any other Canadian chartered bank agreed to by the parties, as its "prime" rate then in effect for determining interest rates on Canadian dollar commercial loans made by it in Canada.

SECTION 71
WAIVER

71.1 No waiver by either party of a right of that party or any breach by the other party in the performance of any of its obligations under this Agreement is effective unless it is in writing.

71.2 No waiver of any right or obligation is a waiver of any other right or obligation under this Agreement.

71.3 Failure or delay to complain of an act or failure of the other party or to declare the other party in default, irrespective of how long the failure or delay continues, does not constitute a waiver by the party of any of its rights against the other party.

71.4 The duties and obligations imposed by this Agreement and the rights and remedies available hereunder will be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by Law.

SECTION 72
ASSUMPTION OF RISK

72.1 Except to the extent expressly allocated to the Authority or otherwise provided for under this Agreement, all risks, costs and expenses in relation to the performance by the Design-Builder of its

obligations under this Agreement are allocated to, and accepted by, the Design-Builder as its entire and exclusive responsibility.

SECTION 73
GENERAL DUTY TO MITIGATE

73.1 In all cases where the Design-Builder is entitled to receive from the Authority any additional compensation or any costs, damages or extensions of time, the Design-Builder will use all reasonable efforts to mitigate such amount required to be paid by the Authority to the Design-Builder under this Agreement, or the length of the extension of time. Upon request from the Authority, the Design-Builder will promptly submit a detailed description, supported by all such documentation as the Authority may reasonably require, of the measures and steps taken by the Design-Builder to mitigate and meet its obligations under this Section 73.

SECTION 74
OTHER PROVISIONS

74.1 The exclusions, waivers and limitations of liability, representations and warranties and indemnities in this Agreement, the provisions of Section 62, Section 63, Section 65, Section 66 and rights accrued prior to completion or termination of this Agreement will survive the completion or termination of this Agreement.

74.2 This Agreement constitutes the entire agreement between the parties, expressly superseding all prior agreements and communications (both oral and written) between any of the parties hereto with respect to all matters contained herein or therein, and except as stated herein or the instruments and documents to be executed and delivered pursuant hereto, contains all the representations and warranties of the respective parties.

74.3 No waiver of any provision of this Agreement and no consent required pursuant to the terms of this Agreement is binding or effective unless it is in writing and signed by the party providing such waiver or consent.

74.4 No failure to exercise, and no delay in exercising, any right or remedy under this Agreement will be deemed to be a waiver of that right or remedy. No waiver of any breach of any provision of this Agreement will be deemed to be a waiver of any subsequent breach of that provision or of any similar provision.

74.5 This Agreement enures to the benefit of and binds the Authority, its successors and its assigns and the Design-Builder and its successors and permitted assigns.

74.6 The parties must do everything reasonably necessary to give effect to the intent of this Agreement, including execution of further instruments.

74.7 The Design-Builder and the Authority will take all reasonable and necessary steps to minimize and avoid any unnecessary costs or impacts arising out of or relating to the performance of the Work or this Agreement.

74.8 Neither the Authority nor the Design-Builder will take advantage of any apparent discrepancy, ambiguity, error or omission in this Agreement and will notify the other party forthwith following the detection of anything it suspects may be an ambiguity, discrepancy, error or omission.

74.9 Each Schedule attached to this Agreement is an integral part of this Agreement as if set out at length in the body of this Agreement.

74.10 This Agreement may only be amended by an agreement of the parties in writing. No such amendments will be valid unless executed by the Authority and the Design-Builder.

74.11 This Agreement will be deemed to be made pursuant to the Laws of the Province of British Columbia and the Laws of Canada applicable therein and will be governed by and construed in accordance with such Laws.

74.12 For the purposes of any legal actions or proceedings brought by any party hereto against the other party, the parties hereby irrevocably submit to the exclusive jurisdiction of the courts of the Province of British Columbia and acknowledge their competence and the convenience and propriety of the venue and agree to be bound by any judgment thereof and not to seek, and hereby waive, review of its merits by the courts of any other jurisdiction.

74.13 Where the Design-Builder is a joint venture, partnership or consortium, each member agrees to be jointly and severally liable for the obligations of the Design-Builder.

74.14 Time is of the essence of this Agreement.

74.15 This Agreement may be executed in any number of counterparts, each of which will be deemed to be an original, and this has the same effect as if the signatures on the counterparts were on a single copy of this Agreement so that it will not be necessary in making proof of this Agreement to produce or account for more than one such counterpart.

74.16 A party may deliver an executed copy of this Agreement by facsimile or other electronic means but that party will immediately deliver to the other parties an originally executed copy of this Agreement.

[Signature Pages to Follow]

IN WITNESS WHEREOF the parties have executed this Agreement as of the Effective Date.

NORTHERN HEALTH AUTHORITY, by its authorized signatory:

Per: _____
Name: Cathy Ulrich
Title: President & CEO

GRAHAM DESIGN BUILDERS LP, by and through its general partner, **GRAHAM DESIGN BUILDERS LTD**., by its authorized signatory,

Per: _____

Dave Corcoran
Vice President, Healthcare

SCHEDULE 1

STATEMENT OF REQUIREMENTS

See separate document.

SCHEDULE 2

REVIEW PROCEDURE

1. SUBMITTAL SCHEDULE

1.1 The parties agree that the preliminary schedule for Submittals (the "**Submittal Schedule**") is included in the Time Schedule that is included in the Proposal Extracts, and that the Submittal Schedule will conform to the requirements identified in Sections 15 and 16 of the Design-Build Agreement. The Submittal Schedule may be amended by agreement of the parties in accordance with the terms of this Section 1. Any amendment to the Submittal Schedule will provide for a progressive and orderly flow of Submittals from the Design-Builder to the Authority as appropriate to allow sufficient time for review of each Submittal by the Authority, taking into account both the resources necessary to be available to the Authority to conduct such review and any user group consultations.

1.2 Unless a longer period is required by this Agreement or is otherwise reasonably required by the Authority, the Submittal Schedule will allow a minimum of:

(a) 15 Business Days for the Authority's review of Submittals submitted in relation to the Design pursuant to this Schedule, or

(b) 10 Business Days for the Authority's review of other Submittals,

from the date of receipt for review of and response to each Submittal, provided that if the Design-Builder has made major changes to the grouping and volume of Submittals, such period of time will be adjusted, acting reasonably, taking into account the factors set forth in this Section 1.

1.3 The Design-Builder will in scheduling Submittals and in the performance of the Design and the Construction, allow adequate time prior to performing the Design and the Construction that are the subject of the Submittals, for review of the Submittals and for the Design-Builder to make changes to the Submittals, the Design and the Construction that may be required if comments are received on the Submittals.

1.4 If the Submittal Schedule indicates that a large number of Submittals will be made at one time, the Authority may request a longer period for review or a staggering of the Submittals, and the Design-Builder will revise the Submittal Schedule accordingly, taking into account both the availability of resources required by the Authority to conduct such review and whether delay in the review of the subject matter of the Submittal will have a material impact on the Design-Builder's ability to progress future anticipated Submittals and the Design or Construction in accordance with the Time Schedule.

1.5 The Design-Builder will submit the Submittal Schedule, including amendments prior to the start of Construction and, subsequently, to the Authority on a monthly basis until Substantial Completion is achieved.

1.6 All amended Submittal Schedules will be required to meet all the requirements of this Section 1.

1.7 The Design-Builder will submit all Submittals to the Authority in accordance with the current amended Submittal Schedule.

1.8 The Design-Builder will bear the risk of delays and additional costs caused as a result of the late submission of Submittals to the Authority, by Submittals which are rejected and required to be re-submitted in accordance with the terms of this Schedule 2 – Review Procedure, or by changes in the Design and Construction required as a result of comments made pursuant to this Schedule 2 – Review Procedure.

2. GENERAL REQUIREMENTS FOR SUBMITTALS

2.1 Unless otherwise specified by this Agreement or by the Authority, the Design-Builder will issue an electronic copy of each Submittal in .pdf format or other format agreed by the parties acting reasonably. Unless otherwise required by this Agreement or by applicable Law to be signed or sealed at the time the Submittal is first provided to the Authority, upon assignment of the comment "REVIEWED" by the Authority of each Submittal the Design-Builder will issue a paper copy (or an electronically sealed copy if agreed by the Authority) of the Submittal that has been sealed by the Design-Builder's Consultant as required by Section 2.4 below.

2.2 The Design-Builder will compile and maintain a Submittal log that includes the date, contents and status of the submission of all Submittals, including the date, contents and status of the submission of all Submittals, including the date of receipt and content of all returned Submittals and comments thereon.

2.3 All Submittals will be in English.

2.4 All Submittals, and all amended versions of Submittals, required by this Agreement or by applicable Law to be signed or sealed by persons with professional designations (including where applicable by registered professional architects or engineers) will be so signed and, where applicable, sealed, and will include confirmation by such person or persons that the Work proposed by the Submittal meets the requirements of the Agreement, including the Statement of Requirements.

2.5 All Submittals will include all documents to be reviewed and will clearly identify the purpose of the Submittal, the Design-Builder's proposed course of action relating to the Submittal and the Design and the Construction that are the subject of the Submittal.

2.6 All Submittals will refer to the relevant provisions of Schedule 1 – Statement of Requirements and to any matter that has previously been subject to review. All Submittals will:

(a) be clearly identified as a Submittal and will be delivered with appropriate covering documentation, which will include a list of all attached Submittals and for each Submittal the document number(s) or drawing number(s);

(b) include revision numbers (if applicable);

(c) include document or drawing title(s);

(d) include name of entity that prepared the Submittal;

(e) include details of the Submittal log showing date and delivery information and/or log number of all previous submissions of that Submittal; identification of any previous

Submittal superseded by the current Submittal, and a description of the portions of the Submittal that are the subject of review.

(f) state the purpose of the submittal or portions of the submittal and provide clarification regarding any portions of the submittal that are not intended to be reviewed.

3. COMMENTS

3.1 The Authority will review and respond to each Submittal in accordance with the applicable time periods for the Submittal.

3.2 The Authority will return Submittals to the Design-Builder and assign one of the following comments:

(a) "REVIEWED";

(b) "CORRECT DEFICIENCIES";

(c) "REJECTED"; or

(d) "NOT-REVIEWED".

3.3 The comment "REVIEWED" will be assigned to those Submittals that, in the opinion of the Authority, acting reasonably, conform to the requirements of this Agreement. The Design-Builder will comply with and implement such Submittals.

3.4 The comment "CORRECT DEFICIENCIES" will be assigned to those Submittals that, in the opinion of the Authority, acting reasonably, generally conform to the requirements of this Agreement, but in which minor deficiencies have been found and identified by the Authority's review. The Design-Builder will, to the extent necessary, correct these Submittals and provide a copy of such Submittals to the Authority before the Design-Builder implements the portions of such Submittals that have received comments, but may proceed on the portions of such Submittals that have not received comments. The Design-Builder will comply with and implement such corrected Submittals. If at any time it is discovered that the Design-Builder has not corrected the deficiencies on Submittals that were correctly stamped "CORRECT DEFICIENCIES", then the Design-Builder will be required to modify the Submittals, the relevant Design and the Construction as required to correct the deficiencies and the Design-Builder may be required, at the Authority's discretion, acting reasonably, to resubmit relevant Submittals.

3.5 The comment "REJECTED" will be assigned to those Submittals that, in the opinion of the Authority, acting reasonably, contain significant deficiencies or do not conform with the requirements of this Agreement, including this Schedule 2 – Review Procedure. The Design-Builder will correct and re-submit these Submittals within 10 Business Days after the comment has been provided to the Design-Builder. The Authority will then review such corrected Submittals and assign a comment to the corrected Submittal. The Submittals will be corrected, revised and resubmitted as often as may be required to obtain a comment that permits the Design-Builder to proceed. Except with the written consent of the Authority, the Design-Builder will not proceed with any Design or Construction to which such Submittals receiving the comment "REJECTED" relate until the Design-Builder obtains a comment that permits the Design-Builder to proceed.

3.6 The comment "NOT-REVIEWED" will be assigned to those Submittals that, in the opinion of the Authority, acting reasonably, are not required to be reviewed pursuant to this Agreement, including this Schedule 2- Review Procedure. The Submittal will be returned to the Design-Builder with no action taken by the Authority.

3.7 The Authority may request additional time for the review of any Submittal, including where the Submittal is voluminous or requires extensive review by representatives (including consultants) of the Authority, and the Design-Builder will extend such time for any reasonable requests by the Authority.

3.8 If the Authority does not respond to a Submittal within the applicable time periods for the Submittal, the Submittal will be deemed "REVIEWED" and the Design-Builder may proceed with and implement the Design and the Construction on the basis set forth in the applicable Submittal without any further action or documentation required.

3.9 Where the Authority issues the comment "CORRECT DEFICIENCIES" or "REJECTED", the Authority will provide reasons for the comment, referencing the particulars of the Section(s) of the Agreement (including the Statement of Requirements) that the Submittal fails to satisfy.

3.10 If at any time after assigning any comment to a Submittal or where Section 3.8 of this Schedule has applied, the Authority or the Design-Builder discovers deficiencies or any failure to conform to the requirements of this Agreement, the Authority may revise the comment assigned to any Submittal. If the parties agree or it is determined in accordance with Section 63 (Dispute Resolution) of the Agreement that the revised comment is correct, the Design-Builder will make all such corrections to the Submittals and the Design and the Construction.

3.11 For the purpose of facilitating and expediting the review and correction of Submittals, the Authority's Representative and the Design-Builder's Representative will meet as may be mutually agreed to discuss and review any outstanding Submittals and any comments thereon.

3.12 In lieu of returning a Submittal, the Authority may by letter notify the Design-Builder of the comment assigned to the Submittal and if such comment is "CORRECT DEFICIENCIES" or "REJECTED" the letter will contain comments in sufficient detail for the Design-Builder to identify the correction sought.

4. USER CONSULTATION PROTOCOL

4.1 The Design-Builder acknowledges that review of the Design by the Authority and consultation with the Facility users is an essential step in the completion of the detailed design of the Facility. Accordingly, the Design-Builder will conduct consultations with representatives of the Facility users (the "**User Consultation Groups**") as described in this Schedule 2 – Review Procedure. The Authority will make reasonable efforts, as requested by the Design-Builder, to assist and support the Design-Builder with the consultation process, but nothing in this Section 4 will be interpreted to give the Authority responsibility for the Design, the Design schedule or the user consultation process.

4.2 The Authority will establish User Consultation Groups that may include the Authority, the Authority's Representatives, employees, agents, contractors and subcontractors, physicians, nurses, other clinicians, patients, visitors, students and volunteers. The Authority may also from time to time include residents, families and neighbours in the user consultation process.

4.3 Unless agreed by the Authority, all aspects of the Design will be subject to review by one or more User Consultation Groups.

4.4 The User Consultation Groups will include a User Consultation Group designated as the "Core User Group" with responsibility for coordinating the Design review process with the Design-Builder.

4.5 Unless otherwise agreed, Submittals will be provided and reviewed in accordance with the following:

(a) Draft Submittal to the Authority:

(i) The Design-Builder will provide a draft Submittal as indicated on the Submittal Schedule that includes all relevant material with a covering transmittal indicating the purpose of the Submittal, and the information that should be reviewed by the Authority and the User Consultation Groups.

(ii) All changes from a previous Submittal should be clearly indicated in accordance with Section 8 of this Schedule 2 – Review Procedure.

(b) User Consultation Group:

(i) 5 Business Days following the draft Submittal, the Design-Builder will present the relevant material at a meeting of the relevant User Consultation Group(s).

(ii) The presentation will be made in person by the Architect or, if the Authority agrees, the Design-Builder's engineer or other subject matter expert.

(iii) The Design-Builder's presentation will include a page-by-page review of the draft Submittal.

(iv) The Design-Builder must be in attendance, preferably in person but teleconference is acceptable.

(v) During the presentation, a representative of the Design-Builder will take "live minutes" so that all parties can agree on the content of the minutes during the meeting. The Design-Builder will circulate the minutes immediately after the meeting to all parties and within 3 Business Days the Design-Builder must circulate formal minutes for review. If the Authority notifies the Design-Builder of any errors in the minutes, the Design-Builder will correct such errors within 3 Business Days of the Authority's notice.

(c) Informal Comments from the Authority:

(i) The Authority will provide any informal feedback through to the Design-Builder.

(ii) The Authority will provide additional informal feedback within one week after the presentation, unless the Authority advises the Design-Builder in writing. The period will not exceed two weeks unless agreed with the Design-Builder.

(d) Formal Submittal to the Authority:

(i) The Design-Builder will make the formal Submittal within 10 Business Days following the presentation (or 5 Business Days after receiving additional informal feedback).

(ii) If the Design-Builder does not address the feedback received at the presentation or subsequently provided by the Authority, the Design-Builder will provide commentary on the reasons for not addressing the feedback.

(e) Formal Response from the Authority:

(i) The Authority will respond within 15 Business Days following the formal Submittal in accordance with this Schedule 2 – Review Procedure.

4.6 The process set out in this Section 4 will be set out in the Submittal Schedule.

4.7 The parties acknowledge that Design development is an iterative and interactive process and that additional User Consultation Group review and meetings may be required from those shown on the Submittal Schedule. The parties will co-operate to amend the Submittal Schedule as may be required from time to time to ensure that sufficient consultations with the User Consultation Group in relation to each component of the Design (and changes to the Design resulting from such consultations) are completed prior to the Design-Builder making the formal Submittal.

4.8 The Authority and the Design-Builder will not be bound by the consultations with the User Consultation Groups, unless reflected in the formal Submittal and comments from the Authority.

4.9 If the Design-Builder considers that compliance with any comment raised by a User Consultation Group member would lead to a Change, the Design-Builder will, before taking into account such comment or objection, notify the Authority. If it is agreed by the Authority that such comments or objections would lead to a Change then the procedure as detailed in Part E- CHANGES of the Design-Build Agreement will apply. In all cases, the parties will cooperate to identify potential alternative solutions to any comments or objections raised that would not lead to a Change.

4.10 The User Consultation Group consultation meetings will be held at 11100 13 St, Dawson Creek, BC, or another location designated by the Authority, at a space made available by the Authority.

5. DISPUTES

5.1 If the Design-Builder disputes any comment issued by the Authority in respect of a Submittal, including on the basis that the comment is or would result in a Change, the Design-Builder will promptly notify the Authority of the details of such Dispute and will submit the reasons why the Design-Builder believes a different comment should be assigned, together with appropriate supporting documentation. The Authority will review the Submittal, the reasons and supporting documentation and within 7 Business Days after receipt thereof will either confirm the original comment or notify the Design-Builder of a revised comment. Nothing in this Section 5 will limit either party's right to refer a Dispute for resolution in the first instance to the Authority's Consultant under Section 63 (Dispute Resolution) of the Agreement.

6. EFFECT OF REVIEW

6.1 Any review of and comment by the Authority on any Submittals are for general conformity to the obligations and requirements of this Agreement, and any such review and comment will not relieve the Design-Builder of the risk and responsibility for the Design and the Construction and for meeting all of its obligations and requirements of this Agreement, and will not create any new or additional obligations or liabilities for the Authority. Without limiting the generality of the foregoing any and all errors or omissions in Submittals or of any review and comment will not exclude or limit the Design-Builder's obligations or liabilities in respect of the Design or the Construction under this Agreement or exclude or limit the Authority's rights in respect of the Design and the Construction under this Agreement.

7. SUBMITTAL EXPLANATION

7.1 At any time, the Authority may, acting reasonably, require the Design-Builder, including the Design-Builder's Consultant, Subcontractors and any other relevant personnel, at no additional cost to the Authority, to explain to the Authority and the Authority's advisors the intent of the Design-Builder's Submittals, including in relation to any design and any associated documentation and as to its satisfaction of the Statement of Requirements.

8. REVISIONS

8.1 The Design-Builder will ensure that Submittals keep the same, unique reference number throughout the review process, and that all subsequent revisions of the same Submittal are identified by a sequential revision number and identified and tracked in the Submittal log. Correspondence related to such Submittal will reference the reference number and revision number.

8.2 Re-submittals will clearly show all revisions from the previous Submittal. Bound documents, including reports and manuals, will contain a preface that clearly states how revisions are marked and the previous revision number against which the revisions have been marked and highlighted within the document. A consistent format for mark-ups of documents will be used (e.g. deletions struck out and additions underscored). Revised portions of drawings will be clearly marked (with appropriate means to visually distinguish between the parts of the drawing that are revised and the parts that are not revised) and the revision number and description of the revision will be included on the drawing.

8.3 All revisions on print media will be initialed by hand by the individual designer, design checker and, where applicable, by the drafter and the drafting checker and will identify the persons who initialed the Submittal. Electronic versions of the Submittal will identify the persons who initialed the revisions to the printed version of the Submittal.

8.4 The Design-Builder will keep all Drawings and Specifications current. If any Drawings and Specifications are revised as part of a Submittal, all other Drawings and Specifications relying on or based on those Drawings and Specifications will also be revised accordingly. All such revised Drawings and Specifications will also be submitted with the Submittal to which it relates.

9. AUDIT BY THE AUTHORITY

9.1 Without limiting any other right under the Agreement, the Authority will have the right to audit all Submittals, including comparing all Submittals to previous Submittals.

9.2 If during an audit or at any other time it is discovered by the Authority or the Design-Builder that any Submittals were not correctly implemented, the Design-Builder will at its sole cost immediately take all necessary steps to correct and modify the applicable Submittals and the Design and Construction to which they relate and will advise the Authority of all such corrections and modifications.

SCHEDULE 3
MANAGEMENT PLANS

1. GENERAL

1.1 Capitalized Terms

Capitalized terms used in this Schedule have the definitions as set out in the Design-Build Agreement (the "**DBA**") and its related schedules, as applicable. Unless otherwise provided, references to Section numbers are references to Sections in this Schedule.

2. REQUIREMENTS

The following general requirements are applicable to all management plans listed below unless indicated otherwise:

2.1 Content of Plans

The content of this Schedule 3 (Management Plans) is a summary of all management plans for which there may be additional drafts and information related to such management plans included in the DBA and any related schedules.

This Schedule is to be read as supplementary to cross-reference the requirements of this Agreement including Schedule 1 [Statement of Requirements] and in accordance with all procedures set out in the DBA.

2.2 Development of Plans

All management plans are to be developed and updated as indicated in the DBA and in accordance with Schedule 2 [Review Procedure].

2.3 User Engagement and Review Process

User engagement in developing and in reviewing each management plan will be in accordance with Schedule 2 [Review Procedure].

2.4 Amending Plans

All management plans can be amended with the Authority's approval through the sequential review process described in Schedule 2 [Review Procedure] and in accordance with the DBA or, if it is determined that a plan cannot be followed for justifiable reasons acceptable to the Authority and it is necessary to make amendments outside the normal usual Review Procedure, the Design-Builder may request consideration of an amendment with supporting reasons.

3. MANAGEMENT PLANS SUMMARY

3.1 The management plans set out in the DBA and its related schedules are as follows:

Plan	Plan Details
Quality Management Plan	The Quality Management Plan (set out in Section 9 of this Agreement) means the plan for quality management including quality control and quality assurance with respect to the Work, a draft of which is included in the Proposal Extracts, together with such changes to the plan that are prepared by the Design-Builder and submitted to the Authority under the Review Procedure and that the Design-Builder is entitled to proceed with under the Review Procedure; The Quality Management Plan will: a) meet all applicable requirements of this Agreement; b) reflect the Design-Builder's organizational chart and demonstrate the integration of the Design-Builder's Consultant with the Design-Builder and its Subcontractors; c) outline the procedures to be implemented to ensure robust and thorough quality control and quality assurance by the Design-Builder and its Subcontractors; d) clearly indicate the processes, testing, certification and auditing that will be performed to verify all parts of the Work comply with this Agreement; e) clearly indicate the timing of the elements of the plan itself and the documentation to demonstrate compliance that will be obtained by the Design-Builder and its Subcontractors and provided to the Authority; f) include all processes, testing, certification, auditing and documentation reasonably required by the Authority's Consultant; and g) ensure that the Work will meet the requirements of this Agreement.
Project Management Plan	The Project Management Plan means the management plan that (i) sets out a high-level work plan to describe the manner in which the Design-Builder will manage the Project, including to address related matters such as traffic management and communications, and (ii) is prepared by or for the Design-Builder and submitted to the Authority. The Project Management Plan will include, among other things: a) all Site preparation; b) construction of the Facility, including the requirements and timing for construction and commissioning (including all systems and equipment); c) Site landscaping; d) parking, access and traffic flows, including maintaining adequate vehicle, delivery and pedestrian access; and e) compliance with all requirements of the Agreement.

Plan	Plan Details
Health and Safety Plan	The Health and Safety Plan means a plan that sets out applicable requirements of this Agreement with respect to health and safety at the Site and that addresses the safety of the Authority, patients and others who may be on the Site or on property in the vicinity of the Site. Requirements of the Design-Builder will include, but are not limited to: a) provide safety fencing and hoarding as necessary to limit access to the Site in accordance with requirements of the Authority; b) ensure plan is consistent with and accommodates any requirements of, the Authority's policies regarding safety; c) ensure plan specifically addresses the safety of the Authority, patients, visitors and others who may be on the Site or on property in the vicinity of the Site; d) maintain and comply with such plan in all material respects during execution of the Work; and e) provide health and safety orientation in accordance with this Health and Safety Plan prior to any person accessing the Site pursuant to the Agreement.
Commissioning Plan	The Commissioning Plan means a detailed testing and commissioning plan that is consistent with the requirements for testing and commissioning of the Facility as identified in the SOR. The Commissioning Plan sets out the commissioning activities the Design-Builder intends to carry out to satisfy Section 33 of this Agreement and to achieve Substantial Completion. Such commissioning activities will include, but are not limited to: a) a description of the specific equipment and systems to be tested and commissioned and the associated commissioning requirements, including those to be completed before Substantial Completion; b) no later than 180 days before the Target Substantial Completion Date, detailed Commissioning Plan(s) are to be delivered to the Authority including a draft schedule, related to the Time Schedule, showing the timing of all testing and commissioning activities; and c) supporting documentation, including as appropriate: (a) communication protocols, plans for meetings, and details on commissioning program management ; and (b) summary on design review activities, functional test procedures, reporting and resolution processes and descriptions on accepting the building systems. The Design-Builder will retain a qualified independent commissioning agent (acceptable to the Authority, acting reasonably) to test and commission all equipment and systems in the Facility as set out in Section 33 of this Agreement.

Plan	Plan Details
Enhanced Building Enclosure Commissioning (BECx) Plan	As a minimum, the Commissioning Plan or a separate BECx Plan should include the following sections: a) Overview of pre-construction BECx activities, including OPR & BOD b) Methodologies for installation and performance verification, identifying the number of occurrences and timing of lab testing, field mock-ups, field testing, and field reviews c) Commissioning Management, including roles, responsibilities, communication plans, procedures for design changes or substitutions during construction, as well as BECx timelines and milestones in relation to the project schedule d) Construction close-out activities, including requirements related to developing the building enclosure maintenance and renewals plan, record drawings, training, and the BECx Report e) Warranty period activities, including procedure for deficiencies, reporting, and maintenance The BECx Plan is a living document and will be developed starting at schematic design and updated throughout the design process. The BECx Plan will address any early works such as foundations and sub-grade work in sufficient detail prior to starting construction of those components. The BECx Plan is to be submitted at 95%, 100% of Design.

SCHEDULE 4
INSURANCE CONDITIONS

Without restricting the generality of the indemnification provisions in Section 58, insurance and coverage will be arranged and paid for as follows:

1. WRAP-UP LIABILITY INSURANCE

1.1 The Authority will provide, maintain and pay for Wrap-up Liability Insurance each with a limit of inclusive per occurrence, and no less than general aggregate for bodily injury, death, and damage to property including loss of use thereof, product/completed operations liability with a limit of aggregate.

1.2 This insurance will cover the Authority, Design-Builder & Subcontractors, Architects, Engineers, Consultants and anyone employed by them to perform a part or parts of the Work (includes both Construction and Design services, but excludes all professional services, under this Agreement) but excluding suppliers whose only function is to supply and/or transport products to the project site or security protection persons or organizations providing site protection on or at the insured project. The insurance does not extend to any activities, works, jobs or undertakings of the insureds other than those directly related to the Work of this Agreement. The insurance does not extend to any liability arising in relation to any workforce camp or worker accommodation or any related services.

1.3 The insurance will preclude subrogation claims by the insurer against anyone insured hereunder except for claims arising out of the rendering of professional services from any architect, engineer, surveyor, or other professional design consultants.

1.4 The insurance will include coverage for:

(a) Products or Completed Operations Liability for a period of at least

(b) Blanket Contractual Liability;

(c) Cross Liability;

(d) Contingent Employer's Liability;

(e) Personal Injury Liability;

(f) Shoring, Blasting, Excavating, Underpinning, Demolition, Piledriving and Caisson Work, Work Below Ground Surface and Grading, as applicable (details of such work must be reported to insurer);

(g) Liability with respect to Non-Owned Licensed Vehicles (no less than);

(h) Broad Form Property Damage;

(i) Limited Pollution Liability (no less than);

(j) Employees as Additional Insureds;

(k) Broad Form Tenants Legal Liability (no less than);

(l) Operation of Attached Machinery; and

(m) Forest Fire Fighting Expenses (no less than).

1.5 Any applicable deductibles will not exceed per occurrence except for completed operations and damage to existing structures, to which a deductible not exceeding will apply.

1.6 This insurance will be maintained continuously from commencement of the Work until Substantial Completion, plus cover completed operations for a further period of at least .

1.7 If the Project involves hot roofing work for renovations or existing structures, the Design Builder will take out and maintain in force, or will cause to be taken out and maintained, commercial general liability insurance which will include the following:

(a) coverage in an amount not less than inclusive per occurrence and in the aggregate against bodily injury, personal injury and property damage and including liability assumed under this Agreement;

(b) include the Authority as an additional insured;

(c) be endorsed to provide the Authority with advance written notice of adverse material change or cancellation;

(d) include a cross liability clause; and

(e) this policy will be treated as primary coverage and the Authority's Wrap-Up Liability Insurance will be treated as excess coverage. This insurance shall be maintained continuously from commencement of hot roofing work until such work is completed.

2. PROFESSIONAL LIABILITY INSURANCE

2.1 The Design-Builder or the Design-Builder's Consultant during the term of this Agreement will provide and maintain continuously from the commencement of the Work, until 2 (two) years after Substantial Completion, the following insurance which will be placed with such company or companies and in such form and amounts and with such deductibles as may be acceptable to the Authority:

(a) Project Specific Professional Errors and Omissions Liability Insurance, protecting the Design-Builder or the Design-Builder's Consultant, sub-consultant(s) and their respective servant(s), agent(s) or employee(s) against any loss or damage arising out of the Design under this Agreement. Such insurance will be for the adequate amount acceptable to the Authority and will in any event be not less than per claim and with a limit of not less than aggregate, such limits to be dedicated specifically to the Project;

(b) Any applicable deductibles will not exceed

2.2 This insurance will be endorsed to provide the Authority with advance written notice of cancellation.

3. PROPERTY COVERAGE INSURANCE

3.1 The Authority will provide, maintain and pay for Course of Construction coverage, against "All Risks" of direct physical loss or damage including flood and earthquake, and will cover all materials, property, structures and equipment purchased for, entering into, or forming part of the Work whilst located anywhere on site during construction, erection, installation and testing, but such coverage will not include coverage for Design-Builder's and Subcontractors' equipment of any description. Such coverage will be maintained from the commencement of physical Construction at the Site until Substantial Completion. No coverage will be provided for any workforce camp or worker accommodation.

(a) Deductibles, per occurrence, will not exceed the following amounts; if more than one deductible applies, the highest one will apply:

(i) For floods,

(ii) For water damage and sewer back up,

(iii) Design Error, DE5 or equivalent deductible;

(iv) For earthquakes, the greater of or of the total project value insured;

(v) For testing and commissioning, and

(vi) For all other insured perils,

(b) Waiting period deductibles per occurrence and not exceeding the following amounts to be applied separately from any property deductible:

For soft costs, a one (1) day waiting period for each month of the project duration subject to a minimum waiting period of will apply and a minimum

3.2 The coverage will include as a protected entity, each Design-Builder, Subcontractor, Architect or Engineer who is engaged in the Project.

3.3 The coverage will contain a waiver of the Authority's rights of subrogation against all protected entities except where a loss is deemed to have been caused by or resulting from any error in design or any other professional error or omission, or manufacturers (not employees of the insured).

3.4 The Design-Builder will, at his own expense, take special precaution to prevent fires occurring in or about the Work and will observe, and comply with, all insurance policy warranties and all laws and regulations in force respecting fires.

4. AUTOMOBILE LIABILITY INSURANCE

4.1 The Design-Builder will provide, maintain and pay for, and require all Subcontractors to provide, maintain and pay for Automobile Liability Insurance in respect of all owned or leased vehicles, subject to limits of not less than inclusive per occurrence. The insurance will be placed with such company or companies and in such form and deductibles as may be acceptable to Authority.

5. AIRCRAFT AND/OR WATERCRAFT LIABILITY INSURANCE

5.1 The Design-Builder will provide, maintain and pay for liability insurance with respect to owned or non-owned aircraft (including unmanned aerial vehicles, uncrewed aerial vehicles or drones) and watercraft if used directly or indirectly in the performance of the Work, subject to limits of not less than inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof and including Aircraft Passenger Hazard where applicable. The insurance will name the Authority as an additional insured, include a cross liability clause, be endorsed to provide the Authority with advance written notice of cancellation and be placed with such company or companies and in such form and deductibles as may be acceptable to Authority.

5.2 The Design-Builder will provide, maintain and pay for marine cargo insurance covering all materials, equipment and other property supplied under or used during the project and which are critical to performance of the Work if such materials, equipment and other property are conveyed by ocean marine transport. The insurance will include the following terms:

(a) coverage in an amount not less than the full replacement value of the shipment;

(b) coverage for the Design-Builder and all Subcontractors;

(c) include the Authority as an additional named insured;

(d) subject to the conditions of the Institute Cargo Clauses (All Risks), including war and strikes extensions, and including transit and storage where applicable;

(e) if an entire vessel is chartered for shipping materials, equipment or property then charterer's liability insurance will also be provided in amounts sufficient to protect and indemnify the Authority, Design-Builder and all Subcontractors from and against all liability arising out of the chartering of such vessel; and

(f) a deductible not exceeding per occurrence;

6. CONTRACTORS POLLUTION LIABILITY INSURANCE

6.1 When applicable (hazardous materials and/or asbestos abatement work), the Design-Builder (or Design-Builder's Subcontractors) will require all Subcontractors to provide, maintain and pay for:

(a) Contractors Pollution Liability insurance, where the Design-Builder's performance (or Design-Builder's Subcontractor's performance) of the work is associated with hazardous materials clean up, removal and/or containment, transit or disposal. This

insurance must have a limit of liability not less than
inclusive per occurrence insuring against bodily injury, death, and damage to property including loss of use thereof.

Any insurance required under this Section 6 must name the Authority as an additional insured but only with respect to liability arising out of the Design-Builder's performance of the Work. Such insurance shall not be impaired by any time element limitations, biological contaminants (without limitation, mould and bacteria), asbestos, or lead-based paint exclusions. Any "Insured versus Insured" exclusion shall not prejudice coverage for the Authority and shall not affect the Authority's ability to bring suit against the Design-Builder as a third party.

6.2 Any insurance required under this Section 6 must be endorsed to provide the Authority with advance written notice of cancellation. If any such insurance is provided on a claims-made basis and that insurance is cancelled or not renewed, such policy must provide a extended reporting period.

6.3 The Design-Builder must cause all Subcontractors to provide to the Authority a Certificate of Insurance confirming all policies and endorsements necessary to comply with the insurance requirements outlined herein, or upon request, a certified copy of the required insurance policy.

7. COMMERCIAL GENERAL LIABILITY INSURANCE

7.1 The following coverage is only required during the period that the Wrap Up Liability Insurance is not in force under Section 1, Wrap-Up Liability Insurance. The Design Builder will take out and maintain in force, or will cause to be taken out and maintained, commercial general liability insurance which will include the following:

(a) Commercial General liability insurance in an amount not less than inclusive per occurrence and in the aggregate against bodily injury, personal injury and property damage and including liability assumed under this Agreement. This insurance must:

(i) include the Authority as an additional insured;

(ii) be endorsed to provide the Authority with advance written notice of adverse material change or cancellation; and

(iii) include a cross liability clause.

7.2 The above coverage is also required during the period between the Effective Date and the commencement of physical Construction at the Site and during any other period, if any, the Wrap Up Liability Insurance is not in force under Section 1 of this Schedule.

8. HCPP PROPERTY COVERAGE

8.1 From commencement of the Work until Substantial Completion, the Authority may take out and maintain in force, or may cause to be taken out and maintained in force, under the Health Care Protection Program (the "HCPP"), insurance covering medical, diagnostic and imaging equipment

purchased for, entering into and forming part of the Work, that is not otherwise covered by the construction property policy, and such policy:

(a) will be made available to the Design-Builder by HCPP and HCPP's obligations under such policy will be supported by an indemnity from the Province of British Columbia in favour of HCPP;

(b) will provide insurance coverage comparable to or better than the coverage required for such equipment under the Property Coverage Insurance as described in Section 3 of this Schedule;

(c) will satisfy the requirements set out in Section 9 of this Schedule; and

(d) will be on terms comparable to or better than those offered by insurers licensed in British Columbia.

9. GENERAL

9.1 The description of the Authority arranged insurance described herein is provided on a summary basis only and is not a statement of the actual policy terms and conditions. The Authority does not represent or warrant that the Authority arranged insurance contains insurance for any and all losses. It is the Design-Builder's responsibility to ascertain the exact nature and extent of coverage provided by the Authority arranged insurance, to review all policies pertaining thereto and to obtain any other insurance that it may be prudent for the Design-Builder to obtain.

9.2 The Design-Builder will also provide, maintain and pay for any other insurance that the Design-Builder is required by law to carry, or which the Design-Builder considers necessary.

9.3 Unless specified otherwise, the duration of each coverage and insurance policy will be from the date of commencement of the Work until the date of final certificate for payment.

9.4 The Authority will, upon request, provide the Design-Builder with proof of insurance of those coverages and insurances required to be provided by the Authority prior to commencement of the Work and subsequent certified copy of policies within a reasonable time period thereafter.

9.5 The Design-Builder and/or its Subcontractors, the Design-Builder's Consultants and sub-consultants as may be applicable, will be responsible for any deductible amounts under the policies of coverage and insurance except for perils of flood and earthquake.

9.6 The Design-Builder will provide the Authority with proof of insurance for those insurances required to be provided by the Design-Builder (or Design-Builder's Consultant) prior to the commencement of the Work in the form of a completed Certificate of Insurance and will also provide a certified copy of any required policies upon request.

9.7 The Authority will not be responsible for injury to the Design-Builder's employees or for loss or damage to the Design-Builder's or to the Design-Builder's employees' machinery, equipment, tools or supplies which may be temporarily used or stored in, on or about the premises during construction and which may, from time to time, or at the termination of this Agreement, be removed from the premises. The Design-Builder hereby waives all rights of

recourse against the Authority or any other contractor with regard to damage to the Design-Builder's property.

9.8 If the Design-Builder fails to provide, maintain and pay for insurance as required by this Schedule, other than automobile liability insurance, the Authority may obtain and pay for the required insurance, the cost of which will be payable on demand by the Design-Builder. The Authority may offset such amounts from any monies due to the Design-Builder if not paid within 15 days.

SCHEDULE 5

COMMUNICATION ROLES

The Authority and the Design-Builder will share responsibilities for communications, including community relations, stakeholder consultation, media relations and emergency communications on the terms set out in this Schedule.

1. GENERAL

1.1 The Design-Builder will be guided by the Authority's best practices regarding communications. Unless otherwise specified by the Authority, the governing document relating to best practices will be the disclosure guidance document entitled "Procurement Related Disclosure for Major Infrastructure Projects" posted at www.infrastructurebc.com.

1.2 The Design-Builder will consult and cooperate with the Authority regarding communications activities relating to the Project.

1.3 The desired outcome of communications activities is to inform and involve the public and other stakeholders about the progress, value and benefits of the Project and to develop and maintain support for the Project.

1.4 Communications strategies and plans involving the interests of both parties are to be prepared on a joint basis, with one party taking a lead role and the other a supporting role, as described in this Schedule.

1.5 Where communications strategies and plans involve the interests of both parties, each party will give the other a reasonable opportunity (taking into account the need for timely communications) to consider communications strategies and plans initiated by the other and, if information is supplied by a party, it should include or be accompanied by sufficient explanatory or other material to enable the information to be properly considered.

1.6 The Design-Builder will consider and, acting reasonably, take into account, public and other stakeholder input in regard to its plans for the Design and Construction.

1.7 This Schedule is a guideline and may be amended by mutual agreement. Non-compliance with this Schedule by either party will not constitute a breach of this Agreement.

1.8 No communication regarding the subject matter of a Dispute, including one resolved under Section 63 (Dispute Resolution) of the Agreement, will be made without the prior written consent of the Authority or the Design-Builder, as the case may be, unless otherwise ordered under the Dispute resolution procedure.

1.9 The Design-Builder acknowledges that FIPPA applies to the Authority, that nothing in this Schedule limits any requirements for compliance with FIPPA and that the Authority may be required to make disclosure of information under FIPPA.

1.10 The Design-Builder acknowledges that the Authority will be free to disclose (including on Websites) this Agreement and any and all terms hereof, except for those portions that would not be required to be disclosed under FIPPA. The Authority will consult with the Design-Builder prior to such disclosure.

1.11 Except for Section 1.10, this Schedule is subject to the parties' obligations in respect of Confidential Information pursuant to Section 66 of this Agreement.

2. CATEGORIES OF COMMUNICATIONS

The following categories of communications are covered by this Schedule and each category applies during the Construction period:

(a) Communications Planning: the Design-Builder will be provided with a copy of parts of the Project Communications Plan prepared by the Authority and applicable to this Project and will support the implementation of the strategies and activities listed in it;

(b) Community Relations: keeping all key audiences including external and internal Project stakeholders (as identified in communications plans) informed, including providing overall Project information, including information about schedule, design, construction (including traffic management), facilities management and other services, using any and all appropriate communications tools and tactics;

(c) Consultation: engaging in discussions with Project stakeholders;

(d) Media Relations: providing media with Project updates and responding to issues raised by the media; and

(e) Emergency Communications: preparing and implementing crisis communications planning and preparedness.

3. LEAD AND SUPPORTING ROLES

3.1 Within each category of communications set out in Section 2 of this Schedule, the Design-Builder will play either a lead or supporting role, working with the Authority to achieve the desired communications outcomes.

3.2 For all categories of communication, and whether communication occurs as part of a lead or supporting role, no advertising that involves payment, by the Design-Builder, to a third party may include the Authority or the Project unless the Design-Builder obtains the prior consent of the Authority, not to be unreasonably withheld or delayed.

4. LEAD RESPONSIBILITIES

The following is an overview of the responsibilities associated with lead roles:

(a) developing an overall strategic communications plan for the Project, that includes plans for communications, community relations, consultation, media relations and emergency communications;

(b) having regard for the input of the supporting party, approving communication plans and tactics in response to specific circumstances, unless otherwise indicated in this Schedule;

(c) implementing its role in approved plans;

(d) achieving the outcomes set out in the strategic communication plan;

(e) maintaining constructive and positive relationships with the public and other stakeholders;

(f) providing information, as required by the supporting party and its team members, to support communication and consultation activities;

(g) as relevant to its lead role, organizing, attending and participating in community and other stakeholder consultation meetings and carrying out other communication activities to consult with and report back to the community and other stakeholders, including open houses, information updates, public displays, advertising, website creation, maintenance updates, construction notices, milestone celebration events, news releases and tours, and directing inquiries to the supporting party as appropriate;

(h) assuming responsibility for costs related to carrying out lead responsibilities to a standard acceptable to the Authority, in the amounts and in the manner approved by the Authority;

(i) monitoring whether the Design and Construction are conducted in a manner consistent with strategic communication plans and advising the parties of any material inconsistency; and

(j) having a trained media relations spokesperson available 24/7 to respond to media requests.

5. SUPPORTING RESPONSIBILITIES

The following is an overview of the responsibilities associated with supporting roles:

(a) assisting with the implementation of plans, including drafting of other communication documents, as directed by the lead party;

(b) implementing its role in approved plans;

(c) maintaining constructive and positive relationships with the public and other stakeholders;

(d) providing information, as required by the lead party and its team members, to support communication and consultation activities;

(e) as relevant to its supporting role, organizing, attending and participating in community and other stakeholder consultation meetings and carrying out other communication activities to consult with and report back to the community and other stakeholders, including open houses, information updates, public displays, advertising, website creation, maintenance updates, construction notices, milestone celebration events, news releases and tours, and directing inquiries to the lead party as appropriate;

(f) assuming responsibility for costs related to carrying out supporting responsibilities to a standard acceptable to the Authority, in amounts and in a manner approved by the Authority; and

(g) having a local, trained media relations spokesperson available 24/7 to respond to media requests.

6. ALLOCATION OF LEAD AND SUPPORTING ROLES

The lead and supporting roles will be allocated as set out in the following table, unless otherwise required by the Authority in consultation with the Design-Builder:

CATEGORY	LEAD	SUPPORTING
Communications Planning	Authority	Design-Builder
Community Relations	Authority	Design-Builder
Consultation	Authority	Design-Builder
Media Relations	Authority	Design-Builder
Emergency Communications Relating to existing Authority employees, programs, services and facilities; and Design-Builder performance	Authority	Design-Builder
Emergency Communications related to Design-Builder Site health and safety	Design-Builder	Authority
Construction	Authority	Design-Builder
Moves	Authority	Design-Builder
Traffic	Authority	Design-Builder
Noise	Authority	Design-Builder

7. AUTHORITY RIGHT TO STEP IN AT DESIGN-BUILDER'S COST

If the Design-Builder is required to take a lead role but fails to comply with its obligations under this Schedule in any material respect, the Authority may give reasonable notice to the Design-Builder that it intends to undertake and assume the lead role obligations of the Design-Builder, at the expense of the Design-Builder, including all direct costs of engaging third party assistance with communication responsibilities and all direct costs of the Authority in connection with fulfilling the Design-Builder's obligations under this Schedule.

SCHEDULE 6

KEY INDIVIDUALS

Individual's Name	Company Name	Role	Duties
	Graham Design Builders LP	Design-Build Director	Represents the Design-Builder and has overall responsibility to design and build the Project.
	Graham Design Builders LP	Design-Build Design Manager	Representative in charge of oversight of the design-build design team.
	Graham Design Builders LP	Design-Build Construction Manager	Responsible for leading the construction of the Project, and conducting constructability review through the Project's design development process.
	HDR Architecture Associates, Inc.	Lead Architect	Responsible for leading the design of the Project.
	Crossey Engineering Ltd.	Mechanical Design Engineer Lead	Responsible for leading the mechanical design of the Project.
	Bush, Bohlman & Partners	Structural Design Engineer Lead	Responsible for leading the structural design of the Project.
	Crossey Engineering Ltd.	Electrical Design Engineer Lead	Responsible for leading the electrical design of the Project.
	Crossey Engineering Ltd.	Communication Information Technology (IT) Lead	Responsible for the deployment of Information Technology (IT) and communications infrastructure through design, construction, equipment fit out and

Individual's Name	Company Name	Role	Duties
			commissioning and integration with other systems.
	RDH Building Science Inc.	Building Envelope Specialist	Responsible for design and construction reviews of the building elements providing environmental separation as outlined in the Statement of Requirements.
	3Si Risk Strategies Inc.	Security Lead	Responsible for the incorporation of security infrastructure in the Facility
	Crossey Engineering Ltd.	Sustainability Lead	Responsible for leading the energy and sustainability planning for the Project and ensuring the achievement of LEED® Gold certification.
	HDR Architecture Associates, Inc.	Clinical Lead	Responsible for leading the clinical planning of the Project and has active participation throughout the procurement, design and construction phases of the Project.
	CES Engineering Ltd.	Lead Commissioning Agent	The Certified Commissioning Professional or Certified Commissioning Agent, employed by the Independent Commissioning Agent, responsible for leading the commissioning of the Project, including providing commissioning input into the design and construction phases of the Project, and has active participation through the design development process.

SCHEDULE 7

SCHEDULE OF PRICES

The Contract Price represents the entire compensation to the Design-Builder by the Authority for any and all costs related to the Work, including but not limited to all fees, cash allowances, contingencies and all duties and taxes, excluding GST payable by the Authority to the Design-Builder.

The attached schedule is a breakdown of the Contract Price solely for the purpose of assisting the parties to develop the Schedule of Values, and will not be used or relied upon by the Design-Builder for any purpose.

Table 1 Breakdown of Contract Price

COSTS	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11	Month 12	Month 13	Month 14	Month 15	Month 16	Month 17	Month 18	Month 19	Month 20	Month 21	Month 22	Month 23	Month 24	Month 25	Month 26	Month 27	Month 28	Month 29	Month 30	Month 31	Month 32	Month 33	Month 34	Month 35	Month 36	Month 37	Month 38	Month 39	Month 40	Total

Table 2: Monthly Progress Payments

Period Ending	Expected Monthly Construction Period Payments	Month Ending
Month 1	$	8/31/2023
Month 2	$	9/30/2023
Month 3	$	10/31/2023
Month 4	$	11/30/2023
Month 5	$	12/31/2023
Month 6	$	1/31/2024
Month 7	$	2/29/2024
Month 8	$	3/31/2024
Month 9	$	4/30/2024
Month 10	$	5/31/2024
Month 11	$	6/30/2024
Month 12	$	7/31/2024
Month 13	$	8/31/2024
Month 14	$	9/30/2024
Month 15	$	10/31/2024
Month 16	$	11/30/2024
Month 17	$	12/31/2024
Month 18	$	1/31/2025
Month 19	$	2/28/2025
Month 20	$	3/31/2025
Month 21	$	4/30/2025
Month 22	$	5/31/2025
Month 23	$	6/30/2025
Month 24	$	7/31/2025
Month 25	$	8/31/2025
Month 26	$	9/30/2025
Month 27	$	10/31/2025
Month 28	$	11/30/2025
Month 29	$	12/31/2025
Month 30	$	1/31/2026
Month 31	$	2/28/2026
Month 32	$	3/31/2026
Month 33	$	4/30/2026
Month 34	$	5/31/2026
Month 35	$	6/30/2026
Month 36	$	7/31/2026
Month 37	$	8/31/2026
Month 38	$	9/30/2026
Month 39	$	10/31/2026
Month 40	$	11/30/2026
Nominal Cost of the Proposal	**$ 478,555,952**	

SCHEDULE 8

PROPOSAL EXTRACTS

1. **Data outlets**: The cost to add or delete a data outlet is plus GST. The Authority will be able to revise the 5,500 total included in the Statement of Requirements, up until the Authority has completed its review of the 100% Design Submittal, utilizing this pricing.

2. **Duplex electrical receptacle**: The cost to add or delete a duplex electrical receptacle is plus GST. The Authority will be able to use this option up until the Authority has completed its review of the 100% Design Submittal, utilizing this pricing.

3. Time Schedule – see attached document.

SCHEDULE 9

ENERGY GUARANTEE

1. INTERPRETATION

1.1. Definitions

In this Schedule, in addition to the definitions set out in Section 1 of this Agreement:

"**Approved Building Performance Professional**" means an individual who is (i) registered as a Professional Engineer (P.Eng) with Engineers and Geoscientists BC (EGBC) or as Architect with the Architectural Institute of British Columbia (AIBC) and can serve as Professional of Record taking responsibility for the energy model, and (ii) has experience with IES VE and/or EnergyPlus (energy modelling software) or equivalent as approved by the Authority for the purpose of the Project;

"**Baseline 60% Energy Model**" refers to the model developed by CEL Gruen (an affiliate of Crossey Engineering Ltd.) submitted as part of the 60% Design and which has received "REVIEWED" status by the Authority;

"**Energy**" means all energy consumed, including electrical energy, fossil fuels, biofuels and thermal energy used within, by or for the Facility, including electrical and thermal energy used within, by or for exterior elements connected to the Facility's electrical and thermal systems;

"**Energy Consumption**" for a period means the total amount of Energy consumed during that period, expressed in MWh as reflected by the readings for the metered utilities, whether or not directly from utility providers, and as calibrated by the Approved Building Performance Professional and approved by the Independent Energy Consultant (if engaged by the Authority);

"**Energy Guarantee**" has the meaning given in Section 2.1 of this Schedule;

"**Energy Model**" means the hourly energy simulation model and simulation produced using whole building energy modelling software (IES VE, EnergyPlus or equivalent as approved by the Authority). The energy model created with IES VE, EnergyPlus or other approved software shall follow the energy methodology appendix. The results of the simulations are used to calculate Energy Consumption and operating cost based on the assumptions in Appendix 1;

"**Energy Target**" means the building's annual Energy Use Intensity is not to exceed of Modelled Floor Area per year;

"**Energy Use Intensity**" or "**EUI**" means the annual Energy Consumption of the building divided by the total Modelled Floor Area, expressed in KWh per m^2 per year;

"**Environmental Credit**" means any income, credit, right, benefit or advantage relating to environmental matters including type and level of emissions, means of production of Energy, input sources and compliance with any environmental laws, regulations, rules or orders;

"**Independent Energy Consultant**" means consultant acceptable to the Authority, in the Authority's discretion, that includes a team of specialized consultants in the following areas: Energy Modelling

approved professional, Healthcare Designer, Building HVAC Controls Specialist, and Commissioning and M&V jointly retained by Design-Builder and the Authority, at the Authority's cost;

"**Kilowatt hour**", or "KWh", is equivalent to 0.001 MWh;

"**Megawatt hour**", or "**MWh**", is the unit of energy to be used throughout this Schedule and 1 MWh is equivalent to 3.6 GJ;

"**Modelled Floor Area**" means total floor area included in the Energy Model and is further defined in Appendix 1;

"**Renewable Energy**" means energy generated from renewable resources such as solar radiation or wind; and

"**Weather Data**" means the actual recorded weather data based on Environment Canada's "National Climate Data and Information Archive" including but not limited to daily temperature in TMY or CWEC format.

2. ENERGY GUARANTEE

2.1. Meet or Beat Energy Target

The Design-Builder warrants to the Authority that the Facility will be designed and constructed so that the modeled Energy Consumption per year will not exceed the Energy Target, as verified by the Energy Model that is based on as-built documents, and created prior to Substantial Completion, by the Design-Builder's Approved Building Performance Professional (the "**Energy Guarantee**").

2.2. Construction Period

(a) The Design-Builder warrants to the Authority that at all times during Construction, and prior to and including as a condition of Substantial Completion, Energy Consumption will not exceed the Energy Target.

(b) The Design-Builder will, with each Submittal under the Review Procedure, identify any impacts on the Energy Guarantee or the assumptions set out in Appendix 1, for review by the Authority. Any such impacts will not be effective unless agreed in writing by the Authority. If the Design-Builder does not identify any impacts, the Submittal will be deemed to have no impact on the Energy Guarantee or the assumptions set out in Appendix 1.

(c) The Design-Builder will use the Baseline 60% Energy Model as the starting point for their energy modelling submissions detailed below. At each of the following Design stages:

i. Not used;

ii. Not used;

iii. Pre-Tender - 95% complete; and

iv. Issued for Construction - 100% complete,

and together with the application for the Certificate of Substantial Completion, or at any other point in time where a Change is made for which the Authority reasonably deems necessary, the Design-Builder will provide an updated Energy Model prepared by the Approved Building Performance Professional that demonstrates that the Energy Guarantee will be met.

(d) The Baseline 60% Energy Model has not yet incorporated certain Authority-required Design changes since its development. The following components of the Design impacting the modelled Energy Use Intensity, including impact on building systems (for example, increased cooling load due to increased plug load), shall be measured and reported separately and will not count against the Energy Target:

i. MRI equipment

ii. Snow melt system and any additional required snow melt system beyond what was already included in the 60% Design

iii. Elevator 5

iv. Any additional steam generating units, beyond what was already included in the 60% Design

v. Block heaters

vi. Heat trace

(e) If the Design-Builder at any time prior to Substantial Completion fails to demonstrate that the Energy Guarantee will be met, the Design-Builder will:

i. revise the Design and re-submit the Reviewed Drawings and Specifications, together with an updated Energy Model prepared by the Approved Building Performance Professional demonstrating the Energy Guarantee will be met, to the Authority for review under the Review Procedure; and

ii. modify the Work as required to comply with the revised Reviewed Drawings and Specifications.

(f) The Authority will not be required to make any payment for any Design or Construction that fails to comply with, or will cause the Design-Builder to fail to comply with, the Energy Guarantee. The Authority's Consultant will assess any such Design and Construction and apply a holdback for the value of correction of such Design and Construction, until the Design and Construction is modified to comply with the Reviewed Drawings and Specifications that demonstrate that the Energy Guarantee will be met.

(g) The Design-Builder will retain the Approved Building Performance Professional who will:

i. review the Energy Model updates and confirm that the Energy Guarantee will be met;

ii. ensure the Energy Model is updated on an-ongoing basis with each Submittal and notify Design-Builder and the Authority of changes to the proposed building energy performance resulting from the Submittals or Changes; and

iii. provide updates relating to the proposed Facility's Energy Consumption to the Authority at regular intervals as required by the Authority.

(h) The Authority reserves the right to retain an Independent Energy Consultant to review the Energy Model updates and confirm that the Energy Guarantee will be met.

2.3. Notwithstanding any other provision of this Agreement, the Design-Builder does not warrant and is not liable under this Section 2 for failing to meet the Energy Guarantee or the actual Energy Target after Substantial Completion of the Building.

3. ENVIRONMENTAL CREDITS

3.1. Entitlement to Environmental Credits

The Authority will be entitled to any and all Environmental Credits related to the Facility and its operation and the Design-Builder will use commercially reasonable efforts to assist the Authority in achieving the maximum Environmental Credits available with respect to the Facility.

APPENDIX 1 TO SCHEDULE 9

1. ENERGY MODELLING METHODOLOGY AND ASSUMPTIONS

The intent of this section and associated Appended tables is to provide clarity to the Design-Builder for the modelling methodologies and the assumptions to relate the respective controlled variables as per the intent by the Authority.

1.1. General

(a) The Design-Builder shall apply the modelling assumptions and methodologies outlined in Schedule 9 for all energy models and supporting documentation submitted in relation to the Energy Target.

(b) The Energy Modelling Report shall include detailed information on the energy model inputs as they relate to;

i. The methods and materials used for the construction of components, systems and assemblies used in the building envelope modelling;

ii. The components, systems, equipment, and associated services used in the provisioning of air, heating, and cooling systems; and

iii. provision of automation and control, schedules, strategies and methodologies.

(c) The methodology for producing energy models as described in this appendix shall take precedence over LEED, ASHRAE 90.1-2010 Appendix G Rating Method, NECB Performance Compliance or other energy modelling protocols. Where not specified herein, follow modelling procedures in accordance with protocols of LEED and ASHRAE 90.1-2010 Appendix G Performance Rating Method.

(d) A ‘baseline’ or ‘reference’ building simulation is not required for the Energy Target.

(e) Compliance with the Energy Target provisions of Schedule 9 is required regardless of simulation and calculation tools, or techniques employed by the Design-Builder.

(f) Referenced tables are included at the end of the Appendix.

1.2. Terminology

(a) **Modelled Floor Area (MFA)**

The total enclosed floor area of the Building, as reported by the energy simulation software, excluding exterior areas and indoor (including underground) parking areas. All other spaces, including partially-conditioned and unconditioned spaces within the thermal envelope, are included in the MFA. The MFA must be within 5% of the gross floor area from the architectural drawings, unless justification is provided demonstrating where the discrepancy arises and why the MFA should differ from the gross floor area by greater than 5%.

(b) **Total Energy Use Intensity (EUI)**

The sum of all energy used on site (i.e. electricity, natural gas, or other energy sources), minus all renewable energy generated on site, divided by the Modelled Floor Area (MFA), reported as kWh/m^2/year.

(c) **Process Load**

Energy consumption other than zone lighting or zone receptacle loads that in general are a function of the occupant-driven or healthcare processes occurring within the building rather than energy consumption associated with operation of the Building.

(d) **Utility Rate Scenarios**

Utility Rate Scenario 1 specifies utility cost and emission tariffs reflecting current economic conditions.

Utility Rate Scenario 2 specifies anticipated utility cost and emission tariffs for future conditions based on an annual energy escalation rate of 3.00%, carbon emissions cost escalation of 2.00% and a discount rate of 3.00%.

(e) **Climate Scenarios**

Climate Scenario 1 reflects current weather information (CWEC 2016, or more recent, weather data).

Climate Scenario 2 reflects future weather information, as prepared by the Pacific Climate Impacts Consortium for years 2041-2070.

1.3. Simulation Scenarios

(a) Four distinct simulations will be required after the successful Design-Builder is established, per Table 1, for the purpose of informing the Authority utility budget planning process.

Table 1: Simulation Scenarios Definition

Simulation Scenario	Utility Rate Scenario	Climate Scenario	End-Use Breakdown	Utility & Emission Summary	Output Variables	Compliance Statement
A	**1**	**1**	●	●	●	●
B	**1**	**2**	●	●		
C	**2**	**1**	●	●		
D	**2**	**2**	●	●		

(b) The combination of climate and utility scenarios distinguish the simulation end-use breakdown.

1.4. Simulation Softwares

(a) For determining the Design and Construction Energy Target, simulation softwares shall at a minimum have the following abilities:

i. Explicitly model 8760 hours per year,

ii. Hourly variations in occupancy, lighting power, miscellaneous equipment,

iii. HVAC system operation variations in setpoints and schedules,

iv. Part-load performance curves for systems & equipment,

v. Output time-series variables in the following electronic file format:

A. Tab- or comma-separated values

B. Spreadsheet files

(b) Other supporting calculations tools are at the discretion of the Design-Builder.

(c) Operating schedules as defined in this Appendix, and site shading elements are made available by the Authority in electronic files compatible with the following simulation engines:

i. EnergyPlus

ii. IES Virtual Environment

(d) The Authority infers no preference or requirement for a specific simulation software in the list.

(e) It is understood that the Design-Builder may perform calculations outside of the simulation software. The Design-Builder will document these calculations and inform the Authority.

1.5. Energy Model Reporting Content

Provide an Energy Model Report including:

(a) Executive Summary

(b) Statement of software used and version,

(c) Summary of Modelled Floor Area (MFA) broken down into:

i. Total MFA (m^2) – refer to Section 1.2

ii. Conditioned Area (m^2)

iii. Semi-Conditioned Area (m^2)

iv. Unconditioned Area (m^2)

v. Parking Area (m^2)

(d) Use ASHRAE 90.1 definition of conditioned, semi-conditioned and unconditioned spaces.

(e) Description of modelled building systems.

(f) Description of modelling methodologies, including description of any workarounds or post-processing of results made outside of software.

(g) Detailed summary of all energy model inputs and assumptions.

(h) Include assumptions and parameters not described, or that deviate from those described herein with a rationale and solution used for any deviation.

(i) Provide output summary reports from the energy simulation software including but not limited to annual energy consumption, energy cost and unmet load hours.

(j) Per Table A2, provide energy consumption end-use breakdown including:

i. Interior Lighting

ii. Exterior Lighting

iii. Task Lighting

iv. Fans

v. Pumps

vi. Cooling & Heat Rejection

vii. Process Cooling

viii. Heat Pumps

ix. Heating

x. Humidification

xi. Service Water Heating

xii. Receptacle / Process Loads

xiii. Elevators & Escalators

xiv. Miscellaneous

xv. Total

(k) Identify for each end-use the energy consumption by the fuel type, i.e., electricity, natural gas, or any other source of energy that may be available.

(l) For the Design and Construction Energy Target, provide calculations and results for:

i. Total indicative building annual energy consumption, both as MWh and energy use intensity (kWh/m^2/year), and by sourced energy type.

ii. Total building greenhouse gas emissions, both as $tCO_{2e/year}$ and carbon intensity (kg/m^2/year), and by energy source.

iii. Total building energy cost, as $/year and monthly, and by energy source.

(m) Use the format of Tables A1, A2 and A3 for submission of the Design and Construction Energy Target results.

(n) Input Summary Reporting

(o) Use the template provided in Table A4, or greater level of detail, to document key energy modelling inputs and assumptions, including details on optimization of energy systems' operations, controls, and sequences to realize maximum system efficiencies. The information contained in the model inputs shall inform the building systems commissioning process. Output Variable Reporting

At the discretion of the Authority, hourly output variables of the simulation will be submitted by the Design-Builder in electronic format.

1.6. **General Independent Assumptions**

(a) The Design-Builder will use the input data, as provided in Appendix 1. Deviations must be approved by the Authority.

(b) Weather File

(c) Weather Data for the energy models shall be based on two scenarios:

i. 714710 (CWEC 2016) Weather data for Dawson Creek, BC.

ii. 2041-2070 Weather data for Dawson Creek, BC created by the Pacific Climate Impacts Consortium.

(d) Utility & Emission Costs are identified in Table 2. Emission Costs are based on $50/$tCO_{2e}$ for Scenario 1. For Scenario 2, utility and emissions cost need to be adjusted per escalation and discount rates provided in this Appendix.

(e) Emission rates for calculation of annual greenhouse gas emissions, are identified in Table 2.

Table 2: Utility Rates and Emissions Factors

Utility / Emission	Energy Costs	GHG emissions Costs	Emission Factor (tonne CO_{2e} / MWh)
Electricity	**$60.6/MWh & $12.34 per kW demand**	**$0.485/MWh**	**0.0097**
Natural Gas	**$33.41/MWh**	**$9.15/MWh**	**0.183**

1.7. Envelope Modelling Methodology

(a) Take-offs and building constructions as per design. Include exterior envelope dimensions in calculations, not including the cladding and rainscreen cavity. Glazing areas to represent the total area of the rough opening including glass and frame.

(b) Any windows, curtainwall, and spandrel walls must include the thermal bridging impact of framing and installation, using NFRC 100 Standard Procedures, BC Hydro's Building Envelope Thermal Bridging Guide, and/or Fenestration Association of BC (FENBC) Reference Procedure for Simulating Spandrel U-Factors.

(c) Building opaque thermal performance must account for variations in construction types and assemblies, above and below grade.

(d) Thermal bridging from major structural penetrations, such as balcony slabs, beams, girders, columns, and ornamentation or appendages that must completely penetrate the building envelope to perform their intended function should be taken into account.

(e) Thermal bridging from structural penetrations that partly penetrate the building envelope assembly, such as slab edges, should be accounted.

(f) Infiltration: 0.25(L/s)/m² of total gross above-ground wall and roof areas unless the Authority Agrees to a lower rate with design and implementation measures.

(g) For thermal bridges to be included and excluded, follow methodology outlined in City of Vancouver Energy Modelling Guideline v.2.0, Section 3. Overall opaque assembly U-values must be determined using the Enhanced Thermal Performance Spreadsheet (available from BC Hydro New Construction Program), performance data for clear fields and interface details from the Building Envelope Thermal Bridging Guide (BETBG), and the calculation methodology as outlined in the BETBG.

1.8. Thermal Zones

(a) Zoning Methodology

i. Thermal zones in the simulation are to reflect the zones in the design except in cases where doing so would cause simulation issues or inaccuracies, such as:

A. Zones served by single-zone equipment such as cooling fan coils and ventilation air provided by a central VAV system.

B. Large, open spaces served by multiple air terminals or supplemental HVAC units.

C. Other may be identified by the Design-Builder.

(b) Internal loads of thermal zones are to be based on the sum of internal loads applied to the spaces with the thermal zones.

(c) Schedules and temperature settings may be applied to thermal zones based on those of the dominant space when appropriate.

(d) Combination of like interior (core) zones are to follow the following criteria:

i. Same internal load density (lighting, plug & process loads, and occupancy).

ii. Same minimum outdoor air and supply air exchange rates.

iii. Served by the same air system and no zone supplemental equipment.

iv. Same operating schedules.

(e) Combination of like exterior (perimeter) zones are to follow the following criteria:

i. Criteria (1) through (4) per interior zones as outlined in 1.8(d)

ii. Same net floor area +/- 20%

iii. Within a tolerance of 10%, zones have the same ratio of net floor area to: design cooling airflow; design heating airflow; and perimeter heating capacities.

iv. Same exterior surface and window constructions, and shading elements.

v. Same ratio of net floor area to exterior wall and window areas within a tolerance of 10%, and all exterior surfaces facing directions

A. +/- 40° from true north or

B. within 10° for all other directions.

vi. All zones are completely shaded, or all zones are completely unshaded by topographical features, other buildings, or by surfaces of the building itself.

1.9. **Schedules & Setpoints**

(a) Schedules & Hours of Operation

i. All schedules applicable to the simulation are to be referenced in NECB 2017.

(b) Room Set-Points

i. All space temperature and humidity setpoints are to be set as indicated in CSA Z317.2

ii. Where space temperature and humidity setpoints are not indicated in CSA Z317.2, setpoints are to be per the relevant NECB operating schedule by space type.

(c) Appended Table A5 identifies departments and the associated NECB schedule that is to be used for simulation parameters. The NECB schedule is to be used for the following parameters:

i. Occupants: occupant schedule for spaces within the department.

ii. Lighting: lighting schedule for spaces within the department.

iii. Receptacle equipment: receptacle equipment schedule for spaces within the department.

iv. NECB Fans Schedule: departmental occupied and unoccupied hours, as referenced by CSA Z317.2 for occupied and unoccupied period flow rates.

1.10. Air Systems

(a) Ventilation Rates

i. Apply CSA Z317.2 minimum air change rates.

ii. Ventilation setback is permitted where identified in CSA Z317.2.

(b) Air System Heat Recovery

i. Air system heat recovery effectiveness is normally a function of the fraction of actual-to-nominal airflow. If the simulation software's heat recovery algorithm cannot accommodate adjusting the parameters of this function, the nominal effectiveness is to be adjusted so that the simulated effectiveness is less than or equal to the rated effectiveness throughout the range of airflow ratios.

ii. If an energy recovery device is incorporated in the design, latent effectiveness should be simulated.

iii. Controls

A. Controls must be modelled in alignment with anticipated operations, documented in simulation report, and provided to commissioning agent.

1.11. Internal and Miscellaneous Loads

(a) Occupancy

On a space-by-space basis, NECB is to be referenced for occupant density.

(b) Exterior Lighting

Lighting load as per design. Total kW with schedule based on photocell controls per ASHRAE 90.1-2016.

(c) Elevator Electricity Consumption

Use BC Hydro NCP Energy Modelling Guideline for elevator energy assumptions

(d) Parking Garage – if applicable

Based upon the design. Assume 6 hours daily exhaust fan operation controlled by vehicle emission sensors. Lighting is to be continuously available.

(e) Service Water Heating

i. Annual service hot water (SHW) consumption is to be 124 MWh of thermal energy, excluding efficiency of generation, and based on code-compliant fixtures. This value can be reduced based on the degree to which actual fixtures selected reduce hot water consumption.

ii. SHW does not need to be applied at the zone level.

iii. Operating schedules for SHW use are to be based on those listed in Tables A5 per space use of each zone.

iv. Space SHW use is to be in proportion to the default SHW intensities of NECB "Modelling Guidance for Loads, Operating Schedules, and Illuminance Levels by Space Type", and adjusted for each space type such that the product of:

A. space SHW load intensity (W)

B. space operating fraction for each hour of annual schedule

C. fraction of reduced-flow fixture to code compliant fixture SHW usage, and

D. MW per W

for all spaces equals the total SHW consumption.

v. This load is to be applied to the SHW plant loop.

(f) Receptacle and process loads shall be modelled as per Table A6 – Special Inputs. Any special process loads, including kitchen and laundry services are to be included in total process load as provided in Table A6.

1.12. Appended Tables

These tables are to be used to show the energy modelling inputs and results.

A1 – Energy Cost & Emission Summary

A2 – End Use Breakdown

A3 – Energy Use Intensity by End Use

A4 – Modelling Input Summary Table

A5 – Department Operating Schedules

A6 – Special Inputs

Table A1 Energy, Cost & Emission Summary		Total	Electricity		Natural Gas		NEU		Greenhouse Gas	
		Cost	Cost	Demand	Cost	Demand	Cost	Demand	Cost	CO_2e tonne
			Cost	Energy		Energy		Energy		
January	kW	*$*	*$*	*kW*		*kW*		*kW*	*$*	*tonne*
	MWh		*$*	*MWh*		*MWh*		*MWh*		
February	kW									
	MWh									
March	kW									
	MWh									
April	kW									
	MWh									
May	kW									
	MWh									
June	kW									
	MWh									
July	kW									
	MWh									
August	kW									
	MWh									
September	kW									
	MWh									
October	kW									
	MWh									
November	kW									
	MWh									
December	kW									
	MWh									
Annum	kW									
	MWh									

Table A2 Energy Consumption by End-Use MWh/year			
End Use	**Electricity**	**Natural Gas**	**NEU**
Interior Lights			
Task Lights			
Exterior Lights			
Fans			
Pumps			
Cooling & Heat Reject.			
Process Cooling			
Heat Pumps			
Heating			
Humidification			
Service Water Heating			
Receptacles / Process Loads			
Elevators			
Miscellaneous			
Total			

Table A3 Energy Use Intensity by End-Use kWh/m^2/year			
End Use	**Electricity**	**Natural Gas**	**NEU**
Interior Lights			
Task Lights			
Exterior Lights			
Fans			
Pumps			
Cooling & Heat Reject.			
Process Cooling			
Heat Pumps			
Heating			
Humidification			
Service Water Heating			
Receptacles / Process Loads			
Elevators			
Miscellaneous			
Total			

Table A-4

Inputs	Energy Model Assumptions Reporting
Software used and version	
Climate Zone & Weather File	
Building Floor Area and MFA	
Hours of operation	
Utility Rates & Emission Factors	
Electricity	
Gas	
Other Fuel Sources	
Envelope Performance	
Roof R-value (effective) ($^oK \cdot ft^2/btuh$)	For each type
Wall Above Grade R-value (effective) ($^oK \cdot ft^2/btuh$)	For each type
Wall Below Grade R-value (effective) ($^oK \cdot ft^2/btuh$)	For each type
Slab on grade ($^oK \cdot ft^2/btuh$)	
WWR Glazing (%)	
Glass U-value including frame ($btu/h.ft^2.F$), and Solar Heat Gain Coefficient (SHGC)	For each type
Shading Devices	
Infiltration Rate	
Internal Loads	
Occupant Density & Schedule	
Lighting Power Density & Schedule	
Interior Lighting Controls	
Exterior Lighting	
General Plug Loads & Schedule	
Process Loads & Schedule	
Elevators & Schedule	
Domestic Hot Water & Schedule	
Operating Conditions	
Room Set-points	Temperature, Humidity
Air Handling Units	Per AHU and MAU– list all that applies: Area it serves Min OA Flow and % of total Total Supply Air Flow Heating Coil Capacity Cooling Coil Capacity

Inputs	Energy Model Assumptions Reporting
	Reheat Coil Capacity Fan Power Supply Fan Power Return Fan Power Exhaust Supply Air Temperature Humidification Controls / Variable / Constant Volume / DCV
Heat Recovery Ventilators	Per HRV or ERV -list all that applies: Min OA flow Sensible efficiency % Latent efficiency %
Zone Terminal Systems	List all that applies for heating and cooling
Zone Exhausts	Per System: Air Flow Fan Power
Central Plant	
Heating Equipment Type	Type, Capacity, Efficiency, Temperature
Hot Water Loop	Per Hot Water Loop – list all that applies: Supply Water Temperature Return Water Temperature Description of Reset / Controls Heat Rejection/Heat Recovery
Cooling Equipment Type	Type, Capacity, Efficiency, Temperature
Chilled Water Loop	Per Chilled Water Loop – list all that applies: Supply Water Temperature Return Water Temperature Heat Rejection/ Heat Recovery
Heat Rejection	Type, Capacity, Efficiency, Temperature
Condenser Water Loop	Per Condenser Water Loop –list all that applies: Supply Water Temperature Return Water Temperature Heat Rejection/ Heat Recovery
Steam System	Type, Capacity, Efficiency, Temperature
Domestic Hot Water Preheat	Type, Capacity, Temperature
Domestic Hot Water	Type, Capacity, Efficiency, Temperature, Storage Capacity
Pumps	For all pumps: Flow, Power
Other	
Renewable Energy	List all that applies: Type, Capacity

Table A5 Department Operating Schedule		
Department		**NECB 2017 Schedule**
Clinical Services	Emergency	H
	Clinical Decision Unit	H
	Ambulatory Services	B
	Inpatient Services	J
	High Acuity Unit	H
	Maternity and Newborn	H
	Mental Health Services	J
	Surgical Services	H
Clinical Support Services	Laboratory	A
	Diagnostic Imaging	H
	Pharmacy	C
	Rehabilitation	C
Non-Clinical Support Services	Biomedical Engineering	A
	Registration / Admitting	H
	Administration / Staffing Office	A
	HIMS	A
	Information Technology	A
	Medical Device Reprocessing (MDR)	A
	Housekeeping	H
	Nutrition and Food Services	B
	Laundry Services	H
	Facility Maintenance	A
	Supply Chain Management	H
	Concierge	A
	Academic and Teaching	C
	Morgue	H
	Staff Support (Lockers, Change Area)	C
	Staff Support (Lounge and Meeting Rooms)	C
Ambulance Garage	Ambulance Garage	A

Table A6 Special Inputs				
Reference	**Category**	**Input Parameter**	**Input**	**Comment**
1	Electrical Process Load - Total	Plug Load	871 MWh	Use NECB standard plug load rates by space type, and adjust rates proportionally to achieve total plug load input.

SCHEDULE 10

APPRENTICESHIP POLICY

1. APPRENTICESHIP POLICY

1.1 The Design-Builder acknowledges that it has obtained a copy of and has reviewed the B.C. government policy set out in Apprentices on Public Projects Policy and Procedure Guidelines, Date: July, 2015, Update: March, 2016 available at https://www2.gov.bc.ca/assets/gov/business/economic-development/assets/apprentices-on-public-projects/policy_and_procedure_guidelines.pdf (the "**Apprenticeship Policy**").

1.2 Unless defined in this Agreement, capitalized terms in this Schedule have the meaning given in the Apprenticeship Policy.

2. APPLICATION

2.1 The Design-Builder agrees that the Apprenticeship Policy applies to this Agreement and the Design-Builder will, subject to the reasonable assistance of the Authority, comply with the requirements of the Apprenticeship Policy.

2.2 The Design-Builder agrees that the Authority requires the Design-Builder to apply the Apprenticeship Policy to Subcontractors and Subcontracts (of all tiers) valued at $500,000 or more.

3. REQUIREMENTS

3.1 The Design-Builder acknowledges that the requirements of the Apprenticeship Policy and this Schedule include:

(a) using Registered Apprentice(s) in respect of Specified Trades valued at $500,000 or more;

(b) reporting in Form A: Confirmation of Intent to Use Registered Apprentices as soon as practicable and at least 5 days prior to commencement of Work under this Agreement or work under the applicable Subcontract and completing all supplementary forms (Form A) as required;

(c) reporting in Form B: Apprentice Utilization Report quarterly and upon completion of Work under this Agreement or work under the applicable Subcontract; and

(d) complying with applicable requirements in relation to Personal Information.

3.2 The Design-Builder further acknowledges that under the Apprenticeship Policy the Authority may, or may permit the Ministry, to exercise all provisions of the Apprenticeship Policy applicable to the Contracting Authority or the Province (whether through the Ministry or otherwise) provisions that permit the Contracting Authority:

(a) to delay the start of Work on the Project until the Authority has confirmed, through the Ministry, that Registered Apprentices will be used on the Project; and

(b) to delay issue of final payment in relation to the applicable Work until the final Form B is submitted.

3.3 The Design-Builder represents that the Design-Builder will ensure that the provisions of this Schedule are incorporated into applicable Subcontracts.

3.4 The Design-Builder and the Authority acknowledge that any change to the Apprenticeship Policy will, if required by the Authority to be implemented for purposes of this Agreement, be implemented as a Change under Part E- Changes.

SCHEDULE 11

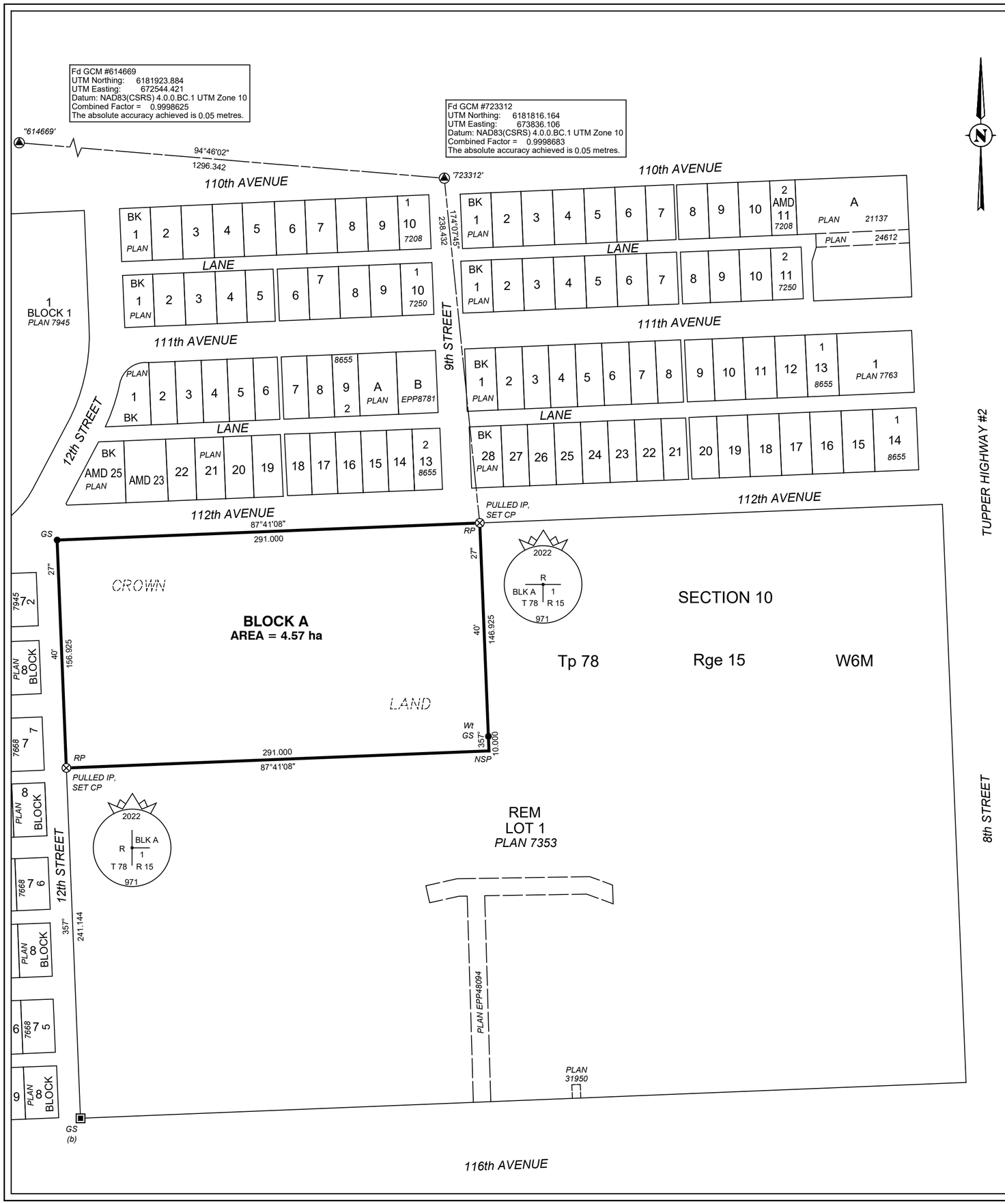
SITE PLAN

See separate document.

SCHEDULE 11

SITE PLAN

PLAN EPC2265



SURVEY PLAN OF
BLOCK A SECTION 10
TOWNSHIP 78 RANGE 15 W6M
PEACE RIVER DISTRICT

BCGS 93P.079

0 20 40 80 120 160 200 Metres

THE INTENDED PLOT SIZE OF THIS PLAN IS 560mm IN WIDTH
BY 432mm IN HEIGHT ('C' SIZE) WHEN PLOTTED AT A SCALE OF 1:2000

NOTES :

This plan lies within the jurisdiction of the approving officer of the City of Dawson Creek

Integrated Survey Area No. 2 City of Dawson Creek NAD83(CSRS)

Grid bearings are derived from RTK GNSS observations and are referred to the central meridian of the UTM Zone 10 (123rd Meridian of West Longitude). Datum: NAD83(CSRS) 4.0.0.BC.1 UTM Zone 10.

The UTM coordinates and estimated absolute accuracy achieved are derived from ties to Geodetic Control Monuments GCM #723312 & GCM #614669.

This plan shows horizontal ground-level distances, unless otherwise specified. To compute grid distances, multiply ground-level distances by the average combined factor of 0.9998683.

The average combined factor has been determined based on an ellipsoidal elevation of 642.9 metres.

All distances are in metres and decimals thereof.

This plan shows one or more witness posts which are not set on the true corner(s).

LEGEND

FOUND / PLACED

▣	Old Pattern Dominion Iron Post (DLSIP)
●	Standard Iron Post
⊗	Standard Capped Post
▲	Control Monument
GS	Guard Stake
NSP	Not Suitable to Post
Wt	Witness
(b)	Buried
AMD	Amended
BK	Block

CROWN FILE # : 8016152
PIN # : 90173582

THIS PLAN LIES WITHIN THE PEACE RIVER REGIONAL DISTRICT

THE FIELD SURVEY REPRESENTED BY THIS PLAN WAS COMPLETED ON THE 21st DAY OF OCTOBER, 2022
PATRICK T. RANDALL, BCLS 971

ECR # : 265857 ECR DATE : OCTOBER 25,2022

FILE No.: 2012255
DRAWING No.: 2012255LAS
DATE : October 25th, 2022
DT-PR-CN

VECTOR GEOMATICS LAND SURVEYING LTD.
6884 Airport Road, PO Box 6428
Fort St. John, B.C. V1J 4H8
Ph.: (250) 785-7474 Fax (250) 785-7454
www.vectorgeomatics.com

SCHEDULE 12

MONTHLY LABOUR REPORTING TABLE

	Local		**Regional**		**Fly-in/Fly-out (from B.C.)**		**Alberta**		**Rest of Canada**		**Identify as Indigenous**		**Totals**		**TOTAL ON SITE**
Trade Contractor	Non Apprentice	Apprentice	Non Apprentice	Apprentice	Non Apprentice	Apprentice	Non Apprentice	Apprentice	Non Apprentice	Apprentice	Non Apprentice	Apprentice	Non Apprentice	Apprentice	
[Insert names]															
[modify as required]															
…															
Sub-total															
Combined Total	[insert total Local]		[insert total Regional]		[insert total Fly-in/Fly-out]		[insert total Alberta]		[insert total Rest of Canada]		[insert total Identify as Indigenous]				
Combined %	[calculate Local as percentage of Total]		[calculate Regional as percentage of Total]		[calculate Fly-in/Fly-out as percentage of Total]		[calculate Alberta as percentage of Total]		[calculate Rest of Canada as percentage of Total]		[calculate Identify as Indigenous as percentage of Total]		[insert total Non Apprentice]	[insert total Apprentice]	[insert total]
	Local and Regional (%)		[calculate Local and Regional as percentage of Total]		**Fly-in/Fly-out (%)**		[calculate Fly-in/Fly-out as percentage of Total]		**Alberta and Rest of Canada (%)**		[calculate Alberta and Rest of Canada as percentage of total]		**100%**		

1. For the purposes of this form, the following terms have the following meanings:

   (a) "**Alberta**" means workers who reside in Alberta and drive to the site daily or whose primary residence is in Alberta who are residing in Dawson Creek for the purpose of working on the Project;

   (b) "**Fly-in/Fly-out (from B.C.)**" means workers who have a primary residence in B.C., outside of the Authority's service area, who are flying in to work on the Project;

   (c) "**Local**" means workers who travel to Site from home daily;

   (d) "**Regional**" means workers have primary residence in the in the Authority's service area; and

   (e) "**Rest of Canada**" means workers who have a primary residence elsewhere in Canada (outside of B.C. and Alberta) who are residing in Dawson Creek for the purpose of working on the Project.

SCHEDULE 1

STATEMENT OF REQUIREMENTS

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SCHEDULE 1

Statement of Requirements

PART 1 Interpretation

1.1 Definitions

In this Schedule, in addition to the definitions set out in Schedule 1 of this Agreement:

"Acoustic and Vibration Consultant" means a specialized consultant with qualifications and experience in the design of acoustical measures and vibration control in the built environment.

"Acoustical Privacy" means a reasonable safeguard to ensure speech privacy (the inability of an outside listener to understand a conversation between two or more individuals) both in-person and telephone conversations with Patients and between employees.

"Ambulatory/Outpatient Care" means walk-in care not requiring an overnight stay in hospital and may include diagnostic services, rehabilitation services, or day care procedures.

"Authority Network" refers to the Authority owned, managed and secured IT network for sending and receiving digitized information (voice, data and video) between networked end-use devices and networked equipment.

"**Back-up Cross Connect Room (BCCR)**" has the meaning set out in Section 7.7 of this Schedule and the Northern Health Communications Infrastructure Standard (1.7).

"Back of House" refers to all non-public, non-Patient Care, non-clinical areas, within and/or surrounding the Building which are essential for day-to-day operations of the Facility.

"Bariatric Patients" refers to the branch of medicine that deals with the causes, prevention, and treatment of obesity. For the purposes of this project, Bariatric Patients will be defined as individuals that weigh 135-326 kg.

"**BC Building Code (BCBC)"** means the British Columbia Building Code.

"Borrowed Natural Light" means light that is transmitted to an interior space through an interior window and that comes from an adjacent space having an exterior window.

"**Building Envelope Specialist (BES)"** means the individual who is a Professional Engineer or Architect with a concentrated practice in the area of building science and who is qualified to engage in such practice. The Building Envelope Specialist has a minimum of 10 years' experience with a minimum of five years of recent experience working in a cold weather environment, and is responsible for design and construction reviews of building elements providing environmental separation to meet their intended functions including but not limited to condensation control, water penetration control, heat, air, and moisture transfer, and other performance criteria as outlined, in meeting the Owner's requirements in consideration of the environmental loads, building location, and occupancy.

"Building Management System (BMS)" means the computer networking of electronic devices designed to monitor and control the mechanical, security, fire, lighting, energy usage, HVAC, and humidity control and ventilation systems in a building.

"CGF (Component Gross Factor)" is a numerical factor by which the NSM for a department or area is multiplied to calculate CGSM.

"CGSM (Component Gross Square Metres)" is the area of a component that includes all net area, all dedicated internal circulation space accessing only net areas within a component and all internal demising walls between net areas and dedicated circulation space. Exterior walls, demising walls between components and vertical circulation shafts and shaft walls are excluded from CGSM calculations.

"CGSM-required" is the minimum component area of a subset of Building components that must be provided in the Building.

"Chemotherapy" refers to the treatment of disease by chemical agents taken orally or intravenously.

"City" refers to the City of Dawson Creek.

"Clean Utility / Supply Room" refers to a room for the storage of items such as clean linens and sterile supplies. At minimum, it contains a counter work area and storage cabinets.

"Clinical Space/Area/Room" refers to any room, area, or space that could, at any time, accommodate Patients while they are or could be receiving direct care, treatment, therapy, counselling, training, instruction, and/or interaction with Staff while occupying the room or space. This also includes any area that clinical Staff may access on a frequent basis for supplies, materials, and equipment during the course of interaction with Patients during treatment or care of the Patients.

"**Clinical Specifications**" describes and outlines the key needs and building design attributes required to successfully implement clinical operations and achieve the desired model of care. The document describes both general planning concepts and detailed specific clinical needs. Refer to Appendix 1A Clinical Specifications.

"Commissioning" (Cx) is the process comprising of the integrated application of a set of engineering techniques and procedures to check, inspect, and test every operational component of the project, from individual functions up to complex amalgamations.

"Communications Room" refers to all of the following rooms and spaces: entrance facilities, Telecommunications Rooms (TRs), Main Cross Connect Room (MCCR), and Back-up Cross Connect Room (BCCR).

"Communications Systems" refers to all systems, equipment and devices provided by either the Authority or the Design-Builder included in 7.7 Communications (Division 27) and 7.8 Electronic Safety and Security (Division 28) of this Schedule.

"Component" or "Functional Component" is a cohesive grouping of activities or spaces related by service or physical arrangement. A component or functional component may or may not be a department since the term "department" refers to an administrative organization rather than a functional organization of space and activities.

"Construction Documents" means the progressive Submittals made by the Design-Builder to the Authority in accordance with Schedule 2 [Review Procedure].

"Convenient Access" means physical access between rooms or components which is suitable or agreeable to the needs or purpose of the delivery of care and/or support services through the use of easily accessible, well-suited with respect to facility and ease of use, horizontal and/or vertical General Circulation.

"Courtyard" is an outdoor space accessible from the building interior that is enclosed by building walls, fencing or hedges to a minimum height of 1.8 m.

"Crime Prevention Through Environmental Design (CPTED)" means a multi-disciplinary approach to deterring undesirable and criminal activity and behaviour through environmental design.

"Critical Care Area" The specialized care of Patients whose conditions are life-threatening and who require comprehensive care and constant monitoring.

"**dBA**" is a weighted sound pressure level within a space adjusted based on human hearing systems (e.g. less sensitive to low frequencies).

"Deck" means an outdoor deck/balcony space above finished grade.

"Disaster Situation" refers to any event that creates a significant, short-term spike in the demand for emergency care services that requires extraordinary measures to address adequately.

"Direct / Integrated" means access for Patients and/or Staff between rooms or components.

"Documents" refers to submittals, technical manuals, supporting materials, warranties, or Design-Builder produced technical drawings, details, and illustrations which are to be provided by the Design-Builder to the Authority pursuant to this Schedule 1 [Statement of Requirements].

"Electronic Medical Records (EMR)" means the digital medical records of the Patients. The EMR software programs the Authority uses are *MOIS* for primary and community care and *Cerner* for acute care.

"Emergency" as defined by the BC Ministry of Health is "a condition of such severity that death, severe pain, chronic illness, or permanent disability may result if immediate hospital treatment is not given." In some instances (e.g. terminal cancer cases), death will be inevitable though not necessarily immediate, yet instant hospital admission will be required for the relief of suffering.

"Evidence Based Design (EBD)" means that decisions about the design of the facility will be informed by available credible research, information derived from comparable projects, and information about Authority operations, in order to achieve the best possible outcomes. The goal of Evidence Based Design is to deliver measurable improvements (for example in the Authority's Patient and workflow outcomes, productivity, economic performance, and Patient satisfaction).

"FM Management System" means a system that will consist of an Integrated Building Management Platform (IBMP) software, which is composed of a Folio Database and Analytics Platform.

"Garden" is an outdoor space accessible from the building interior that does not require visual screening.

"General Circulation" is the system of connecting links (corridors, elevators, stairs) providing access for people and materials to or between functional components.

"Glazing" exterior or interior glass.

"Healing Environment" means a physical environment comprised of elements that have, in combination, been proven to create therapeutic, low stress and comfortable environments for Patients, their families, and Staff;

"Human Scale" means spaces and compositions of material elements which in combination are comfortable for people in their use.

"**IMIT**" refers to information management and information technology. It can be used to refer to all work and equipment required by Division 27.

"IMIT Systems" refers to all systems, equipment and devices provided by either the Authority or the Design- Builder included in 7.7 Communications (Division 27).

"Independent Commissioning Authority" means the firm retained by the Authority responsible for reviewing the commissioning submittals of the Independent Commissioning Agent (retained by the Design-Builder).

"Inpatient" A Patient who is admitted to a hospital for overnight care and to whom an Inpatient bed has been assigned.

"Inpatient Care" Care requiring admission to a hospital or other health care facility for a stay of at least twenty- four hours.

"Inpatient Units" means Components that typically provide care for more than 24 hours and/or overnight.

"Internal Circulation" means the system of connecting links (corridors, elevators, stairs) within functional Components, connecting rooms of a Component or directly connecting contiguous components.

"Landscape Area" means all areas outside the building footprint that is not covered by the Courtyard, Secure Courtyard, Staff Garden, Garden, and Landscape Expansion Zone.

"**Landscape Expansion Zone"** means an Expansion Zone (2950m^2) located on hospital grounds which should be developed as a landscaped area that provides staff, visitors and patients with outdoor resting areas and walking pathways in a natural park like setting.

"**LEAN**" means to a structured way of continuously providing solutions to eliminate waste in systems that deliver value to customers and as defined by the Lean Enterprise Institute.

"Length of Stay (LOS)" The amount of time, usually measured in days, spent by a Patient in a hospital.

"Main Entrance" means the primary public entrance to the Building.

"**Master Site Plan**" has the meaning set out in Section 4.1 of this Schedule.

"**Main Cross Connect Room (MCCR)**" has the meaning set out in Section 7.7 of this Schedule and the Northern Health Communications Infrastructure Standard 1.7.

"Net Area or Net Square Metres (NSM)" means the horizontal area of space assignable to a specific function. The Net Area is the area of the space, as measured from the inside face of wall to inside face of wall, including area occupied with permanent millwork or equipment and excluding "box-outs" (e.g. furred column and service risers). The Net Area requirements outlined within this Schedule are to be considered the minimum requirement for each space.

"NLC" means Northern Lights College, including buildings and property.

"Noise Criteria (NC)" is a single number rating that is sensitive to the relative loudness within a given space at different frequencies.

"Noise Reduction Coefficient (**NRC)"** is a single number rating of the sound absorbing properties of a material – derived by arithmetically averaging the Sabine absorption coefficients at 250 Hz, 1000 Hz, 2000 Hz and 4000 Hz. An NRC of 0.00 indicates zero absorption while; an NRC of 1.00 indicates 100% absorption.

"Non-Clinical Space/Area/Room" is a room, area or space that does not meet the requirements of Clinical Space/Area/Room. Examples of Non-Clinical Rooms include Staff Lounges, Lockers, Staff Washrooms, Housekeeping rooms, Offices.

"Northern Lights" means lights seen above the magnetic poles of the northern and southern hemispheres caused by collisions between electrically charged particles from the sun that enter the earth's atmosphere. They are also known as 'Aurora borealis' in the north and 'Aurora australis' in the south.

"Obstetrics" - The branch of medicine concerned with pregnancy and prenatal care, childbirth, and postnatal care.

"Oncology" – The branch of medicine specializing in the study and treatment of cancer.

"Patient" means a recipient of any direct care or treatment provided at the facility.

"Patio" means an accessible paved outdoor space level with the adjacent interior floor level.

"Persons with Disabilities" means a person who has a loss, or a reduction, of functional ability and activity and includes a person in a wheelchair and a person with a sensory disability.

"Premium Efficiency Motors" motors as defined by the National Electrical Manufacturers Association to carry the NEMA Premium™ label. These consume less electricity, are designed for optimum efficiency, and are quality-built motors.

"Privacy Index (PI)" measures how intelligible speech is across a given space as defined in ASTM 1130.

"Public Spaces" refers to all areas accessible to the public during business hours that allow visitors freedom of movement. Some areas may require access permissions.

"Regularly Occupied Space" means a room or space within the facility that is likely to be occupied continuously for 30 minutes or more by a facility user. Regularly Occupied Spaces include, but are not limited to, Patient rooms, Staff work areas and care stations. Regularly Occupied Spaces do not include 'transient' type spaces such as corridors and washrooms.

"Rehabilitation" multidisciplinary services that provide access to, and delivery of physical, communication, mental, social, vocational, preventative, recreational, avocational, psychosocial, and independent living services.

"Staff" means a person employed by the Authority who is allowed to provide care.

"Staff Garden" is an outdoor space accessible from the building interior that is enclosed by building walls, fencing or hedges to a minimum height of 1.2 m.

"Staff Patio" means an outdoor space associated with a Staff Lounge.

"Staff Entrance" means an entrance dedicated for Staff entrance.

"Schedule of Accommodation" means the list of all required rooms and spaces with all their net areas as required by Appendix 1A Clinical Specifications.

"Securable, or Secure, or Secured" ability of the space to be locked or secured.

"Secure Courtyard" is an outdoor space accessible and highly visible from Staff workstations and circulation spaces within the building interior that is enclosed by building walls and/or secure unclimbable fencing to a minimum height of 3 m.

"Sightlines" the ability to see directly and clearly from one location to another.

"Soiled Utility Room" a room that contains soiled material to minimize the risk of infection transmission in clinical areas. Room will store soiled equipment, soiled linen, and waste. At minimum it contains a work counter with HHS, space for garbage and recycling containers, hospital approved product and equipment for cleaning, closed cupboards for storage of equipment and supplies.

"Sound Transmission Class (STC)" is a single number that is an indication of a partition's ability to block sound (i.e. in the speech frequencies). The higher the STC rating, the higher is the sound transmission loss. For instance: loud speech can be understood fairly well through an STC 30 wall but should not be audible through an STC 60 wall.

"Speech Transmission Index (STI)" is a measure of speech transmission quality.

"Specimen Tree" is a landscape term used to describe an unusual, impressive, or ornamental tree grown as a focus of interest in a garden or landscape area. It could be incorporated into Courtyards, Gardens, and other landscape areas. Tree species examples could include but not limited to *Acer ginnala* (Amur Maple), *Amelanchier canadensis (*Shadblow Serviceberry), *Malus 'Prairifire'* (Prairiflower Flowering Crabapple), *Picea abies 'Pendula'* (Weeping Norway Spruce), *Acer palmatum 'Beni-kawa'* (Japanese Maple).

"Stormwater Detention Area" is a fully landscaped surface area intended for temporary detention of stormwater.

"TAB" means testing, adjusting, and balancing.

"**Telecommunications Room (TR)**" has the meaning set out in Section 7.7 of this Schedule and the Northern Health Communications Infrastructure Standard 1.7.

"Telehealth" means the use of electronic information and telecommunications technologies to support long-distance clinical healthcare, resident, and professional health-related education, public health, and health administration.

"Workstation" workspace with voice, data, and power access. Assumes at least one seat, task lighting, and storage.

1.2 Interpretation

1.2.1 This Schedule is written as an output specification and defines what the Design-Builder must achieve in design and construction. Except as expressly stated otherwise, the Design-Builder will carry out the design and construction as required and contemplated by each provision of this Schedule and its Appendices whether or not the provision is written as an obligation of the Design-Builder or is stated in the imperative form.

1.2.2 Where "cost effective", "appropriate", "sufficient", "minimize" and related and similar terms are used, they are to be construed and interpreted in terms of whether they are cost effective, appropriate, sufficient, minimizing from the perspective of a prudent public owner of a major public hospital facility who balances capital costs against maintenance, operations, clinical efficiency, and other non-capital costs over the life of the facility.

1.2.3 Unless expressly stated otherwise, each reference to a standard in this document will be deemed to mean the latest version as of the Effective Date.

1.3 Acronym List

AAMA – American Architectural Manufacturers Association

ACI – American Concrete Institute

ADL – Activities of Daily Living

AFF – above finished floor

AHC – Architectural Hardware Consultant

AHJ – authority having jurisdiction

AHU – air handling unit

AIBC – Architectural Institute of British Columbia

AIR – Airborne Isolation Unit

AISI – American Iron and Steel Institute

AMCA – Air Movement and Control Association

ANSI – American National Standards Institute

ANSI/TIA – American National Standards Institute/Telecommunications Industry Association

ASHRAE – American Society of Heating, Refrigerating and Air-Conditioning Engineers

ASME – American Society of Mechanical Engineers

ASPE – American Society of Plumbing Engineers

ASTM – American Society for Testing and Materials

ATS – Automatic Transfer Switch

AWCC – Association of Wall and Ceiling Contractors

AWMAC – Architectural Woodwork Manufacturers Association of Canada

AWWA – American Water Works Association

BCBC – British Columbia Building Code

BCCR – Back up Cross Connect Room

BCERMS – British Columbia Emergency Response Management System

BCICA – British Columbia Insulation Contractors Association

BCLNA – British Columbia Landscape & Nursery Association

BCLS – British Columbia Landscape Standard

BCSLA – British Columbia Society of Landscape Architects

BECx – Building Envelope Commissioning

BECxA – Building Enclosure Commissioning Agent

BICSI – Building Industry Consulting Service International

BMS – Building Management System

BOD – Basis of Design

CATV – Community Access Television

CCTV – Closed Circuit Television

CDP – Central Distribution Panel

CEC – Canadian Electrical Code

CGF – Component Gross Factor

CGSB – Canadian Standards Board

CGSM – Component Gross Square Metres; refer to 1.1 Definitions

CMCA – Canadian Masonry Contractors Association

CPI – Centre for Process Innovation

CPTED – Crime Prevention Through Environmental Design

CRI/IAQ – Canadian Rug Institute/Indoor Air Quality Program

CSA – Canadian Standards Association

CSDFMA – Canadian Steel Door and Frame Manufacturers Association

CSLA – Canadian Society of Landscape Architects

CSSBI – Canadian Sheet Steel Building Institute

CT – Computerized Tomography

CTI – Cooling Technology Institute

CVA – Cerebrovascular Accident

CWB – Canadian Welding Bureau

CxA – Independent Commissioning Authority (retained by the Authority)

dB – Decibels

dBA – A-Weighted sound pressure level

DCOF – dynamic coefficient of friction

DDC – Direct Digital Controls

DHI – Door and Hardware Institute

EBD – Evidence-Based Design

ECG – Electrocardiogram

EHR – Electronic Health Record

EMI – Electromagnetic interference

EMT – Electric Metallic Tubing

EMR – Electronic Medical Record

EMC – Emergency Medical Services

ENS – Environmental Notation System

EOC – Emergency Operations Centre

EPA – Environmental Protection Agency

ES – Emergency Services

FACP – Fire Alarm Control Panel

FOIPPA – BC Freedom of Information and Protection of Privacy Act

FM – Facilities Management

FM – Factory Mutual

FMO – Facilities Management Office

FTE – Full-Time Equivalent

GFCI – Ground Fault Circuit Interrupter

GCA – Glazing Contractors Association of British Columbia

HAZMAT – Hazardous Materials

HEPA – High Efficiency Particulate Air

HHS – -Hand Hygiene Sink

HOA – Hand/Off/Auto

HP – Horsepower

HSA – Health Services Administrator

ht/ hts – height / heights

HVAC – Heating, Ventilating and Air Conditioning

IBMP – Integrated Building Management Platform

ICU – Intensive Care Unit

IEEE – Institute of Electrical and Electronic Engineers

IES – Illuminating Engineering Society

IMIT – Information Management Information Technology

IP – Internet Protocol

IPC – Infection Prevention and Control

IPU – Inpatient Unit

IV – Intravenous

kW – Kilowatt

kWh – Kilowatt hours

kV – Kilovolt

kVA – Kilovolt Ampere

LAN – Local Area Network

LCD – Liquid Crystal Display

LDAP – Lightweight Directory Access Protocol

LDRP – Labour Delivery Recovery and Post-Partum

LED – Light Emitting Diode

LEED – Leadership in Energy and Environmental Design

Mb – Megabit

MCC – Motor Control Centres

MCCR – Main Cross Connect Room

MCP – Motor Circuit Protector

MDC – Medical Day Care

MDR – Medical Device Reprocessing

MDRD – Medical Device Reprocessing Department

MHAS – Mental Health & Addiction Services

MI – Medical Imaging

MM – Material Management

MMCD – Master Municipal Construction Documents

MPI – Master Painters Institute

MRI – Magnetic Resonance Imaging

MRP – Most Responsible Physician

NAPRA – National Association of Pharmacy Regulatory Authorities

NC – Noise Criteria

NCRP – National Council on Radiation Protection and Measurement

NEMA – National Electrical Standards Association

NFCA – National Floor Covering Association

NFPA – National Fire Protection Association

NH – Northern Health Authority

NIC – Noise Isolation Class

NRC – Noise Reduction Coefficient

NSM – net square metres

NTP – Network Time Protocol

NTS – not to scale

OSDP – Open Supervised Data Protocol

OPR – Owner Project Requirements

OR – Operating Room

OS&Y – Open Stem and Yoke

OT – Occupational Therapy

PACS – Picture Archiving and Communication System

PC – Personal Computer

PCA – Patient-Controlled Analgesia

PCC – Patient Care Coordinator

PHSA – Provincial Health Services Authority

PoC – Point of Care

PoE – Power Over Ethernet

PPE – -Personal Protective Equipment

ppm – pixels per metre

PTZ – Pan Tilt Zoom

PVC – Polyvinyl Chloride

RCABC – Roofing Contractors Association of British Columbia

RCMP – Royal Canadian Mounted Police

RFID – Radio Frequency Identification

RCDD – Registered Communications Distribution Designer

RT60 – Reverberation Time

RTLS – Real Time Location System

SIP – Session Initiated Protocol

SMACNA – Sheet Metal and Air Conditioning Contractors National Association

SNR – Signal to Noise Ratio

SPD – Surge Protection Device

STC – Sound Transmission Class

TR – Telecommunications Room

TTMAC – Terrazzo and Tile Manufacturers Association of Canada

TVOC – Total Volatile Organic Compounds

TVSS – Transient Voltage Surge Suppressor

ULC – Underwriters' Laboratories of Canada

UPS – Uninterruptible Power Supply

US – United States (of America)

V – Volt

VAV – Variable Air Volume

VFD – Variable Frequency Drive

VLAN – Virtual Local Area Network

VOC – Volatile Organic Compounds

VoIP – Voice Over Internet Protocol

WC – Water Closet (Washroom)

WLC – Wireless LAN Controller

PART 2 General

2.1 Applicability of Specifications to the Facilities

2.1.1 This Schedule 1 and the Appendices attached to this Schedule 1 set out specifications for the Design and Construction of the new Facility: Dawson Creek and District Hospital Replacement Project.

2.2 Project Overview

2.2.1 A brief overview of the Project is set out below:

2.2.1.1 The Facility as defined in the Design-Build Agreement.

2.2.1.2 Clearing of the Site to allow for construction is included in the Design-Builder's scope.

2.3 Clinical Specifications

2.3.1 Clinical Specifications for the Building are set out in Appendix 1A Clinical Specifications.

2.3.2 The Design-Builder will design and construct the Facility:

2.3.2.1 so that it accommodates all the spaces, activities, functions, design features and adjacencies described in the applicable Appendix 1A Clinical Specifications; and

2.3.2.2 in accordance with the requirements of the applicable Appendix 1A Clinical Specifications, subject to any adjustments or refinements made in accordance with the Schedule 2 – Review Procedure.

2.4 The Facility

2.4.1 Not used.

2.5 Additional Rooms and Spaces

2.5.1 Notwithstanding anything in Appendix 1A Clinical Specifications, the Design-Builder will design and construct the Building to include all rooms and spaces as required to comply with the terms of this Agreement, including sufficient rooms and spaces as necessary for the Authority to operate and maintain the Building in accordance with healthcare best practices and standards.

2.6 Standards

2.6.1 The Design-Builder will undertake the Design and Construction:

2.6.1.1 in accordance with the standards set out in this Schedule;

2.6.1.2 in accordance with the BCBC and all applicable Laws;

2.6.1.3 having regard for the respect, concerns, needs and interests of:

2.6.1.3(1) all persons who will be Facility Users;

2.6.1.3(2) authority having jurisdiction; and

2.6.1.3(3) the community.

2.6.1.4 to the same standard that an experienced, prudent, and knowledgeable Design-Builder of a high-quality long-term health care facility in Canada operated publicly would employ and based on the input from Authority.

2.6.2 If more than one of the above standards is applicable, then the highest such standard will apply.

2.6.3 Without limiting Section 2.9 of this Schedule, the Design-Builder will undertake the Design and Construction in compliance with all applicable standards and guidelines, including the following:

2.6.3.1 AAMI TIR 34; Water for Reprocessing of Medical Devices;

2.6.3.2 AISI

2.6.3.2(1) AISI S100 – North American Specification for Design of cold formed Steel Structural Members (including commentary);

2.6.3.2(2) AISI 200 – North American Standard for Cold Formed Steel Framing (general provisions); and

2.6.3.2(3) AISI 201 – North American Standard for Cold Formed Steel Framing (Product Data).

2.6.3.3 ANSI / AHRI

2.6.3.3(1) Standard 550/590-15: Performance Rating of Water-Chilling and Heat Pump Water-Heating Packages Using the Vapor Compression Cycle.

2.6.3.4 ANSI / AIHI

2.6.3.4(1) Z9.5-2012 Laboratory Ventilation.

2.6.3.5 ANSI / ASME (American National Standards Institute / American Society of Mechanical Engineers)

2.6.3.5(1) AWS D11.3 – Structural Welding Code – Sheet Steel;

2.6.3.5(2) ACI 315 – Details and Detailing of Concrete Reinforcement;

2.6.3.5(3) ACI 315R – Manual of Engineering and Placing Drawings for Reinforced Concrete Structures;

2.6.3.5(4) ASPE Plumbing Engineers Handbook, Vol. 1-4;

2.6.3.5(5) A13.1 Visibility Standard (Pipe Labelling);

2.6.3.5(6) B16 Piping Component Standards;

2.6.3.5(7) B31 Pressure Piping Code;

2.6.3.5(8) B36 Piping Standards;

2.6.3.5(9) X 358.1: Emergency Eyewash and Shower Equipment;

2.6.3.5(10) Section VIII: Pressure Vessels;

2.6.3.5(11) Section IX: Welding Qualifications; and

2.6.3.5(12) Unfired Pressure Vessels.

2.6.3.6 ANSI / TIA

2.6.3.6(1) TIA-1179-A Healthcare Facility Telecommunications Infrastructure Standard;

2.6.3.6(2) ANSI/TIA-568.1-D Commercial Building Telecommunications Infrastructure Standard;

2.6.3.6(3) ANSI/TIA-569-E Telecommunications Pathways and Spaces;

2.6.3.6(4) ANSI/TIA-607-D Generic Telecommunications Bonding and Grounding (Earthing) for Customer Premises;

2.6.3.6(5) ANSI/TIA-758-B Customer-Owned Outside Plant Telecommunications Infrastructure Standard;

2.6.3.6(6) ANSI/TIA-606-C Administration Standard for Telecommunications Infrastructure; and

2.6.3.6(7) ANSI/TIA/TSB-162 Telecommunications Cabling Guidelines for Wireless Access Points.

2.6.3.7 ANSI / ESNA American National Standard Practice for Lighting

2.6.3.7(1) IESNA RP 29-16;

2.6.3.7(2) IESNA RP 8-18; and

2.6.3.7(3) IESNA RP 20-16.

2.6.3.8 Ambulance Station Design Standards, British Columbia Ambulance Service, BC Emergency and Health Services.

2.6.3.9 American Conference of Governmental Hygienists, Industrial Ventilation: A Manual of Recommended Practice.

2.6.3.10 ASHRAE (American Society of Heating, Refrigeration and Air-Conditioning Engineers)

2.6.3.10(1) Handbooks: 2017 Fundamentals, 2018 Refrigeration, 2019 HVAC Applications, 2016 HVAC Systems and Equipment;

2.6.3.10(2) Design of Smoke Control Systems;

2.6.3.10(3) ASHRAE Guideline 1 – The HVAC Commissioning Process;

2.6.3.10(4) ASHRAE Guideline 12 – Minimizing the Risk of Legionellosis Associated with Building Water Systems;

2.6.3.10(5) Standard 52.2: Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size;

2.6.3.10(6) Standard 55: Thermal Environmental Conditions for Human Occupancy;

2.6.3.10(7) Standard 62.1: Ventilation for Acceptable Air Quality;

2.6.3.10(8) Standard 90.1;

2.6.3.10(9) Standard 111: Practices for Measurement, Testing, Adjusting and Balancing of Building HVAC systems;

2.6.3.10(10) Standard 129: Measuring Air Change Effectiveness;

2.6.3.10(11) Standard 514: Building Water Management Standard; and

2.6.3.10(12) 135016: Data Communication Protocol for Building Automation and Control Network.

2.6.3.11 ASPE (American Society of Plumbing Engineers)

2.6.3.11(1) Plumbing Engineering Design Handbook, Volumes 1 – 4.

2.6.3.12 ASTM (American Society for Testing and Materials)

2.6.3.12(1) ASTM A27 – Specification for Structural;

2.6.3.12(2) ASTM A36 A36M – Standard Specification for Carbon Structural Steel;

2.6.3.12(3) ASTM A82/A82M - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement;

2.6.3.12(4) ASTM A185- Standard Specification for Steel Welded Wire Fabric;

2.6.3.12(5) ASTM A193 / A193M – Standard Specification for Alloy – Steel and Stainless Steel Bolting for High Temperature or High Pressure Service and Other Special Purpose Applications;

2.6.3.12(6) ASTM A307 – Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60000 PSI Tensile Strength;

2.6.3.12(7) ASTM A325 – Standard Specification for Structural Bolts, Steel, Heat Treated, 120/105 ksi Minimum Tensile Strength;

2.6.3.12(8) ASTM A326M – Standard Specification for Structural Bolts, Steel, Bolts, Steel, Heat Treated, 830 MPa Minimum Tensile Strength (Metric);

2.6.3.12(9) ASTM A490 – Standard Specification for Structural Bolts, Alloy Steel, Heat Treated, 150 ksi Minimum Steel Strength;

2.6.3.12(10) ASTM A490M – Standard Specification for High Strength Structural Steel Bolts, Classes 10.9 and 10.9.3, for Structural Steel joints (Metric);

2.6.3.12(11) ASTM A653 – Specification for Steel Sheet Zinc coated (galvanized) or Zinc-Iron Alloy Coated (galvannealed) by hot dip process;

2.6.3.12(12) ASTM A775 – Specifications for Epoxy Coated Reinforcing Steel;

2.6.3.12(13) ASTM A792 – Specification for Sheet Steel 55% Aluminum – Zinc Alloy coated by hot dip process;

2.6.3.12(14) ASTM A955 – Standard specification for Load Bearing (transverse and axial) Steel Studs, Runners (tracks) and bracing or Bridging for screw application of Gypsum Panel products;

2.6.3.12(15) ASTM B88 – Copper Piping;

2.6.3.12(16) ASTM B221M – Standard Specification for Aluminum and Aluminum- Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric);

2.6.3.12(17) ASTM C260 / C260M – Standard Specification for Air-Entraining Admixtures for Concrete;

2.6.3.12(18) ASTM C309 – Specification for Liquid Membrane Forming Compounds for Curing Concrete;

2.6.3.12(19) ASTM C494 / C494M – Standard Specification for Chemical Admixtures for Concrete;

2.6.3.12(20) ASTM C503 – Standard Specification for Marble Dimension Stone;

2.6.3.12(21) ASTM C568 – Standard Specification for Limestone Dimension Stone;

2.6.3.12(22) ASTM C615 – Standard Specification for Granite Dimension Stone;

2.6.3.12(23) ASTM C616 – Standard Specification for Quartz-Based DimensionStone;

2.6.3.12(24) ASTM C645 – Standard Specification for Non-structural Steel Framing Members; and

2.6.3.12(25) ASTM E1155 – Standard Test Method for Determination of FF Floor Flatness and FL Floor Levelness Numbers;

2.6.3.12(26) ASTM E336 – Standard Test Method for Measurement of Airborne Sound Attenuation Between Rooms in Buildings.

2.6.3.12(27) ASTM E917.24401 – Life Cycle Cost Assessment Methodology;

2.6.3.12(28) ASTM F710 – Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring;

2.6.3.12(29) ASTM F1233 – Test Method for Security Glazing Materials and Systems;

2.6.3.12(30) Not used;

2.6.3.12(31) Not used;

2.6.3.12(32) Not used;

2.6.3.12(33) Not used;

2.6.3.12(34) Not used;

2.6.3.12(35) ASTM F1869 – Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride;

2.6.3.12(36) Not used;

2.6.3.12(37) ASTM F1913 – Standard Specification for Vinyl Sheet Floor Covering Without Backing;

2.6.3.12(38) ASTM F1302 – Type 2 Grade 1 (Standard Specification for Sheet Vinyl Floor Covering with Backing); and

2.6.3.12(39) ASTM C1629 – Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels.

2.6.3.13 BC Freedom of Information and Protection of Privacy Act

2.6.3.14 BC Guidelines for Decontamination of Patients in Health Facilities

2.6.3.15 BC Supplement to TAC Geometric Design Guide

2.6.3.16 College of Physicians and Surgeons British Columbia (CPSBC)

2.6.3.16(1) Diagnostic Accreditation Program (DAP) - Accreditation Standards: Diagnostic Imaging v1.7

2.6.3.17 BCICA Quality Standards Manual for Mechanical Insulation

2.6.3.18 BCLNA - British Columbia Landscape & Nursery Association

2.6.3.18(1) British Columbia Landscape Standard;

2.6.3.18(1)a. Plant Materials;

2.6.3.18(1)b. Growing Media;

2.6.3.18(1)c. Landscape Maintenance;

2.6.3.18(1)d. Tree Protection and Preservation; and

2.6.3.18(1)e. Irrigation Design.

2.6.3.19 BICSI Telecommunications Distribution Methods Manual (TDMM) (Current Edition)

2.6.3.20 British Columbia Ministry of Health and Ministry of Seniors Standards and Hospital Based Psychiatric Emergency Services

2.6.3.21 CSA Group

2.6.3.21(1) A23.1-09/A23.2 – Concrete Materials and Methods of Concrete Construction / Methods of Test and Standard Practices for Concrete;

2.6.3.21(1)a. A23.3 (R2010) – Design of Concrete Structures

2.6.3.21(2) A23.4 – Precast Concrete – Materials and Construction;

2.6.3.21(3) A370-04 (R2009) – Connectors for Masonry;

2.6.3.21(4) CAN/CSA-A371 – Masonry Construction for Buildings.

2.6.3.21(5) CSA A440S1 – Canadian Supplement to AAMA/WDMA/CSA 101/I.S.2/A440-11, NAFS - North American Fenestration Standard/Specification for windows, doors, and skylights

2.6.3.21(6) B44: Safety Code for Elevators and Escalators;

2.6.3.21(7) B45 Series: Plumbing Fixtures;

2.6.3.21(8) B64 Series: Backflow Preventers and Vacuum Breakers;

2.6.3.21(9) B52HB: Mechanical Refrigeration Code;

2.6.3.21(10) B125: Plumbing Fittings;

2.6.3.21(11) B139: Installation Code for Oil-Burning Equipment;

2.6.3.21(12) B149.1: Natural Gas and Propane Installation Code;

2.6.3.21(13) B651: Barrier-Free Design;

2.6.3.21(14) C9-02 Dry-Type Transformers;

2.6.3.21(15) C22.1 Canadian Electrical Code part 1.

2.6.3.21(16) C282-15 Emergency Electrical Power Supply for Buildings;

2.6.3.21(17) CAN/CSA-A165 Series: CSA Standards on Concrete Masonry Units consists of: A165.1, A165.2, A165.3.

2.6.3.21(18) CAN/CSA-B72 – Installation Code for Lightning Protection Systems;

2.6.3.21(19) CAN/CSA-C2 – Single-Phase and Three-Phase Distribution Transformers, Types ONAN and LNAN;

2.6.3.21(20) CAN/CSA C22.1 & C22.2 – Canadian Electrical Code as adopted in British Columbia;

2.6.3.21(21) CSA-C22.3 No. 1 – Overhead Systems;

2.6.3.21(22) CSA C9 – Dry-Type Transformers;

2.6.3.21(23) CSA B44 – Safety Code for Elevators and Escalators.

2.6.3.21(24) CSA B44 – Safety Code for Elevators and Escalators, Appendix E.

2.6.3.21(25) CSA/CAN3-C235 – Preferred Voltage Levels for AC Systems, 0 to 50,000 V;

2.6.3.21(26) CSA S304.1 – Design of Masonry Structures.

2.6.3.21(27) CSA S832 Guidelines for Seismic Risk Reduction of Operational and Functional Components of Buildings;

2.6.3.21(28) CSA Z432 – Safeguarding and Machinery.

2.6.3.21(29) CSA Z314.8 – Decontamination of Reusable Medical Devices;

2.6.3.21(30) CSA Z314.23 – Chemical Sterilization of Reusable Medical Devices;

2.6.3.21(31) CSA Z314.3 – Effective Sterilization in Health Care Settings by the Steam Process;

2.6.3.21(32) CSA Z317.13:22 – Infection Control during Construction, Renovation and Maintenance of Health Care Facilities;

2.6.3.21(32)a. CSA Z317.13:22 complements the standards and codes specified in Schedule 1 by providing overarching design principles and referencing specific standards and codes that are appropriate for healthcare facility design.

2.6.3.21(32)a.1 The Design-Builder will refer to CSA Z317.13:22 for guidance to resolve issues not otherwise addressed in Schedule 1;

2.6.3.21(32)a.2 The Design-Builder will comply with any minimum standards and codes referenced in CSA Z317.13:22;

2.6.3.21(32)a.3 The Design-Builder will comply with all infection control provisions set out in CSA Z317.13:22;

2.6.3.21(32)a.4 The Design-Builder will comply with CSA Z32 Electrical Safety and Essential Electrical System in Health Care Facilities;

2.6.3.21(32)a.5 Not used;

2.6.3.21(32)a.6 Not used;

2.6.3.21(32)a.7 Not used; and

2.6.3.21(32)a.8 Not used.

2.6.3.21(33) CSA Z386 – Safe Use of Lasers in Health Care;

2.6.3.21(34) CSA Z8000 – Canadian Health Care Facilities

2.6.3.21(34)a. CSA Z8000 complements the standards and codes specified in Schedule 1 by providing overarching design principles and referencing specific standards and codes that are appropriate for healthcare facility design.

2.6.3.21(34)b. The Design-Builder will:

2.6.3.21(34)b.1 refer to CSA Z8000 for design guidance to resolve issues not otherwise addressed in Schedule 1; and

2.6.3.21(34)b.2 comply with all infection control provisions set out in CSA Z8000.

2.6.3.21(35) CSA Z32-15: Electrical Safety and Essential Electrical System in Health Care Facilities;

2.6.3.21(36) CSA Z314.7: Steam Sterilizers for Health Care Facilities;

2.6.3.21(37) CSA Z317.1: Special Requirements for Plumbing Installations in Health Care Facilities;

2.6.3.21(38) CSA Z317.2: Special Requirements for Heating, Ventilation, and Air-Conditioning (HVAC) Systems in Health Care Facilities;

2.6.3.21(39) CSA Z317.5: Illumination Design in Health Care Facilities;

2.6.3.21(40) CSA Z317-10.09: Handling of waste materials in Health Care Facilities and Veterinary Health Care Facilities.

2.6.3.21(41) CSA Z317.11: Area requirements for Health Care Facilities;

2.6.3.21(42) CSA Z8001-2013 – Commissioning of Health Care Facilities;

2.6.3.21(43) Not used;

2.6.3.21(44) Not used;

2.6.3.21(45) CSA Z462: Workplace Electrical Safety;

2.6.3.21(46) CSA Z7396.1: Medical Gas Pipeline Systems – Part 1;

2.6.3.21(47) CSA Z9170-1: Terminal Units for Medical Gas Pipeline Systems – Part 1.

2.6.3.22 Code Plus: Physical Design Components for an Elder Friendly Hospital.

2.6.3.23 FGI Guidelines for Design and Construction of Health Care Facilities (Electrical, Security, Lighting, Communication reference section).

2.6.3.24 CTI (Cooling Tower Institute) Standard STD-201.

2.6.3.25 ECABC Seismic Restraint Standards Manual.

2.6.3.26 Fire Underwriter Survey – Water Supply for Public Fire Protection.

2.6.3.27 Government of Canada's publication, Canadian Biosafety Standard.

2.6.3.28 Guidelines for Design and Construction of Health Care Facilities.

2.6.3.29 Northern Health Communications Infrastructure Standard (1.7).

2.6.3.30 IEEE - Institute of Electrical and Electronics Engineers

2.6.3.30(1) IEEE 802.1 series for Interworking, Security, Audio/Video Bridging and Data Centre Bridging;

2.6.3.30(2) IEEE 802.3 series of Ethernet Standards;

2.6.3.30(3) IEEE 802.11 series of Wireless Standards;

2.6.3.30(4) IEEE 519-1992 Harmonic Limits;

2.6.3.30(5) IEEE C2 National Electrical Safety Code; and

2.6.3.30(6) IEEE C57.19.91 IEEE Standard test code for dry-type distribution and power transformers.

2.6.3.31 IES - Illuminating Engineering Society

2.6.3.31(1) DG-17-05 Fundamentals of Lighting for Videoconferencing

2.6.3.32 Master Floor Covering Standards Institute.

2.6.3.33 Master Painters Institute Architectural Specification Standards Manual.

2.6.3.34 Master Municipal Construction Document (MMCD) and MMCD supplemental specifications, as authored or adopted by the applicable municipal authorities having jurisdiction.

2.6.3.35 Ministry of Health — Province of British Columbia Provincial Quality, Health & Safety Standards and Guidelines for Secure Rooms in Designated Mental Health Facilities under the B.C. Mental Health Act.

2.6.3.36 Ministry of Transportation and Infrastructure (MoTI) – Standard Specifications for Highway Construction (latest edition).

2.6.3.37 National Association of Pharmacy Regulatory Authorities (NAPRA) Model Standards and guidelines for pharmacy compounding of non-sterile preparations, non-hazardous sterile preparations and hazardous sterile preparations.

2.6.3.37(1) Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations;

2.6.3.37(2) Model Standards for Pharmacy Compounding of Non-hazardous Sterile Preparations;

2.6.3.37(3) Model Standards for Pharmacy Compounding of Non-sterile Preparations;

2.6.3.37(4) Guidance Document for Pharmacy Compounding of Non-sterile Preparations.

2.6.3.38 NEMA WC7 ICEA S 66 524: Cross Linked Polyethylene Wire and Cable for Transmission and Distribution.

2.6.3.39 NEMA VE 1: Metal Cable Tray Systems.

2.6.3.40 NEMA PB2.2: Application Guide for Ground Fault Protection Devices for Equipment.

2.6.3.41 NETA

2.6.3.41(1) ATS International Electrical Testing Association (Acceptance Testing Specifications);

2.6.3.41(2) MTS Standards for Maintenance Testing; and

2.6.3.41(3) UL 1069 Hospital Signalling and Nurse Call Equipment.

2.6.3.42 NFPA (National Fire Protection Association)

2.6.3.42(1) 10: Standard for Portable Fire Extinguishers;

2.6.3.42(2) 13: Standard for Installation of Sprinkler Systems;

2.6.3.42(3) 14: Standard for Installation of Standpipe and Hose Systems;

2.6.3.42(4) 17: Standard for Dry-Chemical Extinguishing Systems;

2.6.3.42(5) 20: Standard for the Installation of Stationary Pumps for Fire Protection;

2.6.3.42(6) 25: Standard for the Inspection, Testing and Maintenance of Water Based Fire Protection;

2.6.3.42(7) 30: Flammable and Combustible Liquids Code;

2.6.3.42(8) 55: Compressed Gases and Cryogenic Fluids Code;

2.6.3.42(9) 56F: Non-flammable Medical Gas System;

2.6.3.42(10) 70: National Electrical Code;

2.6.3.42(11) 70B: Recommended Practice for Electrical Equipment Maintenance;

2.6.3.42(12) 90A: Standard for Installation of Air Conditioning and Ventilation Systems;

2.6.3.42(13) 92A: Standard for Smoke Control Systems Utilizing Barriers and Pressure Differences;

2.6.3.42(14) 96: Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations;

2.6.3.42(15) 99: Heath Care Facilities Code;

2.6.3.42(16) 101: Life Safety Code;

2.6.3.42(17) 214: Standard on Water-Cooling Towers;

2.6.3.42(18) 701: Standard Methods of Fire Tests for Flame Propagation of Textiles and Films; and

2.6.3.42(19) 24: Standard for the Installation of Private Fire Service Mains and Their Appurtenances.

2.6.3.43 Provincial Hand Hygiene Group – Best Practices for Hand Hygiene Facilities & Infrastructure in Healthcare Settings; http://www.health.gov.bc.ca/library/publications/year/2012/best-practice-guidelines-handhygiene.pdf

2.6.3.44 SCAQMD Rule 1168, Adhesive and Sealant Applications

2.6.3.45 Sheet Metal and Air Conditioning Contractors National Association Inc. (SMACNA) Manuals

2.6.3.46 South Coast Air Quality Management District (SCAQMD)

2.6.3.47 Sustainability

2.6.3.47(1) Advanced Energy Guide for Hospitals and Healthcare Facilities;

2.6.3.47(2) ASHRAE Guideline 0-2019 – The Commissioning Process;

2.6.3.47(3) ASHRAE Guideline 1.1-2007 – HVAC & R Technical Requirements for the Commissioning process;

2.6.3.47(4) ASHRAE 110-2016 – Method of Testing Performance of laboratory Fume Hoods;

2.6.3.47(5) ASHRAE 170-2017 – Ventilation of Health Care Facilities;

2.6.3.47(6) ASHRAE Green Healthcare Construction Guidance Statement;

2.6.3.47(7) ASHRAE Standard 189.1 – Standard for the Design of High-Performance Green Buildings;

2.6.3.47(8) ASHRAE Standard 189.3 – Design, Construction, and Operation of Sustainable High-Performance Health Care Facilities;

2.6.3.47(9) ASHRAE System Design Manual for Hospitals and Clinics;

2.6.3.47(10) BC Hydro High Performance Building Program;

2.6.3.47(11) CMHC Building Materials for the Environmentally Hypersensitive;

2.6.3.47(12) BOMA (Building Owner Authority and Managers Association) Go Green Program;

2.6.3.47(13) Canadian Building Green Hospitals Checklist - Canadian Coalition for Green Health Care;

2.6.3.47(14) Canada Green Building Council (CaGBC);

2.6.3.47(14)a. LEED Reference Guide for green Building design and Construction – Healthcare Supplement 2009 Edition

2.6.3.47(15) Green Globes – Environment Assessment for New Buildings;

2.6.3.47(16) Healthy Built Environment (HBE) Linkages Toolkit Version 2.0;

2.6.3.47(17) Natural Resources Canada Energy Innovators Initiative;

2.6.3.47(18) CSA S16 – Design of Steel Structures;

2.6.3.47(19) CSA S136 – Design of Cold Formed Steel Members;

2.6.3.47(20) CSA S157 (R2010) – Strength Design in Aluminum;

2.6.3.47(21) CSA S304.1 (R2010) – Masonry Design for Buildings;

2.6.3.47(22) CSA S478 (R2019) – Guideline on Durability of Buildings;

2.6.3.47(23) CSA S524 – Standards for the Installation of Fire Alarm Systems;

2.6.3.47(24) CSA S537 – Standards for Verification of Fire Alarm Systems;

2.6.3.47(25) CSA S832 (R2011) – Seismic Risk Reduction of Operational and Functional Components (OFCS of buildings);

2.6.3.47(26) Sustainable and Climate-Resilient Health Care Facilities Toolkit;

2.6.3.47(27) Sustainable Health Care Architecture – by Robin Guenther and Gail Vittori;

2.6.3.47(28) The Green Guide for Health Care;

2.6.3.47(29) United States Green Building Council – LEED V4 BD+C: HC;

2.6.3.47(30) W186-M1990 (R2002) – Welding of Reinforcing Bars in Reinforced Concrete Construction;

2.6.3.48 Terrazzo Tile and Marble Association of Canada

2.6.3.49 Underwriters Laboratories of Canada (ULC)

2.6.3.49(1) CAN/ULC-S101, Standard Methods of Fire Endurance Tests of Building Construction and Materials

2.6.3.50 WorkSafe BC Regulations and Guidelines, including the following:

2.6.3.50(1) Illumination

2.6.3.50(1)a. Part 4, General Conditions, Section 4.64 –4.69.

2.6.3.50(2) HVAC

2.6.3.50(2)a. Part 4, General Conditions, Indoor Air Quality, Sections 4.70 – 4.80;

2.6.3.50(2)b. Part 4, General Conditions, Environmental Tobacco Smoke, Sections 4.81 – 4.82;

2.6.3.50(2)c. Part 5, Flammable and Combustible Substances, Section 5.35;

2.6.3.50(2)d. Part 5, Controlling Exposure, Section 5.56;

2.6.3.50(2)e. Part 5, Ventilation, Sections 5.60-5.71; and

2.6.3.50(2)f. Part 30, General Requirements, Sections 30.4, 30.5, 30.7, 30.8-30.12

2.6.3.50(3) Ergonomics

2.6.3.50(3)a. Part 4, General Conditions, Ergonomics (MSI) Requirements, Sections 4.46 – 4.53; and

2.6.3.50(3)b. Guidelines Part 4 – Ergonomics (MSI) Requirements Update 2006, G4.46 – 4.53(2).

2.6.3.50(4) Emergency Eyewash / Showers

2.6.3.50(4)a. Part 5, Chemical Agents and Biological Agents, Definitions, Section 5.1;

2.6.3.50(4)b. Part 5, Chemical Agents and Biological Agents, Emergency Washing Facilities, Sections 5.85 – 5.96;

2.6.3.50(4)c. Guidelines Part 5, Emergency Washing Facilities, Issued 1999; and

2.6.3.50(4)d. Guidelines Part 30, General Requirements, Plumbing, G30.4, Issued 1999.

2.6.3.50(5) Fall Protection

2.6.3.50(5)a. Part 4, General Conditions, Work Areas Guards and handrails, Sections 4.54 – 4.63;

2.6.3.50(5)b. Part 11, Fall Protection, Section G11.1 – G11.10(0.1).

2.6.3.50(6) Emergency Response

2.6.3.50(6)a. Part 4, General Conditions, Emergency Preparedness and Response, 4.13 – 4.18.

2.6.3.50(7) Eating Areas / Washrooms / Change Areas / Unsafe Water

2.6.3.50(7)a. Part 4, General Conditions, Occupational Environment Requirements, Section 4.84 – 4.87.

2.6.3.50(8) Electrical Safety

2.6.3.50(8)a. Part 4, General Conditions, Buildings, Structures, Equipment and Site Conditions, Conformity to Standards, Section 4.4; and

2.6.3.50(8)b. Part 19, Electrical Safety, Sections 19.1 – 19.9.

2.6.3.50(9) Radiation Safety

2.6.3.50(9)a. Division 3 Radiation Exposure (included ionizing and non- ionizing radiation) Section 7.18 – 7.24 Guidelines Part 7 – Division 3 Radiation Exposure G7.18 – G7.19 (4)-2;

2.6.3.50(9)b. BCICA Quality Standards Manual for Mechanical Insulation;

2.6.3.50(9)c. TIAC (Thermal Insulation Association of Canada) standards;

2.6.3.50(9)d. Canadian Council on Health Services Accreditation Program, Latest Edition;

2.6.3.50(9)e. Ministry of Health — Province of British Columbia Provincial Quality, Health & Safety Standards and Guidelines for Secure Rooms in Designated Mental Health Facilities under the B.C. Mental Health Act; and

2.6.3.50(9)f. Health Canada Safety Code 35: Safety Procedures for the Installation, Use and Control of X-ray Equipment in Large Medical Radiological Facilities.

2.6.3.51 Canadian Society of Landscape Architects (CSLA)

2.6.3.51(1) Canadian Landscape Standard

2.6.3.52 Canadian Nursery and Landscape Association (CNLA)

2.6.3.52(1) Canadian Nursery Stock Standard

2.6.3.53 American Architectural Manufacturers Association (AAMA)

2.6.3.53(1) AAMA 501.8-14: Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications

2.7 Coordination and Project Control

2.7.1 The Design-Builder will coordinate the progress of the Work, Progress Schedules, Submittals, the use of the Site, access to the Site, temporary utilities, construction facilities and controls, and the Work of all sections of this Schedule to ensure the efficient and orderly installation of interdependent construction elements.

2.7.2 Coordinate the Work of the various sections having independent responsibilities for installing, connecting to, and placing in service utilities and equipment.

2.7.3 Coordinate space requirements, supports, and the installation of mechanical, electrical, IMIT, and security work including all systems and services required for the installation of new services in the Facility. Utilize spaces efficiently to maximize accessibility for other installations, for maintenance and for repairs.

2.7.4 In finished areas, conceal pipes, ducts and wiring in floors, except as indicated in Section 5.1.1.6, walls, and ceilings. Coordinate locations of fixtures and outlets with finished elements and the Authority's requirements.

2.7.5 Coordinate the commissioning of the Work of separate sections in preparation for Substantial Completion.

2.7.6 Coordinate the completion and clean-up of the Work of separate sections in preparation for Final Completion.

2.7.7 Coordinate the move with the Authority.

2.7.8 Retain an Independent Commissioning Agent to conduct the Facility commissioning. Utilize a process where the commissioning agent submittals are sent directly to the Commissioning Authority (CxA). Integrate the commissioning into the project Design, Construction, and start-up schedules. Configure the commissioning plan so it will support a phased occupancy of the Facility, if required by Construction conditions and approved by the Authority.

2.8 Construction Documents

2.8.1 Progressive Submittals

2.8.1.1 The Design-Builder is to make submissions to the Authority in accordance with Schedule 2 Review Procedure (Construction Documents).

2.8.1.2 The Design-Builder will provide an online document management system accessible to the Authority for the design stage and through the end of the construction and warranty period. The online document management system will include functionality to allow the Authority's on-going access to records after the warranty period.

2.8.1.3 Refer to the corresponding sections and tables within this Section for minimum list of documents to be submitted at each stage.

2.8.1.4 Shop Drawings will be reviewed by the Design-Builder's consultants and then copies of the reviewed Shop Drawings will be submitted to the Authority.

2.8.1.4(1) Submit Shop Drawings per the following list:

01 35 33	Infection Control Procedures
01 50 00	Temp Facilities & Controls
03 10 00	Concrete Forming and Accessories
03 20 00	Concrete Reinforcing
03 30 00	Cast-in-Place Concrete
03 53 00	Concrete Topping
04 21 00	Clay Unit Masonry Assemblies
04 22 00	Concrete Unit Masonry
05 10 00	Structural Steel
05 31 00	Steel Decking
05 45 00	Load Bearing Steel Studs (Metal Support Assemblies)
05 50 00	Metal Fabrications
06 10 00	Rough Carpentry
06 20 00	Finish Carpentry
06 40 00	Architectural Woodwork
07 13 00	Below Grade Sheet Waterproofing
07 14 16	Cold Fluid Applied Waterproofing
07 16 16	Crystalline Waterproofing
07 18 13	Pedestrian Traffic Coatings
07 18 16	Vehicular Traffic Coatings
07 21 00	Building Insulation
07 21 19	Foamed in Place Polyurethane Insulation
07 21 29	Spray Applied Mineral Fibre Insulation
07 25 00	Weather Barriers
07 42 13	Metal Wall Panels
07 42 63	Zinc Wall Panel Assemblies
07 43 00	Composite Wall Panels

07 43 23	Ext Grade Wood Composite Panels
07 44 19	Terra Cotta Clay Wall Panel Assemblies
07 46 43	Mineral Fibre Reinforced Composite Panels
07 52 16	SBS Membrane Roofing
07 62 00	Sheet Metal Flashing & Trim
07 81 00	Applied Fireproofing
07 81 23	Intumescent Fireproofing
07 84 00	Firestopping & Smoke Seals
07 92 00	Joint Sealants
08 11 00	Metal Doors & Frames
08 21 00	Wood Doors
08 31 00	Access Doors & Panels
08 33 00	Coiling Doors and Grilles
08 34 73	Sound Control Door Assemblies
08 35 13	Folding Security Grilles
08 41 13	Aluminum Framed Entrances and Storefronts
08 42 29	Automatic Entrances
08 44 13	Glazed Aluminum Curtain Walls
08 71 00	Door Hardware
08 74 00	Access Control Hardware
08 81 00	Glass & Glazing
08 90 00	Louvres and Vents
09 21 16	Gypsum Board Assemblies
09 30 00	Ceramic Tiling
09 51 00	Acoustical Ceilings
09 65 00	Resilient Flooring
09 67 00	Fluid Applied Flooring
09 84 00	Acoustic Room Components
09 90 00	Painting & Coating
10 11 00	Visual Display Surfaces
10 14 00	Signage
10 21 14	Toilet Compartments
10 21 23	Cubicle Curtain and Track
10 26 00	Wall and Door Protection
10 28 13	Toilet and Bath Accessories
10 44 00	Fire Protection Specialties
10 51 00	Metal Lockers
10 71 13	Exterior Sun Control Devices
11 24 23	Fall Arrest Equipment
11 40 00	Food Services Equipment
12 24 00	Window Coverings
12 36 00	Countertops
12 48 16	Entrance Floor Grilles
12 50 00	Furniture
12 93 00	Site Furnishings

12 93 33	Manufactured Planters
14 21 13	Electric Traction Elevators.
20 05 13	Motors Starters and Wiring
20 05 14	Adjustable Frequency Drives
20 05 16	Flex Connections, Expansion Joints, Anchors and Guides
20 05 18	Flow and Energy Meters
20 05 19	Indicating Gauges
20 05 23	Valves
20 05 29	Hangers and Supports
20 05 48	Vibration and Seismic Controls
20 05 49	Seismic Restraint Systems
20 05 53	Identification Equipment Insulation
20 07 19	Piping Insulation
20 08 01	Start-Up and Performance Testing Reporting
21 13 13	Wet Pipe Sprinkler System
21 13 16	Dry Pipe Sprinkler System
21 13 19	Preaction Sprinkler System
22 10 10	Plumbing Pumps
22 11 16	Domestic Water Piping
22 33 13	Domestic Water Heaters
22 42 01	Plumbing Specialties
22 42 03	Plumbing Fixtures and Trim
22 63 13	Medical Gas Systems
23 11 13	Facility Fuel Oil Piping
23 11 33	Natural Gas and Propane Systems
23 13 13	Oil Storage Tanks
23 13 15	Fuel Oil Pumps
23 13 19	Fuel Filtration Systems
23 15 13	Fuel Management System
23 21 11	Water Specialties-Heating and Cooling
23 21 13	Steel Pipe and Fittings – Heating and Cooling
23 21 23	Pumps – Heating and Cooling
23 22 11	Steam Specialties
23 22 13	Steel Pipe and Fittings – Steam and Condensate
23 25 13	HVAC Water Treatment Systems
23 34 05	Fans
23 36 13	Terminal Boxes
23 37 13	Grilles, Registers and Diffusers
23 51 16	Fabricated Breeching and Accessories
23 51 19	Fabricated Stacks
23 51 33	Insulated Sectional Chimneys
23 52 16	Packaged Hot Water Boiler - Condensing
23 52 39	Packaged Boiler – Fire Tube
23 53 16	Deaerator
23 57 13	Heat Exchangers

23 61 09	Refrigerant Detection System
23 62 23	Process Cooling Package Chiller - Scroll
23 64 16	Packaged Chiller - Centrifugal
23 65 13	Cooling Towers
23 65 15	Indirect Air-Side Economizer Recirculation Cooling Unit
23 73 10	Air Handling Units
23 74 33	Make-up Air Unit
23 81 26	Ducted Split Air Conditioners
23 82 19	Electric Reheat Coils
23 82 39	Unit Heaters
23 84 13	Humidifiers
25 05 01	EMC General Requirements
26 xx xx	See list below in section 2.8.6
28 xx xx	See list below in section 2.8.6
31 00 00	Earthwork
31 23 01	Excavating Trenching & Backfilling
32 01 90.33	Tree Protection
32 11 16.1	Granular Subbase
32 11 23	Granular Base
32 12 13.2	Asphalt Prime
32 12 16	Asphalt Paving
32 13 13	Portland Cement Concrete Pavement
32 14 13	Precast Concrete Unit Paving
32 17 23	Painted Pavement Markings
32 18 16	Synthetic Resilient Surfacing
32 80 00	Irrigation
32 91 13	Growing Medium Preparation
32 92 93	Sodding
32 93 00	Planting
33 11 01	Waterworks
33 30 01	Sanitary Sewers
33 40 01	Storm Sewers
33 44 01	Manholes and Catch Basins

2.8.1.5 Samples

2.8.1.5(1) Each sample that has reached “reviewed” status will be retained on the job site until final completion of the project.

2.8.1.5(2) Provide a sample board indicating exterior material finishes.

2.8.1.5(3) Provide a master colour sample palette and sample board of interior finishes for approval by the Authority.

2.8.1.6 All equipment plans will show installation, removal, maintenance clearances, and MEP connections.

2.8.1.7 Not used.

2.8.2 Architectural Construction Documents

2.8.2.1 The Design-Builder will provide Construction Documents that include the following items as required to achieve the percentage of completion for the submissions.

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawings
Drawing Content					
Site plans, context site plans, sections, and details – includes coordination with civil works, hard landscape features and site servicing	✔	✔	✔	✔	✔
Title sheet, legends, drawing list, key plans, and assembly listings	✔	✔	✔	✔	✔
Assembly Schedule	✔	✔	✔	✔	✔
Floor plans, penthouse, and roof plans	✔	✔	✔	✔	✔
Reflected ceiling plans	✔	✔	✔	✔	✔
Exterior elevations	✔	✔	✔	✔	✔
Interior elevations	-	✔	✔	✔	✔
Building sections, transverse, longitudinal	✔	✔	✔	✔	✔
Wall sections		✔	✔	✔	✔
Large scale plans, lobbies, special purpose spaces, conference rooms, kitchens	✔	✔	✔	✔	✔
Large scale plans Patient Bedrooms and washrooms	✔	✔	✔	✔	✔
Plan and section details	-	✔	✔	✔	✔
Vertical movement – plans, sections, and details	✔	✔	✔	✔	✔
Special elements, furnishings, signage	-	✔	✔	✔	✔
Schedules, doors, windows, hardware, finishes.	-	✔	✔	✔	✔
Millwork – plans, sections, and details	-	✔	✔	✔	✔
Code Compliance - Fire Separations (vertical and horizontal), Exiting Travel Distance Plans, Occupant loads, and exit width capacities	✔	✔	✔	✔	✔
Code Compliance Report	✔	✔	✔	✔	✔
Specifications					
Table of Contents	✔	✔	✔	✔	-
General Requirements	✔	✔	✔	✔	-
Existing Conditions – if any	✔	✔	✔	✔	-
Concrete	✔	✔	✔	✔	-
Masonry	✔	✔	✔	✔	-
Metals	✔	✔	✔	✔	-
Wood, Plastics and Composites	✔	✔	✔	✔	-
Thermal and Moisture Protection	✔	✔	✔	✔	-
Openings	✔	✔	✔	✔	-
Door Hardware; Door program and functioning started in coordination with requirements for Electronic Safety and Security	✔	✔	✔	✔	-
Finishes	✔	✔	✔	✔	-

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawings
Specialties	✔	✔	✔	✔	-
Equipment	✔	✔	✔	✔	-
Furnishings	✔	✔	✔	✔	-
Special Construction – if any	✔	✔	✔	✔	-
Conveying Equipment – Elevators	✔	✔	✔	✔	-
Other					
Colour Boards Master Colour Palette	-	✔	✔	✔	-
Sample boards	-	✔	✔	✔	-
Presentation to Patient	-	✔	✔	✔	-
3-Dimensional renderings	✔	✔	✔	✔	-
Submittals					
Vibration Monitoring Details	-	-	-	✔	-
Noise Control Plan	-	-	-	✔	-
Wayfinding	-	-	-	✔	-

2.8.2.2 If applicable, the Construction Documents will clearly indicate:

2.8.2.2(1) floor elevations (geodetic, on floor plans, sections, and elevations) complete with floor level changes, stairs, and ramps; and

2.8.2.2(2) floor finishing tolerances, slopes for drainage, drain openings will be identified.

2.8.2.3 Code Construction Documents

2.8.2.3(1) Code Compliance Report will contain:

2.8.2.3(1)a. BCBC Data Matrix including design considerations; and

2.8.2.3(1)b. Fire and Life Safety Data Summary (may be illustrated graphically).

2.8.2.3(2) When applicable, Alternative Solutions will contain:

2.8.2.3(2)a. documentation as required by the BC Building Code and acceptable to the AHJ;

2.8.2.3(2)b. any operational impacts of the Alternate Solution; and

2.8.2.3(2)c. any maintenance impacts of the Alternate Solution.

2.8.2.4 Assembly Schedules will contain:

2.8.2.4(1) assemblies and their make-up including a graphical section and a list of each material layer for each distinct opaque wall, roof, soffit, balcony, deck, patio, floor, ceiling, and transparent glazing assembly.

2.8.2.4(2) effective clear field R-values and U-value for each exterior opaque wall, roof, soffit, deck, floor, ceiling and transparent glazing assembly; and

2.8.2.4(3) all required fire resistance ratings and acoustical ratings.

2.8.2.5 Plans, Sections and Elevations will contain:

2.8.2.5(1) the outlines of the exterior walls and partitions in relation to the structural framework complete with graphical representation of materials cross- references to partition types and dimensions;

2.8.2.5(2) clearly indicated functions of each building material component and rain screen construction component, e.g. air barrier, vapour barrier, moisture barrier, acoustical barrier, security barrier, fire resistance, thermal resistance;

2.8.2.5(3) the location of doors and windows, and other openings complete with cross-references to door, window, hardware schedules, and security matrix;

2.8.2.5(4) the location of fixtures and equipment for washrooms, kitchens, conference rooms, equipment/mechanical/electrical/Communications Rooms complete with cross-references to equipment schedules, notes, and dimensions;

2.8.2.5(5) clearly indicated barrier-free access, path of travel, clearances complete with notes and dimensions;

2.8.2.5(6) designate room name and number of each interior space. Maintain Authority room reference number as stated in the Schedule of Accommodation. Propose a strategy for final room numbering for review and coordination with the Authority per section 5.6.4.5 soon after the 60% submittal. Final numbering will be resolved, coordinated and shown on the 95% submittal;

2.8.2.5(7) graphically represent construction and finish materials for walls and floors;

2.8.2.5(8) illustrate built-in furniture, millwork, and equipment;

2.8.2.5(9) graphically illustrate fire separation(s), acoustic separation(s), security separation(s);

2.8.2.5(10) Gridlines and Gridline dimensions; and

2.8.2.5(11) clearly identify placement of electrical panels in the context of architectural design drawings to preclude misunderstanding of wall space utilization due to placement of same.

2.8.2.6 Reflected Ceiling Plans will contain:

2.8.2.6(1) Graphical representation of ceiling finishes, equipment (such as ceiling mounted Patient lifts), luminaires complete with cross-reference to lighting, security, sprinkler, HVAC, fire alarm, and ceiling heights;

2.8.2.6(2) Clearly indicated bulkheads complete with graphical representation of construction and materials, notes, ceiling heights and dimensions; and

2.8.2.6(3) Clearly indicated graphical representation of systems and equipment interference for structural, mechanical, electrical, telecommunications, security complete with cross-reference notes and dimensions.

2.8.2.7 Penthouse and Roof Plans will contain:

2.8.2.7(1) The location of fixtures and equipment for mechanical, electrical, maintenance complete with notes and dimensions;

2.8.2.7(2) Clearly indicated roof penetrations for equipment, hatches, access paver paths, fall arrest anchors, antennae supports/ties;

2.8.2.7(3) Graphically represent construction and finish materials for roof; and

2.8.2.7(4) Drainage strategy including location of drains and overflows, as well as direction of roof slopes to prevent ponding.

2.8.2.8 Exterior Elevations will contain:

2.8.2.8(1) The location of doors and windows, borrowed lights, and other openings;

2.8.2.8(2) Graphical representation of construction and finish materials, including a legend and notations;

2.8.2.8(3) Scuppers, downs spouts or drainage systems, hose bibbs and electrical outlet and exterior light locations; and

2.8.2.8(4) Landscape treatment proposed in relation to exterior and windows.

2.8.2.9 Interior Elevations will contain:

2.8.2.9(1) The location of doors, windows, and other openings; all wall mounted equipment, mechanical, electrical, IMIT devices, security devices, dimensions of vertical changes in material, room numbers;

2.8.2.9(2) Graphical representation of construction and finish materials including a legend and notations is to be provided; and

2.8.2.9(3) Clearly indicated wall finishes, colour choices and details.

2.8.2.10 Building Sections will contain:

2.8.2.10(1) Clearly indicated floor construction/assemblies, floor elevations, dimensions, and ceiling lines; and

2.8.2.10(2) Clearly indicated graphical representation of systems and equipment interference for structural, mechanical, electrical, telecommunications, security complete with cross-reference notes and dimensions.

2.8.2.11 Wall Sections (scale 1:20) will contain:

2.8.2.11(1) Clearly indicated detail location tags and references; wall type notations; and critical dimensions; and

2.8.2.11(2) Clearly indicated graphical representation of systems and equipment interference for structural, mechanical, electrical, telecommunications, security complete with cross- reference notes and dimensions.

2.8.2.12 Provide large Scale Plans and interior elevations to 1:50 or larger scale for the following spaces:

2.8.2.12(1) The following programmed spaces, including all rooms related to them as shown in the Space Tables in Appendix 1A Clinical Specifications:

2.8.2.12(1)a. Clinical Workstations (nursing station);

2.8.2.12(1)b. Medication Room;

2.8.2.12(1)c. Soiled Utility Room;

2.8.2.12(1)d. Clean Utility/Supply Room;

2.8.2.12(1)e. not used;

2.8.2.12(1)f. Exam/ Treatment Room;

2.8.2.12(1)g. medical Inpatient unit: – LDRP;

2.8.2.12(1)h. medical Inpatient unit: – medical Inpatient bedroom;

2.8.2.12(1)i. medical Inpatient unit: – medical Inpatient bedroom-bariatric;

2.8.2.12(1)j. medical Inpatient unit: Patient activation area;

2.8.2.12(1)k. Emergency Department – Resuscitation/Trauma Bay;

2.8.2.12(1)l. Emergency Department – Exam/Treatment Room;

2.8.2.12(1)m. Housekeeping Closet and Housekeeping Room; and

2.8.2.12(1)n. Ambulatory Care – Exam/Treatment Room.

2.8.2.12(2) Non-programmed spaces not shown in Appendix 1A Clinical Specifications

2.8.2.12(2)a. mechanical rooms;

2.8.2.12(2)b. electrical rooms; and

2.8.2.12(2)c. IMIT Rooms.

2.8.2.13 Vertical movement plans, sections and details will contain clearly indicated rise and run, headroom clearances, landing elevations, vertical and horizontal dimensions, railing, and guards complete with barrier-free clearances, and notes. Indicate space allocated for wall mounted evacuation equipment storage proximal/adjacent to stairwells.

2.8.2.14 Millwork plans, sections and details will clearly indicate millwork layout, section elevations, and details complete with material choices, notes, and dimensions.

2.8.2.15 Special elements, furnishings, systems furniture, signage will contain:

2.8.2.15(1) Detailed graphical representations of furniture, systems furniture, signage in relation to exterior and interior walls, structural framework, material connections and interrelationships complete with cross- reference to schedules, notes, materials, and dimensions;

2.8.2.15(2) Detailed location of fixtures and equipment for telecommunications, IMIT, security complete with cross-reference to equipment schedules, notes, and dimensions; and

2.8.2.15(3) Base-building elements will be graphically distinct from special elements.

2.8.2.16 Schedules (Doors, Hardware, Windows, Room Finishes, Furniture) will contain:

2.8.2.16(1) clearly indicated material, size, fire / thermal / acoustic /security resistance rating, colour, texture, pattern; and

2.8.2.16(2) Schedules may be graphical and/or tabular in drawing or specification format.

2.8.2.17 Not used

2.8.2.18 Handrail and wall protection plans. Prepare and propose to the Authority locations and types of all handrails, bumper guards, wall protection, and consult with the Authority to determine locations and types.

2.8.2.19 Accommodations for future expansion will be clearly indicated on site plans and floor plans including the gross area of the expansion zone. Indicate any planned soft space zones designated for accommodating future expansion.

2.8.2.20 Building envelope maintenance and renewals plan to cover a 50-year service life.

2.8.3 Civil Construction Documents Percentage of Drawings Completed

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Drawing Content					
Title sheet, typical sections, and details Existing Conditions	✔	✔	✔	✔	✔
Erosion and Sediment Control Temporary Service during Construction	✔	✔	✔	✔	✔
Site Coordination Layout, turning templates for emergency and service vehicles	✔	✔	✔	✔	✔
Storm Water Drainage Plan	✔	✔	✔	✔	✔
Grading, site servicing, roads, parking lot(s), hardscape, and streetlights	✔	✔	✔	✔	✔
Deep and Shallow Utilities Plan and profile, on and off site	✔	✔	✔	✔	✔
Retaining Walls Plan and Profile (< 1.0 m high)	✔	✔	✔	✔	✔
Sections and details	✔	✔	✔	✔	✔
Pavement Marking and Signage Plans	✔	✔	✔	✔	✔
Constructing phasing	✔	✔	✔	✔	✔
Offsite Drawings	✔	✔	✔	✔	✔
Specifications					
Clearing, Grubbing & Stripping	✔	✔	✔	✔	-
Earthworks	✔	✔	✔	✔	-
Site Servicing	✔	✔	✔	✔	-
Water, Sanitary Sewer and Storm Sewer	✔	✔	✔	✔	-
Manholes and Catchbasins	✔	✔	✔	✔	-
Watermain Flushing, Pressure Testing & Disinfection Plan	✔	✔	✔	✔	-
Base and Sub-base Coarse Aggregates	✔	✔	✔	✔	-
Asphalt Paving	✔	✔	✔	✔	-
Exterior Improvements	✔	✔	✔	✔	-
Cast-in-Place Concrete	✔	✔	✔	✔	-
Pavement Markings	✔	✔	✔	✔	-
Submittals					
Monthly Site Maintenance Inspection per Section 8.4.8.5				✔	

2.8.3.1 The Design-Builder will provide diagrams with Construction Documents describing:

2.8.3.1(1) How general traffic works during Construction; and

2.8.3.1(2) How parking stall allocation works during Construction in accordance with requirements in Section 4.3.4.5.

2.8.3.2 Existing Conditions Drawing will contain all pertinent topographic information, contours at appropriate interval with spot elevations in clear legible format, all underground utilities including inverts and depths, size and type, borehole and test pit locations and elevations, existing and new survey monuments.

2.8.3.3 Erosion and Sediment Control Drawings will contain existing topographic information, contours at appropriate intervals with spot elevations, calculations for sizing of erosion and sediment control facilities, Design and layout of the Facility, stormwater discharge connection and location, quality measurement point and details of erosion and sediment control facilities.

2.8.3.4 Site Coordination and Layout Drawing will contain:

2.8.3.4(1) Horizontal and vertical control, the principal site elements to be constructed, survey monuments and/or nearby buildings or structures which may be used to show the relative location of the proposed structure of work, sufficient dimensions or coordinates that the exact location of proposed work is clearly identified, construction lay down area, relative locations of all below and above ground utilities (i.e. electrical, fibre optics, watermain, sanitary sewer, storm sewer.), site removals;

2.8.3.4(2) Demonstrated vehicle and pedestrian movements for all types of expected traffic to and from the Facility;

2.8.3.4(3) Grading Plan will contain the Building footprint and finished floor elevation, proposed grades with existing contours/grades provided in background in light font, drainage structures numbered, typical sections, dimensions, and proposed site development features, including pavement/curb, sidewalk type, and streetlight locations;

2.8.3.4(4) Deep and Shallow Utilities plan and profile will contain horizontal location and vertical depths of new, existing, and temporary services; utilities; manholes; drainage structures; valves; roof leader tie in points; location of foundation drainage (if required); structure data table; pipe load and capacities per BCBC;

2.8.3.4(5) Site Servicing Plan will include phasing plan for watermain flushing, pressure testing and disinfecting the services to the new facility. Plan to be submitted and reviewed by the authority having jurisdiction for approval, either as part of the permit submittal or a separate meeting;

2.8.3.4(6) Storm Water Management Plan will contain catchment areas, existing storm sewer system, flow direction, calculations for pre-development and post-development flows, detention calculations, and best management practices; and

2.8.3.4(7) Offsite drawings will include all drawings and details required by the City to secure a Works and Services Agreement for the off-site works.

2.8.4 Structural Construction Documents

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Drawing Content					
Title Sheet, General Notes	✔	✔	✔	✔	✔
Typical Details	✔	✔	✔	✔	✔
Slab, Column, and Beam Schedules	✔	✔	✔	✔	✔
Foundation Plans	✔	✔	✔	✔	✔
Floor and Roof Framing Plans	✔	✔	✔	✔	✔
Sections and Details	✔	✔	✔	✔	✔
Wall and Bracing Elevations	✔	✔	✔	✔	✔
Wall Sections	✔	✔	✔	✔	✔
Specifications					
Concrete (Division 03)	✔	✔	✔	✔	-
Masonry (Division 04)	✔	✔	✔	✔	-
Metals (Division 05)	✔	✔	✔	✔	-
Wood (Division 06)	✔	✔	✔	✔	-
Piling (Division 31)	✔	✔	✔	✔	-
Submittals					
Bi-weekly Structural and Geo Technical Field Reports	-	-	-	✔	-
Shoring & Re-shoring	-	-	-	✔	-
Rebar Matting/Coring Layouts (to be determined with Authority on Site)	-	-	✔	✔	-

2.8.4.1 Title Sheet, General Notes, will contain:

2.8.4.1(1) General description of the structure, its main components, gravity load resisting and lateral load resisting systems;

2.8.4.1(2) Codes and standards, with dates of issue, to which the Design conforms;

2.8.4.1(3) Description of the lateral load resisting system will indicate values of Rd (ductility factor) and Ro (overstrength factor) used in the Design;

2.8.4.1(4) Importance factors used in the Design;

2.8.4.1(5) Design criteria indicating vertical design loads including dead and superimposed dead loads; occupancy live loads; snow loads (including drift); wind uplift loads; mechanical equipment loads; construction loads; Patient lift loads; special loading considerations;

2.8.4.1(6) Horizontal design loads indicated including seismic loads, wind loads, lateral earth pressures and hydrostatic pressures;

2.8.4.1(7) Loading plans showing area loads not covered by design criteria information such as planter and soil loads with an indication of maximum soil depth;

2.8.4.1(8) Geotechnical information used in the Design including reference to geotechnical report, footing or pile bearing capacities, site classification and site coefficients;

2.8.4.1(9) Concrete mix requirements indicating application, exposure classification, minimum 28-day compressive strength, and maximum aggregate size; and

2.8.4.1(10) Concrete cover requirements, based on weather and soil exposure, fire resistance rating, or chloride penetration.

2.8.4.2 Schedules as required for items such as columns, beams, slabs, walls, foundations, baseplates, and embed plates.

2.8.4.3 Foundation plans, fully coordinated with other consultant's drawings, will contain:

2.8.4.3(1) Gridlines and gridline dimensions;

2.8.4.3(2) Foundation types, sizes, and reinforcement, including strip footings, pad footings, rafts, piles and pile caps, soil anchors and grade beams. Foundations should be located relative to the supported structure. Indicatively show and detail steps in footings; indicate pile base and cut- off elevations. Indicate frost protection and adfreeze mitigation measures;

2.8.4.3(3) Interior slabs-on-grade including thickness, reinforcement, contraction joint requirements, and subgrade requirements including moisture barrier if required. Indicate step heights or top of slab elevations and ensure step conditions are sufficiently detailed. Show pits for elevators and mechanical openings;

2.8.4.3(4) Concrete walls including thickness and reinforcement. Clearly indicate shear walls and, if detailed elsewhere, ensure adequate referencing. Ensure wall corners, openings, intersections control joints, and construction joints are sufficiently detailed. Provide full height wall sections as required;

2.8.4.3(5) Concrete columns, pedestals and pilasters including dimensions and reinforcement, including tie arrangement details;

2.8.4.3(6) Steel columns including size and base plate details; and

2.8.4.3(7) Load bearing masonry and/or wood / engineered stud walls if applicable, including stud sizes and spacing, plywood sheathing thickness and nailing requirements, masonry unit dimensions, reinforcement, and grouting. Provide sufficient details as required.

2.8.4.4 Floor and Roof Framing Plans, fully coordinated with other consultants' drawings, will contain:

2.8.4.4(1) Gridlines and gridline dimensions;

2.8.4.4(2) Concrete slabs including thickness, cambers, and reinforcement. Show all openings coordinated with other consultants. Indicate step heights or relative elevations. Ensure step conditions, slab edge conditions, construction joints, delay strips, and such are sufficiently detailed;

2.8.4.4(3) Concrete and masonry walls including thickness and reinforcement and wood frame walls including member sizes and spacing with plywood sheathing thickness and nailing noted. Clearly indicate shear walls and, if detailed elsewhere, ensure adequate referencing. Ensure wall corners, intersections, control, and construction joints are sufficiently detailed. Provide full height wall sections as required;

2.8.4.4(4) Concrete columns, pedestals and pilasters including size and reinforcement, including tie and column rebar arrangement details. Ensure that columns starting, stopping, and continuing are sufficiently detailed; ensure that offset column transitions are sufficiently detailed; Structural steel and timber columns will be likewise detailed;

2.8.4.4(5) Concrete beams including reinforcement and dimensions for beams of concrete, timber, and structural steel. Elevate concrete beams with complex reinforcement. Ensure beams are sufficiently detailed c/w connections as appropriate;

2.8.4.4(6) Detail concrete stairs, including throat thickness, reinforcement, and sufficient details for cast-in-place stairs. For precast concrete stairs provide sufficient seating details;

2.8.4.4(7) Steel deck with or without concrete topping including thicknesses, deck type, connection to supporting structure, and shear transfer elements. Ensure sufficient deck edges, mechanical openings, ledger angles, framing around openings, and structural requirements for support of mechanical equipment are adequately detailed;

2.8.4.4(8) Steel beams, open web steel joists and steel trusses, including member sizes or depths, spacing, embed plates where connected to concrete and cambers. Ensure all design forces and moments are provided for use by connection designer, open web steel joist designer and truss designer. Ensure steel girts and ledgers between levels are clearly called up. Provide elevations for members between levels if required for clarity;

2.8.4.4(9) Steel columns including size, base plate, embed plate and cap plate details;

2.8.4.4(10) Detail steel stairs, including stringer sizes and connection details; and

2.8.4.4(11) Wood frame, engineered lumber, heavy timber and pre-engineered; trusses for floor and roof construction if applicable including all member sizes and connections. This to also include all plywood sheathing and connections including those for diaphragm loading. Provide all design forces for beam and joist connections as well design forces for pre- engineered trusses to ensure that all elements, connections, and diaphragm forces are adequately detailed.

2.8.4.5 Elevations, fully coordinated with other consultants' drawings, for the following items:

2.8.4.5(1) Concrete masonry and wood frame wall or shear wall elevations as required to convey information not detailed on plan including complex areas of reinforcement, openings, shear wall zones, headers, and such;

2.8.4.5(2) Concrete beam elevations for beams with complex reinforcement;

2.8.4.5(3) Steel bracing elevations including member sizes, forces, and sufficient information for connection designer; and

2.8.4.5(4) Any other elevations deemed necessary to convey sufficient structural information.

2.8.4.6 Sections and details will contain information for all structural conditions not dealt with completely on plans, elevations, or schedules. Additional information includes, but is not limited to clarification of structural geometry, reinforcement, connection configurations, fasteners, and welding.

2.8.5 Mechanical Construction Documents

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Drawing Content					
Legends, regulatory data, drawing list, key plans	✔	✔	✔	✔	✔
Fire suppression – plans, sections, details	✔	✔	✔	✔	✔
Plumbing – plans, sections, details	✔	✔	✔	✔	✔

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Heating and Cooling (Hydraulic) – plans, sections, details	✔	✔	✔	✔	✔
HVAC – plans, sections, details	✔	✔	✔	✔	✔
Schematics and schedules, air and water flow diagrams, equipment schedules, control schematics, sequence of operations.	✔	✔	✔	✔	✔
Specifications					
General Requirements	✔	✔	✔	✔	-
Fire Suppression	✔	✔	✔	✔	-
Plumbing	✔	✔	✔	✔	-
Heating, Ventilating and Air Conditioning	✔	✔	✔	✔	-
HVAC Integrated Automation	✔	✔	✔	✔	-
Other					
Plumbing fixture matrix	✔	✔	✔	✔	-
Medical gas outlet matrix	✔	✔	✔	✔	-
Measurement and verification matrix	✔	✔	✔	✔	-
Submittals					
Energy Model submittals in accordance with Schedule 9	✔	✔	✔	✔	✔
Flexibility of Expansion	-	-	-	✔	-
Expansion of Space	-	-	-	✔	-
Medical Gas Testing Reports	-	-	-	✔	-
Dispersion Study	-	-	-	✔	-
Ventilation Calculations	-	-	-	✔	-
Air Exchange Reports	-	-	-	✔	-
Metering Matrices submitted	✔	✔	✔	✔	-

2.8.5.1 Regulatory sheet – will contain (may be included on titlesheet):

2.8.5.1(1) Design load assumptions and calculations.

2.8.5.2 Fire Suppression, plans, sections, details will contain:

2.8.5.2(1) Design calculations for water flow with water supply flow data, fire pump (if required), and smoke control;

2.8.5.2(2) Sprinkler zoning including indication of dry pipe and pre-action systems;

2.8.5.2(3) Provisions to accommodate security hazard classifications;

2.8.5.2(4) Clearly indicated ceiling and slab elevations (geodetic) complete with level changes, bulkheads, beams;

2.8.5.2(5) The location of doors and windows, and other openings;

2.8.5.2(6) The location of “special fire hazard / load” conditions such as compact storage shelving, vaults, electronic data processing rooms;

2.8.5.2(7) The location of fixtures and equipment for washrooms, kitchens, conference rooms, equipment/mechanical/electrical/technology rooms;

2.8.5.2(8) The designation (usually by room name and number) of interior spaces including sprinkler head type;

2.8.5.2(9) Graphic indication of fire separation(s), acoustic separation(s), security separation(s); and

2.8.5.2(10) Any specialist fire suppression elements required as part of an Alternative Solution

2.8.5.3 Plumbing, plans, sections, details will contain:

2.8.5.3(1) Design calculations for water supply including pressure, hot water heating, sanitary waste sizing (including grease), and roof drainage;

2.8.5.3(2) Riser diagrams with flows indicated for domestic hot and cold water lines, waste, and vent lines; and

2.8.5.3(3) Heating and Cooling (Hydronic), plans, sections, details will contain:

2.8.5.3(3)a. Design calculations for water supply including pressure, hot water heating, glycol solution and chilled water;

2.8.5.3(3)b. Riser diagrams with flows indicated for hot, steam and chilled water lines; and

2.8.5.3(3)c. Equipment schedule.

2.8.5.4 Heating, cooling, and ventilation (HVAC) plans, sections, details will contain:

2.8.5.4(1) Design calculations for block loads for heating and refrigeration, system load and supply air calculations including minimum outside air to be admitted, system pressure static analysis at peak and minimum block loads, acoustical calculations, building heating, cooling and ventilation loads, flow and head calculations for pumping systems, sizing of fuel storage, distribution and vibration isolation;

2.8.5.4(2) HVAC piping layouts including valves complete with locations where temperature, pressure, flow, contaminant/combustion gases, vibration gauges and remote sensing is required;

2.8.5.4(3) HVAC duct layouts and true sizes (double line) including fire dampers and volume control dampers;

2.8.5.4(4) Layout of equipment rooms showing mechanical equipment including space for maintenance (filter replacement, valve adjustments, lubrication, etc.) and removal / replacement of mechanical equipment (coils, heat exchangers, pumps, boilers, chiller tube bundles, etc.);

2.8.5.4(5) Roof plan with roof-mounted equipment and penthouses complete with indication of servicing and maintenance access;

2.8.5.4(6) HVAC outside air intake and exhaust air discharge including louvre sizes and locations relative to each other and other potential sources of pollution (including proximal locations or adjacencies to the loading dock exhaust), ensuring security, acoustic impact on Patient areas and dispersions concerns have been taken into consideration;

2.8.5.4(7) HVAC riser diagram(s), schematic flow and riser diagrams including airflow and water flow quantities and balancing for heating and cooling equipment, flow energy measuring devices for water and air systems. Clear indication of penetrations through rated wall, floor and roof assemblies complete with details;

2.8.5.4(8) Automatic temperature control diagram(s) including control flow diagrams showing sensors, valves and controllers, sequence of operation of systems, diagram showing control signal interface with sequence of operation, locations, and connections of energy metering devices for major equipment;

2.8.5.4(9) Equipment schedule including but not limited to chillers, boilers, pumps, air handling units, fans, terminal units, diffusers, and grilles;

2.8.5.4(10) Clear indication of seismic restraints for HVAC systems and equipment;

2.8.5.4(11) Integrated automation plans, sections, details will contain:

2.8.5.4(11)a. Design calculations;

2.8.5.4(11)b. Integrated automation schematic layout.

2.8.5.4(12) Schematic and schedules will contain:

2.8.5.4(12)a. Clearly indicated type, flow, head, speed, class, BHP, electrical;

2.8.5.4(12)b. Schedules may be graphical and/or tabular in drawing and/or specification format.

2.8.5.5 Energy Modelling:

2.8.5.5(1) Refer to Schedule 9: Energy Guarantee

2.8.5.5(2) Provide an updated energy model report with each milestone submittal (30%, 60%, 95%, 100% and Record Drawing). Refer to Appendix 1 of Schedule 9 for detailed list of information required in the report.

2.8.6 Electrical Construction Documents

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Drawing Content					
Legends, regulatory data, drawing list, key plans	✔	✔	✔	✔	✔
Site plans	✔	✔	✔	✔	✔
Power Single Line Diagram	✔	✔	✔	✔	✔
Power Riser Diagram	-	✔	✔	✔	✔
Large Scale - Electrical room equipment layouts	✔	✔	✔	✔	✔
Large Scale - Electrical room 3-D equipment layouts including equipment dimensions and equipment removal / replacement pathways	-	✔	✔	✔	✔
Grounding Riser Diagram	✔	✔	✔	✔	✔
Grounding Details	-	-	✔	✔	✔
Lightning Protection Riser, Plans	✔	✔	✔	✔	✔
Lightning Protection Details	-	-	✔	✔	✔

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Lighting Control Riser	✔	✔	✔	✔	✔
Lighting Control Details	-	-	✔	✔	✔
Clock System Riser	✔	✔	✔	✔	✔
Other Systems Risers	-	✔	✔	✔	✔
Fire Alarm and Voice IMIT System Riser	✔	✔	✔	✔	✔
Lighting and Lighting Control - Plans	✔	✔	✔	✔	✔
Lighting and Lighting Control - Circuiting	-	-	✔	✔	✔
Power - Plans	✔	✔	✔	✔	✔
Power - Circuiting	-	-	✔	✔	✔
Fire Alarm and Voice Communication Systems Plans	✔	✔	✔	✔	✔
Other Systems Plans	✔	✔	✔	✔	✔
Switchgear/switchboard/ elevations and schedules	-	✔	✔	✔	✔
Fire Alarm and Voice Communication Systems schedules	-	✔	✔	✔	✔
Site Service details	-	✔	✔	✔	✔
Miscellaneous details	-	-	✔	✔	✔
All other drawings	-	-	✔	✔	✔
Specifications					
Table of Contents: listing all sections	✔	✔	✔	✔	-
General Requirements	✔	✔	✔	✔	-
Electrical	-	✔	✔	✔	-
Branch Circuit Panelboard Schedules	-	-	✔	✔	✔
Luminaire Schedules	-	✔	✔	✔	-
Lighting Control Schedules	-	-	✔	✔	✔
Communications (clock system and interval timers)	-	✔	✔	✔	-
Electronic Safety and Security	✔	✔	✔	✔	-
Other					
Total load calculations (utility electric service)	✔	✔	✔	✔	-
Total load calculations (generator power)	✔	✔	✔	✔	-
Load calculations (transformer loadings)	-	✔	✔	✔	-
Load calculations (generator loadings)	-	✔	✔	✔	-
Load calculations (UPS power)	-	✔	✔	✔	-
Power system ground grid calculations	-	✔	✔	✔	-
Voltage drop calculations	-	✔	✔	✔	-
Short circuit calculations	-	✔	✔	✔	-
Arc flash calculations	-	-	-	✔	✔
Coordination study	-	-	-	✔	✔
Lighting calculations	-	✔	✔	✔	-
Lightning: grounding resistivity calculations	-	-	✔	✔	-
Ratings of grounding resistors, zig-zag grounding transformers, fuses, bus ducts, feeders, splitters, safety switches, panelboards, power factor correction units	-	✔	✔	✔	-

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Calculated maximum fault levels, symmetrical and asymmetrical, and protective device interrupting ratings, symmetrical and asymmetrical, at each protective device location	-	✔	✔	✔	-
Calculated arc Flash hazard level at each protective device and switching device location	-	-	✔	✔	-
Utility metering	-	✔	✔	✔	-
Metering	-	✔	✔	✔	-
Dimensions of equipment shown	-	✔	✔	✔	-
Widths of access aisles dimensioned	-	✔	✔	✔	-
Extent of draw-out equipment indicated and dimensioned	-	✔	✔	✔	-
Three-dimensional drawing files provided	-	✔	✔	✔	-
Ground bus names, following a consistent naming methodology	-	✔	✔	✔	-
Details of ground bus design and mounting Circuiting of items requiring power	-	✔	✔	✔	-
Widths of access aisles dimensioned	-	✔	✔	✔	-
Submittals					
Detailed Distribution Coordination Study	-	-	-	✔	-
Monthly System Shut Down Schedules	-	-	-	✔	-

2.8.6.1 Regulatory data – will contain design load assumptions and calculations to demonstrate code compliance.

2.8.6.2 Site plans will include:

2.8.6.2(1) property limits;

2.8.6.2(2) public roadways, sidewalks, and easements;

2.8.6.2(3) driveways;

2.8.6.2(4) parking lots;

2.8.6.2(5) electric utility services;

2.8.6.2(6) electrical site services;

2.8.6.2(7) site lighting;

2.8.6.2(8) exterior building lighting,

2.8.6.2(9) maintenance hole locations with sump pump circuits as applicable;

2.8.6.2(10) hand holes, pull pits; and

2.8.6.2(11) lightning protection ground grid.

2.8.6.3 Power Single Line Diagram will include:

2.8.6.3(1) the entire electrical system from the utility service to and including distribution panels, Motor Control Centres, chillers, motors over 7.5 HP;

2.8.6.3(2) ratings of transformers, generators, load bank, breakers, load break switches, fuses, transfer switches, switchgear, switchboards;

2.8.6.3(3) transformer and generator winding arrangements;

2.8.6.3(4) interlock schemes;

2.8.6.3(5) potential and current transformers; and

2.8.6.3(6) equipment names, following a consistent equipment naming methodology.

2.8.6.4 Large Scale - Electrical Room Equipment Layouts will include:

2.8.6.4(1) all electrical rooms drawn to a scale of not less than 1:50;

2.8.6.4(2) all equipment in the room shown to scale;

2.8.6.4(3) major equipment removal/ replacement pathways;

2.8.6.4(4) equipment door swings indicated;

2.8.6.4(5) room doors shown; and

2.8.6.4(6) room names and numbers.

2.8.6.5 All Risers diagrams will include:

2.8.6.5(1) riser diagram showing interconnections, or any other systems not shown on listed riser.

2.8.6.5(2) equipment shown on the floor level where they will be installed;

2.8.6.5(3) a two-dimensional relative representation of where the equipment will be located;

2.8.6.5(4) wiring runs to equipment;

2.8.6.5(5) a two-dimensional representation of the routing of the wiring runs; and

2.8.6.5(6) equipment names, following a consistent equipment naming methodology.

2.8.6.6 Fire Alarm and Voice Communications System Riser Diagram will include:

2.8.6.6(1) the entire fire alarm and voice communication system;

2.8.6.6(2) each detection loop out of a local panel, including every isolation module used in the loop;

2.8.6.6(3) indication of each detection zone;

2.8.6.6(4) indication of each monitoring zone;

2.8.6.6(5) indication of each signal zone;

2.8.6.6(6) a typical representation of the detection, monitoring and control devices installed on each segment of a loop (i.e. between isolation modules);

2.8.6.6(7) each signal circuit out of a local panel;

2.8.6.6(8) a typical representation of the signal devices installed on each signal circuit;

2.8.6.6(9) interconnections with other systems; and

2.8.6.6(10) equipment names, following a consistent equipment naming methodology.

2.8.6.7 Lighting and Lighting Control Plans will include:

2.8.6.7(1) reflected ceiling plans to scale showing all luminaires, including emergency lighting and exit signs, in their relative locations;

2.8.6.7(2) an indication of the luminaire types, corresponding to the luminaire schedules;

2.8.6.7(3) circuiting of each luminaire;

2.8.6.7(4) lighting control devices, in their relative locations;

2.8.6.7(5) full lighting and switching layout for each room and floor plates;

2.8.6.7(6) control panels, in their relative locations;

2.8.6.7(7) lighting control zoning;

2.8.6.7(8) lighting panelboards, in their relative locations; and

2.8.6.7(9) room names and numbers, doors and windows, corridor names.

2.8.6.8 Power Plans will include:

2.8.6.8(1) floor plans to scale showing all:

2.8.6.8(1)a. receptacles;

2.8.6.8(1)b. outlets;

2.8.6.8(1)c. safety switches;

2.8.6.8(1)d. transfer switches;

2.8.6.8(1)e. dry-type transformers;

2.8.6.8(1)f. feeders;

2.8.6.8(1)g. splitters;

2.8.6.8(1)h. distribution panels;

2.8.6.8(1)i. lighting/receptacle/lab panels;

2.8.6.8(1)j. switches controlling receptacles or outlets;

2.8.6.8(1)k. timers;

2.8.6.8(1)l. clocks;

2.8.6.8(1)m. contactors;

2.8.6.8(1)n. switchgear;

2.8.6.8(1)o. switchboards;

2.8.6.8(1)p. power factor correction units;

2.8.6.8(1)q. transformers;

2.8.6.8(1)r. generators;

2.8.6.8(1)s. UPS equipment;

2.8.6.8(1)t. Motor Control Centres;

2.8.6.8(1)u. motor starters and VFSs;

2.8.6.8(1)v. chillers;

2.8.6.8(1)w. motors over 7.5 HP;

2.8.6.8(1)x. automatic door controls;

2.8.6.8(1)y. equipment (other than lighting control), shown in their relative locations;

2.8.6.8(1)z. an indication of the equipment types, corresponding to the legend;

2.8.6.8(1)aa. circuiting of each item of equipment; and

2.8.6.8(1)bb. room names and numbers, doors and windows, corridor names.

2.8.6.9 Fire Alarm and Voice Communications System Plans will include:

2.8.6.9(1) reflected ceiling plans to scale showing all detection devices, signal devices, control devices, monitoring devices, isolation modules, in their relative locations;

2.8.6.9(2) an indication of the equipment types, corresponding to the legend;

2.8.6.9(3) annunciators, head-end equipment, local panels, battery cabinets, paging stations, control centres, in their relative locations;

2.8.6.9(4) identification of each zone boundary;

2.8.6.9(5) room names and numbers, doors and windows, corridor names;

2.8.6.9(6) zone numbers, and

2.8.6.9(7) fire walls, fire separations.

2.8.6.10 Switchgear/switchboard/unit substation, elevations and schedules will include:

2.8.6.10(1) the elevation of each item of switchgear, each switchboard and each unit substation showing protective devices, switching devices, bus arrangements, protective relays, control relays, metering, labelling, surge protective devices,

2.8.6.10(2) schedules identifying each protective device, switching device, transformer, bus, showing the ratings of these plus the settings of each protective device, including:

2.8.6.10(2)a. long time pickup,

2.8.6.10(2)b. long time delay,

2.8.6.10(2)c. short time pickup,

2.8.6.10(2)d. short time delay,

2.8.6.10(2)e. instantaneous (if required),

2.8.6.10(2)f. ground fault pickup, and

2.8.6.10(2)g. ground fault delay.

2.8.6.11 Fire Alarm and Voice Communications Systems Schedules will include:

2.8.6.11(1) all detection, monitoring and control zone designations;

2.8.6.11(2) all signal zone designations;

2.8.6.11(3) a description of the area or equipment involved;

2.8.6.11(4) an indication of the system operation related to that zone;

2.8.6.11(5) all paging zone designations; and

2.8.6.11(6) a description of the area involved for each paging zone.

2.8.6.12 Site Service Details will include:

2.8.6.12(1) maintenance holes and hand holes;

2.8.6.12(2) cable racking inside maintenance holes;

2.8.6.12(3) cable pulling provisions inside maintenance holes;

2.8.6.12(4) built-in ladders inside maintenance holes;

2.8.6.12(5) means of draining maintenance holes including gravity drainage and sump pump systems;

2.8.6.12(6) lighting and power provisions inside maintenance holes;

2.8.6.12(7) cross sections of each duct bank;

2.8.6.12(8) cross sections of any direct buried cables;

2.8.6.12(9) bases for lighting standards;

2.8.6.12(10) bases for bollards; and

2.8.6.12(11) bases for other equipment.

2.8.6.13 Miscellaneous Details will include:

2.8.6.13(1) all details required for the full description of the project not included on other drawings.

2.8.6.14 All other drawings will include:

2.8.6.14(1) drawings as required for the full description of the project not included on other drawings.

2.8.6.15 Record Drawings will include:

2.8.6.15(1) drawings included in the 100% submission plus any changes made and any drawings added up to the completion of Construction;

2.8.6.15(2) updating of each drawing to the final “as built” condition;

2.8.6.15(3) final locations of duct banks, maintenance holes, hand holes, conduit, outlets, panels, branch wiring, system wiring, pull boxes, bus ducts, and equipment;

2.8.6.15(4) dimensions from column lines or edge of roadways to the location of buried services; and

2.8.6.15(5) project surveyor’s information on the site services as-built drawings.

2.8.6.16 Electrical Specifications will include:

2.8.6.16(1) sections in sufficient detail to unequivocally describe each material and each item of equipment to be used on the electrical scope of work for the project;

2.8.6.16(2) the method of installation, testing, commissioning, and documenting for each material, item of equipment, and system that is part of the electrical scope of work for the project; and

2.8.6.16(3) identification of the codes and standards to which the specified materials, equipment, and systems will comply.

2.8.6.17 Calculations will be:

2.8.6.17(1) published, handwritten calculations will not be submitted;

2.8.6.17(2) fully detailed to allow review of each step of the calculations;

2.8.6.17(3) with power demand and diversity factors identified; and

2.8.6.17(4) with all assumptions clearly stated.

2.8.6.18 Total Load Calculations (utility electric service) will include:

2.8.6.18(1) calculation of the annual peak demand load, in kW and kVA, expected for the Facility;

2.8.6.18(2) calculation of the annual peak demand load, in kW and kVA, on the utility service in kW under typical operating conditions, also indicating the spare capacity is available;

2.8.6.18(3) not used; and

2.8.6.18(4) electrical load redundancy and spare capacity calculations for all normal power identifying loads of different types, such as individual mechanical equipment, lighting, general receptacles, hospital equipment, communications and security equipment and elevators.

2.8.6.19 Total Load Calculations (generator power) will include:

2.8.6.19(1) calculation of the annual peak demand load on the generating system, in kW and kVA, expected for the Facility;

2.8.6.19(2) calculation of the annual peak demand load, in kW and kVA, on each generator under typical operating conditions, indicating the spare capacity on each generator;

2.8.6.19(3) calculation of the annual peak demand load, in kW and kVA, on each generator with one generator out of service;

2.8.6.19(4) calculation of the annual peak demand load, in kW and kVA, on each generator with one generator bus (i.e. two generators) out of service; and

2.8.6.19(5) electrical load redundancy and spare capacity calculations for all branches of power identifying loads of different types, such as individual mechanical equipment, lighting, general receptacles, hospital equipment, communications and security equipment and elevators.

2.8.6.20 Load Calculations (transformer loadings) will include:

2.8.6.20(1) calculation of the annual peak demand load, in kW and kVA, on each transformer under typical operating conditions;

2.8.6.21 Load Calculations (generator loadings) will include:

2.8.6.21(1) calculation of the annual peak demand load, in kW and kVA, on each generator under typical operating conditions;

2.8.6.21(2) calculation of the annual peak demand load, in kW and kVA, on each generator with one generator out of service; the generator out of service is to be one that causes load to be transferred to the remaining generators for which the load calculation is being performed;

2.8.6.21(3) calculation of the anticipated future load growth on each generator;

2.8.6.21(4) calculation of the spare capacity provided for in each generator;

2.8.6.21(5) electrical load redundancy and spare capacity calculations for all branches of power identifying loads of different types, such as individual mechanical equipment, lighting, general receptacles, hospital equipment, communications and security equipment and elevators.

2.8.6.21(6) An exterior load-bank that matches the size of the largest generator unit provided for the project to allow for 100% Full Load Testing of the largest generator unit. The Generator Synchronizing Board will be set up and arranged such that each of the generator units can be 100% Full Load Tested one unit at a time.

2.8.6.22 Load Calculations (UPS power) will include:

2.8.6.22(1) calculation of the annual peak demand load, in kW and kVA, on the UPS system under typical operating conditions;

2.8.6.22(2) calculation of the anticipated future load growth on the UPS system;

2.8.6.22(3) calculation of the spare capacity provided for in the UPS system; and

2.8.6.22(4) calculation of the battery support time of the UPS system, based on:

2.8.6.22(4)a. full load operation;

2.8.6.22(4)b. with the redundant system not available;

2.8.6.22(4)c. with the battery capacity derated to the actual ambient room temperature, and

2.8.6.22(4)d. with the batteries at “end of life”.

2.8.6.23 Power System Ground Grid calculations will include:

2.8.6.23(1) identification of soil resistivity based on site testing, two level resistivity if applicable; and

2.8.6.23(2) calculation of the GPR, step and touch potentials, in accordance with ANSI/IEEE #80.

2.8.6.24 Voltage Drop calculations will include:

2.8.6.24(1) calculations of the steady state voltage drop from the utility service though to every power utilizing device;

2.8.6.24(2) provided that 2% voltage drop is allowed for each branch circuit then the voltage drop calculations can end at the final lighting/receptacle/lab panelboard and MCC;

2.8.6.24(3) calculations based on a load equal to 80% of the breaker or fuse rating protecting the circuit, unless the load is fixed and known (e.g. a single motor) in which case the fixed known load can be used; and

2.8.6.24(4) calculations based on a power factor of 90% unless a different power factor is known to apply in which case the known power factor is to be used.

2.8.6.25 Short Circuit calculations will include:

2.8.6.25(1) calculations of symmetrical and asymmetrical values of fault currents, based on the calculated X/R ratio of the system;

2.8.6.25(2) calculations of the maximum three-phase fault current, the maximum line to line fault current, the maximum line to ground fault current and the minimum line to ground fault current at every protective device and switching device in the electrical system, excluding local switches on branch circuits;

2.8.6.25(3) the maximum fault currents based on the utility supply in parallel with the generator supply, where closed transition transfer switches are used;

2.8.6.25(4) the utility ultimate design fault levels;

2.8.6.25(5) motor contribution; and

2.8.6.25(6) actual transformer impedances, but until actual impedances are available, worst case (low) impedances.

2.8.6.26 Arc Flash calculations will include:

2.8.6.26(1) calculations of the arc flash level at every protective device and every switching device in the system, excluding local switches on branch circuits.

2.8.6.27 Coordination Study will include:

2.8.6.27(1) graphs of each portion of the electrical system on log-log paper showing:

2.8.6.27(1)a. the operating characteristics of each protective device;

2.8.6.27(1)b. full load ratings of transformers;

2.8.6.27(1)c. full load ratings of individual generators and generators in parallel;

2.8.6.27(1)d. the maximum and minimum fault level at each protective device and each switching device;

2.8.6.27(1)e. transformer inrush current;

2.8.6.27(1)f. motor starting current;

2.8.6.27(1)g. cable damage curves;

2.8.6.27(1)h. transformer damage curves;

2.8.6.27(1)i. full load ratings of generators;

2.8.6.27(1)j. generator damage curves;

2.8.6.27(1)k. generator decrement curves for individual generators and paralleled generators;

2.8.6.27(1)l. full load ratings of UPS systems;

2.8.6.27(1)m. UPS system fault levels;

2.8.6.27(1)n. UPS system maintenance bypass fault levels; and

2.8.6.27(1)o. a single line diagram of the portion of the system involved including the equipment names, ratings, and settings.

2.8.6.27(2) no more than five (5) time current curves of protective devices on each graph;

2.8.6.27(3) graphs showing operation on utility power;

2.8.6.27(4) graphs showing operation on generator power;

2.8.6.27(5) graphs showing operation on UPS power;

2.8.6.27(6) a sufficient number of graphs to depict the entire electrical system including the utilities protective devices and the generators down to feeders to lighting/receptacle/lab panels, splitters, Motor Control Centres, chillers, motors of 50 HP and larger;

2.8.6.27(7) separate graphs for phase currents;

2.8.6.27(8) separate graphs for ground currents;

2.8.6.27(9) schedules showing each protective device that is equipped with an adjustable trip unit, showing the device frame size, CT ratios and the detailed settings of its trip unit,

2.8.6.27(10) identification of areas where equipment protection is not adequate; and

2.8.6.27(11) identification of areas where full coordination is not achieved.

2.8.6.28 Lighting calculations will include:

2.8.6.28(1) calculation of the average illumination in each area and room;

2.8.6.28(2) calculation of the max to min ratio in each area and room;

2.8.6.28(3) identification of the light loss factors and dirt depreciation factors used in the calculations, and the supporting justification for them;

2.8.6.28(4) identification of the floor, wall and ceiling reflectance values used and the source of these values; and

2.8.6.28(5) dimensions of each space and the source of these values.

2.8.6.29 Lightning System Ground Grid calculations will include:

2.8.6.29(1) identification of soil resistivity based on site testing; and

2.8.6.29(2) calculation of the grounding resistivity of the lightning protection system.

2.8.7 Electrical Shop Drawings

2.8.7.1 The submittals will be reviewed for general compliance and not for dimensions and quantities. The submittal review will not relieve the Design-Builder of responsibility for errors or omissions and deviations from the requirements outlined in this Design-Build Agreement. If the submittal shows variations from the requirements of this Design-Build Agreement for any reason, the Design-Builder will provide written detail of each variation in the letter of transmittal.

2.8.7.2 Shop Drawings will be submitted in an electronic format. The file format will be Adobe portable data file (.pdf) or provide software to enable viewing of files of the other formats at no additional cost to the Authority.

2.8.7.3 Submit shop drawings for the following:

2.8.7.3(1) Documents supporting LEED application;

2.8.7.3(2) Nameplate wording;

2.8.7.3(3) Warning signs;

2.8.7.3(4) Access doors;

2.8.7.3(5) Fire stopping:

2.8.7.3(5)a. technical data;

2.8.7.3(5)b. ULC or CUL listing;

2.8.7.3(5)c. supports and bases; and

2.8.7.3(5)d. insert drawings.

2.8.7.3(6) Paint: technical data;

2.8.7.3(7) Plywood backboards: technical data;

2.8.7.3(8) High voltage cables,

2.8.7.3(9) High voltage cable terminators

2.8.7.3(10) Bus ducts;

2.8.7.3(11) Plug-in busways;

2.8.7.3(12) Low voltage cables;

2.8.7.3(13) Grounding:

2.8.7.3(13)a. system design; and

2.8.7.3(13)b. materials.

2.8.7.3(14) Splitters and cabinets;

2.8.7.3(15) Junction boxes with L, W or H larger than 600;

2.8.7.3(16) Cable tray;

2.8.7.3(17) Wireways;

2.8.7.3(18) Duct banks:

2.8.7.3(18)a. design;

2.8.7.3(18)b. materials; and

2.8.7.3(18)c. spacers.

2.8.7.3(19) Vibration isolation and seismic restraint:

2.8.7.3(19)a. design;

2.8.7.3(19)b. materials;

2.8.7.3(20) Maintenance holes;

2.8.7.3(21) Pull pits;

2.8.7.3(22) Lighting control systems;

2.8.7.3(23) High voltage switchboards;

2.8.7.3(24) Dry-type transformers;

2.8.7.3(25) Low voltage switchboards:

2.8.7.3(26) Panelboards;

2.8.7.3(27) Wiring devices;

2.8.7.3(28) Disconnect switches;

2.8.7.3(29) Contactors;

2.8.7.3(30) Starters;

2.8.7.3(31) Motor Control Centres:

2.8.7.3(32) Harmonic filters:

2.8.7.3(33) Electric space heating,

2.8.7.3(34) Diesel generators:

2.8.7.3(34)a. design;

2.8.7.3(34)b. ratings;

2.8.7.3(34)c. schematics;

2.8.7.3(34)d. three wire diagrams;

2.8.7.3(34)e. subassemblies (e.g. engine, radiator, alternator, voltage regulators, governor, base, heaters, fuel pumps, fuel filters, fuel coolers, vibration isolators, controls, metering units, circuit breakers, silencers, starting battery, battery charger);

2.8.7.3(34)f. paralleling controls;

2.8.7.3(34)g. Load Management System; and

2.8.7.3(34)h. overall assembly.

2.8.7.3(35) UPS systems:

2.8.7.3(35)a. design;

2.8.7.3(35)b. ratings;

2.8.7.3(35)c. schematics;

2.8.7.3(35)d. single line diagrams;

2.8.7.3(35)e. battery racks;

2.8.7.3(35)f. input and output transformers;

2.8.7.3(35)g. controls;

2.8.7.3(35)h. interlocks;

2.8.7.3(35)i. communications systems;

2.8.7.3(36) Power factor correction units:

2.8.7.3(37) Lightning arrestors;

2.8.7.3(38) Lightning protection;

2.8.7.3(39) Surge protective devices;

2.8.7.3(40) Lighting:

2.8.7.3(40)a. each type of luminaire; and

2.8.7.3(40)b. each type of illuminated sign.

2.8.7.3(41) Battery lighting equipment;

2.8.7.3(42) Clock System;

2.8.7.3(43) Interval timers; and

2.8.7.3(44) Fire alarm system.

2.8.8 Electrical Samples and Mock-ups

2.8.8.1 Submit samples of the following:

2.8.8.1(1) Luminaire type as requested; and

2.8.8.1(2) Each type of illuminated sign.

2.8.8.2 Prepare mock-ups of the following:

2.8.8.2(1) Each type of rooms listed in section 2.9 Mock-up Rooms and Prototypes.

2.8.9 Electrical Studies

2.8.9.1 Submit documentation of the following studies:

2.8.9.1(1) Short circuit studies;

2.8.9.1(2) Protective device -coordination studies; and

2.8.9.1(3) Arc flash studies.

2.8.10 Electrical Reports

2.8.10.1 Submit reports for the following:

2.8.10.1(1) Operating and Maintenance Manuals;

2.8.10.1(2) Training session records;

2.8.10.1(3) Panelboard loading test results;

2.8.10.1(4) Transformer loading test results;

2.8.10.1(5) Motor control centre loading test results;

2.8.10.1(6) Motor control centre performance testing;

2.8.10.1(7) Seismic restraints;

2.8.10.1(8) Testing of Patient care areas to CSA standard Z32;

2.8.10.1(9) Illumination level measurements;

2.8.10.1(10) Factory witness testing;

2.8.10.1(11) Site acceptance (pre-service) testing;

2.8.10.1(12) Ground resistance measurements;

2.8.10.1(13) Lightning protection grounding resistance;

2.8.10.1(14) UPS battery testing;

2.8.10.1(15) UPS performance testing;

2.8.10.1(16) Generator testing;

2.8.10.1(17) Transfer switch testing;

2.8.10.1(18) Transformer testing;

2.8.10.1(19) Switchgear/switchboard testing;

2.8.10.1(20) Distribution system dynamic performance verification; and

2.8.10.1(21) Clock system signal coverage.

2.8.11 Electrical Certificates and Verifications

2.8.11.1 Submit the following certificates and verifications:

2.8.11.1(1) Manufacturers' letters verifying that the equipment has been installed in accordance with their instructions for the following:

2.8.11.1(1)a. Fire stopping;

2.8.11.1(1)b. Fire rated wiring;

2.8.11.1(1)c. Lighting control systems;

2.8.11.1(1)d. Clock system;

2.8.11.1(1)e. Automatic transfer switches;

2.8.11.1(1)f. Diesel generators;

2.8.11.1(1)g. UPS systems;

2.8.11.1(1)h. UPS batteries;

2.8.11.1(1)i. Power factor correction units; and

2.8.11.1(1)j. Pipe heating systems.

2.8.11.1(2) Wiring in Patient Care areas (Z32);

2.8.11.1(3) Seismic certifications:

2.8.11.1(3)a. Transformers;

2.8.11.1(3)b. Diesel generators;

2.8.11.1(3)c. Transfer switches; and

2.8.11.1(3)d. Switchgear/switchboards.

2.8.11.1(4) Seismic restraints;

2.8.11.1(5) Fire alarm system verification;

2.8.11.1(6) Radio licence for clock system;

2.8.11.1(7) Request for final review; and

2.8.11.1(8) Equipment warranties.

2.8.12 Telecommunications Construction Documents

2.8.12.1 Within section 2.8.12, the term “system(s)” or “System(s)” will refer to all systems provided by Communications (Division 27).

2.8.12.2 Telecommunications drawings will be identified as “T” series (Telecommunications) drawings in the approved construction drawings, separated from “E” (Electrical) drawings. The T-series drawings will include those referenced in 2.8.12.3 below:

2.8.12.3 Telecommunication Documents

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Drawing Content					
Legends, drawing list, key plans	✔	✔	✔	✔	✔
Telecom Site Plan	✔	✔	✔	✔	✔
Communications Floor Plans	✔	✔	✔	✔	✔
Systems Floor Plans	✔	✔	✔	✔	✔
Communications Room Layouts and Elevations	-	✔	✔	✔	✔
Equipment Rack Layouts	-	✔	✔	✔	✔
Systems Integration Schematics	-	✔	✔	✔	✔
Telecommunications Bonding and Grounding System	-	✔	✔	✔	✔
Backbone Riser Diagrams	✔	✔	✔	✔	✔
A/V and Teleconference Room Layouts, Elevations and Reflected Ceiling Plans	-	✔	✔	✔	✔
IMIT Systems Integration Diagram	-	✔	✔	✔	✔
Riser Diagrams (All Div.27 Systems)	✔	✔	✔	✔	✔
Specifications					
Communications (Division (27)	✔	✔	✔	✔	-
Other					
Submittals					

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Public address sound coverage and clarity (dBA and STI)	-	✔	✔	✔	✔
Wireless network heat maps in 2.4GHz and 5GHz [(signal strength / power) and capacity (throughput / bandwidth)]	-	✔	✔	✔	✔

2.8.12.3(1) The Design-Builder is to address how the Authority will maintain systems continuity including downtime or loss of data should there be a system server or major system failure of any of the systems indicated below. The Design-Builder will provide, in collaboration with the Authority, a system architectural plan for review as a requirement for the 95% Submittal.

2.8.12.3(1)a. Nurse Call System.

2.8.12.3(1)b. Infant Protection System.

2.8.12.3(1)c. Patient Wandering System.

2.8.12.3(1)d. Staff Duress System.

2.8.12.3(1)e. Public Address System.

2.8.12.3(1)f. Access Control System.

2.8.12.3(1)g. Intrusion Detection System.

2.8.12.3(1)h. Building Management System.

2.8.12.4 Construction Drawings

2.8.12.4(1) All drawings, specifications, submittals, and construction documents will be produced and reviewed and stamped by the Registered Communications Distribution Designer (RCDD) employed by the Design-Builder;

2.8.12.4(2) Telecom Site Plan will include:

2.8.12.4(2)a. telecom duct bank routing plan from service provider pole to the Facility;

2.8.12.4(2)b. section views of the duct including dimensions and clearances from other utilities.

2.8.12.4(3) Communications Floor Plans will indicate:

2.8.12.4(3)a. the locations of all Communications Rooms and their associated serving zone boundaries;

2.8.12.4(3)b. all telecommunications outlets (ceiling, floor, wall or other) identifying types of cables, label details and number of cable drops per outlet;

2.8.12.4(3)c. locations, quantity and sizes of all low voltage conduits 2” or greater, raceways, cable tray, sleeves, junction boxes and pull boxes;

2.8.12.4(3)d. cable tray fill calculations; and

2.8.12.4(3)e. backbone cabling routes including the routes of the telecommunications grounding backbone.

2.8.12.4(4) Systems Floor Plans will include:

2.8.12.4(4)a. locations, quantity and types of all devices, components and equipment identified in Communications (Division 27) Systems;

2.8.12.4(4)b. reflected ceiling plans showing locations of all ceiling mounted devices;

2.8.12.4(4)c. zoning areas including, but not limited to, nurse call and PA systems;

2.8.12.4(4)d. floorplans identifying all wall and floor mounted devices of each system; and

2.8.12.4(4)e. locations of head-end equipment.

2.8.12.4(5) Communications Room Layouts and Elevations will:

2.8.12.4(5)a. be provided in 2D and 3D;

2.8.12.4(5)b. be to scale providing detail plan views, reflected ceiling plans and elevations of all communications and low voltage components and equipment, racks and enclosures;

2.8.12.4(5)c. show maintenance and operational clearances.

2.8.12.4(5)d. show non-telecom related materials, equipment, devices, and structures (all dimensions are to be included). This includes, but is not limited to, electrical distribution (panels and receptacles) and lighting fixtures, locations and sizes of all pathways (sleeves, conduits, entrance ducts, cable tray), grounding busbar, backboards, mechanical ducting and equipment, fire detection and suppression systems and security, nurse call, BMS, public address and audio visual/video conferencing equipment. And all other system equipment residing in the room.

2.8.12.4(5)e. show elevation drawings of all walls of each telecommunications equipment room, clearly showing the layout of all termination hardware, grounding & bonding components, horizontal pathway penetrations, and wall mounted equipment cabinets.

2.8.12.4(5)f. show high voltage gear situated adjacent to Communications Rooms with clearance elements of telecom items from all such objects.

2.8.12.4(6) Rack Layouts will include:

2.8.12.4(6)a. detailed elevation drawings of equipment layout in each floor or wall mounted equipment rack and cabinet in Communications Rooms; Elevation drawings will include vertical and horizontal wire managers, fibre and copper patch panels, hardware such as shelves and all active equipment regardless of the supplier;

2.8.12.4(7) Backbone Pathways will include:

2.8.12.4(7)a. Telecommunications Bonding and Grounding System;

2.8.12.4(7)b. backbone pathway systems including service entrances, identifying quantity and sizes of conduits, trays, and sleeves.

2.8.12.4(8) Backbone Cabling will include:

2.8.12.4(8)a. all backbone cabling, cross connect locations and type, size, sheath, gauge, length, and strands of each copper and fibre cable installed.

2.8.12.4(9) Systems Integration Schematics will include:

2.8.12.4(9)a. integration diagrams showing the medium type (i.e. fibre, Cat6A, etc.) and protocol used for integration between all systems, Division 28, the Authority Network, and other networks.

2.8.12.4(10) Audio Visual and Teleconferencing

2.8.12.4(10)a. Floor layouts of each multimedia and/or teleconference room identifying quantities and types of cables, endpoint locations, pathways, floor box locations.

2.8.12.4(10)b. Elevation layouts of each multimedia and/or teleconference room identifying locations of all power/data outlets, wall backing for equipment mounts, locations for display screens, control panels and switches, source connection patch panels, cameras, speakers, and other AV components.

2.8.12.4(10)c. Reflected ceiling plans of each multimedia and/or teleconference room identifying location of ceiling mounted A/V equipment including projectors, motorized screens, speakers, microphones, and other ceiling devices including sprinkler heads, lighting fixtures, sensors, vents, grilles.

2.8.12.5 Submittals

2.8.12.5(1) The purpose of shop drawing submittals is to demonstrate the Design- Builder's understanding of the design intent. This understanding is demonstrated by articulating which equipment and material is required, and by what methods of fabrication and installation will be utilized;

2.8.12.5(2) Before installation of any cable, structured cabling component, pathway, firestop assembly or related material, equipment or hardware, the Design-Builder will provide submittal of shop drawings and product data sheets for each component supplied to the Authority;

2.8.12.5(3) Shop drawings and product data sheets will indicate operating characteristics for each required item and design conditions;

2.8.12.5(4) Shop drawing and product data will include, but is not limited to the following:

2.8.12.5(4)a. Copper cabling;

2.8.12.5(4)b. Fibre cabling;

2.8.12.5(4)c. Coaxial cabling;

2.8.12.5(4)d. Fibre connector housings;

2.8.12.5(4)e. Faceplates.

2.8.12.5(4)f. Floor boxes;

2.8.12.5(4)g. Jacks/inserts;

2.8.12.5(4)h. Patch panels;

2.8.12.5(4)i. (AV) source connection panels;

2.8.12.5(4)j. 110 punch block system (GigaBIX);

2.8.12.5(4)k. Fibre connectors;

2.8.12.5(4)l. Equipment racks, cabinets, and enclosures;

2.8.12.5(4)m. Vertical and horizontal cable management;

2.8.12.5(4)n. Cable tray;

2.8.12.5(4)o. Firestop details (product and system number);

2.8.12.5(4)p. Telecommunications bonding and grounding system materials;

2.8.12.5(4)q. UPS and ePDUs;

2.8.12.5(4)r. CATV/broadband distribution system cable, components, and connectors;

2.8.12.5(4)s. Overhead paging system cable, equipment (paging amplifiers, speakers, power supplies and other support equipment), and connectors;

2.8.12.5(4)t. Intercommunication systems cable, components, and connectors; and

2.8.12.5(4)u. Nurse call system devices, components and equipment.

2.8.12.5(5) The submittals will be reviewed for general compliance and not for dimensions and quantities. The submittal review will not relieve the Design-Builder of responsibility for errors or omissions and deviations from the requirements outlined in this Design-Build Agreement. If the submittal shows variations from the requirements of this Design-Build Agreement for any reason, the Design-Builder will provide written detail of each variation in the letter of transmittal.

2.8.12.5(6) Shop Drawings will be submitted in an electronic format. The file format will be Adobe portable data file (.pdf) or provide software to enable viewing of files of the other formats at no additional cost to the Authority.

2.8.12.6 As-Built Documentation

2.8.12.6(1) The Design-Builder will provide Maintenance Manual at a minimum contain the following:

2.8.12.6(1)a. Set of final reviewed Shop Drawings;

2.8.12.6(1)b. A copy of all as-built drawings;

2.8.12.6(1)c. Digital photos of all Communications Rooms showing each wall and rack elevations.

2.8.12.6(1)d. Circuit Spreadsheets for horizontal cabling and fibre backbone;

2.8.12.6(1)e. Manufacturer Warranty documents for equipment and workmanship;

2.8.12.6(1)f. Copper Warranty Certification and test result printout;

2.8.12.6(1)g. Operator Manuals;

2.8.12.6(1)h. Part Lists;

2.8.12.6(1)i. Service agreement;

2.8.12.6(1)j. Contractor contact information for each system;

2.8.12.6(1)k. Optical fibre power metre/light source test result printouts;

2.8.12.6(1)l. Firestop design and records documentation;

2.8.12.6(1)m. WiFi heat mapping reports;

2.8.12.6(1)n. Public Address sound quality and coverage report; and

2.8.12.6(1)o. Names, addresses, phone numbers and facsimile numbers of the Design-Builder, the Design-Builder's RCDD, sub-contractors and suppliers used on the Work together with a specification reference of the portion of the Work they undertook.

2.8.13 Electronic Security Systems Construction Documents

2.8.13.1 CCTV camera coverage including graphical representation of the horizontal pixels per metre of and view range of all cameras. The simulation should not allow camera views to "bleed" through solid objects. The simulation will incorporate camera height and tilt angles.

2.8.13.2 Electronic Security System drawings will be included and identified as "T" series (Telecommunications) drawings in the approved construction drawings, separated from "E" (Electrical) drawings. The Electronic Security System will as a minimum include the following "T" series drawings:

Percentage Complete at Submission Stages	30%	60%	95%	100%	As-Built
Drawing Content					
Legends, drawing list, key plans	✔	✔	✔	✔	✔
Electronic Security Floor Plans	✔	✔	✔	✔	✔
Electronic Security Riser Diagrams	✔	✔	✔	✔	✔
Equipment Rack Layouts & Elevations	-	✔	✔	✔	✔
Specifications					
Electronic Security (Division 28)	-	-	✔	✔	-
2.8.13.3 Provide separate reports using computer simulation software to verify system design.	-	✔	✔	✔	✔

2.8.13.4 Construction Drawings

2.8.13.4(1) The drawings will use industry standard symbols and legends;

2.8.13.4(2) Security Floor Plans will include:

2.8.13.4(2)a. locations, quantity and types of all devices, components and equipment required for the Electronic Security Systems (Division 28);

2.8.13.4(2)b. Security zoning (interior and exterior);

2.8.13.4(2)c. locations, quantity and sizes of all low voltage conduits >2", raceways, cable tray, sleeves, junction boxes and pull boxes;

2.8.13.4(2)d. location of head-end equipment and storage; and

2.8.13.4(2)e. CCTV camera view range and associated horizontal pixels per meter.

2.8.13.4(3) Electronic Security Riser Diagrams will include:

2.8.13.4(3)a. riser diagrams for each system part of Electronic Security System (Division 28), including cabling and device quantities and labels.

2.8.13.4(4) Equipment Rack Layouts & Elevations will include:

2.8.13.4(4)a. detailed elevation drawings of Electronic Security System (Division 28) equipment installed in racks and cabinets. Elevation drawings will include vertical and horizontal wire managers, fibre and copper patch panels, hardware such as shelves and all active equipment regardless of the supplier;

2.8.13.4(5) Security Integration and Wiring Schematics will include:

2.8.13.4(5)a. control layout, including interconnections between Electronic Security Systems, Division 27, Division 8, and the Authority Network.

2.8.13.4(6) Overall system riser wiring diagram identifying control units, circuits, terminations, terminal numbers, conductors, and raceways;

2.8.13.4(7) Access Control Door Details will include:

2.8.13.4(7)a. detailed elevation diagrams of each side of each different access-controlled door in the Facility which includes:

2.8.13.4(7)a.1 all access control equipment;

2.8.13.4(7)a.2 locations and references to all Division 26 supplied power, equipment, and integration;

2.8.13.4(7)a.3 locations and references to all Division 27 supplied equipment and integration;

2.8.13.4(7)a.4 locations and references to all Division 8 supplied hardware, equipment, and integration;

2.8.13.4(7)a.5 conduit, junction boxes, and cabling.

2.8.13.5 Submittals

2.8.13.5(1) The purpose of shop drawing submittals is to demonstrate the Design- Builder's understanding of the design intent. This understanding is demonstrated by articulating which equipment and material is required, and by what methods of fabrication and installation will be utilized;

2.8.13.5(2) Before installation of any device, cable, component, pathway, or related material, equipment or hardware, the Design-builder will provide shop drawings and product data sheets submittal for each component supplied to the Authority.

2.8.13.5(3) Shop drawings and product data sheets will indicate operating characteristics for each required item and design conditions;

2.8.13.5(4) Shop drawing and product data will include, but is not limited to the following for all Safety and Security (Div.28) systems:

2.8.13.5(4)a. Cabling;

2.8.13.5(4)b. Active equipment and electronics;

2.8.13.5(4)c. Field panels;

2.8.13.5(4)d. Interfaces to other systems; and

2.8.13.5(4)e. Power supplies.

2.8.13.5(5) The submittals will be reviewed for general compliance and not for dimensions, quantities. The submittals that are returned will be used for procurement. The responsibility of correct procurement remains solely with the Design-Builder. The submittal review will not relieve the Design-Builder of responsibility for errors or omissions and deviations from this Design-Build Agreement;

2.8.13.5(6) Equipment and material substitutions are prohibited, unless approved by the Authority. If the submittal shows variations from the requirements of this Design-Build Agreement for any reason, the Design-Builder will provide written detail of each variation in the letter of transmittal; and

2.8.13.5(7) Shop Drawings will be submitted in an electronic format on USB Memory Key. The file format will be Adobe portable data file (.pdf) or provide software to enable viewing of files of the other formats at no additional cost to the Authority.

2.8.13.6 As-Built Documentation

2.8.13.6(1) At a minimum, the as-built drawing package supplied by the Design-Builder will include all information per the IFC and any additions made during construction;

2.8.13.6(2) The Design-Builder will provide Maintenance Manual at a minimum contain the following:

2.8.13.6(2)a. Set of final reviewed Shop Drawings;

2.8.13.6(2)b. A copy of all as-built drawings;

2.8.13.6(2)c. Digital photos of all Electronic Security System equipment installed in racks or cabinets;

2.8.13.6(2)d. Manufacturer Warranty documents for equipment and workmanship;

2.8.13.6(2)e. Testing and commissioning results;

2.8.13.6(2)f. Firestop design and records documentation;

2.8.13.6(2)g. Computer simulated CCTV coverage report; and

2.8.13.6(2)h. Names, addresses, phone numbers and facsimile numbers of the Design-Builder, sub-contractors and suppliers used on the Work together with a specification reference of the portion of the Work they undertook.

2.8.14 Landscape Construction Documents

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Drawing Content					
Layout and Site Grading Plan	✔	✔	✔	✔	✔
Secured Outdoor Space Plan	✔	✔	✔	✔	✔
Irrigation Plan	-	✔	✔	✔	✔
Planting Plan	-	✔	✔	✔	✔
Landscape Details and Specifications	-	✔	✔	✔	✔
Sun/Shade Gardens	✔	✔	✔	✔	✔
Garden Enlargement Plans	-	✔	✔	✔	✔
Specifications					
General Requirements	✔	✔	✔	✔	-
Equipment	-	✔	✔	✔	-
Furnishings	-	✔	✔	✔	-
Planting*	-	✔	✔	✔	-
Landscape Establishment Maintenance	-	✔	✔	✔	-
Sample Board/Presentation					

Percentage Complete at Submission Stages	30%	60%	95%	100%	Record Drawing
Colour Boards Illustrating Planting Mate	-	✔	✔	✔	-
Sample Boards	-	✔	✔	✔	-
Presentation to Patient	-	✔	✔	✔	-
Submittals					
Arborist Report	-	-	-	✔	-

2.8.14.1 Planting specifications to include planting of trees, shrubs and groundcover, topsoil and finish grading, mulch, seeding, sodding.

2.8.14.1(1) The 30% submission will include scalable, digitally produced, colour rendered, form and character drawings which illustrate the following:

2.8.14.1(2) Parking layout and surface treatment;

2.8.14.1(3) Soft landscape treatment (trees, hedges, planting beds, vines, lawn), including vegetation within public road right-of-way;

2.8.14.1(4) Tree retention, removal, and replacement Plan, showing preliminary civil site grading design;

2.8.14.1(5) Landscape structures (such as fences, trellises, arbours, retaining walls,lighting);

2.8.14.1(6) Location and size of amenity areas (if applicable);

2.8.14.1(7) Location and size of outdoor spaces;

2.8.14.1(8) Location of garbage enclosure;

2.8.14.1(9) A preliminary grading information sufficient to determine special treatment or provisions to retaining elements;

2.8.14.1(10) Location and size of Courtyard areas with enlargement plans;

2.8.14.1(11) A sun/shade study for the secure outdoor spaces;

2.8.14.1(12) Garden enlargement plans;

2.8.14.1(13) Not used;

2.8.14.1(14) The 60% drawing submittal will have resolved the layout and grading of the site, with:

2.8.14.1(15) 60% of the irrigation and planting Design complete. Standard details will be incorporated, with site specific details underway;

2.8.14.1(16) Water conservation and irrigation plan prepared by a qualified professional inclusive of a hydro zone plan, landscape water conservation irrigation report (landscape water budget) and an irrigation Design;

2.8.14.1(17) A preliminary plant list of trees, shrubs, perennials, and ground covers including quantities, botanical and common names, planting sizes, and on centre spacing;

2.8.14.1(18) Location and species of boulevard trees; and preliminary construction drawings; and

2.8.14.1(19) Location, material, and height of garbage enclosure (detailed elevation drawings required).

2.8.14.1(20) The 95% drawing submittal will include completed layout and grading, irrigation, and planting Design. All details will be completed. Submittal will incorporate Authority input received at previous submissions.

2.8.14.1(20)a. BCSLA landscape schedules of assurance will be supplied by a Landscape Architect registered in British Columbia.

2.8.14.1(21) The 100% drawings submittal will incorporate Authority input received at all previous submissions. Drawings will be updated and marked “Issued for Construction.” No landscape installation will proceed until the Issued for Construction set has been submitted.

2.8.15 LEED Documentation

2.8.15.1 The 30% submission will include a separate project checklist scorecard indicating the team responsibility, project information, and all of the credits targeted to be achieved. This project checklist is to be updated and re-submitted at each review stage.

2.8.15.2 The 100% submission will include a complete LEED online form and required documentation for all pre-design or detailed design credits being pursued.

2.8.16 Fire Safety Plans

2.8.16.1 The Design-Builder will retain a professional fire safety consultant to provide Fire Safety Plans and all related documentation as required by the authority having jurisdiction and coordinate in further consultation with the Authority to ensure such documentation meets all applicable Authority standards for Fire Safety Plans and related documentation.

2.8.17 Elevator Submittals

2.8.17.1 Elevator Report

2.8.17.1(1) Provide an elevator report written by a qualified elevator consultant. The report will confirm the number, type and configuration of elevators required, as well as performance analysis including wait times and security.

2.8.17.1(2) Elevator report will be included with the 30%, 60%, 95% and 100% submittals.

2.8.17.2 Drawings and Submittals

2.8.17.2(1) Provide to the Authority submittals in accordance with Schedule 2.

2.8.17.2(2) Submittal, as a minimum, the following drawings and submittals:

2.8.17.2(2)a. General elevator arrangements;

2.8.17.2(2)b. Details of areas where the work joins the work of other trades;

2.8.17.2(2)c. Machine room layouts showing the location of the equipment;

2.8.17.2(2)d. Hoist way layouts drawings including the overhead, pit, car, frame and entrances details;

2.8.17.2(2)e. Cab details including the cab shell, platform, interior panels, ceiling, entrance, lighting and finishes, lanterns and position indicators;

2.8.17.2(2)f. Details of control panels such as hall stations, car stations, central control consoles or fire control panels showing the layout and detailing the design of switches and indicator lights;

2.8.17.2(2)g. Details of any display devices complete with examples of proposed displays, symbols and layout;

2.8.17.2(2)h. Show on the general arrangement or separately, details of frames, doors, sills and supports, lanterns and gongs, including views showing the relationship of hall stations, lanterns and entrances; and

2.8.17.2(2)i. Provide as-built information at job completion prior to Substantial Performance.

2.8.17.2(3) Submit documentation to verify compliance with Project's LEED objectives and requirements.

2.8.17.3 Wiring Diagrams

2.8.17.3(1) Supply to the Authority wiring diagrams and data as required for the execution of the Work including schematics for speed control, dispatching system, interfaces, printed circuit boards.

2.8.17.3(2) Incorporate, as part of the schematic diagrams, a reference index ('road map') giving the location of electrical components and wiring interconnections for relay coils, relay contacts, field equipment, integrated circuits and other such devices, so that the position on the schematics of any of these items can be readily determined.

2.8.17.3(3) Supply, prior to the Substantial Performance inspection, three prints and one reproducible copy of the wiring and schematic diagrams revised to show changes that have been made.

2.8.17.3(4) Supply, prior to the Substantial Completion inspection, a PDF copy of the wiring and schematic diagrams revised to show changes that have been made.

2.8.17.3(5) If changes are subsequently made to the wiring or control, supply an additional two sets of marked-up prints and an additional PDF copy of marked-up prints of the schematics and field wiring diagrams showing the changes.

2.8.17.4 Operation and Maintenance Manuals

2.8.17.4(1) Supply to the Authority prior to Substantial Completion operation and maintenance manuals. Coordinate with DBA Section 45 Project Binder and Record Drawings

2.8.17.4(2) The operation and maintenance manual will incorporate, at a minimum:

2.8.17.4(2)a. a cover page including project title, address;

2.8.17.4(2)b. an index;

2.8.17.4(2)c. contact details for the installer and manufacturer(s);

2.8.17.4(2)d. a warranty letter signed by a representative of the Design-Builder having authority to bind the company;

2.8.17.4(3) Controller and drive manuals, including:

2.8.17.4(3)a. a description of the controller user interface;

2.8.17.4(3)b. the installation and user's manuals;

2.8.17.4(3)c. a list of fault and error codes;

2.8.17.4(3)d. troubleshooting and diagnostic procedures, methods of use and the adjustment of programmable parameters together with their settings at the time of final adjustment;

2.8.17.4(3)e. as-built wiring diagrams;

2.8.17.4(4) The operation of the equipment including special features, dispatching sequences, and such items as intercom systems and security systems;

2.8.17.4(5) Step-by-step instructions for the operation for special features such as Hospital Service, Firefighters' Emergency Operation, Independent service and Emergency Power service;

2.8.17.4(6) As-built diagrams and drawings of operating panels (e.g. car panels, central control consoles) with descriptions of the function of switches and indicators;

2.8.17.4(7) A copy of the final submission to the authority having jurisdiction;

2.8.17.4(8) A copy of the final inspection report from the authority having jurisdiction;

2.8.17.4(9) Operation and maintenance manuals for other major components, including:

2.8.17.4(9)a. door operator;

2.8.17.4(9)b. emergency brake;

2.8.17.4(9)c. communication system;

2.8.17.4(9)d. safeties and governor;

2.8.17.4(9)e. hoist machine and motor.

2.8.17.4(10) Supplier and part name for other parts (e.g. travelling cable, restrictors, retainers, interlocks, car top inspection station, guide means), excluding minor or generic items such as screws, bolts, hinges;

2.8.17.4(11) Full instructions for any special maintenance procedure, repair protocol, adjustment or test not addressed in CSA B44 Safety Code for Elevators and Escalators, the ASME A17.2 Guide for Inspection or the Elevator Industry Field Employee's Safety Handbook;

2.8.17.4(12) Manufacturers' recommended maintenance intervals for each major component;

2.8.17.4(13) A copy of the Maintenance Control Program.

2.8.18 BECx submittals to be provided to the Authority.

2.8.18.1 Building Enclosure Commissioning Agent (BECxA)

2.8.18.1(1) Name of firm and personnel acting as BECxA, including qualifications and BECx experience

2.8.18.2 Independent BECxA Design Reviews

2.8.18.2(1) Provide review reports by BECxA and tracking sheets showing incorporations of comments into the Construction Documents at the following stages during design:

2.8.18.2(1)a. 30%

2.8.18.2(1)b. 60%

2.8.18.2(1)c. 95%

2.8.18.2(1)d. 100%

2.8.18.3 BECx Specification section

2.8.18.3(1) Front end (Division 1) specification section outlining BECx requirements.

2.8.18.3(2) Outline required field testing including:

2.8.18.3(2)a. roles and responsibilities of all parties related to the test preparation, protocols, methodology, results, and reporting;

2.8.18.3(2)b. required attendees at field testing for conducting and witnessing the tests;

2.8.18.3(2)c. ramifications and remedial steps for failed testing, including diagnostic testing;

2.8.18.3(3) Provisions for a full-time Site Building Enclosure Supervisor with duties including but not limited to:

2.8.18.3(3)a. monitoring and quality control of installation of critical barriers of the building enclosure, including but not limited to insulation, air barrier, waterproofing, weather sealing, water shedding and water deflection elements, and vapour barrier.

2.8.18.3(3)b. communication and education of the building performance requirements to the sub-contractor.

2.8.18.3(3)c. coordination with Project Architect, Building Envelope Specialist, BECxA, building enclosure trades, third-party testing agencies, trades, and the Authority and Authority representatives.

2.8.18.3(3)d. verification of installed elements' performance requirements in compliance with the Reviewed Construction Documents. Include quality control checklists for the installation of air barrier, and air barrier airtightness testing preparation.

2.8.18.3(3)e. monthly reporting of building enclosure installation progress, deficiencies and their resolution, changes that may affect building performance and associated updates to the Building Energy Model, and accompanying photographs showing progress and conformance to the Construction Documents.

2.8.18.4 BECx Plan

2.8.18.4(1) As a minimum, the BECx Plan should include the following sections:

2.8.18.4(1)a. Overview of pre-construction BECx activities, including OPR & BOD;

2.8.18.4(1)b. Methodologies for installation and performance verification, identifying the number of occurrences and timing of lab testing, field mock-ups, field testing, and field reviews;

2.8.18.4(1)c. Commissioning Management, including roles, responsibilities, communication plans, procedures for design changes or substitutions during construction, as well as BECx timelines and milestones in relation to the project schedule;

2.8.18.4(1)d. Construction close-out activities, including requirements related to developing the building enclosure maintenance and renewals plan, record drawings, training, and the BECx Report; and

2.8.18.4(1)e. Warranty period activities, including procedure and Authority input for deficiencies, reporting, and maintenance.

2.8.18.4(2) The BECx Plan is a living document and will be developed starting at schematic design and updated throughout the design process. The BECx Plan will address any early works such as foundations and sub-grade work in sufficient detail prior to starting construction of those components.

2.8.18.4(3) Submit the BECx Plan at 95% and 100%.

2.8.18.5 BECxA Construction Field Review Reports

2.8.18.5(1) Provide quality assurance field review reports and checklists completed by BECxA and monthly quality control reports and checklists submitted by The Site Building Enclosure Supervisor.

2.8.18.6 BECx Test reports

2.8.18.6(1) Provide test reports conducted by the BECxA or third-party testing agencies and reviewed by the BECxA for each test listed under section 5.5.1.10.

2.8.19 Noise and Vibration During Construction

2.8.19.1 Refer to Appendix 1C(I) Control of Vibration and Noise During Construction for required submittals including but not limited to the Vibration Monitoring Program and Noise Control Plan.

2.9 Mock-up Rooms and Prototypes

2.9.1 The Design-Builder will, at its cost and as part of the design review process described in Schedule 2 Review Procedure, provide and make available to the Authority the “mock-ups” and “prototype” rooms submittal described in this Section.

2.9.2 The Design-Builder will include dates on the Submittal Schedule for construction of and for Authority review of mock-ups. The Design-Builder will modify the mock-ups and prototypes as may be required as the Design develops based on feedback from the User Consultation Group and the Authority.

2.9.3 Mock-up #1: The Design-Builder will provide 3D Virtual Mock-up and/ or 3D drawings to help the Authority visualize features of the Design and make Design decisions. Mock-up #1 will, at a minimum, provide the required rooms listed below prior to 30% Submittal such that Authority comments and decisions arising from the review of Mock-up #1 will be reflected in the 30% submittal. The Design-Builder may choose to provide additional 3D virtual mock-ups or 3D drawings for other elements of the Facility at other times during design or construction to assist with communication and expedite decisions. Mock-up #1 will include the following required rooms:

2.9.3.1 LDRP;

2.9.3.2 nursing station;

2.9.3.3 Medication Room;

2.9.3.4 Soiled Utility Room;

2.9.3.5 Clean Utility Room;

2.9.3.6 Emergency – Resuscitation/Trauma Room;

2.9.3.7 Emergency – Exam/Treatment Room;

2.9.3.8 exam room; and

2.9.3.9 Operating Room.

2.9.4 Mock-up #2: The Design-Builder will provide mock-ups consisting of constructed walls of steel stud and gypsum wall board where walls and floors are covered with 1:1 prints. Prints are to include all millwork, services, equipment, IMIT device locations, power receptacle locations, and furniture included in the design of the room so that the Authority can experience all features of the Design and make Design decisions. Mock-up #2 will be scheduled prior to 60% Submittal such that Authority comments and decisions arising from the review of Mock-up #2 will be reflected in the 60% Submittal. Mock-up #2 will remain in place until 100% Submittal has achieved "Reviewed" status; however, the Design-Builder may choose to retain Mock-up #2 in place longer. Mock-up #2 will include the following rooms:

2.9.4.1 LDRP;

2.9.4.2 nursing station;

2.9.4.3 Medication Room;

2.9.4.4 Soiled Utility Room;

2.9.4.5 Emergency – Resuscitation/Trauma Room;

2.9.4.6 Emergency – Exam/Treatment Room; and

2.9.4.7 exam room.

2.9.5 Mock-up #3: The Design-Builder will provide fully constructed mock-ups, including all actual materials, finishes, millwork, services, equipment, IMIT device locations, power receptacle locations, and furniture included in the design of the room so that the Authority can experience all features of the Design and make Design decisions. Mock-up #3 will be scheduled between 95% and 100% Submittals such that Authority comments and decisions arising from the review of Mock-up #3 will be reflected in the 100% Submittal. Mock-up #3 will remain in place until 100% Submittals have achieved Reviewed status, however, the Design-Builder may choose to retain Mock-up #3 in place longer. Mock-up #3 will include the following rooms:

2.9.5.1 Medical Inpatient bedroom and medical Inpatient washroom, including Bariatric rooms; and

2.9.5.2 Isolation Room and Anteroom.

2.9.6 Mock-up #4: During construction, the Design-Builder will construct an in-situ 'prototype' of the following rooms, and make the prototype available to the Authority at appropriate stages of construction so that the Authority can review the prototype room (including all materials, services, millwork, finishes, equipment and furniture) in its actual location within the Facility at various stages of construction, and consider whether any design adjustments are necessary:

2.9.6.1 Medical Inpatient bedroom and medical Inpatient washroom, including Bariatric rooms.

2.9.7 Equipment and furniture may be actual pieces or replicas but must accurately represent the actual physical dimensions.

2.9.8 The Design-Builder will provide the mock-ups in sufficient time prior to the relevant Submittal to accommodate the Authority's review, in accordance with the timelines in Schedule 2 [Review Procedure].

2.9.9 The Design-Builder will modify the mock-ups as may be required in Schedule 2 [Review Procedure].

2.9.10 The purpose of the mock-ups is to illustrate the Design. The Design-Builder will update all Design documentation to reflect the mock-ups and prototypes, and any input from the Authority and will submit all such updated Design documentation to the Authority submittal under Schedule 2 - Review Procedure.

2.9.11 The Design-Builder will provide a location acceptable to the Authority for the mock-ups.

2.9.12 Demonstrate the detachment force of tamper-proof fire alarm device protective cages to the Authority in Mock-up #3.

2.10 Requirements During Construction

2.10.1 Site Access During Construction

2.10.1.1 The Design-Builder will prepare a Project Management Plan clearly showing the concept of accessing all entries on the Site during Construction. The Project Management Plan will include, but is not limited to:

- 2.10.1.1(1) all Site preparation;
- 2.10.1.1(2) construction of the Facility, including the requirements and timing for construction and commissioning (including all systems and equipment);
- 2.10.1.1(3) Site landscaping;
- 2.10.1.1(4) parking, access and traffic flows, including maintaining adequate vehicle, delivery and pedestrian access;
- 2.10.1.1(5) compliance with all requirements of the Design-Build Agreement; and
- 2.10.1.1(6) responsibility for the existing Quonset hut and mock-ups on the existing hospital site. Refer to section 2.10.9.

2.10.1.2 NLC access to the buildings to the south of the Site will be preserved during construction.

2.10.1.3 The Design-Builder will provide security and facilities as required to protect the Work from unauthorized entry, vandalism, or theft.

2.10.2 Protection of Property

2.10.2.1 The Design-Builder will protect the Authority's property (and any third party's property) from damage caused by the Construction of Facility, including buildings, roadways, drainage systems, landscaping, surfaces, services and infrastructure.

2.10.2.2 The Design-Builder will promptly repair any damage to property caused by the Design-Builder in undertaking the Construction, including any damage caused by site settlement or ground vibration.

2.10.2.3 The Design-Builder acknowledges that Construction-caused settlement of existing buildings and structures on the Existing Hospital and Construction-caused ground vibration may disrupt the operation of medical equipment (including laboratory and diagnostic imaging equipment in the adjacent buildings), requiring the equipment to be shut down and re-calibrated, and may disrupt utility services to the Existing Hospital.

2.10.2.4 The Design-Builder will cooperate with the Authority and take all reasonable steps to prevent disrupting such equipment and services, including meeting with the Authority's Staff and equipment suppliers in advance of construction to develop a work plan describing measures that the Design-Builder will take to minimize any potential disruption or interference, and implementing the work plan, all in accordance with this Schedule.

2.10.2.5 The Design-Builder will monitor site settlement and ground vibration during construction and take additional steps as may be required to prevent equipment or service disruptions as the Construction progresses.

2.10.2.5(1) In addition to its obligations to promptly repair any damage to property as required by this Design-Build Agreement, if any vibration exceeds the tolerances established and if medical equipment is disrupted as a result of Construction-caused settlement or ground vibration outside the established tolerances, the Design-Builder will, at its cost, arrange for the Authority's equipment suppliers to re-calibrate the equipment and return it to service as quickly as possible. The Design-Builder will not be responsible for recalibration as part of regular maintenance of equipment.

2.10.3 Survey and Monitoring

2.10.3.1 The Design-Builder will undertake the Pre-Construction Survey as required in Section 13 of the Design-Build Agreement.

2.10.4 Control of Vibration During Construction:

2.10.4.1 Refer to Appendix 1C(l) Control of Vibration and Noise During Construction.

2.10.5 Control of Noise During Construction

2.10.5.1 Refer to Appendix 1C(l) Control of Vibration and Noise During Construction.

2.10.6 Infection Control and Control of Dust and Noxious Odours

2.10.6.1 The Design-Builder will:

2.10.6.1(1) take all reasonable steps (including any specific steps reasonably required by the Authority) to minimize dust and noxious odours (including diesel exhaust) from the Construction (including preparation of the Site) and to mitigate any adverse effects on the existing Dawson Creek and District Hospital;

2.10.6.1(2) clean all roadways, pathways, and other areas directly affected by the Construction at regular intervals to the satisfaction of the Authority as required to prevent build-up of dirt and dust caused by the Construction and maintain them in the same condition as found and determined by the pre-condition surveys; and

2.10.6.1(3) without limiting the Design-Builder's obligation under the Section above:

2.10.6.1(3)a. The Design-Builder will retain a CSA qualified independent third- party Infection Control professional to complete Infection Prevention & Control monitoring and compliance by the Design- Builder with CSA Z317.13:22 (Infection Control During Construction, Renovation or Maintenance of Health Care Facilities), with precedence given to the Project IPC Plan.

2.10.6.1(3)b. Comply with CSA Z317.13:22 (Infection Control During Construction, Renovation or Maintenance of Health Care Facilities) and the Authority's infection control policies, with precedence given to the Project IPC Plan.

2.10.6.1(3)c. Not used.

2.10.6.1(3)d. Monitor compliance with CSA Z317.13:22, with precedence given to the Project IPC Plan on a daily basis during the Construction (including demolition and preparation of the Site) and deliver to the Authority no later than the 5th day of each month, a performance report for the previous month that:

2.10.6.1(3)d.1 describes the steps taken by the Design-Builder to comply with CSA Z317.13:22 and the Project IPC Plan; and

2.10.6.1(3)d.2 confirms that the Design-Builder complied with CSA Z317.13:22 and the Project IPC Plan or identifies any failure by the Design-Builder to comply.

2.10.7 Waste Management-Hazardous and Non-Hazardous

2.10.7.1 The Design-Builder will comply with territorial and municipal Standards with respect to waste management programs on construction sites.

2.10.7.2 The Design-Builder will manage waste generated from the Site in accordance with City standards.

2.10.7.3 Take an active role in implementing environmentally sound business practices and producing goods and services that lessen the burden on the environment in production, use and final disposition. Implement reduction, reuse and recycling strategies and the use of environmentally sound products.

2.10.7.4 Special waste and hazardous waste to be removed by trained personnel and disposed of by the Design-Builder.

2.10.7.5 Designate an area or areas for location of bins and source separation of materials. Keep the area(s) clean and organized. If comingled bins are to be used, ensure that off-site sorting company will remain committed to a required waste diversion rate.

2.10.7.6 Store and dispose of hazardous waste materials in a manner which is in full accordance with all applicable federal and City standards.

2.10.8 Adjacent Facilities Interference

2.10.8.1 Construction work and related equipment or machinery will not interfere with normal operations of the NLC site.

2.10.9 Quonset hut and mock-ups

2.10.9.1 The Authority will permit the Design-Builder to use, without charge, the Quonset hut and its existing mock-ups and utility infrastructure, including the generator.

2.10.9.2 The Design-Builder will assume full responsibility for the Quonset hut, including its mock-ups and generator for the duration of the Term, including operating and maintenance costs, for example utilities, security, waste management/disposal, insurance, and any other miscellaneous costs to maintain it and its contents in a safe and operational condition.

2.10.9.3 Mock-up #3 will take place in the Quonset hut. The Design-Builder may use the space as needed provided that the Mock-up #3 requirements are accommodated.

2.10.9.4 Six (6) months prior to the Target Substantial Completion Date, the Authority will advise whether:

2.10.9.4(1) the Design-Builder is to transfer the Quonset hut, as-is, back to the Authority; or

2.10.9.4(2) the Design-Builder is to dismantle and safely dispose of the hut, with any leftover equipment offered to the Authority as salvage.

2.11 Move In

2.11.1 As Construction nears completion, the Design-Builder will coordinate with the Authority the date for the move of Staff personnel and Patients to the Building. The exact timing and sequencing of this move-in will involve coordination with the Authority. Transition plans will be completed, and construction clean will be upgraded to facility terminal clean prior to move.

2.11.2 As soon as reasonably practicable, but in any event no later than 365 days prior to the Substantial Completion date, Design-Builder will deliver to the Authority a move-in schedule in respect of the Facility, indicating the anticipated date when it will become available for occupation by the Authority so as to facilitate and permit the Authority to progressively take up occupation in an efficient manner.

2.11.3 The Authority will advise the Design-Builder of any key or significant moves or move-in requirements, and the Design-Builder will accommodate, as reasonably possible, the Authority's requirements and requests. The Design-Builder will update, as may be required from time to time, the move-in schedule to accommodate such requirements and requests.

2.11.4 As applicable, the Design-Builder will also assist with the planning and coordination of the move of all other equipment, furniture, fixtures and fittings with the Authority's moving company, participating in move planning meetings, keeping the Authority appraised of construction progress and setting firm dates for when the move can occur, relative to the completion of the Facility and Work;

2.11.5 The Facility will have reached Substantial Completion prior to the move. Once the completion dates have been agreed and put in place, the Authority will rely on this information in order to plan and execute the move; and

2.11.6 The Design-Builder is responsible for all damages to furniture, equipment and building finishes incurred during the move of any items moved by the Design-Builder.

2.12 Interior Wayfinding and Signage Requirements

2.12.1 Overriding Principles

2.12.1.1 The Design-Builder will:

2.12.1.1(1) design a site-specific wayfinding system and signage to be fully integrated with the design of the Facility;

2.12.1.1(2) locate major destinations, such as department entrances, directly adjacent to entry spaces and/or along primary circulation paths for easy access, make waiting areas as open as possible to circulation routes without requiring wayfinders to pass through waiting areas;

2.12.1.1(3) provide significant recognizable, easily named and identified elements in key and easily found locations that will become 'meeting points' for Patients, volunteers, and visitors;

2.12.1.1(4) provide simple circulation systems and functions so that wayfinding is inherently easy;

2.12.1.1(5) major destinations, such as department entrances, along primary circulation paths for easy access;

2.12.1.1(6) make waiting areas as open as possible to build confidence in wayfinding;

2.12.1.1(7) design waiting areas to be distinct from circulation routes;

2.12.1.1(8) design public elevator and stair lobbies and public circulation routes to be distinct from service and from other non-public routes;

2.12.1.1(9) provide all signage required for Facility operations and as required by the BCBC;

2.12.1.1(10) design signage such that the materials, colours, letter fonts, sizes and other aesthetic and functional considerations, such as braille, conform to a conceptually coherent overall wayfinding design system and respect the wall finish modules;

2.12.1.1(11) provide signage that is resistant to graffiti and physical damage complete with concealed fasteners;

2.12.1.1(12) provide signage that is easy to replace when necessary;

2.12.1.1(13) use international symbols where required;

2.12.1.1(14) use universal symbols in healthcare;

2.12.1.1(15) orient all facility plan directories to reflect the direction from which they are viewed;

2.12.1.1(16) provide signage that directs visitors to departments and rooms within;

2.12.1.1(17) provide signage that is clearly visible day or night;

2.12.1.1(18) avoid multi-layered naming hierarchies and complex numbering systems;

2.12.1.1(19) use a professional signage/wayfinding designer to prepare a unified signage/wayfinding concept submittal as part of the Design review;

2.12.1.1(20) incorporate signage into the overall exterior and interior facility design;

2.12.1.1(21) design the Facility to accommodate muster stations that are easily visible in all seasons as required for the Authority's fire safety plan; and

2.12.1.1(22) incorporate interior design colour pallet to facilitate inherently easy wayfinding.

2.12.2 Design Requirements

2.12.2.1 The Design-Builder will:

2.12.2.1(1) design the internal directional signs to include a main directory, installed at the main public entrances to the Facility, which indicates the location of every area and department within the Facility that is accessible to the public;

2.12.2.1(2) design elevator floor directories at all elevator lobbies. They will include floor level listing of departments; a continuous "trail" of signage from the entrances to each of the reception/information points listed on the directories; installation of signage at each point at which a directional decision is required; consistent terminology;

2.12.2.1(3) design overhead directional signage, which must either be suspended from a ceiling or bulkhead or be mounted directly over doors. Directional signage will not be incorporated into flooring.

2.12.2.2 Door signage

2.12.2.2(1) Door signage will indicate restrictions on entry and warn of hazards;

2.12.2.2(2) Door signage will not be obscured by emergency systems or other functional elements of the Facility;

2.12.2.2(3) Door signage will identify every space (e.g. rooms, alcoves, corridors and stairwells) in the Facility;

2.12.2.2(4) Door signage will be located in a consistent location for every room in the Facility;

2.12.2.2(5) Door signage will be consistent with the following room numbering protocol:

2.12.2.2(5)a. Each room has a unique identifier number;

2.12.2.2(5)b. Rooms are numbered in a manner that reflects normal movement through the Facility;

2.12.2.2(5)c. Labelling anticipates a person attempting to follow numbering along corridors in sequence;

2.12.2.2(5)d. Blocks of numbers are periodically skipped to allow for future flexibility of the numbering system if rooms are added through renovations;

2.12.2.2(6) Corridors numbered with unique, two-digit numbers;

2.12.2.2(7) Stairwells numbered with unique, single-digit numbers; and

2.12.2.2(8) Design external directional signage to:

2.12.2.2(8)a. clearly indicate access for the public;

2.12.2.2(8)b. clearly indicate restrictions to 'after-hours' access and closest accessible entrance;

2.12.2.2(8)c. be well illuminated, backlit, reflective or high contrast and easily visible at night; and

2.12.2.2(8)d. ensure that illuminated external Facility signage:

2.12.2.2(8)d.1 clearly identifies the Facility;

2.12.2.2(8)d.2 minimizes light spillage; and

2.12.2.2(8)d.3 indicates the accesses, parking and restrictions for various vehicle types, as required.

2.12.3 Each room requires a number for service reasons and since many rooms will not have formal wall numbering panels, each door frame will be equipped with a lamacoid, or approved equivalent, number plate approximately 25mm high by 50mm long, attached to the head of the door frame on the hinge side; and as this numbering system is used for deliveries, repairs, fire alarm notifications, it is important that room numbers be determined early in design. Follow the same numbering system on design and construction documentation for all disciplines.

PART 3 Design Principles and Guidelines

3.1 Project Design Principles and Objectives

3.1.1 The Design-Builder will apply the design principles described in this Part 3 of this Schedule (collectively, the "Project Design Principles") in undertaking the Design.

3.1.2 In addition to the descriptions of these principles in this Part 3, specific requirements related to these principles are included in Parts 4 – 6 of this Schedule.

3.1.3 The Project Design Principles are integrated principles, and the Design-Builder will apply them on an integrated basis throughout the Design and Construction.

3.1.4 The Project's Design will follow CPTED principles.

3.2 Master Planning

3.2.1 The Design-Builder will design the Facility to:

3.2.1.1 have a strong presence on the site and a distinctive architectural character, reflecting the Authority's values and role as the major centre for health in the community;

3.2.1.2 support community access and include a visible main entry and lobby for the Facility and a direct access route to the Emergency Department ambulance entry;

3.2.1.3 reflect logical planning and clarity of circulation;

3.2.1.4 allow for adaptability and flexibility for future expansion.

3.2.2 The Design-Builder will base all design decisions within the context of enhancing the Facility.

3.3 Evidence Based Design

3.3.1 The Design-Builder will apply principal findings of Evidence Based Design in undertaking the Design.

3.4 LEAN Design

3.4.1 The Design-Builder will design the Facility to:

3.4.1.1 facilitate the delivery of efficient and effective workflow and processes;

3.4.1.2 eliminate waste, within both clinical and non-clinical service delivery processes;

3.4.1.3 recognize the value to the Authority of LEAN healthcare (or equivalent methodologies) in supporting the delivery of Authority activities, and accordingly allow the findings from such methodologies to play a key role in influencing design decisions;

3.4.1.4 include ergonomic design features throughout all spaces that specifically facilitate the physical activities of Staff and Patients including, for example, appropriate millwork, lighting, and Patient assist or equipment manoeuvring space; and

3.4.1.5 support innovative and collaborative methods of working, to help incorporate the Authority's new and emerging technologies, to respond to diverse work styles (such as hoteling and job-sharing), and to optimize flexibility and space utilization. A key element to the development of an integrated workplace is the provision of physical environments that support varied workplace strategies. Accordingly, the Design-Builder will design workplaces to:

3.4.1.5(1) include standardized spaces, systems furniture and casework where appropriate;

3.4.1.5(2) provide floor lay-outs that accommodate teams as well as individuals, and that support mobile employees who require flexibility and use portable technology; and

3.4.1.5(3) consider co-location options, space saving strategies, and lay-outs and furniture that facilitate change.

3.5 Healing Environment

3.5.1 The Design-Builder will design the Facility to:

3.5.1.1 promote a healing and wellness environment for Patients and their families. The environment will be welcoming to the community of users and provide Non-Clinical Spaces to relax and de-stress;

3.5.1.2 promote and enhance Patient Centred Care and Family Centred Care;

3.5.1.3 provide an environment that supports excellence and innovation in the delivery of safe, high-quality healthcare and where employees, physicians and others can work together collaboratively in promoting health and wellness;

3.5.1.4 include elements that have been proven to create a therapeutic and low stress environment;

3.5.1.5 create a comfortable, functional environment for employees, physicians, Staff, volunteers, Patients, Patients' families and others, by including:

3.5.1.5(1) design elements that minimize noise, provide controlled natural light, and use natural materials;

3.5.1.5(2) design elements that provide connections to the outdoors, including views of the exterior environment in all Inpatient rooms, waiting areas, Staff lounges and similar locations;

3.5.1.5(3) design elements that support interaction within and between Patient families;

3.5.1.5(4) design elements such as sound, colour, pattern, air quality, nature; and

3.5.1.5(5) design features and structural systems that accommodate art and other aesthetic forms.

3.6 Elderly Friendly

3.6.1 The Design-Builder will design the Facility to create an elderly friendly environment. The Design-Builder will comply with "Code Plus: Physical Design Components for an Elderly Friendly Hospital", 2nd Edition, which identifies components that are known to contribute adverse effects on functional safety in older adults, and additional physical design elements that go beyond industrial building codes and standards together with corresponding recommendations for elderly friendliness. Paint colour recommendations in “Code Plus: Physical Design Components for an Elderly Friendly Hospital”, 2nd Edition will be governed by the colour provisions of 6.9.2.7 Painting and Protective Coatings.

3.7 Standardization

3.7.1 The Design-Builder will design the Facility:

3.7.1.1 to apply standardization, wherever appropriate, to reduce errors and improve quality of service delivery (for example to assist caregivers in quickly accessing rooms and equipment, Patient treatment modules should contain a number of standard room types and room details, including controls and control locations); and

3.7.1.2 so that rooms in the Facility that have the same function (for example Operating Rooms) will be designed and constructed to be as similar as possible, subject to any different requirements set out in Appendix 1A Clinical Specifications.

3.8 Sustainability

Not used.

3.9 Technology

3.9.1 Given the crucial role that technology plays in the modern healthcare facility, the Design-Builder will provide technology so that it will:

3.9.1.1 Assist Staff in providing a high degree of care for the Patients by optimizing and streamlining workflows, while avoiding unnecessary alarms that cause alarm fatigue;

3.9.1.2 Utilize technology to ensure the safety and security of Staff, Patients and visitors in all areas of the Facility with extra safeguards in place at high-risk areas; and

3.9.1.3 Provide a Patient centric technology implementation to ensure each technology provided is centred around providing comfort and lowered anxiety for each Patient from admission to discharge.

3.10 Adaptability, Flexibility, and Expansion

3.10.1 The Facility should support development and implementation of new clinical and non-clinical work processes and technology change.

3.10.2 The Facility will accommodate program, service, work and equipment change with minimized utility infrastructure and Facility impact, including down time;

3.10.3 With an infrastructure that incorporates excess systems capacity and includes systems and components that support future expansion with minimized disruption and allows for upgrades in Authority technology or technological progression; and

3.10.4 Utilizing modular furnishing and millwork responsive to rapid change;

3.10.5 The design will accommodate potential expansion for the following departments either through soft space inside the Building or expansion beyond the face of the Building into the Site:

3.10.5.1 Diagnostic Imaging: 100 nsm to accommodate additional Diagnostic Imaging modalities;

3.10.5.2 Pharmacy: 35 nsm;

3.10.5.3 Laboratory: 60 nsm.

3.11 Accessible Equitable Design

3.11.1 The Design-Builder will incorporate Centre for Excellence in Universal Design philosophies in the Design to address barriers to equitable access to healthcare such as cultural diversity, physical capability, and gender:

3.11.1.1 The Design will be easy to use by people with diverse abilities. Provide automatic door openers, hold opens, etc. for ease of unescorted navigation of the Facility;

3.11.1.2 The Design will accommodate a wide range of individual preferences and abilities;

3.11.1.3 The Design will be easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level;

3.11.1.4 The Design will communicate necessary information effectively to the user, including those with reduced sensory abilities;

3.11.1.5 The Design will minimize hazards and the adverse consequences of accidental or unintended actions;

3.11.1.6 The Design is capable of being used efficiently and comfortably and with a minimum of fatigue; and

3.11.1.7 The Design will provide appropriate size and space for approach, reach, manipulation, and use regardless of user's body size, posture or mobility.

3.11.2 Respect for Indigenous Cultural Values

3.11.2.1 The Design will demonstrate respect for Indigenous cultural values throughout the Facility. The Authority is responsible for engaging with the Treaty 8 Tribal Association, Saulteau and West Moberly First Nations and Kelly Lake Cree Nation. The Authority will take the feedback it has received and confirm specific design requirements related to Indigenous cultural values with the Design-Builder. The Authority will invite the Design-Builder to participate in meetings, where appropriate, to help inform design discussions.

3.11.2.1(1) Attracting users from among the Indigenous community will be a key goal of this Facility. First impressions upon entry will be crucial in establishing perceptions of welcoming, inviting, and supportive of the spiritual health of all people.

3.11.2.2 The Design-Builder will incorporate visible representation of Indigenous culture into the Facility and Site, with details of the colour palettes and other features to be agreed as part of the process with the User Consultation Groups in Schedule 2.

3.11.2.3 Site landscaping will incorporate cultural elements such as indigenous plants used for traditional healing.

3.11.2.4 The Non-Denominational Spiritual Room will be placed appropriately to accommodate and support cultural ceremonies, extended family and multi-generational involvement in care.

3.11.2.5 The Design will include features reflecting and representing the Indigenous groups of the Treaty 8 Tribal Association, Saulteau and West Moberly First Nations, and Kelly Lake Cree Nation in the following functional component areas:

3.11.2.5(1) Concierge spaces;

3.11.2.5(2) Medical and Surgical Inpatient;

3.11.2.5(3) Emergency Services;

3.11.2.5(4) Ambulatory Care;

3.11.2.5(5) Mental Health Services;

3.11.2.5(6) Maternity and Newborn Inpatient Unit;

3.11.2.5(7) Registration / Admitting;

3.11.2.5(8) Laboratory;

3.11.2.5(9) Diagnostic Imaging; and

3.11.2.5(10) Morgue.

3.11.2.6 Not used.

3.11.2.7 The Design-Builder will provide incorporate local Indigenous language in addition to English on select exterior and interior wayfinding signage, as directed by the Authority.

3.11.2.8 Indigenous artefacts and art will be displayed prominently in the Non-Denominational Spiritual Room as well as throughout the Facility in the locations identified in Section 3.11.2.5. Displays are anticipated to include a blend of permanent features that will be part of the Facility's design and of temporary showings depicting a featured artist's work or a major celebration or event. The Authority will be responsible to provide the artwork. Refer to Section 5.6.3 for the Design-Builder's responsibilities associated with this artwork.

3.12 Infection Prevention and Control

3.12.1 The Design-Builder will consult with the Authority's Infection Prevention and Control practitioner(s) during design of the Facility and comply with direction provided by the IPC practitioner(s).

3.12.2 General

3.12.2.1 Design the Building in compliance with all applicable infection control standards.

3.12.2.2 Design the Building to mitigate and prevent, where possible, the spread of infection, movement of dust, debris and moisture into rooms including via contaminated surfaces and airborne pathogens.

3.12.2.3 Select appropriate materials and use simple detailing leading to quality workmanship and ease of accessibility for routine cleaning and maintenance.

3.12.2.4 Design the Building to allow for ease of infection prevention and control in future alterations, modifications and additions.

3.12.3 Walls and Ceilings

3.12.3.1 Wall and ceilings will limit the passage of particles from both above the ceiling plane and adjacent non-clinical areas into the clinical environment.

3.12.3.2 Provide smooth, solid surface, non-perforated and scrub-able wall and ceilings surfaces in infection control sensitive areas. Note that there are some micro-perforated materials that may be acceptable for use in these areas and may also provide useful sound absorption to control noise.

3.12.3.3 Infection Control for Ceilings:

- 3.12.3.3(1) Ceilings in airborne isolation rooms and procedure rooms will be smooth, solid surface, non-perforated and scrubbable.
- 3.12.3.3(2) Penetrations must be properly sealed in airborne isolation rooms, procedure rooms and rooms to ensure the ceiling provides an effective pressurized air seal.
- 3.12.3.3(3) Ceilings in airborne isolations rooms, ante rooms and pressurized rooms must be designed and constructed to meet the specific pressure requirements for such rooms.
- 3.12.3.3(4) In Mental Health secure rooms and Mental Health intensive care units, provide smooth, solid surface, non-perforated and scrub-able ceiling.

3.12.3.4 Infection Control for Floors:

3.12.3.4(1) Floors in Patient care areas must be washable and able to withstand routine low level hospital disinfection.

3.12.3.4(2) Penetrations must be properly sealed.

3.12.3.4(3) Floors in clinical areas must be seamless and/or have homogeneous heat welded seams, and integral bases.

3.13 Interior Design

3.13.1 Interior Walls and Partitions

3.13.1.1 Use interior walls and partition systems that provide acoustic separations as required for the specific functions to be carried out in the spaces affected, and in accordance with the requirements of Appendix 1C Acoustics and Noise Control Measures.

3.13.1.2 Design and select interior walls and partitions, partition systems and interior finishes to comply with the following criteria as may be relevant for the particular or specific functions enclosed:

3.13.1.2(1) cleaning, maintenance and infection prevention and control;

3.13.1.2(2) permanence and durability including impact resistance; and

3.13.1.2(3) low VOC emissions so as to minimize adverse impact on indoor air quality and indoor environmental quality.

3.13.1.3 All interior partition walls to provide required acoustic and BCBC separation.

3.13.1.4 Interior partition in airborne isolations rooms, ante rooms and pressurized rooms must be designed and constructed to meet the specific pressure requirements for such rooms.

3.13.1.5 Provide wall finishes that are smooth, washable, waterproof, and durable, and provide protection from cart damage.

3.13.1.6 Provide fittings, attachments, and internal bracing/backup as required to accommodate and support wall mounted equipment.

3.13.1.7 In special areas such as Mental Health or Psychiatry departments, construct the wall to suit the purposes unique to those areas and in compliance with the British Columbia Ministry of Health Standards for Hospital-Based Psychiatric Emergency Services: Observations Units where appropriate.

3.13.2 Ceilings

3.13.2.1 Ceiling systems will comprise a major component of the acoustic or sound attenuation function as required in the spaces in which they are installed and will comply with the requirements in Appendix 1C Acoustics and Noise Control Measures and all other applicable provisions in this Schedule.

3.13.2.2 Ceiling height will not be less than 2700mm in all areas of the Building except for the following:

3.13.2.2(1) secure rooms will have a minimum ceiling height of 3000mm;

3.13.2.2(2) design ceiling Heights to accommodate equipment requirements which may need to exceed 2700mm;

3.13.2.2(3) ceilings in mechanical, electrical, plumbing, and technology rooms and in Material Management will be open, unless required otherwise by code to meet fire ratings;

3.13.2.2(4) the public lobby will have a minimum ceiling height of 3600mm;

3.13.2.2(5) the Ambulance Garage will have a minimum clear height of 3700mm;

3.13.2.2(6) operating suites, x-ray rooms, and rooms with overhead Patientgantry lifts (except Inpatient rooms), trauma, relevant ED treatment spaces, and LDRPs are to have a minimum ceiling height of 3000mm; and

3.13.2.2(7) provide open ceilings in materiel management and facilities management with open work benches, machine shops, high utility shelving storage areas, and overhead hoists. Maintain 3600mm clear height below structure, ducts and fixtures.

3.13.2.3 Suspended structure located for overhead equipment will be located above finished ceiling.

3.13.2.4 Ceilings will allow access to equipment where necessary, except at those spaces as indicated elsewhere in this Schedule 1 -Statement of Requirements.

3.13.2.5 Exposed building services are not permitted in public areas and Patient care areas.

3.13.2.5(1) Exposed building services are permitted in the Ambulance Bay.

3.13.2.6 Ceilings in public areas and Patient common areas will be designed to avoid plain and featureless ceilings. Ceilings in these spaces will provide visual interest.

3.13.2.7 Provide washable ceilings in the Central Kitchen Facilities and Warewashing areas of Food Services.

3.13.2.8 In special areas such as Mental Health or Psychiatry departments, construct the ceiling to suit the purposes unique to those areas and in compliance with the British Columbia Ministry of Health Standards for Hospital-Based Psychiatric Emergency Services: Observations Units where appropriate.

3.13.3 Floor Finishes

3.13.3.1 The Design-Builder will provide flooring that is complementary and integral to the functional and aesthetic requirements of the interior space.

3.13.3.2 The Design-Builder will select floor finishes to suit types and concentration of pedestrian and/or vehicular/wheel traffic.

3.13.3.3 Continuous cove base is required with all sheet flooring. Base height is minimum 150 mm.

3.13.3.4 The Design-Builder will design and select floor finishes to comply with the following criteria:

3.13.3.4(1) ergonomic comfort, cleaning, maintenance and infection prevention and control including the frequency and quality of joints and also including ease of replacement if and when required;

3.13.3.4(2) imperviousness to concentrations of moisture anticipated to be existing on the floors and for the duration of that moisture;

3.13.3.4(3) permanence, durability and resistance to concentrated service traffic both pedestrian and vehicular;

3.13.3.4(4) low VOC emissions so as to minimize adverse impact on indoor air quality and indoor environmental quality; and

3.13.3.4(5) compatibility of patterns and textures with the requirements for pedestrian safety and elderly friendly design.

3.13.3.5 Non-slip flooring will be used in all wet areas including, but not limited to, central cleaning and sterilizing, wash and change rooms, bathing areas, Patient washrooms, laundry, soiled utility and Housekeeping Rooms.

3.13.3.6 Heavy-duty non-slip flooring, impervious to food acids and oils, suitable for rolling equipment will be used in all food service areas.

3.13.3.7 Provide electrostatic-free, slip resistant flooring material throughout Laboratory services.

3.13.3.8 Patient shower floors and floors in Tub rooms will slope to drain and be flush-walk-in without ridges for water retention. Minimum slope will be as indicated in Section 6.2.3.8 and to a maximum slope that allows for comfortable movement of wheeled equipment.

3.13.3.9 All rooms where there is risk of flooding or liquids accumulation on the floors will be provided with floor drainage system and a minimum of 2% slope to drain. All such rooms will be designed for the anticipated capacity of the potential flooding such as decontamination room drainage designed to meet the volume load from dual head showers.

3.13.3.10 Install flooring over materials that contain no more than the maximum percentage of moisture as recommended by the flooring manufacturer.

3.13.3.11 Installations are to be performed by floor layers who have been approved by the manufacturer.

3.13.4 Corridors

3.13.4.1 Refer to Appendix 1A Clinical Specifications, table 1A.0.2.1(6) for minimum corridor widths:

3.13.4.1(1) in areas of potential congestion provide a greater width as required to ease congestion.

3.13.4.2 Provide access to the ceiling plenum for regular building systems maintenance only from corridors. Access will be secure but convenient. If ceiling tiles are used, provide the ceiling tile layout such that daytime maintenance will maintain Patient and Staff movement along the corridor and access to the plenum requiring a hoarded area in the corridor below will not reduce the clear corridor to less than half its original width.

3.13.4.3 Corridors in Patient care areas will be free of cart alcoves with carts and equipment rooms and alcoves in Staff only areas.

3.13.4.4 In the Inpatient Unit, locate lighting fixtures that remain on during the night so that they cannot be seen from bed positions from within the Patient Bedrooms.

3.13.4.5 Avoid locating access panels in Patient accessible corridors and rooms.

3.13.5 Exit Stairs

3.13.5.1 Locate exit stairs where required to be conveniently accessible from circulation routes.

3.13.5.2 Avoid stair locations that negatively impact future planning flexibility or constrain desirable views from Patient care and Staff work areas.

3.13.6 Convenience Stairs

3.13.6.1 Include convenience stairs where appropriate, located strategically to reduce dependence on elevator use. The convenience stairs may also function as required exit stairs. The maximum allowable distance between the convenience stair and the closest elevator is 10 m.

3.14 Commissioning

3.14.1 Independent Commissioning Requirements

3.14.1.1 Complete building commissioning to validate that the performance of materials, components, assemblies, systems and design achieve the objectives and requirements of the Authority as outlined in this Statement of Requirements. The Design-Builder may choose to pursue the LEED Enhanced Building Enclosure Commissioning credit at their discretion.

3.14.2 Independent Commissioning Agent and Building Enclosure Commissioning Agent (BECxA)

3.14.2.1 Qualifications: Individual or firm that has five years of applicable experience and technical knowledge of the performance of building systems, and possesses the skills, knowledge, experience, and necessary certifications to conduct the testing outlined herein.

3.14.2.2 The Commissioning Agents must be approved by the Authority and retained by the Design-Builder during the pre-design stage. Note that the BECxA may be an independent third party who is not the Design-Builder's BES or may fulfil the role of the BES if the agent is not a member of the design team or the construction team.

3.14.2.3 Role: To provide independent verification of the building system performance in line with the Reviewed Drawings and Specifications and Energy Target requirements. As a minimum, the Commissioning Agents are responsible to complete the following:

3.14.2.3(1) Owner Project Requirements (OPR) & Basis of Design (BOD) reviews of the building system elements.

3.14.2.3(2) Independent Design Reviews of the construction documents at 95% and 100%.

3.14.2.3(3) Development of Cx Plan(s) & Specification section.

3.14.2.3(4) Pre-construction BECx meeting and subsequent Cx meetings.

3.14.2.3(5) Technical submittal reviews related to building system elements, including changes, value engineering, and substitutions.

3.14.2.3(6) Field reviews to conduct or witness field testing, review mock-ups, and audit contractor QA/QC program for the building enclosure and all other building systems.

3.14.2.3(7) Review building maintenance and renewals plan.

3.14.2.3(8) Commissioning report.

3.14.2.3(9) Post-occupancy commissioning meeting.

3.14.2.3(10) Post-construction warranty review prior to lapse in warranty.

3.14.2.3(11) Coordination with the Authority, the Design-Builder, and the Design-Builder's Architect, Building Enclosure Professional (BES), Commissioning Authority (CxA), Building Performance Professional and Site Construction Supervisors.

3.14.2.4 Use Standards ASTM E2813 and E2947 as guidance for completing the BECx process.

3.14.2.5 OPR & BOD Reviews – The purpose of the OPR & BOD reviews is to confirm general conformance of building systems elements with the Authority's requirements and the building's performance relevant to achieving the Energy Guarantee.

3.14.2.6 Independent Cx Design Reviews – The purpose of the Independent Design Reviews is to verify general building system conformance with Authority's requirements and the building enclosure provisions required to achieve the Energy Guarantee.

3.14.2.7 Cx Specifications – The purpose of the commissioning specifications is to outline the roles and responsibilities of Design-Builder and other parties with regards to commissioning activities.

3.14.2.8 Cx Plan – The purpose of the commissioning plan(s) is to outline the Design-Builder's implementation of the Authority's requirements and the building system provisions required to achieve the Energy Guarantee. The plan should be reviewed by the commissioning agents and the Design-Builder and their sub-contractors in a pre-construction meeting prior to its implementation.

3.14.2.9 Cx Submittal Reviews – The purpose of review of technical submittals related to building system components is to confirm general conformance to the Construction Documents, and identify any risks associated with not meeting the Authority's requirements and Energy Target in the case of changes, value engineering, and substitutions, if any are proposed.

3.14.2.10 Cx Field reviews – The purpose of field reviews is to conduct or witness field testing, review mock- ups, and audit the contractor's QA/QC program for meeting the building system and building enclosure performance, installation, and verification requirements.

3.14.2.11 Post-construction Cx Activities – Post-construction Cx activities entail completing a Cx report that verifies and records the commissioning activities completed during design and construction, training Users on the use of the Building System Maintenance and Renewals Plan, and a warranty period condition assessment review outlining deficiencies included and excluded within the warranty.

PART 4 Site Development Requirements

4.1 Master Site Plan

4.1.1 The Design-Builder will develop and submit to the Authority a master site plan ("Master Site Plan") for the Facility.

4.1.1.1 Site access to be reviewed with the City and the Authority early in the Design process.

4.1.1.2 Provide detailed routing for all vehicles, pedestrians, encroachments, features, entrances, and exits, clearly indicating connections to the public realm on 112th Street, 12th Street and the NLC road network.

4.1.2 Ambulance vehicle access to the Emergency department within the Site will be independent from other vehicular accesses within the Site. The Master Site Plan will:

4.1.2.1 describe the Site as currently in use;

4.1.2.2 describe all phased development at the Site, if any;

4.1.2.3 allow each Component of the Facility to be an integrated part of the whole, facilitating the delivery of clinical services and non-clinical support and enhancing the ability of these to function in a cohesive manner;

4.1.2.4 describe Site servicing, parking, vehicle circulation and Site wayfinding signage;

4.1.2.5 describe direct and logical pedestrian connections between pedestrian entries to the site, parking areas and Building main and Staff entries;

4.1.2.6 separate pedestrian pathways and emergency access routes;

4.1.2.7 expansion zones will not conflict with vehicle circulation, any Building Entrance or paths to entrances from parking areas. The layout of the Facility will preserve reasonable access and staging for construction within both expansion zones. Refer to section 3.10;

4.1.2.8 describe access needed to replace major equipment as may be required;

4.1.2.9 describe access to oil storage tanks, propane storage tanks, emergency generators and oxygen bulk storage tank to accommodate vendor requirements and safe and efficient delivery of all fuels and gases; and

4.1.2.10 meet and match the grades along the edge of construction and property lines.

4.2 Urban Design and Site Development

4.2.1 General

4.2.1.1 Undertake an environmental wind and snow study per section 8.2.7 and confirm mitigation of issues identified in the study.

4.2.1.2 Provide clear pedestrian and vehicular access to the Main Entrance and Emergency Entrance. Create a legible site layout and circulation pattern to foster a strong sense of place and identity and to safely accommodate vehicular and pedestrian circulation on the Site.

4.2.1.3 Provide a minimum 1.8 m wide sidewalk to the Main Entrance, Emergency Entrance, and Staff Entrance(s) from the public entrances to the Site and from parking areas.

4.2.1.4 Provide three (3) parallel (0 degree) drop-off spaces immediately adjacent to each of the Main Entrance and the Emergency Entrance. Each space to be a minimum of 3.0 m wide by 7.0 m plus a 1.5 m wide and clearly marked passenger unloading zone on the passenger side.

4.2.1.5 Cover passenger-side drop-off areas at the Main Entrance and the Emergency Entrance.

4.2.1.6 Provide seating areas for a minimum of twelve (12) people including two (2) wheelchairs adjacent to the Main Entrance.

4.2.1.7 Design landscape and circulation routes to have clear unobstructed views of surrounding areas for safety surveillance.

4.2.1.8 Locate all refuse/recycling areas, shipping, loading or utility areas, satellite dishes, outdoor vents, mechanical equipment, transformers, and other similar structures from view from the Main Entrance, Emergency Entrance, and visitor parking area.

4.2.1.9 In cases where items in above clause cannot be located out of view, they must be screened out of view from streets and adjacent properties.

4.2.1.10 Provide visual screening between Inpatient rooms at entry levels and outdoor walkways and gathering areas.

4.2.1.11 Provide easy and ergonomic access to garbage and recycling bins. Screen garbage and recycling bins from public view.

4.2.2 Pedestrian and Vehicular

4.2.2.1 Design loading dock areas so that they are integrated into the Building design with minimal visual impact.

4.2.2.2 Provide realignment of existing roadway that traverses the south of the Site. Maintain connection through the Site to the NLC internal road network.

4.2.2.3 Separate traffic routes for emergency vehicles from visitor and service vehicles traffic routes. Minimize service vehicle traffic interference with ambulance and other emergency vehicle access to the Site.

4.2.2.4 Design parking areas to safely accommodate drivers and passengers walking between their vehicle and the Main Entrance and Emergency Entrance through parking lot drive aisles. Design parking lot drive aisles to avoid rainwater and snow melt puddling while avoiding slopes-to-drain that exacerbate the danger of slipping on ice.

4.2.2.5 Provide curb-free and ramp-free access from all visitor parking areas to the Main Entrance. Provide sidewalks and crosswalk markings where parking access routes cross on-site driveways.

4.2.2.6 Provide bollards to protect loading dock area from vehicular damage.

4.2.2.7 Provide pedestrian routes that are fully accessible by the Persons with Disabilities and are elderly friendly.

4.2.2.8 Provide clear, direct pedestrian routes through parking lots that are unimpeded by parked or moving vehicles.

4.2.2.9 Provide curb-cuts or curb let-downs in appropriate locations to facilitate convenient and direct access from the parking space(s) to the Building(s) for people with disabilities. This includes all locations where pathways cross parking areas.

4.2.2.10 The sidewalk and pathway system will incorporate landscape treatments with trees and benches, lighting, and distinct paving where appropriate.

4.2.2.11 Do not provide curbs between visitor parking areas and the Main Entrance. Provide a curb between the sidewalk and on-site roadway. End the curb where it first meets a line of pedestrian travel to the Main Entrance from a visitor parking area. Provide a tactile strip for the visually impaired parallel to the curb, where the curb ends and at all other wheelchair accessible curb crossings, exterior pedestrian ramps and on the parking lot side of pedestrian crossings.

4.2.2.12 Protect all Facility entrances from errant vehicles through the use of decorative bollards and barricades which keep vehicles away from a Facility. Barriers will stop a 6800 kg vehicle traveling 32 kph.

4.2.2.13 All sidewalks and other paved areas must have positive drainage to shed rainwater quickly to a storm drainage facility and be designed to avoid surface ponding.

4.2.2.14 Design pedestrian sidewalks with longitudinal gradient no greater than 5% and with a cross-fall between 1% and 2%.

4.2.2.15 All sidewalks will be at least 1.8 m wide.

4.2.2.16 Provide lighting on all sidewalks and parking areas. Light poles, fixtures and electrical service will be provided by the Design-Builder.

4.2.2.17 Provide driveway access to the entrance and exit of the Ambulance Bay to accommodate emergency vehicles. The driveway to the Ambulance Bay will be located to reduce vehicle traffic interference with emergency vehicles.

4.2.3 Main Building Entry

4.2.3.1 Main Entrance Plaza will be adjacent to the Main Entrance for Patients and visitors and general access to the Building.

4.2.3.2 The Main Entrance Plaza will have four (4) comfortable and elder-friendly benches, each accommodating three (3) people nearby, with space adjacent to both sides of each bench accommodating a wheelchair. Each seating position will have hand-rests for the convenience of the senior population.

4.2.3.3 Provide low-maintenance planting in the Main Entrance Plaza.

4.2.3.4 Main Entrance Plaza walking surface will be cast concrete.

4.2.4 Loading Dock / Post Receiving Area

4.2.4.1 Depth of the loading dock platform, as measured from the wall surface forming the curb of the truck docking area (pit wall) to the opposing exterior, will be 4,270 mm (approximately 14') and planned as a continuous-run platform, free of walls/structural support, changes in grade, raised seams, or features that could impede the movement of items, many of which will be manually transported on dollies, carts, and hand trucks.

4.2.4.2 The loading dock surface will be designed to be non-skid, non-porous, and anti-static in all seasons.

4.2.4.3 All portion of the loading dock curb will be protected by a moulded or laminated rubber bumper of not less than 100 mm (approximately 4"). The intent of this feature is to protect both the building and trucks from impact damage.

4.2.4.4 Ramps

4.2.4.4(1) A ramp will be installed to accommodate manual transport of items from the driveway bed to the loading dock surface.

4.2.4.4(2) The ramp is to be straight run; maximum grade is to comply with OH & S standards.

4.2.4.4(3) Provide one (1) scissor lift.

4.2.4.5 Safety Stairs

4.2.4.5(1) A set of safety stairs will be installed near the doorway access point.

4.2.4.5(2) In addition to providing emergency access/egress between the loading dock, this stairway will also be used by couriers.

4.2.4.6 Covered Dock

4.2.4.6(1) Loading dock area will not be enclosed but will be covered by overhanging portions (canopy).

4.2.4.6(2) Minimum clearance between dock surface and the canopy will be not less than 4,270 mm (approximately 14').

4.2.4.6(3) The horizontal run of the canopy, as measured perpendicularly from the wall towards the opposing driveway, will extend to at least the pit wall (i.e. covering the entire loading dock surface). Weather protection must be a planning consideration.

4.2.4.6(4) Dimensions of the loading dock will provide for segregation of materiel streams. There must be clear separation between incoming (typically clean) items as opposed to outgoing (typically soiled, contaminated, or used and being sent for salvage) items. Space must be allowed for the waste and compactor area (described in the housekeeping department area).

4.2.4.6(5) Provide a heated surface to prevent falls.

4.2.4.7 Power

4.2.4.7(1) The wall forming the exterior limits of the loading dock surface will be serviced by 115 VAC electrical outlets.

4.2.4.7(2) The position of the outlets will be between 1,070 mm. and 1,370 mm (approximately 42” and 54”) above the dock’s surface.

4.2.4.7(3) The maximum horizontal distance between outlets will not be more than 4,570 mm (approximately 15’).

4.2.4.8 Lighting

4.2.4.8(1) Provide lighting on the loading dock and driveway areas for safety and security purposes.

4.2.4.8(2) Provide automatic sensors that respond to ambient light conditions near the top of the facility, and not in an area that is subject to shadows or reflected light.

4.2.4.8(3) Provide automatic motion sensors for surveillance over the entire loading dock surface, ramps, stairwell, and driveway.

4.2.4.8(4) Ensure light does not spill into windows in Inpatient rooms.

4.2.4.9 Truck Berths

4.2.4.9(1) Provide a driveway that accommodates two (2) truck berths for large trucks and a smaller berth with a scissor lift for couriers and morgue pickups.

4.2.4.9(2) One berth will have a driveway surface 1,020 mm (approximately 40”) below loading dock surface, and the others berth will have a driveway surface 1,400 mm (approximately 55”) below loading dock surface. All truck berths must be not less than 4,000 mm (approximately 13’) in width.

4.2.4.10 Dock Levellers

4.2.4.10(1) Provide each truck berth with a recessed dock leveller capable of achieving a maximum grade of 10% (downwards from truck to loading dock).

4.2.4.10(2) The final dimensions and capacities of the dock levellers will be determined, in part, by the anticipated maximum truck size and transport vehicle (i.e. forklift, hand truck, cart, and dolly) plus payload to be accommodated.

4.2.4.10(3) Provide the controls for each levelling system away from the vicinity of the leveller to avoid unintentional activation while in use.

4.2.4.10(4) Provide access for funeral home personnel to access have access to the morgue.

4.2.4.10(5) Provide heating for hydraulic components and controls if exposed to the exterior.

4.2.4.11 Light Duty Vehicles

4.2.4.11(1) Provide parking and power receptacles for a total of ten (10) fleet vehicles: three (3) large transport trucks, three (3) passenger vans and four (4) large SUVs.

4.2.4.11(2) Not used.

4.2.4.12 Grades

4.2.4.12(1) Design, configuration, orientation, and maximum permissible grade of the driveway will be determined, in part, by the design and configuration, choice of truck berth configuration (i.e. straight line or saw tooth), site grade/topography/availability and the maximum dimensions/weight of vehicles anticipated to use the driveway.

4.2.5 Public Realm and Open Space

4.2.5.1 Design and construct the Facility with consideration for the legibility, quality and consistency of the overall treatment of the public realm.

4.2.5.2 Provide a hierarchy of open spaces as follows:

4.2.5.2(1) spaces that preserve the natural environment;

4.2.5.2(2) spaces for Patients and visitors; and

4.2.5.2(3) private spaces for Staff respite;

4.2.5.3 Configure the Building to maximize the availability of sunlight to open spaces and areas of high pedestrian use.

4.2.6 Community Noise Protection

4.2.6.1 Design and construct the Facility so that noise levels from mechanical and electrical equipment at the nearest residential property lines does not exceed:

4.2.6.1(1) 35 dBA at night; and

4.2.6.1(2) 45 dBA during the day.

4.2.6.2 Ensure that electrical and mechanical noise levels in outdoor Patient lounge areas and public sidewalks does not exceed 50 dBA.

4.2.7 Site Wayfinding and Exterior Signage

4.2.7.1 Provide Site wayfinding and exterior signage in accordance with this Schedule.

4.2.7.2 Provide a signage masterplan for the Site.

4.2.7.3 Design the Facility for ease of wayfinding day and night to the Main Entrance without use of wayfinding signs.

4.2.7.4 Provide external directional signage that:

4.2.7.4(1) from the Site entry, clearly identifies Main Entrance and Emergency Patient-only parking access, public parking area access, Ambulance-only and Service Vehicle-only access;

4.2.7.4(2) all exterior directional signage will be illuminated, backlit, reflective or high contrast and easily visible day and night; and

4.2.7.4(3) minimizes light spillage.

4.2.7.5 Exterior Wayfinding signage will minimize interference with snow clearing. Integrate Exterior signage with exterior lighting standards to reduce interference with snow clearing.

4.2.8 Site Lighting

4.2.8.1 Provide lighting for public outdoor spaces to create an unobtrusive, human scale lighting concept, with a hierarchy of fixture types and designed according to functional and security needs (including CPTED) and reflecting the hierarchy of pedestrian corridors.

4.2.8.2 Light fixtures within the reach of pedestrians will be vandal-proof.

4.2.8.3 All exterior luminaires will be vandal-resistant and LED fixtures.

4.2.8.4 Lighting on pedestrian paths will illuminate not just the path but also the surrounding area adjacent to the path particularly en-route to transit connections.

4.2.8.5 Site lighting will enhance security camera coverage and will not create glare or detrimental to coverage.

4.2.8.6 Provide lighting to facilitate ease and safety of pedestrian access to public transit.

4.2.8.7 Lighting on pedestrian paths will illuminate not just the path but also the surrounding area adjacent to the path, particularly en-route to transit and pick-up/drop-off locations.

4.2.8.8 On-site roadways

4.2.8.8(1) Provide lighting for on-site roadways, walkways, drop-off and parking areas within the Site to ensure safe vehicle and pedestrian traffic with respect to collisions, personal safety, and building access and egress.

4.2.8.8(1)a. Prevent light trespass into Patient rooms.

4.2.8.8(1)b. Prevent lighting glare, shadow, or high contrast with surrounding areas.

4.2.8.8(1)c. Screen views into Patient rooms and neighbouring yards from upper floor windows.

4.2.8.9 Off-site roadways

4.2.8.9(1) Provide lighting for off-site roadways and sidewalks to meet City of Dawson Creek requirements.

4.2.8.10 Site lighting will comply with CSA and IES RP-20 Standards complete with sharp cut-off (dark sky compliant).

4.2.9 Receptacles for Car Engine Heaters

4.2.9.1 Provide one (1) receptacle each for vehicles in the Staff parking area.

4.2.10 Landscape

4.2.10.1 Provide and preserve landscape for the complete Site that contributes to a liveable, healthy, and resilient community.

4.2.10.2 Minimize grade changes for drop curbs. Drop curbs aligned to pedestrian crossings.

4.2.10.2(1) Parking areas and driveways to be as clear of obstructions as possible.

4.2.10.3 Provide landscape site plans for the complete Site. Landscape plans to be prepared by a BCSLA (British Columbia Society of Landscape Architects) registered Landscape Architect with stamp.

4.2.10.4 Installation of the landscape to be supervised and approved by a BCSLA registered Landscape Architect.

4.2.10.5 Minimize the amount of impervious surfaces to increase the natural absorption rate of storm water on the Site.

4.2.10.6 Selected restoration area species are to match existing native species for the sub-region. Native seed is to be obtained from certified seed suppliers and plants are to be obtained from local growers.

4.2.10.7 Refer to Section 8 for detailed descriptions of planting and street furniture requirements.

4.2.11 Site Safety Through Design

4.2.11.1 Apply CPTED principles including but not limited to:

4.2.11.1(1) Publicly accessible spaces will be distinguishable from Secure private spaces;

4.2.11.1(2) Design the Site so people can see what is happening around them;

4.2.11.1(3) Eliminate entrapment spots;

4.2.11.1(4) Promote ‘eyes on the street’ from the Building interior, and outdoor pedestrian pathways and seating. Windows will not be hidden by vegetation or other items; and

4.2.11.1(5) Reduce opportunities for hiding spaces.

4.2.12 Snow Storage

4.2.12.1 Provide snow storage areas to accommodate on-site snow accumulation on hardscaped areas.

4.2.12.2 Snow storage areas must be designed to allow the on-site roadways and parking to remain functional.

4.2.12.3 Snow storage will be positioned in areas that would not block or impede motorist and pedestrian site distances.

4.2.12.4 No curbs in access to snow storage areas.

4.3 Parking

4.3.1 General

4.3.1.1 The Design-Builder will provide parking for the Facility in accordance with the requirements of this Schedule and all applicable standards.

4.3.1.2 All parking stalls and vehicle ramps will meet the City bylaw requirements.

4.3.2 Parking Design Principles

4.3.2.1 The design and operation of surface parking facilities should create convenient and safe usage.

4.3.2.2 Design and construct a surface parking in accordance with the following:

4.3.2.2(1) Provide adequate provision for ingress and egress to all parking spaces to ensure ease of mobility, ample manoeuvring clearances, and safety of vehicles and pedestrians;

4.3.2.2(2) Ensure that the parking area is clear from obstruction from curbs, curb stops and/or raised landscaping islands. Curbing is only permitted around the perimeter of the parking area;

4.3.2.2(3) Ensure the parking is well-lit while minimizing light spillage into adjacent properties;

4.3.2.2(4) Clearly mark all parking spaces as directed by the Authority;

4.3.2.2(5) Use wayfinding strategies, including signage, to allow each parking zone to be identifiable and to assist in orientation and ease of finding/identifying parking stalls;

4.3.2.2(6) Set parking lot layouts in an orderly and logical design to minimize confusion and excessive internal circulation;

4.3.2.2(7) Employee parking must not be located or within service or loading areas;

4.3.2.2(8) Right angle or 90-degree parking is the preferred layout due to efficiency, capacity for two-way circulation, visibility and room for pedestrians.

4.3.2.3 Provide all parking lots with the following landscape requirements:

4.3.2.3(1) Incorporate safety and security measures into the landscape design;

4.3.2.3(2) Surface parking must contribute to the continuity of the street landscaping edge without compromising the safety and security of the public inside the lot and on the public street.

4.3.2.4 Reduce the visual impacts of large surface parking lot areas by dividing the parking area into smaller 0.6 ha parking lots defined at the boundaries by drive aisles, sidewalks, trees and landscape planting; plant shrubs and small trees to define circulation routes for pedestrians and vehicles.

4.3.2.5 Multiple surface parking lots must provide a direct pedestrian pathway system through the parking area to provide convenient and safe pedestrian access between Building entrances, parked cars, and sidewalks of adjoining streets.

4.3.2.5(1) See Section 8 for detailed description of landscape requirements for parking lots.

4.3.3 Bicycle Parking

4.3.3.1 Provide bicycle parking facilities that are at-grade, have uniform lighting and are safe. Lighting design for the bicycle storage area will take into account the Facility Risk Assessment and the lighting design will be in accordance with CEPTED guidelines but will be no less than 100 lumens throughout.

4.3.3.2 Provide unsecured, short-term bicycle parking in the form of bicycle racks located within 15 m of a principal building entry. Such bicycle parking must be situated in well-lit locations, clearly visible from principal building entries and/or public roads.

4.3.3.3 Bicycle rack must be made of sturdy, theft-resistant material and should be secured to the floor or ground. Bicycle racks should be designed to secure the bicycle frame, not the wheels, and allow both the frame and front wheel to be locked to the rack with a U-style lock.

4.3.4 Facility Specific Requirements

4.3.4.1 Provide 311 vehicle parking stalls as follows:

4.3.4.1(1) 125 stalls for physicians and Staff;

4.3.4.1(2) 186 stalls for visitors;

4.3.4.1(3) Including at least 16 accessible parking stalls: five (5) for Staff and 11 for visitors; and

4.3.4.1(4) Included in the 327 vehicle parking stalls, will be the following:

4.3.4.1(4)a. 44 stalls within 75 m of the Emergency Entrance.

4.3.4.2 In addition to the 311 parking stalls required above, provide:

4.3.4.2(1) not used;

4.3.4.2(2) two (2) dedicated parking stalls for RCMP parking at Emergency Entrance;

4.3.4.2(3) three (3) Patient drop-off spaces adjacent to the Main Entrance to the Building;

4.3.4.2(4) three (3) emergency department Patient drop-off spaces adjacent to the Emergency Entrance of the Building;

4.3.4.2(5) a minimum of six (6) motorcycle parking stalls and any additional motorcycle parking stalls as required by the City;

4.3.4.2(6) parking racks for thirty-three (33) employee bicycles;

4.3.4.2(7) parking racks for thirty-three (33) visitor bicycles; and

4.3.4.2(8) parking for light duty vehicles near loading dock as identified in Section 4.2.4.11.

4.3.4.3 Designate eight (8) parking stalls for electric vehicle charging with the appropriate paving markings and/ or signage.

4.3.5 Parking Stall Sizes

4.3.5.1 Parking stalls will comply with the following:

4.3.5.1(1) Minimum parking stall dimensions will be 7.0 m x 3.0 m, provided that:

4.3.5.1(1)a. pick-up and drop-off areas, minimum stall dimensions will be 7.0 m x 3.0 m with a 1.5 m marked clear zone on both sides of the stall; and

4.3.5.1(1)b. minimum dimensions for accessible parking spaces as per the City of Dawson Creek's Zoning Bylaw.

4.3.5.1(2) Minimum drive aisle widths will be as per the City of Dawson Creek's Zoning Bylaw.

4.4 Utility Infrastructure

4.4.1 The Design-Builder will provide, as necessary, adequate, and reliable infrastructure and necessary municipal services to the Facility. All municipal services and off-site works will conform to the City's engineering regulations and requirements.

4.4.2 Ensure that NLC utility infrastructure located on-site remains accessible, functional and uninterrupted through construction. Design-Builder will assess existing NLC underground infrastructure location on the Site and determine which parts of the existing NLC infrastructure will be abandoned, capped, or relocated to an off-site location on the NLC campus and will undertake such relocation work.

4.4.3 Municipal Off-Site Services Infrastructure

4.4.3.1 General

4.4.3.1(1) Design-Builder will confirm and comply with any required off-site services as directed by the City.

4.4.3.1(2) Design and construct all municipal off-site services, connections or upgrading of municipal systems as needed or as required by the City such that the off-site municipal infrastructure is adequate to support the Facility, to the satisfaction of the City and other governmental authorities. Refer to the applicable City documents for land development and municipal servicing engineering standards.

4.4.3.1(3) All works required for excavation, exposing, backfill and surface restoration of all proposed water, sanitary sewer, and storm service connections, as well as the connection of each service to the municipal system, will be the responsibility of the Design-Builder.

4.4.3.2 Potable Water – Off-Site

4.4.3.2(1) The Facility requires a water system connection, including metering and backflow prevention. The primary water main service is to be connected to the 200mm diameter water main on 112th Avenue to supply domestic/fire flow services. A secondary water service is required for redundancy from 12th Street.

4.4.3.2(2) The Design-Builder will ensure that City access to municipal and private on-site fire hydrants is not encumbered at any time. All existing hydrants must remain active during construction. Disruption to any existing hydrant will require written approval from the City of Dawson Creek and the Fire Department.

4.4.3.2(3) Off-site water system upgrades may be required in accordance with the requirements of the City. Design-Builder to provide water demands and FUS calculations to the City for analysis and confirmation of sizing. Off-site water system upgrades, if required, will be the responsibility of the Design-Builder.

4.4.3.3 Sanitary Sewer – Off-Site

4.4.3.3(1) The connection point for the sanitary sewer will be to the existing municipal sanitary sewer on 12th Street.

4.4.3.4 Storm Drainage – Off-Site

4.4.3.4(1) The Design-Builder must employ on-site storm water management strategies which result in no net increase in peak storm water discharge rates up to the 10-year recurrence interval event. The storm water management strategies and storm water management plan must meet the requirements of the City of Dawson Creek Subdivision and Development Servicing Bylaw. Subject to final confirmation from the City, flows in excess of the 10-year storm event may need to be directed via overland flows to the municipal road network. In no circumstances are flows to be directed to adjacent private parcels.

4.4.3.4(2) Subject to final confirmation by the City, the connection points for the storm sewer may be:

4.4.3.4(2)a. to the existing municipal storm sewer on 112th Avenue. A 300mm diameter storm service stub with an invert elevation of 656.066m at the intersection of 112th Avenue and 9th Street has been provided to the Design-Builder by the City during capital upgrades to the street in 2019.

4.4.3.4(2)b. to the existing municipal storm sewer on 12th Street.

4.4.3.4(3) All storm sewers and drains will flow by gravity and not rely on pumps except for the storm sewer service from the loading dock and basement areas. The loading dock and basement elevations are below the elevation of the municipal storm sewer system and cannot drain by gravity. The loading dock storm sewer connection is required to be designed to accommodate the 1 in 100 storm event. The force main is to include a check valve to ensure drainage does not flow into the loading dock area.

4.4.3.4(3)a. Loading dock storm water pumping system/force main will be installed at depths below frost and/or adequately protected from freezing by the provision of insulation and heat tracing as required to ensure a reliable means of storm water pumping during freeze/thaw/melt cycles.

4.4.4 On-Site Services Infrastructure

4.4.4.1 General

4.4.4.1(1) Design and construct all on-site servicing to meet the design and quality requirements for the corresponding municipal off-site services, and to meet the needs of the Facility.

4.4.4.2 Sanitary Sewers – On-Site

4.4.4.2(1) Provide sanitary sewers of a diameter, grade, and depth to safely convey all effluent from the Facility. Effluent flow must be by gravity without the use of pumping stations except from the basement where the elevation is below the municipal sanitary sewer elevation. The sanitary effluent from the basement will drain by gravity and be pumped from lift stations as required (to the Building civil sanitary connection). Vacuum waste or other similar piped and pumped sanitary systems are not acceptable.

4.4.4.2(2) The sanitary sewer system will include the pipes, manholes and all other required appurtenances to comply with applicable municipal and provincial standards.

4.4.4.2(3) Not used.

4.4.4.3 Storm Sewers and Drainage – On-Site

4.4.4.3(1) Provide storm sewers, storm sewer management strategies and drainage network:

4.4.4.3(1)a. of a size, grade, and depth to safely manage and convey all storm water on-site to the receiving system;

4.4.4.3(1)b. designed as a gravity system with no requirement of a lift station or pumping;

4.4.4.3(1)b.1 which, at minimum, maintains the pre-Construction discharge rates after Substantial Completion of the Project;

4.4.4.3(1)b.2 which includes storm water/oil and grit separation devices or other water quality treatment devices as required, capturing, and treating runoff from all road and parking area surfaces; and

4.4.4.3(1)b.3 where roof water run-off will receive grit separation treatment before entering the piped on-site conveyance network. Oil/water separation is not required for roof water.

4.4.4.3(1)b.4 will provide best management practices for the capture, treatment, and retention of storm water run-off.

4.4.4.3(2) Provide an on-site storm water management system designed to meet the City's goals for storm water attenuation and runoff / recharge water quality.

4.4.4.3(3) Storm water quality: Comply with the federal/provincial land- development guidelines, the requirements of the City and Stormwater Planning: A Guidebook for British Columbia (2011).

4.4.4.3(4) The Design-Builder will ensure that neighbouring properties are protected from flooding and nuisance runoff issues and existing municipal system capacities are not exceeded.

4.4.4.3(5) Provide adequately sized water quality/sediment control components for the surface parking before discharging to the off-site drainage system.

4.4.4.4 Water Main and Appurtenances – On-Site

4.4.4.4(1) Provide a water main service (water main and ancillary components) from the municipal system to provide all required institutional demands and firefighting capacity and redundancy for the Facility. The extent to which provision for on-site pumping may be required (to suit either domestic demand or fire-fighting demand, or both) will be determined, in part, by the available system pressures, the final building floor area and building height.

4.4.4.4(2) The primary and secondary water services (for redundancy) will enter the building separately before they are combined into one main; each will be provided with a backflow prevention device.

4.4.4.4(3) Provide a watermain system of diameter, grade and depth, material, and restraint mechanisms to safely meet the demand and fire flow requirements for the Facility.

4.4.4.4(4) Provide a water system that includes pipes, valves, hydrants, fittings, and all other required appurtenances.

4.4.4.4(5) Firefighting volumetric demands are to be calculated using the Fire Underwriters Survey (FUS) method unless alternates are otherwise approved by the municipal authorities.

4.4.4.4(6) Not used.

4.4.4.4(7) The water main systems will include approved backflow preventers necessary to protect the municipal system and on-site facilities from contaminants based on the hazard level of the Facility.

4.5 Site Infrastructure

4.5.1.1 Road Works – Off-Site

4.5.1.1(1) The Design-Builder will coordinate and is responsible for all off-site roadworks as identified by the City.

4.5.1.1(2) The Design-Builder will be responsible for protecting or reinstating existing off-site roadworks and sidewalk connections to the NLC campus internal road network affected by on-site construction.

4.5.1.1(3) A new sidewalk will be constructed along the west frontage of the Site on 12th Street.

4.5.1.1(4) All driveway let-downs and curb let downs to be constructed by the Design-Builder where required for on-site road works.

4.5.1.2 Street lighting – Off-Site

4.5.1.2(1) Off-site street lighting illumination levels and other related operations characteristics will conform to the respective municipal standards or ANSI/IES RP-8-18. In order to achieve this, relocation of existing lighting and additional off-site lighting are both expected to be required for connections to the NLC campus.

4.5.1.3 Road Works – On-Site

4.5.1.3(1) Design and construct on-site roadways, including the pavement, curbs and gutters, sidewalks, walkways, signage, pavement markings, and traffic calming devices, which are handicapped accessible and wheel-chair friendly.

4.5.1.3(2) Design and construct a new 7.5m on-site roadway, complete with curbs and gutters, sidewalks, along the south perimeter of the Site from 12 Street to the southeast corner of the Site, including connections to the intersections of the NLC campus internal road network. Alignment of the roadway will be parallel with the southern property line. Remove and dispose of the existing roadway as required.

4.5.1.3(3) Plan for reservoir space on site in order that vehicles queuing for entry and exit do not block the public street or impede the sidewalk.

4.5.1.3(4) Allow for separate left-turn exit lane where appropriate for public street traffic conditions.

4.5.1.3(5) All roadways will accommodate fire truck access in accordance with the requirements of the respective municipality's fire department or by municipal bylaw requirements.

4.5.1.3(6) Design access roadways with longitudinal gradients that allows for fire truck to manoeuvre without overhanging and/or bottoming out.

4.5.1.3(7) All parking areas and drive aisles have minimum and maximum cross-falls of 1% and 5% respectively.

4.5.1.3(8) Main and Emergency Entrance access roadways will not pass through or be impeded by parking areas.

4.5.1.3(9) On-site road works meet the requirements of the standards and guidelines of the Geometric Design Guide for Canadian Roads, as published by TAC.

4.5.1.3(10) Avoid surface water ponding. All roadways and paved areas to have positive drainage to shed rainwater quickly to a storm drainage facility.

4.5.1.3(11) Access road above underground chambers will be waterproofed to prevent water seepage and flooding of the chambers.

4.5.1.3(12) The design vehicle for loading access is to be WB-20 as per TAC Standards. The design vehicle for access to the Northern Health Connections drop-off is to be I-Bus as per TAC Standards. All other internal roadways must safely accommodate the typical fire truck in use by the respective municipal authorities.

4.5.1.3(13) Internal site truck movements will be designed such that loading bays are easily accessible, limiting the requirement for truck manoeuvring into and out of loading bay areas.

4.5.1.3(14) Provide required painted pavement markings and symbols including parking stall lines, stop lines, lane lines, pickup and drop-off area demarcation, loading area demarcation, universal handicap parking space symbols, cross walk markings, directional arrows and any other delineations required for control and safety of vehicle and pedestrian movements.

4.5.1.3(15) Temporary and permanent painted pavement markings in accordance with the latest edition of TAC "Manual of Uniform Traffic Control Devices for Canada" and applicable sections of the MMCD, latest edition.

4.5.1.3(16) Use site surfacing materials which will meet intended use and minimize the 'heat island' effect, where possible.

4.5.1.3(17) Provide for On-site roadways to account for snow removal machinery and methods in winter snowfall months.

4.5.1.4 Street Lighting – On-Site

4.5.1.4(1) Provide lighting for on-site roadways, walkways, and parking areas to ensure safe vehicle and pedestrian traffic with respect to collisions, personal safety, and Building access/egress. Lighting will be sympathetic to any existing or future buildings at each Site, as well as all neighbouring properties. Wherever possible, all Site lighting to be 'dark skies' compliant, per municipal definitions.

4.5.1.4(2) Provide new LED street lighting for the new on-site roadway along the south perimeter. The power feed the street lighting will be from the new Facility.

4.5.1.4(3) Detailed Exterior Lighting specifications are carried elsewhere, under the electrical specifications section.

4.5.1.5 Electrical, Telecommunications, Gas Services – On-Site and Off-Site

4.5.1.5(1) Provide adequate electrical, telecommunication and natural gas services to the Facility.

4.5.1.5(2) Coordinate as required with third party utility providers for design requirements and constructability including metering.

PART 5 Building Design Requirements

5.1 Adaptability and Flexibility

5.1.1 The Design-Builder will:

5.1.1.1 locate permanent Building elements, such as stairs, elevators, and duct shafts, to minimize constraints on changes to the Building;

5.1.1.2 minimize interior columns for ease of planning and re-planning of care areas;

5.1.1.3 avoid interior shear walls if possible;

5.1.1.4 accommodate the vertical and horizontal distribution of electrical and mechanical services to allow maintenance and changes to occur with the least disruption to clinical service delivery;

5.1.1.5 provide access points to Building service systems in critical locations so that service disruption is minimized; and

5.1.1.6 cabling and/or conduits in concrete elements such as slab and walls are not permitted Do not provide raised access flooring.

5.2 Expandability

5.2.1 The Design-Builder will:

5.2.1.1 locate primary circulation corridors to allow expansion without increasing the complexity of the circulation system as a whole; and

5.2.1.2 provide floor zoning that allows for expansion of programs or services, for example by locating administrative and other non-clinical 'soft' functions adjacent to clinical areas that are likely to need to expand.

5.3 Disaster Planning Requirements

5.3.1 In undertaking the Design, the Design-Builder will consider the need to protect the life and safety of all Facility occupants and the need for continuing services following an earthquake or other disaster, including epidemic, chemical spill, extended power interruption, wildfire, and contamination of water supply. Particular attention should be paid to the Buildings, generators, transformers, and service connections.

5.3.2 Design and construct the Buildings', generators', transformers' and service connections' structures, structural components, non-structural components, anchorages, and equipment to post disaster standards unless otherwise noted.

5.3.3 Design and construct essential services servicing the Facility including the electrical system, steam, domestic water and medical gases to post disaster standards as defined in the BCBC. Locate these services in utilities enclosures that meet post disaster standards as defined in the BCBC.

5.3.4 Design and construct the Facility so that it is capable of meeting its functional requirements, (lights, power, water and sewer) for a minimum period of 72 hours following a natural disaster or other incident (except that additional storage tanks are not required for potable water – assume water will be trucked in and sewage will be trucked out).

5.4 Building Form and Character

5.4.1.1 General

5.4.1.1(1) The Building will be configured to provide functional internal layouts of components and to accommodate daylighting yet have minimal local articulation to support detailing that ensures the Building envelope is robust.

5.4.1.1(2) Utilize glazing to optimize views and daylight penetration, and to reduce energy consumption.

5.4.1.1(3) Roof top mechanical / electrical equipment to be either enclosed within a mechanical penthouse, or screened and incorporated in architectural elements, and consistent in form, material, and detail with the rest of the Building. Roof top mechanical / electrical equipment will be provided with noise attenuation.

5.4.1.1(4) As contemplated by the Wood First Act (British Columbia), the Design- Builder will incorporate wood products into the Design as required by Appendix 1E Wood First Appropriate Use Matrix.

5.4.1.1(5) Integrate service entrance(s) into the Site and Building design to limit the impact of these elements on the Building's appearance.

5.4.1.1(6) Design the Main Entrance as a feature element of the Building, including special design elements appropriate to the community and locale such as references to the Northern Lights.

5.4.1.2 Exterior Building Materials and Colour

5.4.1.2(1) Exterior materials will include high quality finish materials and robust detailing. Cladding materials to be durable and applied in a rain-screen fashion. Cladding materials may be architectural concrete, brick or stone masonry, glass, phenolic panels, and metal cladding.

5.4.1.2(2) Use of Stucco and/or corrugated metal exterior cladding products is prohibited. Use of metal hidden fastener system may be considered for less prominent rooftop building elements that are set back from the building edge.

5.4.1.2(3) The Design-Builder will minimize the number of exterior cladding materials to reduce the number of envelope joints.

5.4.1.2(4) Use of wood on exterior cladding, soffits and other exposed surfaces is prohibited.

5.4.1.3 Roofs

5.4.1.3(1) Roof areas visible from occupied spaces will not have any major equipment visible (minor equipment such as exhaust fans, vents, louvers are acceptable). If equipment is in question, an approval is to be requested from the Authority.

5.4.1.3(2) Stair access to all roof areas larger than 100 m^2 is preferred. Ladder access is acceptable to smaller roof areas. Ladder access to larger roof areas as approved by the Authority.

5.4.1.3(3) Roof hatch access, when provided, will be centrally located for efficiency of access.

5.4.1.3(4) Provide elevator access to the mechanical penthouse.

5.4.1.3(5) Provide guardrails where required and fall protection for maintenance access.

5.4.1.3(6) Provide maintenance access to rooftop air handling units (AHU) via weather protected, heated and enclosed corridors extending from the elevator/stair all the way to the AHU access doors.

5.4.2 Building Configuration and Internal Circulation

5.4.2.1 Building Entrances

5.4.2.1(1) All direct entries into the Building from the exterior will be protected from snow and rain by canopies or building overhangs. Weather protection must be implemented where Building entrances front a sidewalk or open space. Weather protection must not extend into public street rights-of-way.

5.4.2.1(2) Ensure that areas protected from weather still receive daylight using appropriate measures such as height to depth proportions.

5.4.2.1(3) Entrance vestibules will provide transparency from the exterior, from the interior immediately in front of the vestibule.

5.4.2.1(4) Entrance vestibules will be configured and sized in order to preserve the airlock effect for climate control. Ensure a minimum 5 metre distance between the sets of doors to allow stretchers and wheelchairs to fit lengthwise into the vestibule. Provide a heated air curtain system over the exterior doors to control the temperature loss during winter months.

5.4.2.1(4)a. Provide a heated air curtain system over the exterior overhead door to the Breakout/Decasing Area.

5.4.2.1(5) Use sliding doors at high-traffic locations such as the main building entrance vestibule and Emergency entrance vestibule. Use swinging doors at all other public entrances. Use doors that can be activated by handicapped accessible push-button controls located on the inside and outside of both sets of doors or revolving doors with a swing door. Doors will be configured for push-pull manual operation in addition to automatic operation.

5.4.2.1(6) Entrance doors to the emergency department and doors to Patient care areas will be sufficiently wide to allow access for stretchers surrounded by medical Staff.

5.4.2.1(7) Pedestrian interest and comfort at entries will be provided through specifically designed seating, signage, lighting, and features that signal the Facility's use.

5.4.2.1(8) Provide wheelchair alcoves visible, secured, and accessible to the main entry vestibules. Provide easy access to wheelchairs/stretchers close to the entrance of the Building.

5.4.2.1(9) If the Building has a large open entrance area, the space must be acoustically treated to control excessive noise or sound reverberation that can prevent effective space communication, facilitate the spread of noise from the open area to adjacent noise sensitive interior spaces and / or make spending time in the open area uncomfortable.

5.4.2.1(10) Entryways and doors must be illuminated using light levels that are comfortable when entering and exiting.

5.4.2.2 Access

5.4.2.2(1) The Design-Builder will design and construct the Facility to ensure that all Patient-occupied spaces are designed for disabled access and assistance by nursing Staff.

5.4.2.3 Below-Grade Space

5.4.2.3(1) Crawlspace is not allowed; and

5.4.2.3(2) Inaccessible space is not allowed.

5.4.2.4 Any shelled space in the Facility will require minimal level of finishes, life/safety systems, a door and GWB walls.

5.5 Building Envelope

5.5.1.1 Complete the Design and Construction so as to prevent the accumulation and stagnation of rain, snow, ice, and dirt on the horizontal and vertical surfaces of the Building envelope(s) appropriate for the climate the Facility is situated in.

5.5.1.2 Complete the Design and Construction so as to prevent both the ingress of exterior moisture and the trapping of condensation from infiltrating humid air within the envelope.

5.5.1.3 Design exterior walls in accordance with the 'rain-screen principle'.

5.5.1.4 Ensure that materials and systems of the wall and roof assemblies contribute to reducing heat gains and losses with minimal decline in performance over their expected lifespan.

5.5.1.5 Ensure continuity of the air barrier, vapour barrier, thermal barrier, and rain barrier across the entire envelope.

5.5.1.6 Exterior wall assemblies will:

5.5.1.6(1) be exterior insulated; and

5.5.1.6(2) have the air barrier system on the exterior of the wall sheathing layer.

5.5.1.7 Design the Building envelope so that the inside of Patient rooms exposed to noise from hospital related equipment, delivery / loading bays, emergency intake areas, and busy road traffic areas are exposed to noise levels less than 30 dBA measured inside the room from steady sources of noise such as HVAC equipment and transformers and to less than 45 dBA measured inside the room for noises associated with brief intermittent events (sirens, loading bay noise events).

5.5.1.8 Perform a blower door test during the construction stage to measure building's air tightness. Infiltration rates under pressurized and depressurized conditions in accordance with ASTM Standard E779 must not exceed 1.45 litres/second/m^2 at 75 Pa pressure difference between indoor and outdoor spaces.

5.5.1.9 Durability: The building envelope will

5.5.1.9(1) meet the durability requirements of CSA S478.

5.5.1.9(2) will allow access and minimal maintenance.

5.5.1.9(3) have a 50-year service life.

5.5.1.9(4) allow for replacement and renewals without disruption to adjacent materials with longer service life.

5.5.1.9(5) have no exposed structural elements without coatings, finishes, or appropriate building envelope elements.

5.5.1.9(6) See Section 3.14 Commissioning.

5.5.1.10 BECx testing

5.5.1.10(1) As a minimum, allow for the following field testing to verify the quality and integrity of the building enclosure installation.

5.5.1.10(1)a. ASTM E779 - Test Method for Determining Air Leakage Rate by Fan Pressurization

5.5.1.10(1)a.1 Minimum of one mid-construction whole building test at completion of the air barrier system installation.

5.5.1.10(1)a.2 One final whole building test at Substantial Completion.

5.5.1.10(1)b. ASTM E1105 - Test Method for Field Determination of Water Penetration of Installed Exterior Windows, Skylights, Doors, and Curtain Walls, by Uniform or Cyclic Static Air Pressure Difference

5.5.1.10(1)b.1 Cyclic air pressure method to be used.

5.5.1.10(1)b.2 Allow for a minimum of two tests per building elevation, and a minimum of one test per each unique glazing product or configuration.

5.5.1.10(1)b.3 Test pressure to be determined by Design-Builder based on building location and standards AAMA/WDMA/CSA 101/I.S. 2/A440-11 (NAFS-11) and CSA A440S1-17 Canadian Supplement to NAFS-11.

5.5.1.10(1)c. ASTM D8231 - Standard Practice for the Use of a Low Voltage Electronic Scanning System for Detecting and Locating Breaches in Roofing and Waterproofing Membranes OR ASTM D7877 - Standard Guide for Electronic Methods for Detecting and Locating Leaks in Waterproof Membranes

5.5.1.10(1)c.1 At 50% of each contained section of horizontal roof or deck assembly above occupied or interior spaces prior to installation of over-burden.

5.5.1.10(2) Conduct the following additional diagnostic field testing as required at the Architect, BES, BECxA and Design-Builder's discretion.

5.5.1.10(2)a. ASTM E1186 - Practices for Air Leakage Site Detection in Building Envelopes and Air Barrier Systems

5.5.1.10(2)b. AAMA 501.2 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls, and Sloped Glazing Systems

5.5.1.10(3) Conduct additional field or lab testing as required at the Architect, BEP, BECxA and Design-Builder's discretion to verify performance of materials, components, assemblies, systems and design to achieve the objectives and requirements of the Authority.

5.6 Interior Environment

5.6.1 Ergonomic Design

5.6.1.1 The Design-Builder will provide:

5.6.1.1(1) detailed design features, which expressly facilitate the physical activities of the Staff and Patients to increase their safety, efficiency and general well-being, and assist in eliminating ergonomic risk factors;

5.6.1.1(2) for all Inpatient care rooms (including washrooms) to accommodate lifting and transfer devices;

5.6.1.1(3) ergonomic design of all workspaces including millwork, furniture, lighting, and finishes to eliminate strain and injury to health care workers;

5.6.1.1(3)a. Microwaves for non-patient may be placed on upper millwork cabinet shelves.

5.6.1.1(3)b. Microwaves used by patients are to be placed on lower countertops or in lower millwork cabinet recessed compartments.

5.6.1.1(4) adjustable work surfaces and shelves to allow for flexibility of use in nursing stations.

5.6.2 Colour

5.6.2.1 The Design-Builder will:

5.6.2.1(1) provide departmental colour palettes appropriate for the emotional and psychological needs of Patients;

5.6.2.1(2) provide colour palettes that contribute to the creation of a healing environment;

5.6.2.1(3) provide distribution of ambient full-spectral colour within typical Staff and Patient environments, except for wall colours which will be governed by the colour provisions of 6.9.2.7 Painting and Protective Coatings;

5.6.2.1(4) avoid glare-creating finishes; and

5.6.2.1(5) Handrails, doors, and frames will have a contrasting colour from walls in consideration of the visually impaired.

5.6.3 Art Works

5.6.3.1 The Authority intends to procure various art works for display within the Building. The Design should allow for the display of artwork as follows:

5.6.3.1(1) in the interior allow for wall surfaces to display art;

5.6.3.1(2) in the exterior allow for sculpture to be placed at grade;

5.6.3.1(3) provide specific corridors and display spaces for art for approval by the Authority.

5.6.3.2 The Design-Builder will

5.6.3.2(1) Design the Facility to support the Authority's art program by providing and identifying for the Authority effective and appropriate locations for major and minor art works throughout the Facility;

5.6.3.2(2) coordinate the procurement and delivery (including timing of delivery), of art works with the Authority and install all art works procured by the Authority;

5.6.3.2(3) provide lighting to enhance the display of all art works; and

5.6.3.2(4) provide all necessary structural support, seismic restraint, vandal- proof mounting and other protective measures required for particular artworks.

5.6.4 Interior Signage and Wayfinding

5.6.4.1 The Design-Builder will:

5.6.4.1(1) provide a simple configuration of the Facility circulation systems and functions so that wayfinding is inherently easy;

5.6.4.1(2) locate major destinations, such as department entrances, directly off entry spaces and/or along primary circulation paths for easy access, make waiting areas as open as possible to circulation routes without requiring wayfinders to pass through waiting areas;

5.6.4.1(3) provide significant recognizable, easily named and identified elements in key and easily found locations that can become 'meeting points' for Patients and visitors;

5.6.4.1(4) design public elevator and stair lobbies and public circulation routes to be distinct from service routes and other non-public routes; and

5.6.4.1(5) orient all building plan directories to reflect the direction from which they are viewed.

5.6.4.2 The Design-Builder will provide all signage required for the Facility in accordance with the following:

5.6.4.2(1) Design signage in consultation with the Authority such that the materials, colours, letter fonts, sizes, and other aesthetic and functional considerations, such as Braille, conform to the overall wayfinding design system and are coordinated and consistent with those used by the Authority in other facilities. Materials for signs include aluminum, acrylic, vinyl, and stainless steel materials;

5.6.4.2(2) Signage will be highly visible (day and night), clear, concise, and well- differentiated from surrounding information, notices, advertising.

5.6.4.2(3) Signage will be resistant to graffiti and physical damage;

5.6.4.2(4) Use international symbols where and as applicable;

5.6.4.2(5) Provide signage that directs visitors to all Patient destinations and all other departments and rooms within. Prioritize Patient destinations over non-patient destinations;

5.6.4.2(6) Orient all important signs, including all Patient destination signs, to be perpendicular to the line of Patient travel on approach; and

5.6.4.2(7) Avoid multi-layered naming hierarchies and complex numbering systems.

5.6.4.3 The Design-Builder will provide the following interior signage at the Facility:

5.6.4.3(1) building directories at all entrances, major corridor junctions and at elevator lobbies. They should include a Site plan highlighting the Buildings as well as floor level listings of departments;

5.6.4.3(2) an electronic kiosk signage system in lobby of the Facility;

5.6.4.3(3) elevator floor directories at all elevator lobbies. They should include floor level listing of departments;

5.6.4.3(4) room signage for all rooms. Room signage is to be of several types distinguishing room functions. Administrative space signage requires a pocket to insert specific information such as name of occupant. Room signage for utility rooms should be designed to be less evident than general room signage. Blade signs may be used to identify vending areas and waiting areas;

5.6.4.3(5) small door tags for all door frames;

5.6.4.3(6) patient room signage and Patient care department directories. Signs should incorporate art imagery, such as local scenery, to designate different departments and Patient rooms;

5.6.4.3(7) overhead directional signage, which must either be suspended from a ceiling or bulkhead or be mounted directly over doors. No directional signage will be incorporated into flooring; and

5.6.4.3(8) feature signs and information panels at various locations throughout the hospital (for example signs to locate information desk).

5.6.4.4 Design internal directional signs to include:

5.6.4.4(1) a main directory, installed at or near the main public entrance to the Building that indicates the Building in relation to the overall Site and the location of every area and department within the Building that is accessible to the public;

5.6.4.4(2) a continuous 'trail' of signage from the entrances to each of the reception/information points listed on the directories;

5.6.4.4(3) installation of signage at each point at which a directional decision is required;

5.6.4.4(4) consistent terminology;

5.6.4.4(5) door signage to identify every space (e.g. rooms, alcoves, corridors and stairwells) in the Facility. Door signage will:

5.6.4.4(5)a. be developed in consultation with the Authority;

5.6.4.4(5)b. be in a consistent location for every space in the Facility;

5.6.4.4(5)c. indicate restrictions on entry and warn of hazards, including "Laser in use" and "Radiology in use" signage; and

5.6.4.4(5)d. not be obscured by the emergency systems and code blue system call.

5.6.4.5 Provide a room numbering system that is consistent with the following protocol:

5.6.4.5(1) Each room and any space with walls and a door require a unique identifier number. In addition, any space such as a Patient cubicle, alcove or recess of significant size must be numbered as a room. This identifies spaces for labelling of fire alarm, electrical and data outlets and for ongoing maintenance purposes;

5.6.4.5(2) Rooms are numbered in a manner that reflects normal movement through the Building;

5.6.4.5(3) Labelling anticipates a person attempting to follow numbering along corridors in sequence;

5.6.4.5(4) Blocks of numbers are periodically skipped to allow for future expansion of the numbering system if rooms are added through renovations;

5.6.4.5(5) Each room and space require a unique number for service reasons. It is important that room numbers be determined early in design and maintained following occupancy. Follow the same numbering system on design and construction documentation for all disciplines (architectural, mechanical, electrical);

5.6.4.5(6) Building identification letters are first. Use “DC” for Dawson Creek and District Hospital;

5.6.4.5(7) The Building identification letters are followed by three or four digits, beginning with the first digit: 0 for basement rooms, 1 for ground floor, 2 for second floor on up the Building floors. Four digits may be required in a large Building due to the number of rooms on the floor, and if this is the case, the four digits should extend to all floors;

5.6.4.5(8) The second digit identifies the department. The third and / or fourth digit identifies the room;

5.6.4.5(9) If a room is only accessed from within another room, for example a large closet, the closet room number should be the room number in which it is located followed by a small letter a, b, c depending on the number of additional rooms that exist within the room;

5.6.4.5(10) Stair numbering should follow the sequence: Building name first, then 1, 2, 3, 4 depending on the number of stairs (for example DC1, DC2, and DC3);

5.6.4.5(11) Corridor numbering should follow the sequence: Building name first, then two numbers. The first number identifies the floor, the second number identifies the corridor. For example, DC02, DC12;

5.6.4.5(12) Elevators should follow the sequence: Elevator 1, Elevator 2 and Elevator 3; and

5.6.4.5(13) See Section 4.2.5 for exterior signage and wayfinding.

5.6.5 Donor Recognition

5.6.5.1 The design of the Building will include potential locations for existing and future donor recognition features, in line with the requirements outlined in Section 5.6.3.

5.6.5.2 The Design-Builder will be responsible for relocating a few existing donor recognition features selected by the Authority and installing them in the new Facility. Assume the Existing Hospital’s large circular woven carpet near the entranceway will be transferred, along with a couple other smaller items to be determined by the Authority.

5.7 Secured Outdoor Areas

5.7.1 Refer to Appendix 1A Clinical Specifications, section 1A.0.2. 4(1) - Required Exterior Spaces.

5.7.2 Courtyard Design Principles

5.7.2.1 Courtyard area shading and accessibility requirements will be as identified in Section 1A.0 of the Clinical Specifications (Appendix 1A).

5.7.2.2 Courtyard will be designed to be low maintenance.

5.7.2.3 Building materials around Courtyard should reflect light into the courtyard without causing glare.

5.7.2.4 Courtyard drainage will avoid ponding and flooding by rain and snow melt.

5.7.2.5 Courtyard will be wheelchair accessible and will have prescribed minimum areas of pathways and/or patio.

5.8 Structural Design

5.8.1 Structural Design Principles

5.8.1.1 The structural design of the Facility will be to Post Disaster standards. Related Importance Factors will be applied.

5.8.1.2 The Design-Builder structural engineer of record will be a Professional Engineer and a Designated Structural Engineer (Struct. Eng.) with Engineers and Geoscientists BC licensed to practice in the Province of British Columbia with demonstrated experience in undertaking the structural design of buildings similar in size, type and complexity to the building.

5.8.1.3 Prior to starting Construction, the Design-Builder's structural engineer of record will have a qualified second Professional Engineer licensed in the Province of British Columbia, not involved in the preparation of the structural design, perform an independent review of the structural design in accordance with the Quality Management Guidelines: Documented Independent Review of Structural Designs by Engineers and Geoscientists BC.

5.8.1.4 Refer to Appendix 1C(l) Control of Vibration and Noise During Construction for requirements regarding vibration from Construction activities.

5.8.1.5 The Design-Builder's structural engineer of record and geotechnical engineer will perform field reviews of the construction at sufficient frequency and review the reports of the applicable inspection and testing agencies to verify that the Building structure has been built in substantial conformance to the approved issued for construction structural drawings and any authorized amendments thereto in accordance with Quality Management Guidelines: Documented Field Review During Implementation or Construction by Engineers and Geoscientists BC.

5.8.2 Site Preparation and Substructures

5.8.2.1 Carry out the Construction so that Construction-caused settlement of the Existing Hospital and other structures if relevant does not exceed 6 mm at any location.

5.8.2.2 The slab-on-grade and foundation system will be designed so that the long-term displacement under serviceability loading conditions will not exceed 25 mm. Similarly, differential displacements will not exceed 19 mm over a span of 9 m including seasonal effects.

5.8.2.3 Building foundation systems will provide adequate support to the superstructure while limiting overall and differential displacement to acceptable amounts for the building structure and serviceability over the service life of the structure.

5.8.2.4 All below grade components will be designed with the proper heated and unheated frost protection to recommendations by the Design-Builder's geotechnical engineer.

5.8.2.5 Any possible differential displacements on floor slabs will not adversely affect the effectiveness of floor drains.

5.8.3 Structural Systems

5.8.3.1 The structural system(s) for the Facility will be selected to provide performance for flexibility or change, durability, vibration resistance, fire rating, acoustic separation, ceiling space available for services, and overall building height appropriate to the functional space. The Facility will be of concrete and/or steel construction.

5.8.3.2 Vertical lateral-force-resisting elements will be strategically placed at locations that encompass stair wells and elevator shafts. Vertical lateral-force-resisting elements within interior spaces will not be permitted to provide flexibility for future changes.

5.8.3.3 The Facility roofs may be structural steel or concrete slab construction. Structural steel roofs can be part of the Building design and massing strategy to reduce settlements of the Facility or adjacent buildings. Open-web steel joists will be permitted for roof framing only.

5.8.3.4 Post-tensioned or precast concrete structural systems will not be accepted.

5.8.3.4(1) Precast concrete stairs are not considered structural.

5.8.3.5 The design and construction of the structure and its structural members will have sufficient structural capacity, integrity and serviceability to safely resist all loads and effects of loads (including thermal) that may reasonably be expected over the service life of the structure including any possible foundation movements.

5.8.4 Design Loads

5.8.4.1 Performance criteria

5.8.4.1(1) Use the following minimum floor design specified live loads except where the specific use and occupancy of a space requires a higher live load:

5.8.4.1(1)a. Basement and main (ground) floor: 4.8 kPa (100 psf);

5.8.4.1(1)b. Upper floors: 4.8 kPa (100 psf);

5.8.4.1(1)c. Mechanical/electrical service rooms: 6.0 kPa (125 psf);

5.8.4.1(1)d. Loading bay and Ambulance Bay: 12 kPa (250 psf); and

5.8.4.1(1)e. Medical records storage or compact mobile shelving: 12 kPa (250 psf).

5.8.4.1(2) Design all suspended floors to accommodate concentrated loads from equipment, fixtures, and machinery, whether floor, wall, or ceiling-mounted, including medical equipment and Patient lifting devices.

5.8.4.1(3) Design floors for a minimum superimposed specified dead load allowance of 1.0 kPa to allow for partitions, and 0.5 kPa to allow for ceiling and mechanical equipment (other than medical equipment).

5.8.4.1(4) Design roofs for a minimum net uplift wind loads and for the minimum snow and rain loads, including snow drift loads, required by the BCBC and referenced standards. Notwithstanding other requirements, roofs will be designed to accommodate concentrated loads from equipment, machinery and features, whether roof or ceiling-mounted, including medical equipment and Patient lifting devices.

5.8.4.1(5) Design roofs for the superimposed specified dead load of roofing materials, ceilings, mechanical equipment, but not less than 1.5 kPa (30 psf).

5.8.4.1(6) Design floors and roofs above mechanical and electrical service rooms for a superimposed suspended equipment specified dead load of 2.0 kPa (40 psf) in addition to the minimum dead load allowances specified above.

5.8.4.1(7) The Design-Builder will perform surveys at the following times, and provide all survey results to the Authority as work progresses:

5.8.4.1(7)a. Top of formwork prior to pour;

5.8.4.1(7)b. Top of slab immediately following finishing of the slab;

5.8.4.1(7)c. Immediately following the initial release of the shoring under the slab prior to re-shore; and

5.8.4.1(7)d. Further survey using the same survey points 3 months following the removal of shoring for the slab.

5.8.4.1(8) No in-floor conduits or ducts are permitted in suspended concrete floor systems.

5.8.4.1(9) Structure will accommodate Bariatric Patient lift design load at any designated Patient lift location in addition to all other indicated design loads without upgrades, regardless of whether Bariatric or standard Patient lifts are installed.

5.8.5 Flexibility for Future Change

5.8.5.1 Design the floor structure to be able to accommodate one 130 mm diameter cored hole per structural bay at almost any location in the floor plate and the design for the concrete floors will assume at least one reinforcing bar in each direction at each core location is cut.

5.8.5.2 Design the floor structure with a minimum of one 150 mm diameter knock-out opening on two sides of each column for future use. The future use knock-out openings will be in addition to any openings required for current services; additionally the floor structure will be capable of having a minimum of six additional core holes (100 mm diameter) per bay without additional reinforcing.

5.8.5.3 See Section 3.11.2 for additional flexibility requirements.

5.8.6 Coordination

5.8.6.1 Coordinate all structural members with architectural finishes to have adequate thickness, cover and reinforcing to satisfy fire protection and durability requirements.

5.8.6.2 Coordinate all structural members with other disciplines to avoid utility interferences and to ensure adequate headroom and clearances requirements.

5.8.6.3 Coordinate structure with equipment requirements for slab depressions and cast-in hardware. Provide adequate depth of slab depressions to avoid the need for ramps.

5.8.7 Deflection Limitations

5.8.7.1 Design the structure to meet the deflection limits of the BCBC, and in accordance with the applicable materials design standards listed in Section 2.7.1 as a minimum and as appropriate for the non-structural components of the Facility. Notwithstanding the above, the deflection limit will not exceed the levels specified in this Section.

5.8.7.1(1) For concrete floor or roof construction, the maximum deflection occurring after the installation of non-structural elements, including long-term creep deflection and live or snow load deflection, will not exceed span/480 and total short and long-term deflection will not exceed span/360;

5.8.7.1(2) For steel floor construction, the maximum live load deflection will not exceed span/480 with the total load deflection not exceeding span/360. The total load deflection is to include effects of shrinkage of concrete topping slabs; and

5.8.7.1(3) For steel roof construction, the maximum live or snow load deflection will not exceed span/360 and the total load deflection will not exceed span/240.

5.8.7.1(4) Wind storey drift will not exceed height/500.

5.8.7.1(5) Seismic storey drift will not exceed height/100 for the Post-Disaster rated Facility.

5.8.7.2 In addition to the above design deflections limits, the structure will conform to specific deflection requirements for specialty equipment as recommended by the manufacturer of that equipment.

5.8.7.3 In addition to the above design deflections limits, the deformations of the structure under service loads will provide long-term compatibility with the architectural finishes and cladding system.

5.8.8 Vibration Limitations

5.8.8.1 Design the structural system to minimize the effects of floor vibration due to use, occupancy, and equipment. Vibration is to be limited to acceptable levels for the use and occupancy of the floors. Refer to Appendix 1C Acoustics and Noise Control Measures.

5.8.8.2 Performance Criteria

5.8.8.2(1) Select and design floor structural systems to have a vibration acceleration maximum limit of 0.5%g with a damping ratio of 0.02 when an excitation force of 0.29 kN is applied.

5.8.8.2(2) Machinery that could be a source of vibration is to be mounted using vibration isolation techniques.

5.8.8.2(3) In areas supporting sensitive equipment and occupancies, design the structure for the vibration limitations specified by the manufacturer of the specified equipment or required by the planned use and occupancy of the floor space and in-situ measurement verification of floor vibration characteristics is to be carried out where specified by the equipment manufacturer.

5.8.8.2(4) Consult with users about the locations of sensitive equipment and design the structure to support the equipment per the equipment specifications.

5.8.8.2(5) To verify compliance with the vibration requirements, an independent testing firm may be retained by the Authority for the purposes of ensuring that the Quality Management plan is robust and being followed. The testing firm will measure the vibration using instrumentation which may include transducers, accelerometers, signal-conditioning equipment, data recorders, and analysis systems. Measured vibration performance characteristics for the structure must meet the requirements set out in these specifications. The following table indicates acceptable vibration levels for various typical medical and non-medical Facility spaces.

Occupancy or Equipment Requirements	Vibrational Velocity (1) µm/s
Mechanical rooms on an unoccupied floor above or below an occupied floor	1,000
Office areas, waiting rooms and corridors	200
Mechanical rooms on the same floor as an occupied area	300
Computer areas; Patient care areas (daytime) – threshold of human perception	200
Patient rooms and other sleep areas	140
Operating Room and critical work areas; bench microscopes up to 100 x magnification	100
Bench microscopes up to 400 x magnification; optical and other precision balances; optical comparators	50
Microsurgery, eye surgery; Bench microscopes at magnification greater than 400x; optical equipment on isolation tables	25
Magnetic resonance imagers	12
Mass spectrometers	6

(1) Value of constant velocity regions measured in one-third octave bands of frequency range 8 to 100 Hz. Based on ASHRAE, AISC and ISO Criteria. Vibration velocity at 4 Hz is to be limited to 2 times the allowable vibration at 8 Hz. Vibration level depends on walker weight and gait. Appropriate footfall conditions must be applied for the space type under consideration.

5.8.9 Durability

5.8.9.1 Design the structure and structural components of the Facility, including the secondary structure supporting cladding systems, for a minimum 50-year life span in accordance with CSA S478 Guideline on Durability in Buildings.

5.8.9.2 Design the structure and structural components of the Facility to minimize the effects of corrosion and deterioration due to the environment and use in accordance with the following:

5.8.9.2(1) adequate concrete crack control joints and expansion / contraction joints. Caulk exposed joints;

5.8.9.2(2) reinforce concrete for crack control and repair exposed cracks.

5.8.9.2(3) concrete mixes proportioned to CSA A23.1/A23.2 durability requirements for the appropriate exposure class, including sulphate and chloride protection;

5.8.9.2(4) concrete mixes and covers to CSA-S413 for floors subjected to vehicle traffic;

5.8.9.2(5) hot-dip galvanize or powder-coat exterior exposed steel, including masonry shelf angles and exterior lintels; and

5.8.9.2(6) hot dip galvanize embedded steel protection angles and skid plates for loading docks and garbage compactors.

5.8.10 Medical equipment supports

5.8.10.1 Design and provide for support/anchorage of all supplied equipment. Medical equipment will be supported, anchored, and braced to resist gravity, operational, and seismic loads in a manner appropriate for the functional and service requirements for the specific equipment.

5.8.10.2 The design for medical equipment supports, anchorage, and bracing will be carried out by a qualified professional engineer registered in the Province of British Columbia. Installations will be field reviewed by the design engineer.

5.8.10.3 Performance criteria

5.8.10.3(1) Design floor and roof assemblies to support the gravity and seismic loads for floor, wall, or ceiling-mounted medical equipment. Ensure that steel content of structural members is compatible with equipment which is sensitive to steel content of the surrounding structure.

5.8.10.3(2) Design the structure for the vibration limitations specified by the manufacturer of the specified equipment or required by the planned use and occupancy of the floor space and carry out in-situ vibration testing when specified by the equipment manufacturer.

5.8.10.3(3) Design the supports for ceiling-mounted equipment, such as radiology gantries, to be universal so that the supports may be used for various types of equipment.

5.8.10.3(4) Drilled insert-type anchors for medical equipment supports and anchorage are to be rated by the insert manufacturer for seismic and cyclic loading applications.

5.9 Commercial Opportunity

Section not used.

5.10 Mechanical Requirements

5.10.1 The Design-Builder will provide Heating Ventilation, Air Conditioning (HVAC), Plumbing, Fire Protection, Specialty and Medical Gas Systems that:

5.10.1.1 Are designed to provide reliability of uninterrupted continual operation. The Facility will be a Class A-1 Health Care Facility (HCF) as defined by CSA Z317.2. Redundancy will be provided in accordance with CSA Z317.2.

5.10.1.2 Are designed to provide a healing, comfortable and productive environment for the users of the Facility.

5.10.1.3 Are designed to meet the required environmental conditions for all equipment and meet the requirements set out in the Agreement.

5.10.1.4 Are located and designed to meet the requirements set out in this Schedule (Schedule 1) related to Acoustics and Noise Control Measures from outdoor spaces/places of respite intended for occupant use; and from adjacent properties surrounding the Site; In addition, systems will comply with acoustical requirements of referenced guidelines, Codes or Standards and all acoustical requirements.

5.10.1.5 Are located and designed to be sound attenuated from outdoor spaces/places of respite for Patient/staff use and from adjacent residential properties surrounding the Site.

5.10.1.6 Are designed so that the systems will be vibration isolated to minimize noise and vibration through the structure and other components of the Facility.

5.10.1.7 Are developed to provide reliability of continual operation and resiliency including adequate standby capacity and redundancy included in system design.

5.10.2 Additional Requirements

5.10.2.1 Major hydronic and domestic system equipment such as boilers, chillers and hot water tanks will be placed such that future replacement can be accommodated, at grade level or below. These items will not be located above occupied space. Other water based systems including cooling towers, heat exchangers, distribution piping, pumps and air-handling units may be located above occupied spaces.

5.10.2.2 Systems will be energy efficient in order to minimize impact on the natural and physical environment. The design will consider energy efficiency, optimization of resource use, and simplification of the systems.

5.10.2.3 Incorporate flexibility and adaptability for future changes without major disruption or alteration to the Facility operations or infrastructure.

5.10.2.4 For rooms that will incorporate a differential pressure monitor and/or rooms that require a specific differential pressure as required by this agreement and applicable standards, the Design-Builder will construct the rooms to be airtight. Construction features for Divisions 21, 22, 23 and 25 include gasketed sprinkler escutcheons and gaskets around diffusers, grilles, and radiant panels (where applicable). Provide seals around medical gas outlets, headwalls, valve boxes, extinguisher cabinets, sensor junction boxes, fixture drains and water supplies and other components that are recessed within walls that form part of the air seal. Seal ends of controls conduits that terminate within pressurized rooms. Refer to other Sections for sealing required by other Divisions.

5.10.2.5 All pipes, ducts and fittings will be insulated, where required by the BC Building Code and ASHRAE 90.1, to conserve energy, prevent condensation, attenuate noise, and prevent accidental burns. All insulation will have coverings applied that are appropriate for the location and service involved.

5.10.2.6 Coordinate all mechanical systems with requirements of equipment supplied by the Authority, and provide all necessary connections required from mechanical systems to allow for a fully functioning system that meets the applicable codes, standards and equipment manufacturer's requirements.

5.10.2.7 Make allowances within the mechanical systems' designs so all equipment can be removed or replaced without disrupting the operation of other equipment connected to the mechanical systems. Valved connection points will be provided to connect future equipment to the associated systems.

5.10.2.8 Review Appendix 1 Equipment lists (i.e. Appendices 1B, 1H, etc.) to ensure that all equipment, rough in for equipment and support systems have been accounted for and provided. The Design-Builder will include for procurement, design integration, storage, delivery to site, setting in place, making mechanical service connections, providing mechanical service connections for future equipment, installation, commissioning.

5.10.2.9 Refer to Appendix 1 Equipment lists (i.e. Appendices 1B, 1H, etc.) to ensure that all equipment, rough-in of equipment and support systems have been accounted for and provided. All equipment noted as future equipment which require plumbing or mechanical services are to be roughed in by Design-Builder.

5.10.3 Mechanical Clearances

5.10.3.1 Systems will be configured and located to provide sufficient clearance around equipment and components for servicing and replacement, in accordance with manufactures requirements and good engineering practice.

5.10.3.2 Systems will be configured and located in such a way to minimize disruption to clinical areas for the performance of maintenance and repairs.

5.10.3.3 Systems will be configured and located such that all components which require maintenance are positioned to be accessible from standing or when using maximum ladder heights as required by Occupational Health and Safety (OHS) Regulation Part 13: Ladders, Scaffolds and Temporary Work Platforms.

5.10.3.4 If routine maintenance work on the mechanical equipment and systems cannot be done from a ladder without hazard to a worker a work platform will be provided as would be required by the OHS Regulation. The Design-Build contractor will provide access by means of a fixed access system including, but not limited to, moving gantry or overhead catwalks. For additional information please refer to WorkSafe BC website guidelines: https://www.worksafebc.com/en/law-policy/occupational-health-safety/searchable-ohs-regulation/ohs-regulation.

5.10.3.5 Comply with manufacturers service clearance requirements.

5.10.3.6 Allow adequate floor space clearance, to allow for working without hazard, at all locations where maintenance will be performed;

5.10.3.7 Systems will be configured and located such that all components which require maintenance in locations with fixed ceiling systems and access panels are positioned to be accessible with the use of mobile containment cubes for abatement.

5.10.3.8 Pathways for service personnel and maintenance carts, equipment removal and replacement sized to accommodate the largest piece of equipment designated will be moved along this pathway with a clear space not less than designed corridor width and height;

5.10.4 Air Handling Equipment

5.10.4.1 Air handling units must be placed within an enclosed mechanical room or penthouse.

5.10.4.2 Built-up air handling units will be constructed so that each individual component is removable/replaceable.

5.10.4.3 Air handling equipment will be capable of meeting the anticipated ventilation, heating and cooling requirements plus 20% spare capacity.

5.10.4.4 Air handling units will be provided with Energy Recovery devices that transfer heat and moisture between the exhaust air and the outdoor air. These heat recovery devices will have a minimum efficiency of 75%.

5.10.5 System Capacities

5.10.5.1 All systems will be designed and sized to suit the consumption and discharge needs of the Facility at peak operational requirements, including 20% additional capacity with the ability to further increase the flow or capacity. In addition to the 20% sizing requirement:

5.10.5.1(1) All air handling equipment, including supply, exhaust and return fans, will be sized with the capacity to deliver 7.5% additional airflow through installed distribution systems, without changing motors. The system will be capable of delivering 20% additional capacity through existing distribution systems by changing motors; and

5.10.5.1(2) All pumps will be sized for additional capacity to deliver 7.5% additional flow through installed distribution systems without changing motors. Pumps will be sized and with the capability to deliver 20% additional capacity through existing distribution systems by changing motors.

5.10.5.2 Size the following to meet the requirements of current demand, to the greater requirement, plus 20%, of CSA Z317.2 air change rates, the peak heating demand or the peak cooling demand for each space: Branch Piping, Branch Ducting, VAV box reheat coils etc.

5.10.5.3 Design piping, ductwork, heating/cooling/heat recovery coils, control valves, air filters, and louvres to meet the following minimum parameters, while accounting for the spare capacities as noted above:

5.10.5.3(1) Hydronic pressure drop – maximum piping friction loss: 4 m/100 m;

5.10.5.3(2) Hydronic velocity – maximum velocity based on pipe manufacturer's recommendations;

5.10.5.3(3) Supply and return ductwork will be sized within the ASHRAE Fundamentals upper and lower limits for duct air velocities and pressure drop. Duct velocity will be limited to achieve an acoustical design criterion of RC(N) 35 or better.

5.10.5.3(4) Heating/ cooling/heat recovery coil face velocity – maximum velocity 2.0 m/s;

5.10.5.3(5) Control valve and hydronic coil pressure drop – maximum 21 kPa each;

5.10.5.3(6) Air filter face velocity – maximum velocity 2.0 m/s; and

5.10.5.3(7) Ventilation system air intake louvre free area face velocity – maximum velocity 2.5 m/s

5.10.5.3(8) In addition, to the above minimum requirements, provide Low Static Pressure Ductwork. Increase all duct sizes by 30% to reduce the pressure drop to 1,120 Pa. Please note that the 30% increase size is based on dropping the duct pressure drop from 1,500 Pa to 1,120 Pa.

5.10.5.4 Future Capacity Requirements

5.10.5.4(1) The Design-Builder will evaluate the anticipated future heating, cooling and ventilation requirements for the years 2050 and 2080, compared to the 20% additional capacity requirements.

5.10.5.4(2) Provide dampered, and capped, duct connections at duct headers and valved, and capped, pipe connections at pipe headers.

5.10.6 Mechanical services within Communication, IT, Electrical and UPS rooms

5.10.6.1 Will be limited to minor intrusions to allow mechanical cooling and ventilation, with the exception for equipment required for specific cooling for both the MCCR and BCCR Communication rooms. Refer to Divisions 26 and 27 for further details.

5.10.6.2 All mechanical services installed within Electrical and UPS rooms must maintain a minimum clear height of 3000 mm above finished floor.

5.10.6.3 Equipment requiring a water connection will not be installed in the ceiling of the Communication, Electrical or UPS rooms, with the exception for equipment required for specific cooling for both the MCCR and BCCR Communication rooms. No water piping to be installed over the server racks. A manufactured condensate pan or barrier will be built around the HVAC system to ensure that condensate does not leak to other areas of the MCCR and BCCR. Within the pan or barrier, a set of contacts will be installed, which sets off an alarm notifying Staff that condensate is not properly draining.

5.10.6.4 Plumbing distribution, drainage piping, storm piping and hydronic distribution piping will not be routed in the ceiling of the above Communication, Electrical or UPS rooms, with the exception for equipment required for specific cooling for both the MCCR and BCCR Communication rooms. No piping to be installed over the server racks. A manufactured condensate pan or barrier will be built around the HVAC system to ensure that condensate does not leak to other areas of the MCCR and BCCR. Within the pan or barrier, a set of contacts will be installed, which sets off an alarm notifying Staff that condensate is not properly draining.

5.10.7 Coordinate with the electrical and communications specification for all mechanical systems that must maintain operation during an expected or unexpected shut down of the Facility's main electrical service. UPS power provided to mechanical equipment will not be provided from the UPS dedicated for low voltage and Communications Systems. Where mechanical equipment and devices are required to be served by emergency power, provide UPS, vital, delayed vital, or conditional power.

5.10.8 Specialty Mechanical Systems

5.10.8.1 Specialty areas will be designed in accordance with Industry Accreditation Standards for these specialty areas. The redundancy requirements of these Standards may be greater than the requirements of CSA and those requirements will apply.

5.10.8.2 Provide specialty mechanical systems as required by the Authority to meet the functional requirements described in Appendix 1A Clinical Specifications.

5.10.9 General Equipment Requirements:

5.10.9.1 Provide Premium Efficiency Motors for all mechanical equipment.

5.10.9.2 For fan motors, in addition to the requirement to provide Premium Efficiency Motors, all fan motors are to have an efficiency over 90%.

5.10.9.3 Where motors are controlled by VFD, provide motors with shaft grounding rings wired to the VFD. VFD installations for motors 5 HP and over will incorporate harmonic filters, line and load reactors. Each VFD will control only a single motor.

5.10.9.4 Equipment, pipes, ducts and fittings will be insulated to conserve energy, prevent condensation, attenuate noise and prevent accidental burns. All services requiring insulation that are exposed exterior of the Facility are to be covered and painted as per exposed services requirements. All services in the central plant will be painted or finished as required for exposed services.

5.10.9.5 Equipment, pipes and ducts will be clearly labelled.

5.10.9.6 Coordinate all mechanical systems with requirements of all equipment, and provide all connections required from mechanical systems. Provide dielectric isolation between pipes of dissimilar metals.

5.10.9.7 Manual valves larger than 150mm [6"] will be gear operated type.

5.10.9.8 Jinan Meide products, including products that may be rebranded under a different supplier name such as MA Stewart (MAS) or Viking, will not be used by the Design-Builder without approval from NH.

5.10.10 Central Plant Requirements

5.10.10.1 Provide the hospital with its own standalone heating / cooling / energy recovery plant.

5.10.10.2 The central plant will be sized to serve the Facility with heating hot water, chilled water, and steam for humidification and sterilization. Standalone units for steam humidification and sterilization will be acceptable in lieu of a central steam plant. The plant will be rated as a 5th Class Risk Assessed Plant and comply with the TSBC Power Engineers and Boiler and Pressure Vessel Safety Act.

5.10.10.3 Hot water heating and chilled water cooling plants will be designed based on meeting the required plant capacity and equipment redundancy requirements per the referenced standards.

5.10.10.4 The central plant and all systems/equipment installed in the Facility will not require a first, second, third, or fourth class plant operator, as defined in the BC Safety Standards Act: Power Engineers, Boiler, Pressure Vessel and Refrigeration Safety Regulation.

5.10.10.5 Each fuel storage system will be complete with a fuel polishing system to ensure the stored fuel remains clean and available for its intended use at anytime.

5.10.10.6 The central plant design will accommodate seasonal part load demands to avoid frequent cycling of equipment or forced shutdown of equipment due to light loads.

5.10.11 Post-Disaster Design

5.10.11.1 The mechanical systems will be designed as a Post Disaster Building.

5.10.11.2 Design all mechanical piping, ductwork, equipment, and system seismic restraints in accordance with the requirements for post disaster buildings, as outlined in Section 5.

5.10.11.3 Equipment will have sufficient redundancy, structural integrity, and seismic restraint to assure the Facility remains operational after a disaster event.

5.10.11.4 The heating plant will have sufficient back-up fuel storage for a minimum period of 72 hours.

5.10.12 Emergency Power

5.10.12.1 The emergency generators will each have sufficient back-up fuel storage for a minimum period of 72 hours.

5.10.12.2 If the heating plant and generators use the same fuel, the supplies will be stored in separate tanks.

5.10.13 Plumbing Systems

5.10.13.1 Size water, sanitary, storm and gas utilities as required to suit the consumption and discharge need of the Facility occupancy, plus an additional 20% spare capacity to allow for future flexibility.

5.10.13.2 Systems will be designed to provide reliability of uninterrupted continual operation. The Facility will be a Class A-1 Health Care Facility (HCF) as defined by CSA Z317.2. Redundancy and temperature require for all fixtures will be provided in accordance with CSA Z317.1.

5.10.13.3 The domestic hot water and hot water recirculation systems will be designed per CSA Z317.1 including requirements and recommendation to prevent the growth of pathogens within the water systems.

5.10.13.4 Unless otherwise stated, all connections will be secure terminations (valved, capped and locked) to protect from tampering and vandalism.

5.10.13.5 All external connections will be located in service areas away from General Circulation routes, and where they can be readily accessible by the individual service vehicles.

5.10.13.6 The design for emergency services will take into account the size of the service vehicle and maintaining clear access for all emergency vehicles.

5.10.13.7 Emergency Plumbing Systems

5.10.13.7(1) Domestic Water Service: Provide a minimum 100 mm diameter Camlock connection on the exterior of the Building to allow for a potable water tanker truck to make connection to the Facility domestic water services.

5.10.13.7(2) The connection will be valved and capped and be provided in a locked secure non-corrosive cabinet near to where parking has been designated for the water tanker truck.

5.10.13.7(3) The domestic water inlet connection from the exterior will be connected to the domestic water entry station with valves and safety controls;

5.10.13.7(4) Sewerage: Provide the capability to store (72 hours) and remove sewage from the Building in the event of an emergency (e.g. a break in main sewage line). Provide a pump-out connection for a sewage pumper truck.

5.10.13.7(5) Not used.

5.10.14 Medical Gas Requirements

5.10.14.1 Medical gas air compressor, vacuum pump and AGSS vacuum pump systems will be designed to accommodate the needs of the Facility plus an additional 20% capacity.

5.10.14.2 Control panels for medical gas equipment will be sized to accommodate the present demand plus the additional 20% control and power requirements.

5.10.14.3 Medical gas compressors and vacuum pumps will be located in a designated room. Medical gas cylinders will be stored in designated areas near the loading dock, with a direct connection to the outdoors.

5.10.14.4 The medical gas systems will be capable of maintaining a sufficient supply of all medical gases to provide the requirements of the Building's Post Disaster Operational Areas for a minimum period of 72 hours.

5.10.14.5 A bulk oxygen tank will be supplied by the oxygen supplier/vendor. The Design-Builder will be responsible for determining the requirements (sizing), planning with the vendor/supplier, and all costs associated with providing the infrastructure (including but not limited to the concrete pad for filling truck, enclosure around the bulk oxygen station, testing and commissioning etc.). The Authority will be responsible for the initial oxygen fill.

5.10.14.6 Emergency Medical Gas System

5.10.14.6(1) Provide medical gas connections on the exterior of the Facility for supplying oxygen, medical air, and medical vacuum into/out of the Facility from external bulk storage tanks, trucks or equipment.

5.10.14.6(2) The emergency gas connections will be mounted in a tamperproof and weatherproof lockable recessed wall mounted enclosure complete with valves regulator in an area accessible to supply vehicles but not in the vicinity of the exterior bulk medical gas storage.

5.10.14.6(3) The exterior of the enclosure door will be factory labelled to indicate emergency gas connections. The interior of the enclosure will be clearly labelled with instructions for the connection to and operation of the emergency gas connections.

5.10.14.6(4) The connection to the oxygen pipeline system will be downstream of the bulk oxygen supply system shut off valve inside the new Facility.

5.10.15 Decontamination Requirements

5.10.15.1 The Design-Builder will provide facilities to provide decontamination. The design will conform to the British Columbia Guideline for Decontamination of Patients (https://www2.gov.bc.ca/assets/gov/health/keeping-bc-healthy-safe/health-emergency-response/bc-guidelines-for-decontamination-of-patients.pdf – document is also listed in the Data Room). The decontamination room will provide mechanical services to support decontamination based on a "Limited Capacity Health Facility" as outlined in the BC Guideline for Decontamination of Patients.

5.10.15.2 The Design-Builder will provide decontamination facilities that provides the following:

5.10.15.2(1) Space for Facility Staff to activate the Decontamination Team and Support, receive, test and triage incoming contaminated Patients.

5.10.15.2(2) Space to provide basic life support.

5.10.15.2(3) Adequate space for privacy throughout the decontamination process.

5.10.15.2(4) Adequate space, water, decontamination water storage and equipment for Gross Decontamination.

5.10.15.2(5) Provide a shower assembly containing a trench drain system, handheld shower, and thermostatic mixing valve to suit gross decontamination. The shower area will have drainage that is serviceable, easy to clean, and ensures that water is contained within the room. All water from the room will be directed to a decontamination water storage tank.

5.10.15.2(6) Provide a recessed flip down emergency eyewash station complete with emergency fixture thermostatic mixing valves and drainage to the decontamination tank in the Personal Protective Equipment (PPE) area.

5.10.15.2(7) Provide a decontamination waste storage system with sufficient capacity to contain all flow from the decontamination area during a decontamination event based on A Limited Capacity Health Facility as outlined in the BC Guidelines for Decontamination of Patients.

5.10.15.2(8) Design the drain system as a separate sanitary system complete with P traps, trap primers, and plumbing vents so that noxious fumes cannot make their way into the building.

5.10.15.2(9) Piping from the decontamination shower in the Emergency Department will be drained to the hazardous materials storage tank. Hazardous waste sources in the Laboratory will be treated (acid neutralizer) and diluted with other sanitary waste. Both systems are to be drained via acid resistant piping.

5.10.15.2(10) The decontamination tank will have appropriate ULC listings and be equipped with inlet port(s), vent(s) and suction outlet port(s) to allow for pumper truck suction at a remote suction port external to the building.

5.10.15.2(11) The tank will have drain valves, and liquid level sensors that will initiate alarm conditions to a local alarm panel to the BMS at 50% full condition.

5.11 Electrical Systems Design

5.11.1 Design-Builder will comply with the following design principles for electrical, communications and security systems.

5.11.1.1 All electrical systems, materials and equipment will be of a type and quality intended for use in a health care facility. Configure electrical systems to meet requirements of the identified program and Patient care needs in an efficient manner, with optimal utilization of space, Staff and equipment resources.

5.11.1.2 Provide electrical systems that: allow the Authority to deliver the program described in Appendix 1A Clinical Specifications; and provide redundancy, protection, continuity of service, serviceability of equipment; and a comfortable and safe working environment for Patients, visitors, and Staff.

5.11.1.3 Implement the latest proven technologies in the design of the electrical systems and equipment.

5.11.1.4 Integrate systems where integration provides efficiency, operational and cost advantage.

5.11.1.5 All electrical, communication, security, medical and life safety systems will be fully compatible with existing Authority regional based systems. Provide all infrastructure, interfaces, modifications, programming, testing and commissioning to local and off-site systems to ensure that there is seamless integration with remote facilities.

5.11.1.6 Incorporate into the design and construction the principle that change will be a constant and inevitable fact within the Facility. Completed electrical systems will permit change while minimizing the cost of change and the amount of interruption to the regular Facility activities. Utilize a combination of natural light, luminaries and controls to optimize daylight.

5.11.1.7 Provide lighting schemes that support Staff activities and provide enhance safety for Staff, Patients and visitors.

5.11.1.8 Design lighting with the objective of creating a comfortable working environment and an environment conducive to healing and recovery.

5.11.1.9 Include systems and equipment coordinated to provide synergy and reliable electrical performance for the various Facility functions.

5.11.1.10 All electrical systems for the Mental Health Services will be tamper-proof, tamper resistant and be of a type and quality intended for use in a Mental Health care facility.

5.11.1.11 All systems for the Mental Health Services will adhere to all relevant Mental Health standards including but not limited to the CSA Psychological Health and Safety in the Workplace, and Design Guide for the Built Environment of Behavioral Health Facilities.

5.11.2 Provide devices and systems to minimize the noise and vibrations of electrical equipment/ components (transformers, luminaries, cables) to below an acceptable level as required in a health care facility.

5.11.2.1 Locate electrical rooms and power distribution equipment in order to minimize the distances for feeder runs, to provide easy access for equipment moves and to avoid interference with other services and equipment. Where electrical equipment is located below grade, provide adequate protection against the risk of flooding.

5.11.2.2 Install electrical systems and equipment in a fixed and permanent manner, seismically restrained to meet post-disaster building standards.

5.11.2.3 Locate electrical equipment and feeder routes to minimise the risk to service continuity resulting from fire, flood, adverse weather, seismic events, construction activities and vandalism.

5.11.2.4 Incorporate energy management systems to minimize demand pressures on the Building systems and minimize the anticipated increase to energy costs.

5.11.3 Design-Builder will comply with the following electrical design requirements for electrical systems.

5.11.3.1 Plan installation of equipment to facilitate easy access to equipment which may require inspection or maintenance.

5.11.3.2 Provide a complete essential electrical system which meets or exceeds all relevant standards.

5.11.3.3 Provide electrical distribution schemes which are sized and configured to achieve service continuity in the event of equipment failure. Failure of any electrical equipment or feeder will not impair Facility operation or leave any Patient treatment room or area of the Facility without at least one active light and one active receptacle.

5.11.3.4 Install electrical systems and equipment in a fixed and permanent manner, seismically restrained to meet post-disaster building.

5.11.3.5 The following equipment will be designed, certified and installed in accordance with all relevant standards:

5.11.3.5(1) emergency power generator;

5.11.3.5(2) automatic transfer switch;

5.11.3.5(3) UPS system;

5.11.3.5(4) main distribution boards;

5.11.3.5(5) utility transformers; and

5.11.3.5(6) distribution transformers 112.5kVA and larger.

5.11.3.6 Size and configure equipment to permit routine testing and servicing of power generation and distribution equipment with minimal loss of service continuity.

5.11.3.7 Coordinate the electrical and systems design with other disciplines to support the service continuity and redundancy requirements for mechanical and building systems.

5.11.3.8 Design and construct all systems with protection, grounding, isolation and control to address the functional requirements where they are located.

5.11.3.9 Power throughout the Building will comprise of a combination of 347/600V and 120/208V for all power, lighting and equipment loads.

5.12 Food Services

5.12.1 Refer to Section 6.11 Equipment (Division 11)

5.13 Laundry Services

5.13.1 Refer to Section 6.11 Equipment (Division 11)

PART 6 Facilities Construction Subgroup Specifications

6.1 Existing Conditions (Division 2)

6.1.1 Refer to DBA for information related to Site Report(s), discovery of archaeological items, existing environmental reports and other existing site conditions.

6.2 Concrete (Division 3)

6.2.1 Overriding Principles

6.2.1.1 Design and construct cast-in-place concrete of appropriate properties for the intended use in accordance with the requirements of all applicable standards and specifications, including CSA A23.3.

6.2.1.2 Design and construct architectural precast concrete of appropriate properties for the intended use in accordance with the requirements of all applicable standards and specifications, including CSA-A23.4 and the PCI Design Handbook, under direct supervision of a professional engineer registered in the Province of British Columbia. Post-tensioned or pre-cast structural components are not allowed in the Building.

6.2.1.3 Design for the applicable concrete exposure class and sulphate resistant performance.

6.2.1.4 Concrete mixes with supplementary cementitious material will have satisfactory concrete performance and be compatible with the applied finishes.

6.2.2 Quality Requirements

6.2.2.1 Concrete reinforcing work will comply with CSA A23.1 and Reinforcing Steel Institute of Canada (RSIC) – Reinforcing Steel Manual of Standard Practice.

6.2.2.2 Manufacturing of architectural precast concrete products will be from a production facility certified under the Canadian Precast Concrete Quality Assurance Certification Program (CPCQA) for the type of product being supplied in accordance with the requirements of CSA-A23.4, PCI Manual for Quality Control for Plants and Production of Precast and Prestressed Concrete Products – MNL-116, PCI Manual for Quality Control for Plants and Production of Architectural Precast Concrete Products – MNL-117.

6.2.2.3 Cast-in-place concrete materials, reinforcing and workmanship to be inspected and reviewed by Design-Builder and tested by a CSA certified testing agency in accordance with CSA-A23.1/A23.2.

6.2.2.4 Precast concrete materials and workmanship to be inspected and tested by the precast concrete contractor as part of its quality control program in accordance with CSA-A23.2.

6.2.3 Performance Criteria

6.2.3.1 Design and construct floors and roofs to comply with the deflection and vibration criteria outlined in Section 5.8 (Structural Design).

6.2.3.2 Finish concrete floors with a smooth, dense, steel trowel finish with a Class B floor flatness and levelness in accordance with CAN/CSA-A23.1, except where stricter requirements are needed to suit the proposed occupancy or equipment that will be located in the space. Overlay toppings to level floors will not be used except locations specifically designed to receive a topping such as MRI and CT equipment locations.

6.2.3.3 Repair cracks in concrete floors and walls to suit the floor finish and long-term serviceability requirements of the floor.

6.2.3.4 Waterproof all foundation walls for below-grade to prevent groundwater ingress. Construction joints will have purpose-made water stops. A perimeter draining system will be installed around the external sides of the building below the base of grade beam void forms or the base of footings.

6.2.3.5 All concrete exposed in areas used by Staff, Patients or public will be architectural concrete. Identify the proposed surface finishes intended for architectural concrete in each relevant Submittal.

6.2.3.5(1) The following locations may be excluded from this requirement:

6.2.3.5(1)a. fire stairs (i.e. stairs that are only used for fire egress);

6.2.3.5(1)b. basement main electrical and mechanical rooms;

6.2.3.5(1)c. areaways;

6.2.3.5(1)d. Loading Dock.

6.2.3.5(2) For generators retaining walls, refer to clause 8.4.8.1(3)(a) in this Schedule of Requirements.

6.2.3.6 Architectural concrete will comply with CAN/CSA A23.1/A23.2 to minimize honey combing or patching. Honeycombing and bug holes will be repaired immediately under the direction of the Structural Engineer.

6.2.3.7 Where no applied finish is required, concrete surfaces will be sealed to resist penetration and staining from food products, bodily fluids, cleaning compounds, etc. Apply and maintain sealers in accordance with manufacturer's recommendations.

6.2.3.8 Where floor drains are required, design and construct floors with minimum slope to drain of 2% to prevent ponding of water or other fluids.

6.2.3.9 Provide vapour barrier under slabs-on-grade in the form of continuous, cross-linked, minimum 10 mm polyethylene sheet.

6.2.3.10 See Section 6.4.2.4 for concrete topping on metal deck requirements.

6.3 Masonry (Division 4)

6.3.1 Basic Requirements

6.3.1.1 Masonry construction may be considered for exterior walls and walls systems where permanence of finishes, both visually and functionally, and ease of maintenance are primary considerations in the exterior fabric of the Facility.

6.3.1.2 Masonry construction may be considered for interior walls and wall systems when priorities include permanence and maintenance, sound transmission control, fire resistance and separation requirements and security.

6.3.1.3 Masonry wall assemblies will only be installed by installers who are members in good standing with CMCA. All installation will conform to technical requirement of CMCA, Canada Masonry Design Centre.

6.3.2 Concrete Masonry Units

6.3.2.1 Concrete unit masonry may be considered for both independent exterior walls and in exterior wall systems as a structural backing to other finish materials or systems.

6.3.2.2 Concrete unit masonry for interior applications may be considered as an integrally finished material, as a base for applied finish and as a structural backing to other finish systems.

6.3.2.3 Exposed or unpainted concrete unit masonry will not be used as an exposed finish in offices, clinical, Patient or public areas.

6.3.2.4 Where concrete unit masonry is used as the exposed finish, all exposed corners will have rounded or chamfered corners.

6.3.2.5 Masonry design and construction will comply with Canadian Masonry Contractors Association (CMCA) Masonry Practices Manual and all applicable standards including CSA-S304 and CSA-A371.

6.3.2.6 In special areas such as Mental Health /Psychiatry, construct the wall as required by British Columbia Ministry of Health Standards for Hospital-Based Psychiatric Emergency Services: Observation Units.

6.3.3 Brick Masonry

6.3.3.1 Exterior wall systems comprising brick masonry as a finish veneer to concrete, concrete masonry or metal framing will be a rain-screen or cavity wall system.

6.3.3.2 Brick masonry below grade for exterior applications is not permitted.

6.3.3.3 Brick masonry in interior applications is not permitted.

6.3.4 Stone Masonry

6.3.4.1 Stone masonry may be considered as a finish veneer to concrete walls or concrete masonry walls. Exterior wall systems in such applications will be a rain screen or cavity wall system.

6.3.4.2 Stone will be sound, hard and durable, well-seasoned and of uniform strength, colour and texture, and free of quarry sap, flaws, seams, sand holes, iron pyrites or other mineral or organic defects.

6.3.4.3 Manufactured stone products will not be used.

6.4 Metals (Division 5)

6.4.1 Basic Requirements

6.4.1.1 Structural steel, steel deck, and cold-formed steel stud design and construction may be considered for building elements and systems, where appropriate.

6.4.2 Performance Criteria

6.4.2.1 Design structural steel, steel deck, and cold-formed steel stud systems to comply with the deflection and vibration criteria outlined in Section 5.7 (Structural Design).

6.4.2.2 Erection tolerances for steel construction will be in accordance with all applicable CAN/CSA standards.

6.4.2.3 For steel floor and roof construction, the deflection of steel beams, joists, and girders due to the wet weight of concrete topping slabs is to be considered. Topping slab thickness may have to vary to maintain floor levelness tolerances. The additional concrete ponding weight is to be considered in the design of the structure.

6.4.2.4 Concrete topping slabs will be finished with a smooth, dense, steel trowel finish in accordance with Section 6.3.3.1. Design and construct concrete topping slabs on steel deck to control cracking and avoid random surface shrinkage cracking and radial cracking around re-entrant corners. Implement concrete construction and curing procedures to minimize cracking for concrete topping slabs on metal deck. Repair cracks in concrete topping slabs to suit the floor finish and long-term serviceability requirements of the floor.

6.4.2.5 Steel floor/roof decking will be wide rib profile for ease of attachment of current and future services, equipment, and fixtures using drilled insert expansion anchors into the bottom of the deck ribs.

6.4.2.6 Steel floor/roof decking plus the concrete topping slab thickness will satisfy the requirements of a ULC-rated assembly meeting the BC Building Code fire rating requirements. Spray on or applied fireproofing material will not to be used to achieve required floor deck fire rating.

6.4.2.7 Fireproof structural steel floor/roof framing and supporting members to meet the fire rating requirement.

6.4.2.8 Structural Steel and Steel Joists

6.4.2.8(1) Fabricators and erectors will be certified by the Canadian Welding Bureau (CWB) under Division 1 or 2 of CSA-W47.1 Certification of Companies for Fusion Welding of Steel and/or CSA-W55.3 Certification of Companies for Resistance Welding of Steel and Aluminum.

6.4.2.8(2) Quality assurance testing and monitoring of workmanship will be carried out by an approved testing laboratory using testing procedures as specified in the CAN/CSA standards listed to verify soundness of representative shop and field welds.

6.4.2.8(3) All welding will be performed by welders certified by CWB to the requirements of CSA W47.1/W59. The Design-Builder will provide certifications of all welders upon requested by Authority.

6.4.2.8(4) Material quality including sourcing and welding quality will be monitored by an independent testing agency certified to CSA W178.1 Certification of Welding Inspection Organizations and CSA W178.2 Welding Inspector Certification.

6.4.2.8(5) Design and construction will comply with CSA S16 and Canadian Institute of Steel Construction (CISC) Code of Standard Practice.

6.4.2.8(6) The specification for preparation and painting of Structural Steel components will conform to the Master Painters Institute (MPI) Standards.

6.4.2.8(7) All exterior steel components will be galvanized in accordance with ASTM A123/A123M – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Products with minimum zinc coating of 600 g/m^2.

6.4.2.9 Load Bearing Steel Studs

6.4.2.9(1) Design and construction of load bearing steel stud system will comply with CSA-S136.

6.4.2.9(2) The steel stud manufacturer will be certified in accordance with CSSBI Standard 30M-Standard for Steel Building Systems and CSA-A660 – Certification of Manufacturers of Steel Building Systems.

6.4.2.9(3) The steel stud fabricator and erector will be experienced in the type of work undertaken.

6.4.2.9(4) Conform to the Association of Wall and Ceiling Contractor (AWCC)'s Contractors' Specification Standards Manual

6.4.2.9(5) Limit maximum deflection under specified wind loads to L/360 (L/720 for masonry veneers), unless a smaller maximum deflection is specifically required due to wall finishes.

6.4.2.9(6) Design components to accommodate erection tolerances of the structure.

6.4.2.9(7) Design wind bearing stud end connections to accommodate floor/roof deflections and to ensure that studs are not loaded axially.

6.4.2.9(8) Design steel studs to take into account the anchorage of other materials being supported including but not limited to sub-girts supporting metal cladding and composite panels, soffit finishes and the provision of lateral support at window heads.

6.4.2.10 Corner Guards and Bumper Rails

6.4.2.10(1) Provide stainless steel corner guards and bumper rails in infection control sensitive areas, including:

6.4.2.10(1)a. the Medical Device Reprocessing Department;

6.4.2.10(1)b. surgical suite corridors

6.4.2.10(1)c. sterile storage areas; and

6.4.2.10(1)d. other areas with high risk of impact from utility cart traffic.

6.4.2.10(2) Provide heavy duty steel corner guards and bumper rails in utility areas, including:

6.4.2.10(2)a. the Material Management Storage, Loading Dock, and associated areas;

6.4.2.10(2)b. utility corridors with heavy utility cart and pallet jack traffic; and

6.4.2.10(2)c. utility shop areas.

6.4.2.11 Guardrails & Handrails

6.4.2.11(1) Provide guardrails and handrails of minimum diameter 42 mm, required to resist design loads.

6.4.2.11(2) All guardrails to be designed to their usage classification and per applicable codes.

6.4.2.11(3) Provide a durable painted finish for steel guardrails.

6.4.2.11(4) Provide a manufactured pre-finish for stainless steel or aluminum guardrails.

6.4.2.11(5) Provide safety glass if glazed decorative railings are used.

6.4.2.11(6) In exterior applications of guardrails, where a hazard exists, provide guardrails to conform to the requirements of the BC Building Code.

6.5 Wood, Plastics and Composites (including Millwork) (Division 6)

6.5.1 Basic Requirements

6.5.1.1 The use of wood and plastic products is to be within the limitations of combustible content restrictions of the BC Building Code for the specific occupancy classification of each Building.

6.5.1.2 Do not use urea formaldehyde containing materials in the Facility.

6.5.1.3 Provide rough carpentry, wood backing materials, backing boards for mechanical rooms and electrical/communication rooms, roof sheathing, copings, cant strips, finish carpentry and architectural woodwork, including but not limited to cabinets, casework (excluding laboratory casework, which is included in Division 12), frames, panelling, ceiling battens, trim, installation of doors and hardware, washroom accessories, and other wood-related products and applications as required:

6.5.1.3(1) to support functionality as defined in Appendix 1A Clinical Specifications or as required for operation of the Facility;

6.5.1.3(2) for wood products exposed to view in finished interior installations; and

6.5.1.3(3) in accordance with the Authority's backer board standards.

6.5.1.4 Wood may be used as designated in Appendix 1E Wood First Appropriate Use Matrix and, subject to approval from the authority having jurisdiction under the BC Building Code. Wood will comply with applicable CSA standards for lumber. Wood framing design will be certified by a professional engineer registered in the province of British Columbia.

6.5.1.5 Provide solid polymer fabricated or stainless steel surfacing for:

6.5.1.5(1) all counters that incorporate integral sinks; and

6.5.1.5(2) other areas as required to create surfaces that provide antiseptic or clean characteristics, special or regular maintenance, and resistance to caustic action of chemicals or agents used by the Authority.

6.5.1.6 Provide acrylic plastic products as required for wall cladding, wall protection, casework finishing, trims, ornamental elements, and other applications to achieve a quality of interior finish suitable for use by Patients and Staff.

6.5.1.7 Prepare handrail and wall protection plan. Refer to section 2.8.

6.5.1.8 Not used

6.5.1.9 Handrails

6.5.1.9(1) Provide handrails in Patient and public accessible corridors and Patient care areas ofan appropriate type for Patient support.

6.5.1.9(2) Select materials and shapes appropriate for the use, provide continuous uninterrupted supports.

6.5.1.10 Wall protection and corner guards

6.5.1.10(1) Provide protection of walls and exposed wall corners at Patient care areas, service areas, and other areas as required, to prevent damage due to impact from traffic such as stretchers, equipment and service vehicles.

6.5.1.10(2) Apply sheet wall protection to wall areas where the impact damage anticipated is of a larger area of wall than would be protected by bumper guards.

6.5.1.10(3) Provide wall splash back protection behind and surrounding hand sinks, scrub sinks and housekeeping sinks.

6.5.1.10(4) Apply sheet wall protection to faces of doors where impact damage is anticipated. Use sheet wall protection that complements the installation of door edge protection.

6.5.1.10(5) Secure wall and corner guards to reinforcing and backing in the walls, such backing sufficient to withstand expected impact loads. Wall protection will be high impact and stain resistant.

6.5.1.10(6) Use wall protection handrails products that are stain-resistant to pen marks, paint, and graffiti, and able to withstand commercial cleaners without fading or staining. Use products containing anti-microbial additives to retard mildew and bacterial growth.

6.5.1.11 Door Edge Protection

6.5.1.11(1) Protect door edges in Patient care areas from damage such as impact caused by the regular movement of stretchers and other wheeled vehicles.

6.5.1.11(2) Protect door edges in clinical and service areas from damages.

6.5.1.12 Finish Carpentry, Millwork and Architectural Woodwork

6.5.1.12(1) Conform to Architectural Woodwork Manufacturer's Association of Canada (AWMAC) Quality Standards Manual for minimum "Custom Grade," and Door and Hardware Institute (DHI) standards for thedesign, fabrication, materials, installation, and workmanship of finish carpentry and architectural woodwork.

6.5.1.12(2) For millwork and cabinets, seal all wood surfaces and edges with plastic laminate for infection control.

6.5.1.12(3) Adhesives will be non-toxic, non-solvent glue to comply with AWMAC Quality Standards Manual, Canadian 'Eco-Logo' program, and CaGBC (Canada Green Building Council).

6.5.1.12(4) Use plywood substrate for countertops. Do not use fibreboard or particleboard.

6.5.1.12(5) Provide 45-degree sloped millwork panel (instead of GWB bulkhead) on top of wall-mounted millwork cabinets.

6.6 Thermal and Moisture Protection (Division 7)

6.6.1 Basic Requirements

6.6.1.1 Design construction assemblies according to sound building envelope principles.

6.6.1.2 Design construction assemblies to prevent the ingress of moisture or water vapour from the exterior through the building envelope and the passage of air through the building envelope from the interior spaces to the exterior and vice versa.

6.6.1.3 Design construction assemblies to prevent the ingress of moisture through foundation walls below grade, both subject to and not subject to hydrostatic pressure.

6.6.1.4 Provide protection (such as insulation) to resist the transfer of heat through exterior walls and roofs to create comfortable, liveable interior environments.

6.6.1.5 Provide resistance to the propagation and spread of fire for exterior walls and interior walls designated as fire-resistance rated separations where appropriate.

6.6.2 Performance Criteria

6.6.2.1 Dampproofing

6.6.2.1(1) Dampproofing is not to be used as a means of prevention of moisture ingress.

6.6.2.2 Waterproofing

6.6.2.2(1) Provide waterproofing to prevent moisture ingress to basement spaces below grade.

6.6.2.2(2) Use membrane waterproofing to prevent water ingress over suspended slabs and decks and associated walls over habitable spaces where water collection is anticipated.

6.6.2.2(3) Use fluid-applied waterproofing for mechanical room floors when the mechanical room is located over occupied space.

6.6.2.2(4) Provide waterproof membranes in exterior walls as part of the building envelope and integral with rain screen or cavity wall assemblies.

6.6.2.2(5) Dam the floor under key mechanical equipment in the mechanical penthouse, mechanical rooms and mechanical shafts with a continuous curb and waterproofing to contain the water. Provide floor drains.

6.6.2.3 Vapour Barriers

6.6.2.3(1) Prevent water vapour transmission and condensation in wall assemblies, roofing assemblies, and under concrete slabs-on- grade within the building perimeter by means of a continuous vapour barrier membrane.

6.6.2.4 Air Barriers

6.6.2.4(1) Prevent air leakage caused by air pressure across the wall and roof assembly by means of a continuous air barrier system.

6.6.2.4(2) Provide air barrier assemblies that:

6.6.2.4(2)a. limit air exfiltration and infiltration through materials of the system, joints in the system, joints in components of the assemblies, and junctions and interfaces with other building elements including other assemblies;

6.6.2.4(2)b. prevent air leakage caused by air pressure across the building envelope, including interruptions to the integrity of the building envelope such as junctions and interfaces with dissimilar constructions; and

6.6.2.4(2)c. are located on the exterior of the building envelope and are readily accessible and inspectable during construction prior to installation of the exterior insulation and cladding / overburden materials.

6.6.2.5 Thermal Protection

6.6.2.5(1) Provide exterior moisture-resistant rigid and semi-rigid thermal insulation as part of the building envelope to prevent the transfer of heat both from the interior to the exterior and vice versa, depending on seasonal conditions, and to resist the absorption of water.

6.6.2.5(2) Use thermal protection materials of a type and quality that will provide consistent environmental quality to enclosed spaces.

6.6.2.5(3) Use foamed plastic insulation that is CFC and HCFC free.

6.6.2.5(4) Minimum clear field thermal resistance values for building envelope assemblies will be as follows, or better as necessary to achieve targeted energy performance:

6.6.2.5(4)a. Exterior walls: R-30 $ft^2 \cdot °F \cdot h/Btu$ (U-Value 0.03 $Btu/h \cdot ft^2 \cdot F$)

6.6.2.5(4)b. Exposed floors or soffits: R-30 $ft^2 \cdot °F \cdot h/Btu$ (U-Value 0.03 $Btu/h \cdot ft^2 \cdot F$)

6.6.2.5(4)c. Roofs: R-50 $ft^2 \cdot °F \cdot h/Btu$ (U-Value 0.02 $Btu/h \cdot ft^2 \cdot F$)

6.6.2.6 Roofing

6.6.2.6(1) Comply with the Roofing Contractors Association of British Columbia Guarantee Roof Star latest standards and requirements for a ten (10) year Guarantee, as published in the Roof Star Roofing Practices Manual. Perform roofing quality inspections as required by the RCABC to obtain the RCABC warranty.

6.6.2.6(2) Comply with Roof Star Roofing Practices Manual “Acceptable Materials List,” including:

6.6.2.6(2)a. Use foamed plastic insulation that is CFC- and HCFC-free and complies with the province of British Columbia Ozone Depletion Substances Regulations.

6.6.2.6(3) Provide a complete horizontal barrier to weather and climate using one of the aforementioned roofing systems.

6.6.2.6(4) Roofing systems will include:

6.6.2.6(4)a. flashings and sheet metal;

6.6.2.6(4)b. thermal insulation;

6.6.2.6(4)c. roofing specialties and accessories required for completion;

6.6.2.6(4)d. interior access systems to roof areas;

6.6.2.6(4)e. protection from pedestrian traffic and solar radiation;

6.6.2.6(4)f. roof drainage, including overflow scuppers.

6.6.2.6(5) Provide SBS modified bitumen roofing system (multi-ply) for all roofs in accordance with the following standards:

6.6.2.6(5)a. Base sheet: Conforming to CGSB 37-GP-56-M and ASTM D6162, Type II;

6.6.2.6(5)b. Base sheet flashing: Conforming to CGSB 37-GP-56M;

6.6.2.6(5)c. Cap Sheet and Cap Sheet Flashings: Conforming to CGSB 37-GP-56-M and ASTM D6162, Type II;

6.6.2.6(5)d. Traffic Cap Sheet: Conforming to CGSB 37-GP-56-M.

6.6.2.6(6) Provide sheet metal flashings that divert water away from membrane flashing termination and protect the membrane from deterioration due to the exterior elements and mechanical damage. Provide flexible membrane sub flashing continuously under the metal.

6.6.2.6(7) Metal roofing systems are not permitted.

6.6.2.6(8) Provide roof systems that will resist subjected wind uplift forces at the project site in accordance with CSA Standard A123.21 Wind Uplift Resistance of Roofing Assemblies.

6.6.2.6(9) In designing the Facility, including any roof systems, ensure that entrances, exits and exterior doors are protected from sliding snow and ice and that there are no accumulations of snow and ice in roof valleys.

6.6.2.7 Fire and Smoke Protection

6.6.2.7(1) Use spray-applied cementitious fireproofing if required to achieve a fire resistance rating.

6.6.2.7(2) Integrate barriers into vertical and horizontal space separations to protect against the spread of fire and smoke. Apply protection to exposed building elements (structural and non-structural) susceptible to fire and subsequent damage.

6.6.2.7(3) Apply protection around penetrations through vertical and horizontal fire-resistance rated separations.

6.6.2.7(4) Use firestopping and smoke seal systems that consist of asbestos-free materials and systems, capable of maintaining an effective barrier against flame, smoke, and gases.

6.6.2.7(5) Use firestopping that:

6.6.2.7(5)a. is compatible with substrates;

6.6.2.7(5)b. allows for movement caused by thermal cycles; and

6.6.2.7(5)c. prevents the transmission of vibrations from pipe, conduit or duct to structure and structure to pipe, conduit, or duct.

6.6.2.7(6) When more than one product is required for an assembly, use products that are compatible with one another and from the same manufacturer.

6.6.2.7(7) Use firestopping sealants and coatings that are silicone-based and guaranteed not to re-emulsify if subject to wetting or standing water. Do not use acrylic-based coatings and sealants.

6.6.2.8 Sealants

6.6.2.8(1) Minimize use of sealants on the exterior building envelope and use dry gasket seals to improve maintainability.

6.6.2.8(2) All sealants and sealant primers used on the interior of the Facility will comply with the requirements of LEED - low VOC.

6.6.2.8(3) Apply sealant materials to achieve:

6.6.2.8(3)a. seals to the building envelope systems and around openings in the building envelope systems as required to prevent water ingress;

6.6.2.8(3)b. seals around and over cavities in or behind surface elements to allow effective infection prevention and control (note that sealant around door frames must include joints at bottom of door frames between floor finish and frames);

6.6.2.8(3)c. sealed joints between dissimilar or similar materials to allow a smooth or even transitions; and

6.6.2.8(3)d. sealed expansion or controls joints in the building envelope systems or structural systems to allow movement.

6.6.2.8(4) Do not use unsealed joints in clinical areas.

6.6.2.8(5) For the exterior; use sealants to completely and continuously fill joints between dissimilar and/or similar materials.

6.6.2.8(6) For the interior; use sealants (at frames such as those at doors and windows), to completely fill joints between dissimilar materials using one component, acrylic emulsion, paintable type.

6.6.2.8(7) Use silicone caulking that is mildew-resistant and impervious to water for caulking washroom plumbing fixtures.

6.6.2.8(8) Use sealants with self-levelling properties for expansion and control joints in concrete floors using two-component epoxy urethanesealants.

6.6.2.8(9) Use non-sag sealants for exterior vertical expansion and control joints in masonry or wall cladding.

6.6.2.8(10) Use sealants that allow for minimum 25% movement in joint width.

6.6.2.8(11) In corridors and other traffic areas used by laundry carts, supply carts, material handling equipment use traffic bearing type sealants suitable to support imposed load without deformation or failure.

6.7 Cladding (Division 7)

6.7.1 Acceptable cladding materials include:

6.7.1.1 Sections 6.4.2 and 6.4.3 Concrete Masonry Unit, Brick & Stone Masonry

6.7.1.2 Section 6.9.2.11 Glass & Glazing

6.7.1.3 Section 6.7.2 Phenolic Panels

6.7.1.4 Section 6.7.3 Metal or Composite Aluminum Cladding

6.7.1.5 Section 6.8.2.4(7) Aluminum Curtain Wall

6.7.1.6 Section 6.7.4 Cementitious Cladding

6.7.2 Phenolic Panels

6.7.2.1 Panels to be high density phenolic resin with acrylic resin finish.

6.7.2.2 Acceptable Phenolic Panels include Trespa, Prodema, FunderMax, or similar.

6.7.2.3 Phenolic Panels to comply with all applicable CSA standards per BC Building Code.

6.7.3 Metal Cladding

6.7.3.1 Metal Panel cladding can be integrated into aluminum curtain wall system or be standalone system. Panels will be composite panel construction or, where approved by the Authority, may be single skin metal.

6.7.3.2 Metal Panel to be baked enamel finish. Aluminum to beprefinished aluminum or baked enamel finish.

6.7.3.3 Maximum panel deviation (flatness) to be 3 mm in 1530 mm in any direction for assembled units (non-accumulative – no oil canning).

6.7.4 Cementitious Cladding

6.7.4.1 Cementitious cladding may be used where a less institutional appearance may be appropriate for the character of the Building.

6.7.4.2 Cementitious cladding products, when used, will be tested and certified appropriate for the local climate and the specific proposed use.

6.7.4.3 Cementitious cladding products to be fully primed and painted, including on backside and cut edges to minimize atmospheric and bulk moisture absorption.

6.7.4.4 Design for and allow tolerances for differential movement, and expansion and contraction, including over-sizing of fastener holes and incorporating control joints in accordance with manufacturer recommendations.

6.7.4.5 Provide trim at panel edges and interfaces. Open joint systems are not acceptable.

6.8 Openings (Division 8)

6.8.1 Basic Requirements

6.8.1.1 Construct interior windows, sidelights and glazing forming part of doors of tempered glass. For exterior glazing at doors and sidelights, use laminated glass. Use rated glass assemblies where required to maintain fire rated separations.

6.8.1.2 Installation methods and locations for doors, frames and hardware to conform with the standards of the Door and Hardware Institute (DHI).

6.8.1.3 Doors

6.8.1.3(1) Doors are to be sized, fabricated and installed to suit the intended function of spaces or rooms requiring acoustic or visual privacy, security, special HVAC requirements, fire-resistance rated separations or other closures.

6.8.1.3(2) Size Requirements for Doors

6.8.1.3(2)a. Provide door openings of adequate width to suit the intended purpose of rooms on either side of the doors and allow the movement of people and equipment associated with those rooms.

6.8.1.3(2)b. No single door will have a width of less than 914mm.

6.8.1.3(2)c. Provide double doors into rooms where large pieces of equipment will be moved in or out during the lifetime of the Facility and where such equipment cannot pass through a single 1219mm wide opening.

6.8.1.3(2)d. Size door openings to accommodate movement of equipment.

6.8.1.3(2)e. Size door openings to suit Bariatric Patient requirements for Patient rooms of medical Inpatient unit identified in Appendix 1A Clinical Specifications for Bariatric use, and other rooms identified in Appendix 1A Clinical Specifications for Bariatric use. The minimum door width will be 1525 mm.

6.8.1.3(2)f. Provide door widths that are 1525 mm clear for Bariatric Patient rooms. Doors must have a large door leaf and a small door leaf. Where a viewing window in the large door leaf is required for clinical operation, provide an integral blind in the window unit, operable from both sides.

6.8.1.3(2)g. Provide double doors into corridors and major rooms to ease access where Patients in beds or stretchers will be attended to or accompanied by a large number of medical Staff and medical equipment.

6.8.1.3(2)h. Patient bedroom doors will have a minimum width of 1219mm.

6.8.1.3(2)i. Unless required otherwise, provide doors to Patient Care areas, including doors to water closets and change room cubicles with a minimum width of 914mm.

6.8.1.3(2)j. Provide a minimum of 2134mm high door or door leaf, unless specifically required for access to services or other purposes where height is restricted.

6.8.1.3(2)k. Provide door widths that are 1067mm clear width for Patient washrooms that are accessible from the Patient bedroom.

6.8.1.3(2)l. Minimum clear width of each Ambulance Bay door to be 3700 mm.

6.8.1.3(3) Acoustic Requirements for Doors: refer to Appendix 1C Acoustics and Noise Control Measures.

6.8.1.3(4) Provide Patient bedrooms including medical, Mental Health and surgical Patient bedrooms with hardware that allows the doors to stay in an open position and facilitates casual observance of Patients by the nursing Staff.

6.8.1.3(5) For doors into or between major departments or activity areas through which cart, stretcher, or bed traffic is anticipated on a routine basis, provide automatic activation by an electronic device or manual push button, located to allow emergency access without the necessity to stop movement. For all other doors through which cart, stretcher, bed, or frequent Patient or Staff traffic is anticipated on a routine basis, provide appropriate hardware or automatic activation that allows the doors to stay in an open position.

6.8.1.3(6) Apply door sizes and designs consistently to rooms of similar use, location, and configuration.

6.8.1.3(7) Avoid doors swinging into corridors in a manner that may obstruct traffic flow or reduce the corridor width, except doors to Mental Health holding rooms or to spaces that are used infrequently and are not subject to occupancy such as small closets.

6.8.1.3(8) Doors may swing into Patient washrooms, provided that they allow for ease of Patient use, both on their own and assisted by Staff. Equip such doors with appropriate hardware to allow the door to be opened out into the room in an emergency situation. Alternatively, surface-mounted “barn type” sliding doors may be used for Patient washrooms.

6.8.1.3(9) Single fixture washrooms for public/Patient use will have double-hinged swing doors to allow for emergency access.

6.8.1.3(10) Provide all doors with appropriate hinges, edge protection, and face protection to minimize damage and resultant disruptive maintenance.

6.8.1.3(11) Finish doors and frames with a suitable finish that minimizes dirt and fingerprint accumulation and can be easily cleaned and disinfected.

6.8.1.3(12) Be consistent with the extent of glazing in a door and the size and quantity of sidelights; balance these between the nature of observation required and the privacy requirements of the occupants of the room. Where possible and appropriate, provide glazing in an adjacent sidelight rather than within the door itself.

6.8.1.3(13) Provide glazing in doors and sidelights in such a way that they allow for Patient observation and operational safety of the spaces they serve.

6.8.1.3(14) Provide tempered glass in aluminum frame sliding doors. Sliding doors to be used will be without floor tracks and will have emergency swing breakout. Provide blinds or coverings suitable and appropriate for the level of privacy intended and required.

6.8.1.3(15) Provide doors and door frames with the capability to withstand the varying and high levels of humidity and impact that occur typically within a hospital and in specific rooms within a hospital and maintain their inherent aesthetic and functional capacities.

6.8.1.3(16) Frames and anchors for doors, sidelights, interior and exterior windows in Mental Health Psychiatry departments will be designed to withstand a heavy degree of impact while maintaining their aesthetic and functional capacities as outlined in this Schedule of Requirements or the designer’s standard of care acceptable to the Authority. Glazing of such components will be non-breakable and use hospital-type cut-away jambs.

6.8.1.3(17) In areas where security is considered paramount, including Mental Health Psychiatry departments and Secure entrances, achieve safety and security with the appropriate location, configuration, materials, construction and detailing of doors and hardware as required by British Columbia Ministry of Health Standards for Hospital-Based Psychiatric Emergency Services Observation Units.

6.8.1.3(18) Provide vision panels in exit stairwell doors.

6.8.1.3(19) Exterior doors will be thermally broken, completed with thermally broken thresholds and hardware.

6.8.1.4 Exterior Windows

6.8.1.4(1) Size, configure, and adequately construct windows to suit rooms that require daylight, views and/or natural ventilation. Refer to Appendix 1A.0 General Building Clinical Requirement, Section 1A.0.2.2(4) – Daylighting.

6.8.1.4(2) Window framing systems to be thermally broken, designed based on principles of pressure equalized rain screen.

6.8.1.4(3) Provide operable windows (windows that may be opened and closed) with 100 mm restrictors in all rooms and spaces where acceptable for the functionality of the room or space, as described in Appendix 1A Clinical Specifications.

6.8.1.4(4) Provide exterior windows in the Mental Health / Psychiatry areas that meet the requirements of the British Columbia Ministry of Health Hospital-Based Psychiatric Emergency Services Standards and AAMA 501.8-14 Standard Test Method for Determination of Resistance to Human Impact of Window Systems Intended for Use in Psychiatric Applications.

6.8.1.5 Interior Windows

6.8.1.5(1) Provide 'borrowed light' through interior windows to occupied rooms that do not have exterior windows. The intent is to borrow light from areas that have windows and consequently create a more comfortable and less closed-in atmosphere. Refer to Appendix 1A Clinical Specifications, section 1A.0.2.1(8) Daylighting.

6.8.1.5(2) Provide interior windows (vision panel) in the following rooms if glazing not provided in the door:

6.8.1.5(2)a. Inpatient Rooms, LDRP: provide a viewing window from the corridor or nursing station;

6.8.1.5(2)b. isolation Patient rooms: provide a viewing window from the corridor or nursing station;

6.8.1.5(2)c. provide viewing windows between the Anteroom into the isolation Inpatient Rooms; and

6.8.1.5(2)d. in the Emergency Department from the Anteroom into the decontamination room.

6.8.1.5(3) Coordinate glazing heights with adjacent wall protection, handrails, and other accessories to achieve functional and aesthetic cohesiveness.

6.8.2 Performance Criteria

6.8.2.1 Hollow Metal Doors and Frames

6.8.2.1(1) Materials and manufacture of metal doors and will comply with the requirements of the Canadian Steel Door and Frame Manufacturer's Association (CSDFMA).

6.8.2.1(2) Provide interior metal doors with flush face construction.

6.8.2.1(3) Provide exterior metal doors with:

6.8.2.1(3)a. flush face construction;

6.8.2.1(3)b. edge seams to correspond with door function and minimize maintenance needed; and

6.8.2.1(3)c. prepared surfaces to receive finishes that resist corrosion from exposure to weather.

6.8.2.1(4) Provide pressed metal frames with:

6.8.2.1(4)a. fully welded construction. Knock-down-type frames not allowed;

6.8.2.1(4)b. thermally broken door frames for exterior door; and

6.8.2.1(4)c. anchors to each jamb to suit wall type and receive the frame.

6.8.2.1(5) Door Glazing

6.8.2.1(5)a. For exterior hollow metal door glazing, use sealed units with warm edge, in thermally broken frames to prevent heat loss.

6.8.2.1(5)b. For interior hollow metal door glazing use tempered glass.

6.8.2.2 Wood Doors

6.8.2.2(1) All wood doors will comply with all applicable standards, including the Quality Standards for Architectural Woodwork published by the Architectural Woodwork Manufacturer's Association of Canada (AWMAC).

6.8.2.2(2) Wood doors will have hardware and finishes that suit the intended function and aesthetics of the Facility.

6.8.2.2(3) Construct, finish, and install wood doors to minimize the requirement for maintenance and resulting disruption to Facility operations.

6.8.2.2(4) Provide wood doors in flush design, High Pressure Decorative Laminate (HPDL) finish, Architectural Grade quality (as defined in the AWMAC standards referred to above), and solid particleboard core.

6.8.2.2(5) Provide fire-resistance rated doors with a homogeneous incombustible mineral core and AWMAC Quality Standards Option 5 blocking.

6.8.2.2(6) Install finish hardware securely to resist loosening over time. Fasten to solid wood backing, except where hardware is designed to be through- bolted.

6.8.2.2(7) Glue stiles, rails and faces to the core with Type II water-resistant adhesive to minimize de-lamination or disassembly as a result of moisture ingress.

6.8.2.2(8) Use B-Grade hardwood veneer with AWMAC No. 3 edge, finish to suit the intended use.

6.8.2.2(9) Do not use wood veneer-faced doors or paint grade doors anywhere in the building.

6.8.2.2(10) In locations requiring radiation protection, line doors with lead and label such doors with lead thickness.

6.8.2.2(10)a. Wood doors are not acceptable where exposed to the exterior or weather.

6.8.2.3 Aluminum Entrances and Storefronts

6.8.2.3(1) Aluminum entrances and storefront framing and doors may form part of the exterior envelope of the Building.

6.8.2.3(2) Provide glazed interior partitions as appropriate to comply with the functions of the spaces as defined by Appendix 1A Clinical Specifications.

6.8.2.3(3) Use aluminum doors within aluminum entrances and storefront.

6.8.2.3(4) Use frames that are thermally broken, flush glazed, aluminum sections, to accept insulating glass units.

6.8.2.3(5) Incorporate in the frames drained and vented system (rain screen) with a complete air and vapour seal, allowing any moisture entering the frame to drain to the exterior and allowing air into the pressuring chamber.

6.8.2.3(6) Use aluminum swing entrance doors that are heavy-duty commercial or institutional grade that may be automatically operated, motion-detector controlled.

6.8.2.3(7) Apply aluminum finish for exposed aluminum surfaces. Finish to be permanent and resistant to corrosion caused by weather exposure and climate.

6.8.2.4 Specialty Doors

6.8.2.4(1) Overhead Rolling Service Doors

6.8.2.4(1)a. Restrain lateral movement of door curtain slats. Provide windlocks as required by door size or wind load requirements.

6.8.2.4(1)b. Provide interlocking flat slats, complete with bottom bar and contact type bottom astragal.

6.8.2.4(1)c. For manually operated doors, provide inside lift handle and locking bar or chain hoist. Provide motor operation on doors requiring constant usage. Chain operation will be by means of reduction gears and galvanized hand chain.

6.8.2.4(1)d. For fire doors, provide automatic closing device operated by fire door release device connected to fire alarm system.

6.8.2.4(1)e. Insulate overhead rolling service doors with a minimum insulation value of RSI-1.4 (R-8) and provide weather stripping and seals.

6.8.2.4(2) Overhead Rolling Grilles

6.8.2.4(2)a. Provide grilles that allow visual access to secure areas.

6.8.2.4(2)b. Provide aluminum or steel guides that are fabricated to withstand vertical and lateral loads, counterbalanced by helical torsion springs, and sound deadened.

6.8.2.4(2)c. For manually operated closures, provide inside lift handle and locking bar or chain hoist. Provide motor operation on grilles requiring constant usage. Chain operation will be by means of reduction gears and heavy chrome plated hand chain.

6.8.2.4(3) Overhead Rolling Counter Shutters / horizontal sliding grilles

6.8.2.4(3)a. Provide shutter curtains fabricated with extruded aluminum, galvanized steel, or stainless steel interlocking flat slats, complete with guides of similar materials.

6.8.2.4(3)b. Provide closures that are manually operated and with locking capability.

6.8.2.4(4) Interior Aluminum Sliding Doors and Sidelights

6.8.2.4(4)a. Provide interior glass sliding doors and sidelights without floor track, sliding and fixed panel(s) single glazed with 6 mm clear fully tempered float glass.

6.8.2.4(4)b. Interior sliding doors to have break-out capability to facilitate Staff access to Patient rooms.

6.8.2.4(4)c. Provide visual cues/glazing film in transparent glass panels as appropriate to prevent collisions.

6.8.2.4(4)d. Not used.

6.8.2.4(4)d.1 Not used.

6.8.2.4(4)e. Provide manual break-out capable interior glass ICU-type sliding doors in the following areas:

6.8.2.4(4)e.1 Emergency Exam/Treatment Isolation Room, and;

6.8.2.4(4)e.2 HAU Patient Rooms;

6.8.2.4(5) Automatic Sliding Doors

6.8.2.4(5)a. Door equipment will accommodate medium to heavy pedestrian traffic and up to the following weights for active leaf doors: 100 kg for bi-part doors and 200 kg for single slide doors.

6.8.2.4(5)b. Provide door operators, including the motion and presence detection system, that are capable of operating within the temperature ranges existing at the Facility and unaffected by ambient light or ultrasonic interference.

6.8.2.4(5)c. Provide energy-saving devices to reduce conditioned air loss.

6.8.2.4(5)d. Provide integration with access control system.

6.8.2.4(6) Automatic Swing Doors

6.8.2.4(6)a. Use automatic swing doors for interior and exterior locations where appropriate, including the entrance vestibule, cross- corridor double-egress doors, entrances to departments and areas where stretchers and equipment are frequently wheeled, and doors to exterior spaces that are required to be handicapped accessible.

6.8.2.4(6)b. If used, provide directional motion sensor control device that are unaffected by ambient light or ultrasonic frequencies.

6.8.2.4(6)c. Equip all in-swing doors that are required exits with an emergency breakaway switch that internally cuts power to the operator. No external power switch allowed.

6.8.2.4(6)d. Implement longer hold-open times to accommodate the elderly and frail.

6.8.2.4(6)e. Provide integration with access control system.

6.8.2.4(7) Aluminum Curtain Walls

6.8.2.4(7)a. Aluminum curtain walls will comply all applicable standards, including the Aluminum Association Standards (AAS) and the American Architectural Manufacturers Association (AAMA) field testing specifications.

6.8.2.4(7)b. Incorporate in the curtain wall framing a drained and vented system complete with air and vapour seal, allowing any water entering the framing/system and the glazing detail cavities to drain to the exterior and also allow air into the pressuring chamber.

6.8.2.4(7)c. All exterior windows are to have:

6.8.2.4(7)c.1 a maximum overall thermal transmittance U-Value 0.26 Btu/h·ft^2·F and

6.8.2.4(7)c.2 SHGC 35%.

6.8.2.4(7)d. Provide curtain wall framing that incorporates a thermal- break.

6.8.2.4(7)e. For exposed aluminum surfaces, provide a finish that is permanent and resistant to corrosion resulting from weather exposure and climate.

6.8.2.4(7)f. Provide assemblies that resist local seismic conditions and 1-in-50 year climatic events (with a safety factor).

6.8.2.4(7)g. Window wall framing relying on primary face seals is not allowed.

6.8.2.5 Aluminum Windows

6.8.2.5(1) Aluminum windows will comply with all applicable standards, including the Aluminum Association Standards (AAS) and the American Architectural Manufacturers Association (AAMA) field testing specifications.

6.8.2.5(2) Incorporate in windows a drained and vented system complete with air and vapour seal, allowing any water entering the framing/system and the glazing detail cavities to drain to the exterior and also allow air into the pressuring chamber.

6.8.2.5(3) All exterior windows are to have:

6.8.2.5(3)a. a maximum overall thermal transmittance U-Value 0.26 Btu/h·ft^2·F; and

6.8.2.5(3)b. SHGC 35%.

6.8.2.5(4) Provide windows that incorporate a thermal break.

6.8.2.5(5) For exposed aluminum surfaces, provide a finish that is permanent and resistant to corrosion resulting from weather exposure and climate.

6.8.2.5(6) Provide assemblies that resist local seismic conditions and 1-in-50 year climatic events (with a safety factor).

6.8.2.6 Skylights

6.8.2.6(1) Skylights are not allowed.

6.8.2.7 Light Tubes

6.8.2.7(1) If light tubes are required for providing natural light to internal areas, provide a reflective light tube system that that will transmit the full range of natural light, ensuring a bright, clean and white light source.

6.8.2.7(2) Provide a daylight dimmer to control the level of light.

6.8.2.7(3) Coordinate the light tube solution with the other components of the ceiling design, including the artificial lighting, to provide an integrated design solution.

6.8.2.8 Roof Hatches

6.8.2.8(1) Minimize use of roof hatch accesses. Use of roof hatches must be reviewed by the Authority. If roof hatches are used to provide access to the roof for maintenance:

6.8.2.8(1)a. provide access ladders and ships ladders;

6.8.2.8(1)b. the minimum hatch size will be 762 mm x 762 mm, and

6.8.2.8(2) All roof hatches to be thermally insulated and thermally broken.

6.8.2.9 Entrance Mat Wells

6.8.2.9(1) Provide a recessed, integrated mat well with built-in drainage at the following locations:

6.8.2.9(1)a. Main Building entrance

6.8.2.9(1)b. Not used

6.8.2.9(1)c. Main Staff entrance/exit

6.8.2.10 Glass and Glazing

6.8.2.10(1) Glass and glazing will comply with all applicable standards, including the Insulating Glass Manufacturers Association of Canada (IGMAC) Guidelines and the Glazing Contractors Association of B.C. (GCA) Glazing Systems Specifications Manual.

6.8.2.10(2) Exterior and/or interior glass and glazing may be provided as integral components of the exterior envelope, interior partitions and screens, exterior and interior doors, handrail balustrades, skylights and decorative and ornamental glazing.

6.8.2.10(3) Provide assemblies that resist local seismic conditions as a post- disaster building as defined in the BC Building Code.

6.8.2.10(4) Provide assemblies to resist all climatic loads as required by the British Columbia Building Code.

6.8.2.10(5) Use laminated safety glass in entry doors and sidelights.

6.8.2.10(6) For the Mental Health Inpatient rooms, provide glass and glazing that meets the requirements of the British Columbia Ministry of Health Hospital-Based Psychiatric Emergency Services Standards.

6.8.2.10(7) Use of wired glass is not permitted anywhere in the Facility. When glass is used in a fire rated partition The Design-Builder will provide non-wired fire rated glass and meet all applicable standards and codes.

6.8.2.10(8) Insulating glazing units (IGUs), should have a hermetic seal certified by IGMAC, complete with PIB primary and silicone secondary seal.

6.8.2.10(9) IGUs should have low-e coatings to minimize internal heat gain during cooling months.

6.8.2.10(10) Mirrors

6.8.2.10(10)a. For full wall unframed mirrors, use 6 mm thick minimum float glass backed with electrolytically-applied copper plating. Grind smooth and polish all edges.

6.8.2.10(10)b. For wall mounted posture mirrors, use framed type; one-piece, stainless steel channel frame with a No. 1 quality, 6 mm thick float glass mirror backed with electrolytically applied copper plating. Back with galvanized steel.

6.8.2.10(11) Not used.

6.8.2.11 Finish Hardware

6.8.2.11(1) Door finish hardware to be designed by a certified finish hardware professional – Architectural Hardware Consultant (AHC) with a minimum of five (5) years of experience in design health care facilities including hospitals. Scope of this work will include the preparation of a detailed hardware schedule shop drawing, keying schedule in consultation with the Authority, and performing on-site inspections.

6.8.2.11(2) Provide security hardware and access control devices for rooms, areas and departments and between departments to preserve access and boundaries as required in Appendix 1A Clinical Specifications. Refer also to Appendix 1J Door Operation Matrix.

6.8.2.11(3) Finish hardware will comply with all applicable standards, including the quality standards of the Door and Hardware Institute (DHI).

6.8.2.11(4) Provide all finish hardware from one supplier that is Cantech compatible and is a member in good standing of the Door and Hardware Institute (DHI) with one or more AHC (Architectural Hardware Consultant) in its employ.

6.8.2.11(5) Hardware will be integrated with the security requirements and coordinated with electrical wiring and power requirements.

6.8.2.11(6) Select finishes to provide maximum longevity and preservation of the finish.

6.8.2.11(7) Provide, where applicable, ULC-listed hardware for the required fire rating.

6.8.2.11(8) Use heavy-duty commercial quality hardware; locksets and latchsets fully mortised type and lever handles of solid material.

6.8.2.11(9) All doors with maglocks must have a key override on both sides of the door.

6.8.2.11(10) For special areas provide hardware to suit the purposes unique to those areas.

6.8.2.11(11) For special areas provide hardware to suit the purposes unique to those areas. Hardware in the Mental Health / Psychiatry department will comply with the British Columbia Ministry of Health Standards for Hospital- Based Psychiatric Emergency Services: Observation Units.

6.8.2.11(12) Keying

6.8.2.11(12)a. Supply and install ASSA key cylinders, or pre-approved cylinders of equivalent quality, 6 pin (factory pinned).

6.8.2.11(12)b. Implement a 4-level system.

6.8.2.11(12)c. The Authority will have final approval on Keying groups.

6.8.2.11(12)d. New key bittings will be given to and controlled by the Authority.

6.8.2.11(12)e. Develop a keying schedule in consultation with the Authority.

6.8.2.11(12)f. Turn over keys from factory to the Authority.

6.8.2.11(12)g. Supply four (4) keys for each lock cylinder with two (2) only keys cut to each different change key bitting used in the master key system and the remainder of the key count provided blank and uncut.

6.8.2.12 Division 28 Coordination

6.8.2.12(1) Coordinate with the Division 28 (Access Control) contractor prior to rough-in for complete and fully functioning access controlled doors in the new hospital. Equipment supplied, installed, integrated and connected by Division 8 includes, but is not limited to;

6.8.2.12(1)a. electrified door hinges;

6.8.2.12(1)b. emergency exit panic/push bars;

6.8.2.12(1)c. delayed exit timers;

6.8.2.12(1)d. electrified door hinges;

6.8.2.12(1)e. delayed egress controllers;

6.8.2.12(1)f. electromagnetic locks “maglocks;”

6.8.2.12(1)g. fire alarm relays for release of magnetic locks “maglocks;”

6.8.2.12(1)h. keyswitch overrides for release of magnetic locks “maglocks or other;”

6.8.2.12(1)i. automatic door openers; and

6.8.2.12(1)j. Power supplies and battery back-up units (will be located in TR rooms only) for all access control door devices.

6.8.2.12(2) Refer to Appendix 1J Door Operation Matrix for high-level design intent. Final design requirements will be confirmed during user consultation based on the proposed layout of the Building.

6.9 Finishes (Division 9)

6.9.1 Basic Requirements

6.9.1.1 Provide interior finishes that are capable of being maintained to the Westech Health Care Facility Cleaning Audit Reference Guide – V9A.

6.9.1.2 In areas where finishes and systems of installation will occur and water is anticipated to be present as part of cleaning or other procedures, allow water to collect and exit without causing damage to the finishes or substrate.

6.9.1.3 For areas in which wear is a concern, such as areas with anticipated pedestrian or wheeled traffic, use durable finish materials able to withstand damage and easily replaceable in sections if damage does occur. Give priority to infection prevention and control in the selection of finishes for all Patient care areas. Acoustic characteristics of finish materials will also be a priority consideration.

6.9.1.4 Select the appearance of finishes and colours to create and promote a natural healing environment, prevent glare, and minimize artificial lighting requirements.

6.9.1.5 Select materials to promote sustainability by, for instance, having low-emissivity or comprising of renewable resources.

6.9.1.6 Where possible, avoid the use of materials that use known carcinogenic material or chemicals in their manufacture or disposal. Consult the Green Guide for Healthcare.

6.9.2 Performance Criteria

6.9.2.1 Interior Wall Framing

6.9.2.1(1) Interior wall framing will comply with all applicable standards, including the Canadian Sheet Steel Building Institute Standards (CSSB1) and the Association of Wall and Ceiling Contractors of B.C. (AWCC) Wall & Ceiling Specification Standards Manual for materials and workmanship for interior walls, including steel studs and furring and gypsum board ceiling suspension systems.

6.9.2.1(2) System design and components will meet seismic restraint requirements for a post-disaster building where applicable.

6.9.2.1(3) Use prefabricated non-load bearing steel studs for interior partitions and furring with no axial load other than its own weight, the weight of attached finishes, and lateral loads of interior pressure differences and seismic loads.

6.9.2.1(4) Construct steel stud framing to accommodate electrical, plumbing and other services in the partition cavity, and to support fixtures, wall cabinets, medical equipment and other such wall-mounted items.

6.9.2.1(5) Provide reinforcement and backing throughout.

6.9.2.1(6) Design systems for the differences in air pressure that may result on opposite sides of the wall or partition due to factors such as wind and other lateral pressures, stack effects, or mechanically induced air pressurization.

6.9.2.1(7) Coordinate with all supplied equipment to confirm location of wall mounts for equipment and furnishings. Provide backing for handrails, grab-bars, wall protection and other similar items. Identify areas for mounting artwork and other display items that would require backing and confirm with the Authority. Ensure that backing does not compromise the acoustic performance of walls that are required to have an STC rating.

6.9.2.2 Gypsum Board

6.9.2.2(1) Gypsum board will comply with all applicable standards, including the Association of Wall and Ceiling Contractors of B.C. (AWCC) Wall & Ceiling Specification Standards Manual.

6.9.2.2(2) Gypsum board will be no less than 16 mm in thickness.

6.9.2.2(3) Use cementitious backer board (tile backer board) behind ceramic wall tile in showers or other wet areas. Use glass mat water- resistant gypsum backing panels behind sinks.

6.9.2.2(4) Provide abuse-resistant gypsum board to ASTM C1629 level 1 in corridors with heavy Patient, cart or equipment traffic, to be located on the bottom 1200mm of the corridor wall, in order to increase resistance to abrasion, indentation and penetration of interior walls.

6.9.2.2(5) Use glass mat surfaced gypsum sheathing board wherever exterior gypsum sheathing is required at exterior walls.

6.9.2.2(6) Provide impact-resistant gypsum board to the outer most layer of gypsum board in Mental Health Inpatient-occupied and Inpatient-accessible spaces from finished floor to underside of ceiling. Standard gypsum board can be applied above the ceiling line. Gypsum board ceilings in these spaces will be impact-resistant gypsum board.

6.9.2.2(7) The reference standard for abuse-resistant and impact-resistant gypsum wall board is ASTM C1629 Standard Classification for Abuse-Resistant Nondecorated Interior Gypsum Panel Products and Fiber-Reinforced Cement Panels. The Classification Level is Level 1.

6.9.2.3 Ceramic Tilework

6.9.2.3(1) Ceramic tilework will comply with all applicable standards, including the Terrazzo Tile and Marble Association of Canada (TTMAC) Specification Guide 09300 Tile Installation Manual.

6.9.2.3(2) In order to reduce opportunities for the spread of infection, avoid use of ceramic tile in interior applications at Patient and other clinical areas, and if used limit to no more than 10% of such applications.

6.9.2.3(3) Ceramic tile, when used in a flooring application, will have a minimum dynamic coefficient of friction (DCOF) rating of 0.42 in accordance with ANSI A317.1 recommendations. Provide tile with a higher DCOF rating where required to ensure non-slip safety in wet or non-level locations. Review cleaning and maintenance requirements related to each type of tile with the Authority.

6.9.2.3(4) For exterior installations, provide frost-resistant exterior tiles with a moisture absorption rating of 3.0% or less.

6.9.2.3(5) Provide control joints and expansion joints in conformance with the recommendations of the TTMAC Tile Installation Manual.

6.9.2.3(6) Provide a waterproof membrane under ceramic floor and wall tile in showers and other wet areas. The membrane will be trowel- applied, built-up, liquid-applied or sheet-applied.

6.9.2.3(7) Provide crack isolation membranes to resist crack transmission from the substrate due to lateral movement; design for use in thin- set applications of tile over a cracked substrate. Use elastomeric sheets or trowel-applied materials suitable for subsequent bonding of ceramic tile.

6.9.2.3(8) Set ceramic tile with latex modified mortar and grout with epoxy grout.

6.9.2.4 Ceilings

6.9.2.4(1) Acoustic Tile Ceilings

6.9.2.4(1)a. Acoustic ceiling tiles in metal suspension system will be used in at least the following locations:

6.9.2.4(1)a.1 Hallways;

6.9.2.4(1)a.2 Offices, meeting rooms;

6.9.2.4(1)a.3 Common lobby, admitting areas;

6.9.2.4(1)a.4 Waiting areas;

6.9.2.4(1)a.5 Quiet rooms;

6.9.2.4(1)a.6 Staff sleep rooms;

6.9.2.4(1)a.7 Medication rooms;

6.9.2.4(1)a.8 Patient Rooms;

6.9.2.4(1)a.9 Examination rooms;

6.9.2.4(1)a.10 Soiled, clean and storage rooms;

6.9.2.4(1)a.11 Patient and Staff lounges; and

6.9.2.4(1)a.12 Other areas requiring a non-institutional finish.

6.9.2.4(1)b. Acoustic Panel: Non-directional, fissured pattern, Imperial dimension white ceiling panel, trim edge detail (square) to fit a standard 15/16" T-bar grid panel size.

6.9.2.4(1)c. Install acoustic ceiling tiles in the suspension system that comply with the requirements of Appendix 1C Acoustics and Noise Control Measures and provide the levels of sound attenuation required to suit the intended function of the room.

6.9.2.4(1)d. All acoustic tile ceilings used in spaces which do not have special cleaning, maintenance or environmental needs (as in food preparation areas or high temperature / humidity areas) will have a Noise Reduction Co-efficient of 0.80 or greater.

6.9.2.4(1)e. Provide accessibility to the ceiling spaces where access is required to mechanical, electrical or other service systems.

6.9.2.4(1)f. Provide special surface-treated ceiling tiles, such as mylar, vinyl- faced or metal-faced tiles, where maintenance and ease of cleaning are priorities as well as the accessibility and acoustic requirements.

6.9.2.4(1)g. Provide acoustical panels that are appropriate for the temperature range and humidity of the space where they will be used.

6.9.2.4(1)h. Use tiles with scratch-resistant surfaces in any area where lay-in ceiling panels frequently need to be removed for plenum access.

6.9.2.4(1)i. For ceilings installed in food preparation areas, use acoustic panels capable of being cleaned without undue wear on the panel.

6.9.2.4(2) Hard Ceilings

6.9.2.4(2)a. Construct hard ceilings of 16 mm gypsum wall board or fire-rated gypsum board as required. Finish hard ceilings as per the paint specifications outlined in Section 6.10.2.7. Provide hard ceilings for the following rooms:

6.9.2.4(2)a.1 housekeeping and utility rooms;

6.9.2.4(2)a.2 washrooms and shower rooms;

6.9.2.4(2)a.3 procedure rooms and any other rooms where invasive procedures may be performed;

6.9.2.4(2)a.4 sterile supply rooms;

6.9.2.4(2)a.5 other areas where infection prevention and control may be an issue;

6.9.2.4(2)a.6 over wash areas in the food services kitchen;

6.9.2.4(2)a.7 airborne isolation and protective isolation rooms and anterooms; and

6.9.2.4(2)a.8 other areas where infection prevention and control may be an issue.

6.9.2.4(2)b. In special areas such as Mental Health/Psychiatry, construct the ceiling in accordance with British Columbia Ministry of Health Standards for Hospital-Based Psychiatric Emergency Services: Observation Units.

6.9.2.4(3) Access Panels

6.9.2.4(3)a. Where hard ceilings are used, provide access panels to allow for mechanical and electrical servicing in the ceiling.

6.9.2.4(3)b. Access panel to be prefinished.

6.9.2.5 Flooring

6.9.2.5(1) All rooms except wet rooms

6.9.2.5(1)a. Use solid homogeneous sheet flooring (or an equivalent product approved in advance by the Authority) unless specified otherwise. Acceptable products:

6.9.2.5(1)a.1 Tarkett iQ Granit

6.9.2.5(1)a.2 Tarkett Micro Granit

6.9.2.5(1)a.3 Tarkett Optima

6.9.2.5(1)a.4 Forbo Centura Sphera Element

6.9.2.5(1)b. Meets the American Society Testing Materials (ASTM) F 1913 Standard Specification for Vinyl Sheet Floor Covering Without Backing consisting of a non-layered flooring with the same colour and pattern extended throughout.

6.9.2.5(1)c. Select products that will require no sealers, no wax and no finish for the life of the product.

6.9.2.5(1)d. Hot weld all joint seams.

6.9.2.5(1)e. Form coved bases 150 mm high, straight cut, finished with clear silicone caulking. Do not cap.

6.9.2.5(1)f. External corners are formed using a Butterfly Piece, otherwise known as a V-plug.

6.9.2.5(1)g. Use low VOC flooring adhesive of a type recommended by the flooring manufacturer.

6.9.2.5(1)h. Where there is no existing product to butt against, finish edging finish with vinyl finishing strip as per manufacturers' specifications.

6.9.2.5(1)i. Finish flooring with high-speed buffing as per manufacturers' specification. Do not apply sealer or wax.

6.9.2.5(2) Wet Rooms

6.9.2.5(2)a. Use slip-resistant solid sheet flooring (or an equivalent product approved in advance by the Authority) appropriate for the specific use for all wet rooms. Acceptable products:

6.9.2.5(2)a.1 Tarkett Granit Safe.T;

6.9.2.5(2)a.2 Tarkett Granit Multisafe;

6.9.2.5(2)a.3 Tarkett Safetred Aqua;

6.9.2.5(2)a.4 Tarkett Multisafe Aqua;

6.9.2.5(2)a.5 Altro Aquarius; and

6.9.2.5(2)a.6 Altro Commerical Kitchen line (Altro Classic 25, Altro Atlas 40, Altro Strong Hold 30).

6.9.2.5(2)b. Meets the American Society Testing Materials (ASTM) F1303 type 2 grade 1 consisting of a non-layered flooring with the same colour and pattern extended throughout.

6.9.2.5(2)c. Hot weld all joint seams.

6.9.2.5(2)d. Form coved bases 150 mm high, straight cut, finished with clear silicone caulking. Do not cap.

6.9.2.5(2)e. External corners are formed using a Butterfly Piece, otherwise known as a V-plug.

6.9.2.5(2)f. Use low VOC flooring adhesive of a type recommended by the flooring manufacturer.

6.9.2.5(2)g. Finish flooring as per manufacturer's specification. Do not apply sealer or wax.

6.9.2.5(2)h. "Wet rooms" include, but are not limited to, the following:

6.9.2.5(2)h.1 medical Inpatient washroom;

6.9.2.5(2)h.2 medical Inpatient washroom (Bariatric);

6.9.2.5(2)h.3 LDRP washroom (shower);

6.9.2.5(2)h.4 LDRP washroom (tub);

6.9.2.5(2)h.5 Tub / Shower room;

6.9.2.5(2)h.6 Decontamination Room (in the Emergency Department); and

6.9.2.5(2)h.7 Housekeeping Closets.

6.9.2.5(3) Stair Covering

6.9.2.5(3)a. Stair treads will be one-piece solid vinyl Johnsonite VIRTR (visually impaired roundel tread riser) with carborundum strip (product approved in advance by the Authority).

6.9.2.5(3)b. Use a low volatile organic compound adhesive approved by the flooring manufacturer.

6.9.2.5(4) Comply with all applicable standards, including the National Floor Covering Association (NFCA) Specification Standards Manual. US Federal Specification RR-T-650d.

6.9.2.5(5) Select flooring materials that are suitable for:

6.9.2.5(5)a. ease of cleaning and maintenance;

6.9.2.5(5)b. pedestrian and rolling traffic;

6.9.2.5(5)c. the acoustic requirements of the space;

6.9.2.5(5)d. infection prevention and control; and

6.9.2.5(5)e. the aesthetics of the Facility.

6.9.2.5(6) Where epoxy flooring is used in wet areas, use water- and slip- resistant grade and prevent water or moisture transmission to the substrate. Terminate flooring at the walls in the form of 150 mm high flash coves.

6.9.2.5(7) Use heavy-duty materials for flooring on which wheeled or service vehicle traffic is anticipated and to which wear and damage may result.

6.9.2.5(8) Use suitable flooring in Patient and Staff areas where cart or stretcher traffic is expected or where cleaning on a regular or emergency basis is necessary.

6.9.2.5(9) Use water resistant and slip-resistant flooring Inpatient washrooms, medical Inpatient washrooms (including Bariatric), Housekeeping Closets, and decontamination room.

6.9.2.5(10) Resilient tile products with performance equal to or exceeding the requirements for sheet flooring may be considered for flooring in service corridors and service areas and approved by the Authority.

6.9.2.5(11) Use anti-static flooring material for technology rooms.

6.9.2.5(12) Resilient Flooring

6.9.2.5(12)a. Choose products with exposed surface having anti-bacterial properties to prevent entry of gram-positive and gram-negative micro-organisms. Weld all seams. Provide integral cove bases.

6.9.2.5(12)b. Slip-resistant sheet vinyl will have a static coefficient of friction of 0.6 on level surfaces and 0.8 on ramps.

6.9.2.5(12)c. Do not use linoleum sheet flooring.

6.9.2.5(12)d. Hot weld all seam joints.

6.9.2.5(12)e. Form cove bases 150 mm high, straight cut, and welded seams.

6.9.2.5(12)f. Use solvent-based, low-odour flooring adhesive of a type recommended by the flooring manufacturer.

6.9.2.5(12)g. Finish flooring with high-speed buffing as per manufacturer's specification.

6.9.2.5(12)h. Provide tactile warning strips and stair nosing to assist the visually impaired.

6.9.2.5(12)i. Use adhesive for resilient flooring that meets or exceeds the United States Environmental Protection Agency (EPA) Standards for acceptable VOC concentration and emission rates.

6.9.2.5(13) Physiotherapy Flooring

6.9.2.5(13)a. Provide a resilient, vinyl surface, multipurpose, sport flooring surface.

6.9.2.5(13)b. Vinyl is to be 5 mm thick minimum for shock absorption.

6.9.2.5(13)c. Choose products with exposed surface having anti-bacterial properties to prevent entry of gram-positive and gram-negative micro-organisms. Weld all seams. Provide integral cove bases.

6.9.2.5(13)d. Static coefficient of friction of 0.6 on level surfaces.

6.9.2.5(13)e. Hot weld all seam joints.

6.9.2.5(13)f. Form cove bases 150 mm high, straight cut, and welded seams.

6.9.2.5(13)g. Use solvent based low odour flooring adhesive.

6.9.2.5(13)h. Finish flooring with high-speed buffing as per Manufacturer's specification.

6.9.2.6 Acoustic Treatment

6.9.2.6(1) Design and construct the Facility to comply with the minimum sound transmission ratings between spaces described in Appendix 1C Acoustics and Noise Control Measures.

6.9.2.6(2) In addition, provide acoustic treatment where sound attenuation, soundproofing or other sound control measures are necessary to create a healing environment for Patients and a safe and comfortable environment for Staff and where confidentiality is required.

6.9.2.6(3) Sound control will include:

6.9.2.6(3)a. attenuation of sound within public, Patient and Staff environments;

6.9.2.6(3)b. sound isolation between the exterior and interior spaces;

6.9.2.6(3)c. sound isolation between interior spaces within the building at both horizontal and vertical separations;

6.9.2.6(3)d. sound and vibration isolation of building service noises and sound isolation of building service rooms; and

6.9.2.6(3)e. sound isolation as required for specialty rooms.

6.9.2.6(4) Use acoustic screens, vibration isolators, and carefully selected exterior equipment to prevent exterior noise that neighbours may find offensive. See Section 4.2.6, Community Noise Protection.

6.9.2.7 Painting and Protective Coatings

6.9.2.7(1) Comply with LEED requirements for Low Emitting Materials Paints and Coatings, including:

6.9.2.7(1)a. architectural paints, coatings and primers: low voc.

6.9.2.7(1)b. anti-corrosive and anti-rust: low voc.

6.9.2.7(1)c. clear wood finishes, floor coatings, stains and shellacs: low VOC.

6.9.2.7(2) Walls, doors and shelving

6.9.2.7(2)a. Use eggshell for all walls and painted shelving (MPI #144).

6.9.2.7(3) Door frames and metal doors

6.9.2.7(3)a. Use semi-gloss for all door frames and metal doors (MPI #147).

6.9.2.7(4) Wood finish doors

6.9.2.7(4)a. Use Sanding Sealer (MPI #84) at two coats and interior Lacquer (MPI #86) at three coats.

6.9.2.7(5) Paint Grade Doors

6.9.2.7(5)a. Use semi-gloss for all paint grade doors.

6.9.2.7(6) Ceilings

6.9.2.7(6)a. Use semi-gloss (MPI #147) paint for all painted ceilings. Ceilings are to be painted white. Gypsum wallboard ceilings are to receive latex sealer (MPI #50) at one coat, with two finish coats.

6.9.2.7(7) Floors, concrete

6.9.2.7(7)a. Use a 2-component (base component A, curing agent B).

6.9.2.7(7)b. Use a primer if part of coating system.

6.9.2.7(7)c. Paint finish to be MPI #60 or MPI 327.

6.9.2.7(8) Paint painted Patient care areas with an eggshell finish (MPI #144).

6.9.2.7(9) Conform to all applicable standards, including the material and workmanship requirements of Master Painters Institute (MPI) Architectural Painting Specification Manual.

6.9.2.7(10) Use exterior paints of a quality designed to protect substrate materials from weather and climate conditions.

6.9.2.7(11) Use exterior and interior finish materials with surface finishes either as integral to the finish material or field-applied separately to the surface of the finish material.

6.9.2.7(12) Treat exterior masonry materials such as brick and concrete block with water-repellent coatings to prevent water ingress into or through the material.

6.9.2.7(13) Provide a special protective coating on exterior and interior materials that are subject to corrosion from exposure to moisture or other corrosive agents, and where painting is deemed to be insufficient protection. Materials requiring a special protective coating include exterior and interior structural, galvanized, and miscellaneous steel.

6.9.2.7(14) Use paints meeting MPI "Environmentally Friendly" E2 / E3 ratings based on VOC (EPA Method 24) content levels in Patient, Staff, and public interior areas.

6.9.2.7(15) Use interior paint materials of a quality to withstand regular or repeated cleaning as the function of the area dictates.

6.9.2.7(16) Do not use materials containing lead and mercury.

6.9.2.7(17) Walls are to be painted light neutral colours only.

6.9.2.7(18) Walls are to be painted one solid colour. Two-coloured walls are to be accommodated with the use of protective panelling (Fibre-reinforced plastic (FRP), Acrovyn, etc.)

6.9.2.7(19) The Facility may use one colour scheme per floor. Colour schemes are limited to two wall colours and two door and trim colours.

6.9.2.8 Vinyl Acrylic Wall Covering

6.9.2.8(1) If vinyl/acrylic wall covering is used, provide vinyl/acrylic high impact rigid sheet, nominal 2.0mm thickness with colour-matched vinyl/acrylic trim for joint/transitions.

6.9.2.8(2) Furnish complete packaged system containing all primers and adhesive. Use non-water-based and non-hazardous primer and adhesive materials.

6.10 Specialties (Division 10)

6.10.1 Basic Requirements

6.10.1.1 Refer also to Appendices 1B and 1H.

6.10.1.2 Provide specialty products manufactured for the specific purposes intended and installed in strict accordance with the manufacturer's directions.

6.10.2 Tack boards and Whiteboards

6.10.2.1 Provide, as required in Appendix 1B(II) Furniture & Equipment List:

6.10.2.1(1) tack board surfaces that allow pin penetration of the surface materials and have reasonable resistance to deterioration; and

6.10.2.1(2) whiteboard surfaces that allow use of felt-type writing instruments and allow erasing and cleaning with minimal effort. Use porcelain ceramic on steel surface, magnetic, scratch and abrasion-resistant and have maximum contrast, glare control, and reflectivity.

6.10.2.2 Provide tack boards and whiteboards with extruded aluminum frames, accessory trays, map rails and map hooks.

6.10.2.3 Use non-toxic, water-based lamination adhesive for tack boards and whiteboards.

6.10.3 Projection Screens

6.10.3.1 Provide, as required in Appendix 1B(II) Furniture & Equipment List:

6.10.3.1(1) projection Screens mounted from recesses in ceilings or wall mounted; and

6.10.3.1(2) where appropriate, provide for motorized screens.

6.10.3.2 Provide supports and power as required to coordinate with mobile or fixed projector units, including ceiling mounted projectors.

6.10.3.3 Provide for trims and finishes compatible with the design of the rooms.

6.10.4 Compartments and Cubicles

6.10.4.1 Provide compartments and cubicles including toilet partitions, change cubicles, shower partitions, and other compartments and cubicles requiring privacy and security.

6.10.4.2 Provide exposed surfaces that are permanent, water-resistant, corrosion-proof, and readily cleaned and maintained.

6.10.4.3 Secure partitions and standards to the floor or ceiling structure, and in a manner to resist lateral loading and impact.

6.10.4.4 For compartment/cubicle doors, use material matching the partitions and include permanent, purpose-made hardware. Design doors and hardware to provide barrier-free access.

6.10.4.5 Provide a mirror in all change compartments.

6.10.5 Toilet Partitions

6.10.5.1(1) Galvannealed sheet metal will conform to ASTM A653 with minimum ZF001 (A01) zinc coating. Finish in polyester, baked enamel or powder coating.

6.10.5.1(2) For stainless steel, use Type 304 conforming to ASTM A240 with No. 4 finish.

6.10.5.1(3) For plastic laminate, use Grade 10/HGS GP50 scuff-resistant, high-pressure laminate, conforming to NEMA LD-3.

6.10.5.1(4) Fibre-reinforced plastic (fibreglass) will be a moisture resistant grade.

6.10.5.1(5) Solid Phenolic with laminate or stainless-steel finish.

6.10.6 Change Cubicle Partitions

6.10.6.1(1) Where adjacent to showers, change cubicle partitions will be the same as shower partitions.

6.10.6.1(2) Where not adjacent to showers, change cubicle partitions will comply with the requirements for toilet partitions.

6.10.7 Shower Partitions

6.10.7.1(1) Use solid phenolic laminated thick stock, factory-laminated with decorative finish both faces of core and conforming to CAN3-A172 or NEMA LD3.

6.10.8 Metal Lockers

6.10.8.1 Provide individual and shared storage facilities in designated Staff and Patient areas in the Building based on expected Staffing requirements as described in Appendix 1A Clinical Specifications and as appropriate for operation of the Building. Such storage facilities may be metal lockers and metal locker systems of sizes, numbers, and groupings as determined in consultation with the Authority. Lockers will include a mix of full height, half size and purse lockers. Minimum locker size to be W: 300mm x D: 450mm. For sheet metal, use galvannealed steel conforming to ASTM A653 with ZF001 (A01) zinc coating.

6.10.8.2 Lockers will be placed on minimum 150 mm high bases finished with cove bases integral with the floor finish. Bases will be sealed to prevent moisture and dust ingress.

6.10.8.3 Lockers will fit tightly below gypsum board bulkheads or be complete with sloped metal tops.

6.10.8.4 Finish steel surfaces with polyester baked enamel or powder coating.

6.10.8.5 For single, double, or multiple-tier metal lockers for Staff use, include a provision for locking with padlock, and complete with number plates, and 2 hanging hooks per locker.

6.10.9 Storage Shelving Systems

6.10.9.1 Provide storage systems for materials in designated storage areas.

6.10.9.2 Adjustable shelving systems may be specifically manufactured for storage purposes, such as plywood or steel-slotted angle industrial shelving for bulk materials of plastic laminate- faced plywood for clean storage.

6.10.9.3 For mobile storage systems, provide a high-density system designed to make maximum use of available space by eliminating need for access aisle for each run of shelving. Install and brace systems to resist seismic loads. The mobile storage system to be either power assisted or to be easily operable without undue required strength by any person.

6.10.10 Washroom Accessories

6.10.10.1 Provide institutional quality washroom accessories as specified in this Schedule in all public, Patient and Staff washrooms as well as for all hand hygiene sinks. Determine the type, size, and number of accessories and placement on walls with regard for the numbers and categories of users, in consultation with the Authority.

6.10.10.1(1) Refer to Appendix 1K for accessory responsibility codes, cut sheets, and clinical-type accessories not listed in Section 6.10.10 of this Schedule.

6.10.10.2 Install washroom accessories to allow cleaning and maintenance of each accessory and surrounding wall area.

6.10.10.3 Accessories with appropriate safety features will be selected for Mental Health / Psychiatry and other areas where there is increased risk of Patient injury and, where appropriate, in accordance with *British Columbia Ministry of Health Standards for Hospital-Based Psychiatric Emergency Services: Observation Units*.

6.10.10.4 Recessed dispensers (such as those for paper towels, soap and waste receptacle) will not be used.

6.10.10.5 Use commercial grade accessories free from imperfections in manufacture and finish.

6.10.10.6 Use fittings with concealed fastening for security and discouragement of tampering.

6.10.10.7 Staff and public washroom accessories will include the following:

6.10.10.7(1) soap dispensers;

6.10.10.7(2) toilet paper dispensers;

6.10.10.7(3) paper towel dispensers;

6.10.10.7(4) paper towel disposals;

6.10.10.7(5) mirrors;

6.10.10.7(6) barrier-free grab bars (with integral tactile grip finish);

6.10.10.7(7) coat hooks;

6.10.10.7(8) sanitary napkin dispensers;

6.10.10.7(9) sanitary napkin disposals;

6.10.10.7(10) baby change tables are required in public washrooms only, unless otherwise specified;

6.10.10.7(11) utility shelf; and

6.10.10.7(12) Lotion dispensers.

6.10.10.8 Patient washroom accessories will include the following:

6.10.10.8(1) soap dispensers;

6.10.10.8(2) toilet paper dispensers;

6.10.10.8(3) paper towel dispensers;

6.10.10.8(4) paper towel disposals;

6.10.10.8(5) mirrors;

6.10.10.8(6) barrier-free grab bars (with integral tactile grip finish);

6.10.10.8(7) coat hooks;

6.10.10.8(8) utility shelf; and

6.10.10.8(9) Lotion dispensers.

6.10.10.9 Patient ensuite washrooms will include the following accessories:

6.10.10.9(1) soap dispensers;

6.10.10.9(2) toilet paper dispensers;

6.10.10.9(3) paper towel dispensers;

6.10.10.9(4) paper towel disposals;

6.10.10.9(5) mirrors;

6.10.10.9(6) barrier-free grab bars (with integral tactile grip finish);

6.10.10.9(7) shower seat;

6.10.10.9(8) coat hooks;

6.10.10.9(9) utility shelf; and

6.10.10.9(10) lotion dispensers.

6.10.10.10 Shower rooms or showers in Patient washrooms will include the following accessories:

6.10.10.10(1) shower curtain and track or rod as appropriate;

6.10.10.10(2) handicap grab bars;

6.10.10.10(3) fold-down shower seat; and

6.10.10.10(4) soap dispenser.

6.10.10.11 Hand hygiene sinks will include the following accessories:

6.10.10.11(1) soap dispensers;

6.10.10.11(2) paper towel dispensers;

6.10.10.11(3) paper towel disposals; and

6.10.10.11(4) lotion dispensers.

6.10.11 Privacy Curtains

6.10.11.1 Provide and install hook-less hospital privacy curtain panels, ceiling mounted tracks, wall flanges, angle brackets, ceiling flanges, end stops, T plates, 4-way plates and all other accessories as required, at cubicles and other locations as determined in consultation with the Authority.

6.10.11.2 Provide the number of cubicle curtains required to fully enclose the opening, with a minimum of three sets of curtain panels for each location.

6.10.11.3 Curtains will comply with CAN/ULC S109-03 Flame Tests of Flames Resistant Fabrics and Films.

6.10.11.4 For cubicle tracks, use extruded, anodized aluminum, entirely enclosed except for the track guide.

6.10.11.5 Basis of design for the hook-less privacy curtain system will be On The Right Track. Other hook-less privacy curtain systems of equal performance may be acceptable to the Authority.

6.10.11.6 Curtain and curtain track will be structurally supported.

6.10.11.7 Provide cubicle curtains in the following locations:

6.10.11.7(1) LDRP bedrooms;

6.10.11.7(2) The emergency department at stretcher, bed and chair bays, treatment areas, holding spaces, examination rooms, procedure room and resuscitation/trauma room;

6.10.11.7(3) Diagnostic Imaging at change cubicles;

6.10.11.7(4) Ambulatory Services and examination rooms; and

6.10.11.7(5) Any other location identified in Appendix 1A Clinical Specifications.

6.10.12 Shower Curtains

6.10.12.1 Provide shower curtains and track in the following locations:

6.10.12.1(1) Medical Inpatient unit at Inpatient washrooms;

6.10.12.1(2) Any other location identified in Appendix 1A Clinical Specifications.

6.10.13 Folding Panel Partitions

6.10.13.1 Provide folding panel partitions with acoustic seal for subdividing meeting rooms in accordance with Appendix 1A Clinical Specifications.

6.10.13.2 Provide an access door in each folding panel partition to allow access from meeting room to meeting room.

6.10.14 Inpatient Bed Headwalls

6.10.14.1 In private Inpatient rooms, design the headwall adjacent to the Inpatient bed:

6.10.14.1(1) to allow for one oxygen connection, one medical air connection and one vacuum connection on each side of the bed, for a total of 6 medical gas outlets; and

6.10.14.1(2) to meet or exceed all relevant CSA and ULC codes and regulations for the full range of requirements for an Acuity Adaptable Direct Patient Care Area and environment;

6.10.14.1(3) to provide all rails, accessories and backing required for mounting monitors, baskets, and other equipment as required,

6.10.14.1(4) to provide bed dock locators behind the bed or alternative layout approved by the Authority,

6.10.14.1(5) to allow for data, communication and electrical power outlets on both sides of the bed, and

6.10.14.1(6) in accordance with Section 7.7 Communications (Division 27); and

6.10.14.1(7) so that medical gases, service outlets, rails, equipment and accessories are configured in a horizontal and modular system, which may be either a horizontal, modular headwall strip or a complete wall unit.

6.10.14.2 In Bariatric rooms provide two headwalls on the same wall in order to support a second Inpatient bed during over capacity. Comply with the requirements of Section 6.10.14.1.

6.10.15 Electric Fireplace

6.10.15.1 If provided, will have all components and accessories for a complete, functional unit listed to UL or WHI and will be front view, opening-sealed unit and non-venting, with a fire on/off switch, log set and log grates.

6.10.16 Mail Slots

6.10.16.1 Provide mail slots that are a minimum of 25mm wide, 350mm high and 400mm deep, in locations identified in Appendix 1A Clinical Specifications.

6.11 Equipment (Division 11)

6.11.1 Food Services

6.11.1.1 Refer to Appendix 1H(III) Foodservice Equipment Specifications.

6.11.1.2 Refer to Appendix 1H(IV) Foodservice Equipment Schedule.

6.11.2 Laundry Services

6.11.2.1 Refer to Appendix 1H(I) Laundry Equipment Specifications.

6.11.2.2 Refer to Appendix 1H(II) Laundry Equipment Schedule.

6.11.3 Ceiling-Mounted Patient Lifts

6.11.3.1 Refer to Appendix 1A Clinical Specifications and Appendix 1B(II) Furniture & Equipment List for information regarding locations and ceiling-mounted Patient lift configurations.

6.11.3.2 Ceiling-mounted Patient lift motors designated as Bariatric will have minimum 374.2 kg capacity. All other ceiling-mounted Patient lift motors will have minimum 272.2 kg capacity.

6.11.3.3 All ceiling-mounted Patient lift suspension components below the floor/roof assembly but above the finished ceiling including but not limited to steel hangers and seismic bracing will be designed for Bariatric capacity.

6.11.3.4 All components of the ceiling-mounted Patient lift system including but not limited to tracks, rails and lift motors, will be from the same manufacturer and designed to work together as a system.

6.11.3.4(1) The ceiling-mounted Patient lift tracks and supporting structure are base building components.

6.12 Furnishings (Division 12)

6.12.1 Refer also to Appendices 1B and 1H.

6.12.2 Millwork, Casework, Clinical Systems Furniture and Systems Furniture

6.12.2.1 The Facility and its components must be accessible by people with different functional capacitates including, children, the elderly, Persons with Disabilities. The Design-Builder will apply "Universal Design" principles in the design and planning to ensure the furnishings are usable by all people without the need for specialized design or adaptation. Counters, desks, and work surfaces in non-office areas will include wheelchair access for both Patients and the public.

6.12.2.2 The Design-Builder will provide and install all millwork, casework, clinical systems furniture, systems furniture and accessories as required to support the programs and functions described in Appendix 1A Clinical Specifications or as required to support the operation of the Facility.

6.12.2.3 Appendix 1B(II) Furniture & Equipment List identifies the locations in which clinical systems furniture or systems furniture are required. Subject to Sections 6.13.1.5 and 6.13.1.6, the Design-Builder may use millwork, casework, clinical systems or systems furniture interchangeably to satisfy the requirements of Appendix 1B(II) Furniture & Equipment List. The Design-Builder will submit an initial layout and configuration submittal by the Authority.

6.12.2.4 The Design-Builder will establish which option (millwork, casework, clinical systems or systems furniture) best meets the Authority's functional needs for each space and will achieve the most appropriate level of flexibility, re-configurability, serviceability, and reusability between all areas of the Facility.

6.12.2.5 Millwork means custom fabricated wood or metal cabinetry and counter components and accessories that are installed with little or no modification. Millwork or casework may require mechanical, electrical power and data service connections.

6.12.2.6 Millwork or casework components can include but are not limited to work surfaces (such as counters and work benches) and storage (such as cabinetry, files, drawers, wardrobes and cabinets).

6.12.2.6(1) The Design-Builder will provide the following as millwork:

6.12.2.6(1)a. kitchen and pantry counters, upper and lower cabinets, drawers and shelving;

6.12.2.6(1)b. soiled utility room counters, storage cabinetry and shelving;

6.12.2.6(1)c. inpatient room wardrobes, including shelving, drawers, coat rods, counters and cabinets;

6.12.2.6(1)d. workroom counters and storage;

6.12.2.6(1)e. security kiosks;

6.12.2.6(1)f. vanity counters containing sinks;

6.12.2.6(1)g. medication room work surfaces, upper and lower cabinets, shelving and storage components;

6.12.2.6(1)h. Clinical, exam and treatment room counters, upper and lower cabinets, shelving and storage; and

6.12.2.6(1)i. Any other locations identified in Appendix 1A Specifications.

6.12.2.7 Modular Casework means a composition of factory produced, quickly installed parts that are easily replaceable, reconfigurable and interchangeable. Casework can be rearranged to change configuration or to include additional modules as needed.

6.12.2.7(1) The Design-Builder will provide the following as modular casework:

6.12.2.7(1)a. lab casework;

6.12.2.7(1)b. pharmacy casework;

6.12.2.7(1)c. not used;

6.12.2.7(1)d. not used.

6.12.2.8 Clinical systems furniture means a factory produced, component system designed to be replaceable, reconfigurable, and interchangeable, and designed for specific use in health care facilities. Clinical furniture systems can be rearranged to change the configuration or to include additional modules and accessories, as necessary. Clinical systems furniture requires electrical power and data service connections.

6.12.2.8(1) Without limitation, the Design-Builder may use clinical systems furniture for the following:

6.12.2.8(1)a. nursing workstations;

6.12.2.8(1)b. charting alcoves

6.12.2.8(1)c. triage desk;

6.12.2.8(1)d. unit clerk stations;

6.12.2.8(1)e. nursing stations;

6.12.2.8(1)f. registration cubicles;

6.12.2.8(1)g. adjustable height workstations;

6.12.2.8(1)h. reception desks; and

6.12.2.8(1)i. information desks;

6.12.2.9 The Design-Builder will provide all accessories, storage, cabinetry, upper and lower shelving, keyboard trays and counters necessary to facilitate efficient clinical operations.

6.12.2.10 Systems furniture means a composition of factory-produced wall mounted or partition components that are easily reconfigurable and interchangeable. Systems furniture is designed for office or commercial use and includes accessories and attachments to complete its functionality. Systems furniture requires electrical power and data service connections.

6.12.2.10(1) Without limitation, the Design-Builder may use systems furniture for the following:

6.12.2.10(1)a. office workstations including desks, shelving, cabinets, keyboards and accessories;

6.12.2.10(1)b. cubicle partitions;

6.12.2.10(1)c. reception desks; and

6.12.2.10(1)d. information desks.

6.12.3 Furniture

6.12.3.1 Furniture means loose or unattached items that can be rearranged to suit various activities and includes:

6.12.3.1(1) coffee tables and side tables;

6.12.3.1(2) unattached seating (such as chairs and stools);

6.12.3.1(3) waiting room seating;

6.12.3.1(4) sofas and lounge chairs; and

6.12.3.1(5) office desks.

6.12.3.2 All furniture and millwork supplied by the Design-Builder will meet the following requirements:

6.12.3.2(1) Flexibility

6.12.3.2(1)a. Products must offer modular solutions that will enable flexibility and LEAN principles to be practiced. Furniture pieces will:

6.12.3.2(1)a.1 allow for individualization;

6.12.3.2(1)a.2 possess the ability to be used in different applications or flex easily for future use;

6.12.3.2(1)a.3 use non-handed solutions that work in multiple configurations, when possible.

6.12.3.2(2) Durability

6.12.3.2(2)a. Activity, waiting, and dining room furniture will be engineered for high traffic use.

6.12.3.2(2)b. Patient room furniture will be designed in conjunction with healthcare professionals and be tested to ensure durability and function.

6.12.3.2(2)c. Furniture will conform to Upholstery Section under “Cleaning and Ease of Maintenance” for additional criteria related to durability.

6.12.3.2(3) Construction

6.12.3.2(3)a. The quality and make of the product (its construction, finish materials, and maintenance requirements) will be suitable for long term use and be designed for intense performance.

6.12.3.2(3)b. Products with replaceable components are preferred.

6.12.3.2(3)c. Wood furniture should be avoided and requires review by the Authority when proposed. Where utilized, wood furniture components will be constructed of:

6.12.3.2(3)c.1 Solid wood frames of kiln dried wood for added strength and long-term durability.

6.12.3.2(3)c.2 A frame capable of supporting varying weights and body types and offering ease and reassurance to both Patients and care providers.

6.12.3.2(3)c.3 Plastic laminates can be used in place of real wood when a wood-look is desired.

6.12.3.2(3)d. Wood furniture will not be used in clinical areas (such as Patient rooms, waiting rooms, unit offices, nurses' stations, Staff rooms and conference rooms).

6.12.3.2(4) Seating

6.12.3.2(4)a. In waiting room and Patient seating, steel tube construction and spring-seat construction are required.

6.12.3.2(4)b. Seating with wall-saver legs or a wall-saver back design is preferred.

6.12.3.2(4)c. Seating products with arms will include polyurethane arm caps rather than upholstered arm caps.

6.12.3.2(4)d. Refer to upholstered notes referenced throughout Schedule 1 Statement of Requirements for information on upholstered seating products.

6.12.3.2(5) Tables

6.12.3.2(5)a. For durability in waiting rooms and high traffic areas, horizontal table surfaces of solid surface material tops or plastic laminate are required.

6.12.3.2(5)b. Low VOC polyurethane sealed woods can be used on vertical surfaces if plastic laminate is not available.

6.12.3.2(5)c. Design edges with an ergonomic profile for user comfort and be of durable material composition and construction.

6.12.3.2(6) Workstations/Desks

6.12.3.2(6)a. When installed, two adjoining end panels of work surfaces will be levelled so work surfaces sit at the same height.

6.12.3.2(6)b. Tack board, if specified with desk and/or workstation, between hutch and worktop, will span from work surface top to underside of overhead cabinetry leaving no visible gaps, while, at the same time, managing task light wires, if specified with assembly.

6.12.3.2(6)c. Front edge of keyboard platform will be set back from front edge of work surface and/or table.

6.12.3.2(6)d. Any "smart" or "hardwired" furniture will be fully coordinated for proper circuitry and any other building requirements.

6.12.3.2(7) Filing / Storage

6.12.3.2(7)a. Filing is for letter filing, unless specified otherwise. In order to maximize filing capacity, files will be set up for side-to-side filing.

6.12.3.2(7)b. Provide for storage of drawings and other records in Facility Maintenance as required in Appendix 1A Clinical Specifications.

6.12.3.2(7)c. During installation, the conversion parts of the files will be left in the file to allow for front-to-back / side-to-side conversion at a later time.

6.12.3.2(7)d. Filing will be equipped with hanging frames at the time of installation.

6.12.3.2(7)e. At a minimum, two-drawer files will include a counter- balance package as recommended by the product manufacturer.

6.12.3.2(7)f. Lockable storage will be keyed as per the building keying system. Keying schedule to be determined with the Authority.

6.12.3.2(8) Filing / Storage Systems (Compact Shelving)

6.12.3.2(8)a. Provide complete high-density mobile shelving system as required in Appendix 1A Clinical Specifications.

6.12.3.2(8)b. Configuration of the system will be confirmed by the Authority during design.

6.12.3.2(9) Cleaning and Ease of Maintenance

6.12.3.2(9)a. The size, shape, and design of the furniture will allow easy access for cleaning.

6.12.3.2(9)b. Materials, upholstery, and finishes will be capable of withstanding institutional grade detergents, cleaners, and disinfectants with no effect on the appearance, integrity, or life of the product. Selection should be based on the understanding of the principles of decontamination and maintenance requirements (able to withstand multiple applications of diluted disinfectants over time).

6.12.3.2(9)c. The Design-Builder will request that manufacturers provide detailed cleaning and disinfection guidelines prior to the Design-Builder's purchase along with a thorough listing of which cleaning products can be used on their products. The Design-Builder will review instructions to ensure they are clear and cleanable with Authority approved detergents and disinfectants.

6.12.3.2(9)d. Other upholstered soft furnishings will have the following characteristics:

6.12.3.2(9)d.1 Be seamless where possible or have double stitched seams located on the non-contact areas of the furniture or sealed.

6.12.3.2(9)d.2 Limited pleating.

6.12.3.2(9)d.3 Upholstered furniture in care areas will be covered with fabrics that are fluid-resistant, non-porous and can withstand cleaning with hospital grade disinfectants.

6.12.3.2(9)d.4 Seating will have removable seat cushions for cleanability and/or "clean-out" spaces between the seat and back for lounge seating applications.

6.12.3.2(9)d.5 Seating will have removable upholstery covers for both the seat and back, if applicable. Attic stock of the removable upholstery covers will be ordered with the original purchase, in the amount of 5% of the total waiting room and Patient room seating.

6.12.3.2(9)d.6 Have high-destiny foam cores with a moisture barrier and resistance to mould.

6.12.3.2(9)e. Upholstery will:

6.12.3.2(9)e.1 be impermeable to water and quick drying;

6.12.3.2(9)e.2 be anti-microbial, and/or have anti-microbial inhibitor technology;

6.12.3.2(9)e.3 have a good abrasion rating for high-use areas (with a minimum of 100,000 DR (ASTM D4157- 02 Wyzenbeek Test Method);

6.12.3.2(9)e.4 have a high rating for colour fastness, exceeding 40 hours (AATCC Method 16A);

6.12.3.2(9)e.5 be stain-resistant;

6.12.3.2(9)e.6 be latex-free;

6.12.3.2(9)e.7 have low volatile organic compounds;

6.12.3.2(9)e.8 contain no heavy metals;

6.12.3.2(9)e.9 have no halogenated flame retardant materials or perfluorinated chemicals; and

6.12.3.2(9)e.10 have limited use of polyvinyl chloride, avoiding use of polyvinyl chloride where possible, subject to 6.13.5.(9)(c).

6.12.3.2(10) Infection Prevention and Control

6.12.3.2(10)a. Avoid the use of upholstered furnishings and organic finish substances (e.g. wood), which can be exposed to a liquid in areas where immunocompromised Patients are present.

6.12.3.2(10)b. The use of impermeable upholstery (such as vinyl) is permitted in high-risk areas (high-risk applies to any areas specifically used by Patients and clients, including Patient rooms and waiting rooms) and any area where a healthcare worker goes after providing direct Patient care (including nursing station, Staff lounge, report area, conference rooms and office within Patient care areas). Polyurethane fabrics are required if they meet the requirements of the application.

6.12.3.2(10)c. Durable, cleanable fabrics are appropriate in low risk areas. A low level of risk applies to any office areas where Staff members are not providing direct Patient care or return to after providing direct Patient care.

6.12.3.2(11) Environmentally Sensitive

6.12.3.2(11)a. Products will be GREENGUARD certified and be designed to achieve reduced environment impact.

6.12.3.2(11)b. If wood products are used, lumber should come from responsibly managed forests, with each piece utilized to its full capacity. Wood should have low formaldehyde emissions with little to no CFC's used in the production of the materials.

6.12.3.2(11)c. Furnishings will follow the LEAN principles outlined in Section 3.4 of this Schedule.

6.12.3.2(12) Comfort, Ergonomics, and Safety

6.12.3.2(12)a. Waiting room furniture will be designed to promote comfort and long term durability.

6.12.3.2(12)b. The product construction and design should avoid stress and fatigue to the Patient.

6.12.3.2(12)c. Seating will have the stability to support the Patient or visitor in entering and exiting the chair.

6.12.3.2(12)d. All items of furniture (including tables) will be stable and will not move or tip over when touched by a person requiring support.

6.12.3.2(12)e. Furniture will not constitute a hazard for persons who have visual limitations and will be usable by persons with varying abilities and disabilities.

6.12.3.2(12)f. Products will accommodate and facilitate comfort and well- being.

6.12.3.2(12)g. Back support will be provided on seating pieces, through the use of a high or mid back, to provide adequate back support to various populations.

6.12.3.2(12)h. A minimum of 20% of seating will be designed to meet Bariatric requirements of 325 kg. Review specific locations with the Authority.

6.12.3.2(12)i. Task seating will be ergonomically correct with respect to the seat height and pan depth. Seating will be height adjustable, with height adjustable lumbar support to maintain correct body alignment, adjustable back rest tilt, adjustable seat pan depth, height, width, and swivel adjustable armrests. The seat pan will have a waterfall edge on the seat pan or a radius front seat cushion to avoid restriction of circulation to the lower legs. The overall dimensions will be appropriate for the vast majority of users.

6.12.3.2(12)j. General meeting room seating will have a backrest recline function, be stackable, mobile, cleanable and durable.

6.12.3.2(12)k. Boardroom seating will be height adjustable, feature a backrest recline function, be stackable, mobile, cleanable and durable.

6.12.3.2(12)l. Waiting room seating will include armrests to aid sitting and standing and have a raised seat pan for hip and knee considerations.

6.12.3.2(13) Office and Workstation Allocation Guidelines

6.12.3.2(13)a. Single-user or Multi-user workstations for computer, reading, and writing:

6.12.3.2(13)a.1 Allow leg clearance and movement under the work surface and keyboard to be placed at elbow height for most users (692 mm).

6.12.3.2(13)a.2 Depth: Allow room for keyboard, document holder between the keyboard and monitor and monitor positioned for comfortable viewing (760 mm). Additional depth may be required depending on the tasks completed at the workstation.

6.12.3.2(13)a.3 Width: Accommodate keyboard and mouse, telephone, writing and reading areas (min. 700 mm). Additional width depending on tasks completed at the workstation.

6.12.3.2(13)b. The Design-Builder will be responsible for verifying field measurements to ensure proper clearance for fitting items per the specifications and drawings.

6.12.3.2(14) Supplemental Standards and/or Guidelines:

6.12.3.2(14)a. In addition to the above listed features, furnishings will be designed and specified in accordance with all appropriate ergonomic design principles and best design practices of the Authority. Products should also meet minimum criteria set out in BC Building Code and in accordance with the Occupational Health and Safety Regulations and the Ergonomics (MSI) Requirements of WorkSafe B.C.

6.12.3.2(14)b. The Facility and its components must be accessible by people with different functional capacitates including, children, the elderly, handicapped, and the disabled as defined in the BC Building Code. The Design-Builder will apply “Universal Design” principles in the design and planning to ensure the furnishings are usable by all people without the need for specialized design or adaptation. Counters, desks, and work surfaces in non-office areas will include wheelchair access for both Patients and the public.

6.12.3.2(14)c. Products, including foam and upholstery, will be fire retardant to meet applicable building code requirements.

6.12.3.2(15) Furniture List and Specifications

6.12.3.2(15)a. The furniture is described in Appendix 1B(II) Furniture & Equipment List in generic terms and by a furniture identification number. The quantity column demonstrates the number of identical items in a room. All room numbers, room names, and department names are the same or are derivatives of the Appendix 1A Clinical Specifications.

6.12.3.2(15)b. Furniture pieces and layouts will follow the accessibility principles of the Facilities as a whole. Refer to section 3.11 Accessible Equitable Design.

6.12.4 Laboratory Casework

6.12.4.1 General Approach

6.12.4.1(1) Provide laboratory casework:

6.12.4.1(1)a. for the specific and particular functions to be performed by the casework;

6.12.4.1(1)b. to give the end users a good working ergonomic environment that is suited to their specific needs; and

6.12.4.1(1)c. with structural rigidity and chemical resistivity to withstand the service conditions for which they are exposed.

6.12.4.1(2) All casework will be modular and consistent throughout the Facility.

6.12.4.1(3) All casework will be lockable.

6.12.4.1(4) Casework will be wood, metal and/or epoxy resin, selected to minimize cleaning and maintenance operations and maximize infection control capabilities.

6.12.4.1(5) All epoxy resin material bench tops will be acid resistant.

6.12.4.1(6) Provide all lab benches with cabinets for approximately 50% ofthe length of the benches.

6.12.4.1(7) Lab bench systems will hide and organize instrument tubing, electrical and/or data cables.

6.12.4.1(8) Casework will comply with all applicable standards, including:

6.12.4.1(8)a. at a minimum, the quality standards of the Architectural Woodwork Manufacturer's Association of Canada (AWMAC) for Premium Grade; and

6.12.4.1(8)b. the BC Building Code "Building Requirements for Persons with Disabilities".

6.12.4.1(9) Use non-toxic, non-solvent adhesive glue complying with AWMAC Quality Standards Manual, and that of Canadian "Eco-Logo" program or equivalent, with a Total Volatile Organic Carbon (TVOC) emissive content of 20 g/L.

6.12.4.1(10) Provide casework anchorage that complies with the seismic restraint requirements of BC Building Code.

6.12.4.1(11) Steel for cabinet construction for laboratory casework will be levelled prime quality furniture grade cold rolled steel.

6.12.4.2 Cabinets

6.12.4.2(1) All parts and sub-assemblies (doors, drawers, tracks and back panels) will be interchangeable in the field without requiring special tools. Doors and drawers will be interchangeable with like-sized cabinets. Cabinets will be constructed so that a standard height drawer can be removed and two ½ height drawers installed in its place. Likewise, a cupboard door or doors can be removed and replaced by a like-sized combination of drawers or vice versa. This interchangeability will permit rearrangement in the field of all components in addition to being able to relocate the entire cabinet, should changing needs dictate a revision in the layout of cabinets. All cabinets are to be enclosed with lockable doors; hardware will be stainless steel. Provide modesty panels where the backs of the benches are exposed.

6.12.4.3 Wood Laboratory Casework

6.12.4.3(1) Wood casework is not preferred in the Laboratory.

6.12.4.4 Stainless Steel Casework

6.12.4.4(1) Fabricate from Type 316L, No. 4 finish stainless steel.

6.12.4.4(2) Corners will be welded, ground, polished and crevice-free. Joints and welds will be polished to a uniform No. 4 satin finish. No filler or solders will be used. Straight lengths will be one-piece with all seams, including field joints, welded.

6.12.4.4(3) Sound-deaden tops and reinforce with waterproof plywood core, bonded to tops with waterproof contact cement. Seal underside of top (plywood core) with a waterproof finish. The front edges of the tops will be marine edge. Form splashback as an integral part of the tops, radiused where the splashback occurs in the top. Bond all splashbacks to plywood core, bonded the same as specified for the tops. Fabricate countertops, splashbacks, and front aprons out of one piece of stainless steel. Weld counter and sink assemblies into single units without seams or joints. Drill splashbacks, tops and sinks to receive plumbing and electrical fittings.

6.12.4.4(4) Form integral sinks with all-welded rounded corners, seamless construction with all traces of welding removed. Weld stainless steel sinks integrally into tops without seams or joints. Slope tops for sinks and adjacent drain boards to sinks. Provide sinks with drain outlets with removable stainless steel strainer. Stainless steel bench and or counter tops are required where staining or similar procedures are performed.

6.12.4.5 Leg Frame Laboratory Casework System

6.12.4.5(1) The leg frame system will provide complete independent rigid support for all overhead shelving, undercounter suspended cabinets, service cover panels, countertops, sinks and fittings including all mechanical and electrical line work, as necessary to make the assembly operational.

6.12.4.5(2) The concept will permit the addition, relocation or removal of suspended base cabinets, the removal of the entire leg frame module including base cabinet and countertop, leaving intact the separate service strip with all its service fittings, service lines and cover panels as a finished operational component. The countertop height will be designed to be from desk to counter height adjustable without the addition of framing components.

6.12.4.5(3) Base framing modules on basic standard cabinet modules.

6.12.4.5(4) Steel frame will comprise vertical wall channels and independent self- contained pipe chase and leg sets which will allow for the removal and/or interchange of work surfaces and suspended under-counter mounted cabinets and upper shelving. Determine pipe chase location in consultation with the Authority.

6.12.4.5(5) Fabricate system from prime quality furniture grade cold rolled steel. Form all components to create a rigid interlocking structure. All services will be fully accessible through removable cover panels, no special assembly tools are required. Bench legs to be fully adjustable. All legs will have Leveller bolt. Suspended cabinets will be interchangeable and easily moved from workstation to workstation. Adjustable leg frame modules will be capable of adjusting countertop heights in 25 mm increments from 750 mm height up to 1100 mm height.

6.12.4.5(6) Finish for steel surfaces will be as specified above.

6.12.4.6 Miscellaneous Accessories

6.12.4.6(1) Laboratory casework will include the following accessory items:

6.12.4.6(1)a. countertops and splashbacks;

6.12.4.6(1)b. service fittings;

6.12.4.6(1)c. drying racks;

6.12.4.6(1)d. pegboards;

6.12.4.6(1)e. acid storage cabinets;

6.12.4.6(1)f. flammable storage cabinets;

6.12.4.6(1)g. glassware drying cabinets;

6.12.4.6(1)h. framed sliding glass doors;

6.12.4.6(1)i. sliding glass doors;

6.12.4.6(1)j. open storage units;

6.12.4.6(1)k. emergency eye wash;

6.12.4.6(1)l. emergency shower head;

6.12.4.6(1)m. safety shower station;

6.12.4.6(1)n. bin cabinets;

6.12.4.6(1)o. file drawer cabinets; and

6.12.4.6(1)p. mobile cabinets.

6.12.5 Window Treatments

6.12.5.1 Provide window treatments as follows:

6.12.5.1(1) All windows are to receive shading devices which provide privacy, sun and heat control, and are easy to clean and do not support or provide a surface that encourages spread of infectious disease (i.e. do not become electrostatically charged);

6.12.5.1(2) Roller shades are required for use on exterior windows;

6.12.5.1(3) All windows are to receive window shades where privacy may be a concern; and

6.12.5.1(4) All Inpatient Bedrooms, meeting/conference rooms, on-call rooms, and any other clinical examination/treatment rooms that may require a state of undress are to be provided with blackout window shades.

6.12.5.1(5) Not used.

6.12.5.2 Not used.

6.12.5.3 Not used.

6.12.5.4 Provide dual roller shades in all Inpatient bedrooms and in the Non-Denominational Spiritual Room (blackout and sunshade). All roller shades will be recessed in ceiling pockets facilitating easy removal and replacement. If Operating Rooms are provided with windows, provide blackout window shades.

6.12.5.5 No window shades or blinds are permitted for Mental Health Inpatient bedroom exterior windows. Exterior windows of Mental Health Inpatient bedrooms are to have electrochromic glazing. Operation of the electrochromic glazed windows to be controlled only from Clinical Workstations.

6.12.5.6 Use window coverings manufactured from materials and mechanisms that minimize cleaning and maintenance operations and maximize infection prevention and control.

6.12.6 Window Shade Systems

6.12.6.1 Use manual roller shades with one-piece extruded aluminum roller tube, extruded vinyl fabric spline, aluminum profile hem bars.

6.12.6.2 Install recessed in ceiling pockets, facilitating easy removal and replacement. Use galvanized or zinc-plated steel mounting brackets and non-corrosive fasteners.

6.12.6.3 Use shading fabric of non-PVC coated fibreglass yarn and that:

6.12.6.3(1) is waterproof, washable, rot-proof, flame-resistant, fungal- and bacteria- resistant, colourfast to light, glare-reducing, and able to control heat gain and provide external visibility;

6.12.6.3(2) conforms to CAN/CBSB-4.162-M, “Hospital Textiles - Flammability Performance Requirements”; and

6.12.6.3(3) is tested in accordance with ASHRAE Standard 74073 for shading coefficient, fungal resistance in accordance with ASTM G21, and bacterial resistance.

6.12.6.4 Audio-visual Light Blocking Shades: Fabricated from black-out shade panel material, designed to eliminate all visible light gaps when shades are fully closed.

6.12.6.5 Manual shade operation with continuous loop bead chain, clutch, cord tensioner and bracket lift operator. Chain length will be designed to anti-ligature requirements.

6.12.6.6 Not used.

6.12.7 Interior Windows

6.12.7.1 In special areas such as the Mental Health / Psychiatry department, construct windows with blinds suited to the purposes unique to those areas and in accordance with the *British Columbia Ministry of Health Standards for Hospital - Based Psychiatric Emergency Services: Observation Units*.

6.12.7.2 All window shades will have a uniform appearance from the exterior and will be coordinated with the exterior building envelope finishes.

6.12.7.3 Horizontal blinds, including between-glass installations, are not permitted with the following exceptions:

6.12.7.3(1) Not used

6.12.7.3(2) Mental Health Inpatient Unit rooms as described in Section 6.12.7.5.

6.12.7.4 Openness and Blackout

6.12.7.4(1) All public areas will have window shades with 5% openness.

6.12.7.4(2) All general areas, including but not limited to offices, labs and team rooms, will have window shades with 3% openness.

6.12.7.4(3) All room types with A/V equipment as identified in Appendix 1D(V) IMIT List will have window shades with 3% openness and blackout shade.

6.12.7.4(4) All Outpatient treatment rooms will have window shades with 1% openness.

6.12.7.5 Venetian-Type Blinds between Glazing (Integral Blinds)

6.12.7.5(1) Not used.

6.12.7.5(1)a. Not used.

6.12.7.5(2) Integral blinds are required in Mental Health rooms as follows:

6.12.7.5(2)a. High Observation Rooms and Vestibules (HO) – provide an integral blind in each of interior glazing windows to the corridor for visual observation. Controls are to be located on corridor side only.

6.12.7.5(2)b. Isolation Anteroom – provide an integral blind in the window within the door into the Inpatient bedroom for visual observation. Control is to be located on Anteroom side only.

6.13 Special Construction (Division 13)

6.13.1 Radiation Protection

6.13.1.1 Comply with all applicable requirements of the National Council on Radiation Protection and Measurement (NCRP); and Radiation Protection Service, B.C. Centre for Disease Control, 655 – 12 Ave West, Vancouver, B.C. V5Z 4R4.

6.13.1.2 Provide radiation protection in walls, doors, floors, ceilings and windows as required and appropriate to protect Staff and Patients from x-ray, imaging digitizing, CT scanner, radiology, nuclear medicine radioactive storage decay and other rooms in the radiation protection shield.

6.13.1.3 Provide radiation protection by incorporating lead sheet of appropriate weight and thickness into wall and door assemblies and leaded glass manufactured for radiation shielding purposes into window assemblies.

6.13.1.4 Radiation shielding will be not less than 1.6mm (4-pound lead) to 2.1m above the floor level as a minimum.

6.13.1.5 For sheet lead, comply with ASTM B749 Standard Specification for Lead and Lead Alloy Strip, Sheet and Plate and meet or exceed Federal Specification QQL-201F Grade C.

6.13.1.6 For lead-lined gypsum board, comply with ASTM C36 or and ASTM C1396/1396M, Type X.

6.13.1.7 For lead glass, meet or exceed Federal Specification DD-G-451.

6.13.1.8 For cassette transfer cabinets, meet or exceed MIL-C-3673 (DM) Radiation shielded.

6.13.1.9 For radiation shielded doors, meet or exceed American National Standards Institute/ National Woodworkers Manufacturers Association (ANSI/NWMA) Industry Standard for wood doors and NCRP Report #49.

6.13.1.10 Fabricate radiation-shielded doors using a single layer of sheet lead with wood core laminated on each side of the lead. Bond cores using poured lead dowels at edges.

6.13.1.11 Fabricate radiation-shielded door frames with lead-lining.

6.13.1.12 Lead glass or lead louvers occurring in radiation shielded doors will be equivalent rated to sheet lead in doors.

6.13.1.13 For lead-laminated gypsum wallboard, use a single unpierced sheet of lead.

6.13.1.14 For sheet lead applied directly to partition steel studs, provide a continuous and complete protective shield.

6.13.1.15 Provide radiation shielding barriers, mobile or fixed, modular and transparent barriers to protect medical personnel by providing a full body shield. Provide units with distortion-free, lead-plastic windows.

6.13.2 Magnetic Resonance Protection

6.13.2.1 Comply with all applicable requirements for Magnetic Resonance Imaging (MRI) equipment room shielding per manufacturer's specifications.

6.13.2.2 Provide quench venting per equipment specifications.

6.13.2.3 Provide slab recess to allow for level flooring finish to MRI room.

6.13.2.4 Provide appropriately designed clear access, plus structural capacity, for convenient delivery and installation of the MRI unit.

6.14 Conveying Equipment (Division 14)

6.14.1 Codes and Standards

6.14.1.1 The following are Essential:

6.14.1.1(1) Elevators will conform all applicable federal, provincial and local codes, ordinances and bylaws, including the following standards (latest applicable edition and supplements).

6.14.1.1(1)a. B651 Accessible design for the built environment.

6.14.2 Elevators

6.14.2.1 The following are essential:

6.14.2.1(1) Provide elevator(s) as required for vertical circulation between all levels of the Building.

6.14.2.1(2) Provide a minimum of two (2) public elevators serving all levels of the Building, configured as follows:

6.14.2.1(2)a. Public elevators will have a cab with minimum interior car dimensions of 2337 mm wide by 1600 mm deep and nominally 2743 mm high.

6.14.2.1(2)b. Public elevators will have a minimum capacity of 1814 kg.

6.14.2.1(2)c. Public elevators will have 1219 mm wide, centre-opening door(s).

6.14.2.1(2)d. Public elevators will have front doors only. The required door heights for public elevators are to be 2134 mm.

6.14.2.1(2)e. Public elevators will utilize machine-room-less (MRL) traction equipment with gearless machines or overhead traction equipment.

6.14.2.1(2)f. Public elevators will have rated speeds of not less than 1.0 m/s.

6.14.2.1(2)g. Public elevators will have durable elevator cab finishes suitable for the environment, including stainless steel returns, handrails and bumpers, homogeneous sheet flooring, stainless steel or durable laminate wall panels, and a mirror above the handrail on the back wall.

6.14.2.1(3) Provide a minimum of two (2) Patient transfer and logistics elevators serving all levels of the Building, configured as follows:

6.14.2.1(3)a. Patient transfer and logistics elevators will have a cab with hospital configuration (longer than deep) with minimum car dimensions of 2134 mm wide and 3048 mm deep and 3050 mm high.

6.14.2.1(3)b. Patient transfer and logistics elevators will have a minimum capacity of 3632 kg.

6.14.2.1(3)c. Patient transfer and logistics elevators will have 1829 mm wide doors. The required elevator door heights are to be 2438 mm.

6.14.2.1(3)d. Patient transfer and logistics elevators will have front doors only at all levels served.

6.14.2.1(3)e. Patient transfer and logistics elevators will utilize machine-room-less (MRL) traction equipment with gearless machines or overhead traction equipment.

6.14.2.1(3)f. Patient transfer and logistics elevators will have rated speeds of not less than 1.0 m/s.

6.14.2.1(3)g. Patient transfer and logistics elevators will have durable elevator cab finishes suitable for the environment, including stainless steel returns, handrails and bumpers, homogeneous sheet flooring, and stainless steel or Class 'A' FRP wall panels.

6.14.2.1(4) In addition to the public and service/patient transfer elevators, provide one (1) smaller service elevator if required for access all major departments by controlled circulation, configured as follows:

6.14.2.1(4)a. Service elevator will have a cab with hospital configuration (longer than deep) with minimum car dimensions of 1740 mm wide and 2540 mm deep and nominally 3050 mm high.

6.14.2.1(4)b. Service elevator will have a minimum capacity of 2268 kg.

6.14.2.1(4)c. Service elevator will have 1372 mm wide, two-speed, side-opening doors.

6.14.2.1(4)d. Service elevator will have front doors only at all levels served.

6.14.2.1(4)e. Service elevator will be configured in a conventional gearless overhead traction arrangement.

6.14.2.1(4)f. Service elevator will have rated speeds of not less than 1.0 m/s.

6.14.2.1(4)g. Service elevator will have durable elevator cab finishes suitable for the environment, including stainless steel returns, handrails and bumpers, homogeneous sheet flooring, and stainless steel or Class 'A' FRP wall panels.

6.14.2.1(5) Equipment will have a proven track record of at least five years in Canada, of satisfactory operation on other installations in similar environments and configurations.

6.14.2.1(6) Arrange that the equipment can be maintained and adjusted by any competent elevator company without the use of proprietary tools, information or equipment or, if such tools, information or equipment are required, provide them (these will become the property of the Authority). Do not incorporate any running time, cycle counters, or trip counters that would cause the equipment to shut down or alter its operation in any way.

6.14.2.1(7) Elevators will be provided with security card reader access.

6.14.2.1(8) Elevators will be provided with CCTV cameras.

6.14.2.1(9) Not used.

6.14.2.1(10) All elevator signage visible to the public, audible messages, braille and tactile messages will be in English.

6.14.2.1(11) Provide Emergency Power Operation such that the elevator is fed with emergency power. Coordinate with electrical design and requirements.

6.14.2.1(12) Elevators used for support services will be configured with platforms to accommodate easy movement of material carts.

6.14.2.1(13) Provide all permits, labour, materials, products, equipment, services and all else necessary for the design, manufacture, delivery, installation and services required for a complete and fully functioning elevator system.

6.14.2.1(14) Obtain and pay for design submission, registration, inspection and permit, as required (except for ownership and operating license), and make such tests as required by the British Columbia Safety Authority prior to licensing.

6.14.2.1(15) Refer to Sections 7.6, 7.7 and 7.8 for requirements related to programming elevators to integrate with communication, networks, fire alarms and other systems in the Facility, to the approval of the Authority.

6.14.3 Scope of Work

6.14.3.1 Supply and install vertical transportation equipment.

6.14.3.2 Arrange and pay for all necessary permits, certificates, approvals, variances, and inspections.

6.14.4 Warranty

6.14.4.1 Warrant work of this Section for a period of 2 years against defects and/or deficiencies.

6.14.4.2 Maintain the manufacturer's warranties on all Communications Systems equipment and ensure that the warranties are assignable to the Authority.

6.14.5 Maintenance

6.14.5.1 Provide full maintenance of the equipment for a period of 24 months after Substantial Performance.

6.14.5.2 Within one month following Substantial Performance, perform a complete clean- down of the hoist way, car top and machine room of each elevator.

6.14.5.3 Perform monthly maintenance at a minimum.

6.14.5.4 Provide 24 hour a day, seven days a week call-back service, including overtime call-backs.

6.14.6 Training

6.14.6.1 Provide a training session for the Authority's Staff after Substantial Performance consisting of a review of the documentation and operation of the equipment and features.

6.14.7 Trademarks

6.14.7.1 Do not apply trademarks, company name or logo visible to the general public on any piece of equipment.

6.14.8 Operating Environment

6.14.8.1 Provide material and equipment to function normally when the ambient temperature is between 3.5 °C and 36.0 °C.

6.14.8.2 Provide material and equipment to function normally when ambient relative humidity level is maintained below 95% non-condensing.

6.14.8.3 Provide material and equipment to function normally when the supply voltage is within minus 10% and plus 8% of the nominal voltage and the frequency is within 5% of the nominal frequency.

6.14.9 Fixtures and Finishes

6.14.9.1 Provide signal fixtures, such as push buttons and position indicators, with LED illumination.

6.14.9.2 Provide push buttons, with tactile plates corresponding in size.

6.14.9.3 Provide push buttons with metal targets.

6.14.9.4 Provide vandal resistant buttons, including:

6.14.9.4(1) An enclosure rating of not less than IP54 (per EN 60529);

6.14.9.4(2) A positive stop on the back of the button to prevent excessive force from transferring to the contact; and

6.14.9.4(3) Buttons compliant with EN 81-71 Class 2.

6.14.9.5 Provide, unless otherwise indicated, stainless steel number four finish for visible natural metal finishes.

6.14.10 Seismic Requirements

6.14.10.1 Comply with Section 8.4 (Elevator Safety Requirements for Seismic Risk Zone 2 or Greater) of the B44 Safety Code for Elevators and any other code which may govern the installation.

6.14.11 Generic Maintenance

6.14.11.1 Arrange that the equipment can be maintained and adjusted by any competent elevator company without the use of proprietary tools, software, information or equipment.

6.14.11.1(1) If such tools, software, information or equipment are required, provide them as “on board” equipment or as separate devices and these will become the property of the Authority.

6.14.11.2 Provide a customer tool or such similar device, if necessary, to carry maintenance and testing activities (e.g. for temporarily bypassing the appropriate circuits for full load overspeed safety tests).

6.14.11.3 Do not incorporate any running time, dates, cycle counters or trip counters that would cause the equipment to shut down or alter its operation in any way.

6.14.12 Inspections

6.14.12.1 Arrange and pay for an acceptance inspection by the authority having jurisdiction prior to placing each elevator into public use, in accordance with CSA B44 Safety Code for Elevators and Escalators section 8.10 requirements as well as the requirements of the authority having jurisdiction.

6.14.12.2 Complete a commissioning inspection for contract compliance by a specialist in elevating devices having a QEI Elevator Inspector license from NAESA International.

6.14.12.3 Supply to the Authority the final acceptance inspection reports from the authority having jurisdiction and commissioning report(s) from the QEI Elevator Inspector.

6.14.12.4 Provide assistance as necessary for inspections by the Authority to verify that the work is in compliance with the Specifications.

6.14.13 Machine Room Equipment – Traction Elevators

6.14.13.1 Provide a machine of the gearless electric traction type including an AC motor, electromechanical brake, steel sheave shaft and traction sheave.

6.14.13.2 Provide a spring applied electric brake, held open by an electro-magnet actuated by the controller. Design the brake to automatically apply in event of interruption of power supply from any cause.

6.14.13.3 Provide elevator governors located within the machine room(s) above the top of the elevator hoistways.

6.14.13.4 Provide sound and vibration isolation pads such that there is no direct contact between the machine and the building structure.

6.14.13.5 Not used.

6.14.13.6 Provide an emergency brake to stop the elevator if it overspeed's or if it moves more than 500 mm away from the floor with the doors open.

6.14.13.7 Provide a solid state regenerative drive complete with isolation transformers, filters (to meet IEEE Standard 519-1992 for Special Applications), and isolation pads.

6.14.13.8 Provide a digital velocity encoder on the motor, giving feedback to the controller on motor speed and position.

6.14.13.9 Provide a microprocessor based controller consisting of relays, contactors, switches, capacitors, resistors, fuses, circuit breakers, overload relays, power supplies, circuit boards, static drive units, wiring terminal strips, and related components all enclosed in a cabinet with hinged door panels.

6.14.13.10 Provide an electrically released brake system, to permit momentary nudging of elevator within the hoist way under test or emergency conditions.

6.14.13.11 For MRL applications, locate the controller room adjacent to the top of the elevator hoist way or remotely at roof level, immediately above, or in near proximity to elevator core.

6.14.14 Hoist way Equipment

6.14.14.1 Provide entrances consisting of doors, frames, sills, sight guards, door hangers, tracks, interlocks, door closers, gibs, and all other equipment required for a complete installation.

6.14.14.2 Provide entrance doors and frames finished in brushed stainless steel.

6.14.14.3 Provide standard 'T' section steel guide rails for the car and counterweight with brackets fastened to the building structure.

6.14.14.4 Provide spring mounted car and counterweight roller guides for elevators with a contract speed in excess of 0.76 m/s (150 fpm).

6.14.14.5 Provide suspension means of sufficient size and number to lift the load and ensure proper wearing qualities. Ensure that where ropes are provided, all ropes for a particular installation are from the same manufacturing run.

6.14.14.6 Provide a counterweight to counterbalance the elevator for smooth and economical operation with cast iron or steel plate weights contained in a structural steel frame, balanced to between 45 and 50 percent of the rated capacity.

6.14.14.7 Provide fascia from each hall sill to the entrance header below, extended into the pit and the overhead.

6.14.14.8 Provide a car frame constructed of steel channels and a platform constructed of steel channels with a wood or metal sub-floor.

6.14.14.9 Isolate the frame and platform from one another so that there is no metal to metal contact in order to prevent the transmission of noise and vibration.

6.14.14.10 Mount the elevator cab shell on the platform in alignment with the hoist way entrances. Isolate the cab from the car frame and platform.

6.14.15 Cab Equipment

6.14.15.1 Provide car doors, jambs, headers, hangers, tracks, door closers, gibs, electrical contacts, and all other equipment required for a complete installation.

6.14.15.2 Provide swing return car stations incorporating floor push buttons, door open and close buttons, an alarm button, a phone button, and other fixtures required for normal operation.

6.14.15.3 Provide for each floor button a call registered light and momentary audible tone.

6.14.15.4 For Patient Transfer/Service Elevators and dedicated surgical processing elevators provide Door Hold Open Push Button in car stations.

6.14.15.5 Provide a Firefighters' Emergency Operation panel.

6.14.15.6 Provide in the car station a locked service cabinet containing devices other than those used for normal operation.

6.14.15.7 Engrave the car station with the elevator capacity, identification number, government installation number, and other markings required by code.

6.14.15.8 For each elevator with front and rear doors provide two car stations. Otherwise, provide one car station per elevator.

6.14.15.9 Provide a digital (dot matrix or segmented) car position indicator located above each car station with a minimum 50 mm high display.

6.14.15.10 Do not install any certificates or licenses in the cab. Arrange and pay for a variance from the authority having jurisdiction for this, if required.

6.14.15.11 Provide a voice synthesizer for each elevator with automatic verbal announcement of each floor at which the elevator stops.

6.14.15.12 Provide a multiple infra-red beam door detector device capable of reliably detecting carts, wheelchairs of varying heights and finishes, including chrome.

6.14.15.13 Provide battery operated emergency cab lighting.

6.14.15.14 Provide a two speed exhaust fan mounted in the cab top.

6.14.15.15 Provide a harmonic heavy duty closed loop door operator to open and close the car and hoist way doors simultaneously with an average opening speed of 600 mm per second and an average closing speed of 300 mm per second.

6.14.15.16 Not Used.

6.14.15.17 Provide a hands-free two-way voice intercommunication / telephone system. Provide communication from each car to the building's security station located in the Hospital.

6.14.15.18 Provide pad hooks in the Main Public elevators. Provide one set of cab protective pads that cover all walls and the cab front return panel.

6.14.15.19 Provide in the Main Public elevators an LCD video screen capable of displaying programmable messages and video.

6.14.16 Hall Equipment

6.14.16.1 Provide hoist way access switches located in the entrance frame or in the hall door sight guard at the terminal landings for each elevator regardless of the elevator speed or floor-to-floor heights of the elevator.

6.14.16.2 Provide hoist way door unlocking devices (by lunar key) on the hall doors at all floors.

6.14.16.3 Provide one riser of hall stations for each group of elevators.

6.14.16.4 For each elevator, provide a digital (dot matrix or segmented) hall position indicator located above the main floor entrance with a minimum 50 mm high display.

6.14.16.5 For the Main Public elevators, provide hall lanterns with electronic tones at each entrance.

6.14.16.6 For single elevators, provide either in-car lanterns with electronic tones or hall lanterns with electronic tones at each entrance.

6.14.16.7 Provide a remote fire recall switch for each group of elevators at the CACF (or Fire Alarm Panel).

6.14.16.8 Provide, at the CACF (or Fire Alarm Panel), a lobby panel for the elevators that includes car position indicators, in-service pilot lights, parking switches, emergency power indicators, Firefighter's Emergency Operation indicators, voice communication and other elements required by the Specifications.

6.14.16.9 Arrange that the elevators are tied into the BMS for monitoring. At a minimum, an elevator management system will be provided that will monitor the elevator operation and status, generate fault log reports, and provide the ability to lock-out service (car and hall calls) to any floor.

6.14.17 Electric Wiring

6.14.17.1 Provide copper wiring to connect the equipment.

6.14.17.2 Run the wire in metal conduit, duct or electrical metallic tubing.

6.14.17.3 Provide travelling cable between car stations and the controller in the machine room.

6.14.17.4 Provide at least eight pairs of spare shielded wires and two spare coaxial conductors in the travelling cable. This is in addition to the wiring identified elsewhere in this specification and required for the basic operation of the elevators.

6.14.17.5 Provide at least ten percent spare wires in each travelling cable.

6.14.17.6 Provide on the controller a separate junction box for non-elevator devices such as telephones, cameras, and security systems.

6.14.18 Operational Features

6.14.18.1 Provide for installation of security cameras in the elevators. Install and wire the security cameras provided by another trade. Provide the required wiring in the travelling cable run between the car top and the controller as well as power to the car top for the camera.

6.14.18.2 Provide equipment and labour for the future installation of a card reader security system to control car calls. Provide the required wiring between the card readers and the elevator security box in the machine room along with appropriate elevator controller connections and circuits for the security system (including floor tracking). Arrange that the elevator system functions without restriction by the security system until such time that that the security system is installed.

6.14.18.3 Not used

6.14.18.3(1) Not used

6.14.18.3(1)a. Not used

6.14.18.3(1)b. Not used

6.14.18.3(1)b.1 Not used

6.14.18.3(1)b.2 Not used

6.14.18.3(1)c. Not used

6.14.18.3(1)d. Not used

6.14.18.3(1)e. Not used

6.14.18.3(1)f. Not used

6.14.18.3(1)g. Not used

6.14.18.3(1)h. Not used

6.14.18.3(1)i. Not used

6.14.18.3(1)j. Not used

6.14.18.3(1)k. Not used

6.14.18.3(1)k.1 Not used

6.14.18.3(1)k.2 Not used

6.14.18.3(1)l. Not used

6.14.18.3(1)m. Not used

6.14.18.4 For all elevators providing access to Patient care areas provide Wandering Patient System Operation and Infant Abduction System Operation such that the elevator is locked down when activated.

6.14.18.5 Provide independent service.

6.14.18.6 Provide Firefighters' Emergency Operation (Phase 1 and Phase II) for all elevators.

6.14.18.7 Provide emergency power operation of the elevators such that all elevators are fed with emergency power and arrange that at least one elevator per group can operate simultaneously on emergency power.

6.14.18.8 Provide equipment and features complying with the applicable Seismic requirements.

6.14.19 Performance

6.14.19.1 Cause the car to stop automatically at floor level, without overshoot, regardless of load or direction of travel so that the car sill is level, within 6 mm, with respect to the hoist way sill.

6.14.19.2 Arrange that the horizontal acceleration front to rear or side to side measured in the car with the elevator travelling, with a load of less than 10 percent of capacity, from top to bottom and bottom to top does not exceed 0.15 m/s^2 measured between two consecutive points of opposite value.

6.14.19.3 Arrange that the vertical acceleration measured in the car with the elevator travelling, with a load of less than 10 percent of capacity, from top to bottom and bottom to top at contract speed, does not exceed 0.10 m/s^2 measured between two consecutive points of opposite value.

6.14.19.4 Adjust the door equipment so that the noise level is less than 60 decibels during a full door open and door close operation. Measure the noise levels using a sound level meter set to the "A" scale for a fast response.

6.14.19.5 Arrange the machine room equipment so that the noise level with the elevator running is less than 78 decibels. Measure the noise levels using a sound level meter set to the "A" scale for a fast response.

6.15 Material Processing and Handling Equipment (Division 41)

6.15.1 Vertical Lift Module

6.15.1.1 Not used.

6.15.1.2 Provide vertical clearance of approximately 5.5m for the vertical lift module.

6.15.1.3 Not used.

6.15.1.4 Provide required structural support; mechanical (HVAC and plumbing) connections; backup power and electrical connections; data connections, uninterrupted connectivity, and accommodate local or regional server requirements.

6.15.1.5 Not used.

6.15.1.6 Not used.

6.15.1.7 Not used.

PART 7 Facilities Services Subgroup Specifications

7.1 Fire Suppression (Division 21)

7.1.1 Fire Protection

7.1.1.1 Basic Requirements

7.1.1.1(1) Provide all required fire protection for the Facility.

7.1.1.1(2) The fire suppression system will be designed to be Post Disaster.

7.1.1.1(3) Provide a fire protection sprinkler and standpipe system that complies with the British Columbia Building Code (BCBC)and NFPA 13: Standard for the installation of Sprinkler Systems and NFPA 14: Standard for the Installation of Standpipe and Hose Systems and all applicable guidelines, codes, standards and bylaws.

7.1.1.1(4) All fire protection systems will be hydraulically sized to NFPA standards. Hydraulic calculations will include the applicable inside/outside hose stream allowance for the hazard served. Hydraulic calculations will be including in all building permit submissions.

7.1.1.1(5) All fire protection equipment will be ULC approved.

7.1.1.1(6) All fire protection equipment installations will be in accordance with manufacturers' requirements and will follow all BCBC and applicable NFPA requirements.

7.1.1.1(7) The Design-Builder sprinkler installer will be licensed and regularly engaged in the installations of fire protection systems and will install, test, commission and certify all fire protection systems and equipment.

7.1.1.1(8) Provide fire department hose connections as required by the British Columbia Building Code and the local Fire Department. Locate fire department hose connections within 45m of site fire hydrants.

7.1.1.1(9) Fire protection sprinkler zone areas in the Facility containing Patient sleeping rooms will match the Facility fire compartment floor areas as defined by the BCBC. The Facility will be divided into sprinkler zones that coincide with smoke control and fire alarm zones.

7.1.1.1(10) Each sprinkler zone will be served by a zone control valve connected to the fire line riser.

7.1.1.1(11) Seismic bracing will be provided for all fire protection systems based on the designed Seismic Hazard Level (SHL) of the Facility and based on the building being deemed Post Disaster.

7.1.1.1(12) The fire protection systems and equipment will be designed tothe occupancy classification that it protects.

7.1.1.1(13) Provide additional 20% flow reserve capacity above the Facility requirements within each system including all equipment, standpipes, mains, and branch lines.

7.1.1.1(14) Fire suppression systems supply piping will be routed away from areas where a leak or a break could endanger vulnerable Patients, equipment or supplies. Fire suppression piping will not be run within or through IT Rooms except for piping required to service the IT Rooms.

7.1.1.2 Water Services

7.1.1.2(1) The fire sprinkler and standpipe system will be fed from two different Municipal water services.

7.1.1.2(2) Connections will have premise protection consisting of approved detector-type double check valve assemblies with approved listed OS&Y gate valves on both sides complete with tamper switches.

7.1.1.2(3) Incorporate redundancy in the installation to maintain uninterrupted Facility operation while cleaning, servicing, repairing, or replacing devices.

7.1.1.3 Fire Pumps

7.1.1.3(1) The Design-Builder will confirm, based on their proposed design, if fire pumps are required. Calculations will be based on lowest seasonal available water pressure from the lowest pressure municipal service.

7.1.1.3(2) If fire pumps are required, they will be provided complete with controllers. Controller will include integral transfer switches for essential system power supply.

7.1.1.3(3) Fire pump assemblies will be approved by UL, ULC, FM, CSA and comply with NFPA 20: Standard for the Installation of Stationary Pumps for Fire Protection.

7.1.1.3(4) Each fire pump will be complete with a pressure maintenance pump (jockey pump) and controller installed in compliance with applicable Standards.

7.1.1.4 Building Fire Department Connections

7.1.1.4(1) Fire department connection(s) and location(s) will be provided and coordinated (approved) by the local authorities.

7.1.1.4(2) Type of hose inlet connections (threaded or Storz) will be as required by local Fire Department.

7.1.1.5 Fire department Hose Connections

7.1.1.5(1) Provide fire department hose connections at the highest landing of stairways with stairway access to a roof or on roofs with a slope less than 4 in 12 where stairways do not access the roof.

7.1.1.6 Zone Control Cabinets

7.1.1.6(1) Provide fully recessed sprinkler zone control cabinets with shut-off valves, flow switches and flow switch test connections that are readily identifiable and accessible from the floor level.

7.1.1.6(2) Zone control valves will not be located in ceiling spaces.

7.1.1.6(3) Cabinets will have recessed hinges and latches.

7.1.1.7 Dry Sprinkler Systems

7.1.1.7(1) Provide dry-type sprinkler heads and / or a dry-type sprinkler system in all areas that may be subject to freezing temperatures.

7.1.1.7(2) Wet sprinkler piping serving dry-type sprinkler heads will run within heated spaces.

7.1.1.7(3) Heat tracing of branch lines will not be permitted.

7.1.1.8 Pre-Action Sprinkler Systems

7.1.1.8(1) Provide a double interlocked pre-action sprinkler system complete with detection devices in critical rooms where water damage will affect the operation of key areas/equipment, including the following rooms.

7.1.1.8(1)a. Main electrical transformer and switchgear room(s);

7.1.1.8(1)b. Rooms with medical imaging equipment (Diagnostic Imaging);

7.1.1.9 Clean agent fire suppression systems

7.1.1.9(1) Provide clean agent fire suppression systems for the following rooms:

7.1.1.9(1)a. Primary and Secondary equipment and technology room(s) (IMIT);

7.1.1.10 Fire extinguishers

7.1.1.10(1) Fire Extinguishers will be selected and installed based on the hazard classification of the space it serves.

7.1.1.10(2) Fire extinguishers in finished areas will be installed within fully recessed cabinets.

7.1.1.10(3) Provide all fire extinguishers as required under applicable Standards and any additional as required by the local authority.

7.1.1.11 Additional Requirements

7.1.1.11(1) Provide water curtain sprinklers or other fire protection measures necessary to maintain fire ratings at or near the adjacent buildings, along paths of egress, and/or as required for any code equivalencies.

7.1.1.11(2) Provide fully concealed pendant quick-response type sprinkler heads in all areas with dropped ceilings with temperature ratings to suit the specific hazard area. Escutcheon plates will be chrome plated or painted to match the ceiling.

7.1.1.11(3) Sprinklers in the Mental Health department where Patients may be left unattended will be tamper and ligature proof. The basis of design for this head is the Tyco Raven head as it provides an anti-ligature design without creating a subsequent flooding risk in the event of a break-away.

7.1.1.11(4) Provide wire cage guards over sprinkler heads in areas where sprinkler heads are susceptible to damage, in all plant spaces, electrical rooms and communication rooms.

7.1.1.11(5) Provide spare sprinkler heads for each type and a wrench suitable for each head type.

7.1.1.11(6) Provide fire suppression systems for all commercial kitchen range hood as required by NFPA 96 and the local authority. Each hood will be served by an independent, dedicated, suppression system.

7.2 Plumbing (Division 22)

7.2.1 Site Services - Basic Requirements

7.2.1.1 Provide the following services to the new Facility, sized to meet the hospitals usage needs plus 20% additional capacity for future allowance:

7.2.1.1(1) Municipal water service, for domestic water use and fire protection;

7.2.1.1(2) Natural gas service;

7.2.1.1(3) Oxygen;

7.2.1.1(4) Sanitary services; and

7.2.1.1(5) Storm services.

7.2.1.2 Coordinate locations of these services with the requirements of Part 4 and the local municipal service providers.

7.2.1.3 Municipal water services provided to the Facility will meet the water quality requirements outlined in applicable Codes and Standards. Installation of the new water services will also be required to meet the requirements of NFPA for all Fire Services supply mains.

7.2.1.4 Installation will incorporate redundancy to maintain uninterrupted Facility operation while cleaning, repairing, or replacing devices.

7.2.1.5 Domestic water pressure serving the Facility will be as provided by the local Municipal water system and should be considered constant under all normal operating and seasonal conditions.

7.2.1.6 If domestic water system pressure exceeds the acceptable delivery pressure noted in the British Columbic Building Code of 80 PSI, then pressure reducing valves will be required with N+1 redundancy.

7.2.1.7 Place the Pressure Reducing Valves in accessible locations within plant spaces or mechanical rooms.

7.2.1.8 All service piping within the Facility will be accessible. No service piping inside or outside the Facility will run in or under any concrete slabs.

7.2.1.9 Durable piping materials will allow for 24 hour a day operation with minimal downtime and ensure an operational life of at least 50 years.

7.2.1.10 Provide plumbing connections to all medical and food services equipment.

7.2.1.11 Ensure the domestic cold water and domestic hot water quality is within the required conditions of the applicable codes, standards, and manufacturer's recommendations for all equipment. Provide water treatment as required to eliminate the consequence of Hard-Water conditions to all equipment supplied by the Design-Builder or he Authority.

7.2.1.12 All sanitary sumps located in the Facility will have bolted-down lids and be gasketed to be airtight.

7.2.1.13 Insulate domestic water piping, cooling water and exposed p-traps throughout. Insulate storm drainage 10m beyond the roof drain. Ensure plumbing systems are not installed in locations subject to freezing. Heat tracing only to be used as required for piping exterior to the building such as condenser water pipes.

7.2.2 Water Services

7.2.2.1 Water delivered to the Facility will meet the water quality requirements of all applicable standards and laws, including CSA-A317.1 and the Drinking Water Protection Regulation (British Columbia). Filter systems must be capable of operating at high turbidity levels. (http://www.bclaws.ca/civix/content/crbc/crbc/1421132707/01009/200_2003_dir/?xsl=/templates/browse.xsl).

Water supply to the Facility will be provided by two separated and isolatable municipal water services. The intention of providing two connections is to allow the hospital to function if the municipal water service to the hospital is being worked from either side of the site. The two separate water services will meet in a single water entry room and be configured such that either service can be used to serve the building. Each new water service connection from this loop main will be capable of supplying the domestic and fire service demands plus an additional future demand of 20%.

7.2.2.2 Each of the water supply services to the Facility will be provided with a pair of 100% redundant premise isolation backflow prevention stations.

7.2.2.3 Provide self-cleaning strainers on each incoming domestic water service.

7.2.2.4 The water supply services will combine into a common main within the Facility, complete with isolation valves, upstream of required PRV stations.

7.2.2.5 Provide a utility meter for domestic water services to the Facility. The location of the water service will be coordinated with the District. Each meter will have the ability to connect to the Facility Building Management System (BMS).

7.2.2.6 Provide flexible pipe connection on both water services at the exterior face of the Facility.

7.2.2.7 Flexible connectors will be specifically designed to withstand seismic activity and will have the ability to accommodate both vertical and horizontal seismic movement.

7.2.2.8 Cross-connect all water service mains within the Facility to allow for seamless Facility operation from either water service.

7.2.2.9 Provide turbine style water meters with remote readers and be capable of connection to the Facility BMS.

7.2.2.10 The incoming water stations will incorporate 100% redundancy to maintain uninterrupted Facility operation while cleaning, repairing, or replacing devices including backflow preventers and PRVs within the water station.

7.2.2.11 Provide flushing and disinfection of domestic water systems in accordance with CSA Z317.1. Provide soda ash treatment where source water pH is lower than 7.0. Provide independent testing of piping systems once flushing and cleaning has been completed and provide complete documentation of testing to the Authority.

7.2.2.12 Ensure that the design of the incoming domestic water station and all reduced pressure type backflow preventor stations provides for adequate drainage that will handle both the maintenance and operational flow rates from the strainer discharge and the backflow preventers in full operational mode.

7.2.3 Domestic Water Booster System

7.2.3.1 The Design-Builder will confirm, based on their proposed design, if a domestic water booster system is required for the building. If the lowest expected Municipal service pressure is insufficient to meet the worst case pressure requirements (plus 20% for future capacity), provide a domestic water booster pump system, in an N+1 configuration, to serve the Facility.

7.2.3.2 The domestic water booster pump system serving the Facility will be capable of operating during post disaster conditions where a tanker water supply will be provided.

7.2.4 Sanitary Services

7.2.4.1 Sanitary services to the Facility will be provided by a single municipal connection. The sanitary service will be sized to meet the hospitals usage needs plus 20% additional capacity for future allowance:

7.2.4.2 Provide a 72-hour raw sewage overflow / storage system in case of failure of the municipal service for full redundancy to the site. Storage system is to be arranged and complete with camlock connections so that it can be evacuated by a pumper truck.

7.2.4.3 Provide flexible pipe connection on the sewer service at the exterior face of the Facility.

7.2.4.4 Flexible connectors will be specifically designed to withstand seismic activity and will have the ability to accommodate both vertical and horizontal seismic movement.

7.2.4.5 Provide drainage systems at locations where reverse osmosis water connections are provided. Drainage and vent piping serving specialty systems will be of a material compatible for use with the effluent being discharged, up until a point of reasonable dilution.

7.2.4.6 All elevator pits will be provided with drainage systems capable of handling the required drainage flow capacity, per elevator, as per the requirements of CSA B44(Safety Code for Elevators).

7.2.5 Storm Services

7.2.5.1 Storm services to the Facility will be provided by a single municipal connection.

7.2.5.2 The storm service will be sized to meet the local rainfall requirements of the hospitals plus 20% additional capacity for future allowance.

7.2.5.3 Provide storm drainage connections to all Pedimat drains, complete with backflow prevention.

7.2.6 Natural Gas services

7.2.6.1 Provide a dedicated Natural Gas enclosure with access from the exterior of the building.

7.2.6.2 Provide natural gas metering and distribution, from the gas enclosure, to meet the usage needs of the Facility, plus 20% additional capacity in the service for future allowance.

7.2.6.3 Provide utility meters natural gas services to the Facility. The location of the gas meter will be coordinated with the local utility provider and located in a back of house area. The meter will be connected to the Facility BMS system.

7.2.6.4 Provide flexible pipe connection on the natural gas services at the exterior face of the Facility.

7.2.6.5 Flexible connectors will be specifically designed to withstand seismic activity and will have the ability to accommodate both vertical and horizontal seismic movement.

7.2.7 Sub Surface Drainage

7.2.7.1 The Design-Builder's Geotechnical Engineering Report will be used to determine the extent and scope of ground water subsurface drainage that will need to be handled from the site.

7.2.7.2 The Design-Builder will determine if subsurface drainage is required, based on the design, to alleviate water pressure exerted onto the bottom of the foundations and/or floor slabs. If it is required, all work will proceed based on the recommendations in the Design-Builders Geotechnical Engineering report.

7.2.7.3 All under slab drainage will be required to be collected into a sediment sump chamber and / or pump chamber, which will be capable of handling the maximum design flow rate. All water from the sediment sump chamber will be discharge to the site storm system.

7.2.7.4 All elements of the under slab drainage system will be coordinated with the Structural design.

7.2.8 Radon Protection

7.2.8.1 The Design-Builder is responsible for hiring a radon mitigation expert to review the radon protection system and to design and ensure the proposed solution is optimum.

7.2.9 Domestic Water Distribution

7.2.9.1 Design the Plumbing system to British Columbia Building Code (BCBC), CSA Z317.1 and all other applicable codes, standards and guidelines. Plumbing system design, fixtures and components will comply with requirements of CSA-Z8000 CSA Standards, and the BCBC.

7.2.9.2 Distribute domestic cold, hot and recirculation water systems to each floor by means of a minimum of two sets of vertical risers. Provide one set of risers per 2000 square meters of floor space. Where dividing the area of a floor results in a fractional number, the number of sets of risers will be rounded up. The minimum number of sets of risers per floor will be two. Sets of risers to be arranged such that each floor can be 100% served with one set of risers out of service.

7.2.9.3 In addition, each department (requiring domestic water) will be provided with a pipe loop, within the department, that connects back to the main service on both sides. These loops will be provided with sufficient inline valves to allow isolation of any department without impacting other areas of the hospital.

7.2.9.4 Design the plumbing distribution systems to avoid and minimize disruption to the operation of the Facility during maintenance or repairs. In addition, design so that, as much as possible, clinical rooms do not need to be entered when performing maintenance or repairs. Locate all isolation, maintenance, balancing, and other service valves in corridor ceiling spaces or Non-Clinical Spaces. Access will be through lockable security access panels that are accessible to maintenance Staff.

7.2.9.5 Provide solenoid type water shutoff valves to groups of fixtures in rooms that are high risk relative to flooding (e.g. Observation Rooms, Emergency Department, and Inpatient Units). Valves are to be controllable from the nursing station and to be monitored and controllable from the BMS. Install manual valves upstream of the solenoid valves for maintenance purposes. Access to water shutoff valves is not permitted within the Secure Room.

7.2.9.6 The design of the plumbing systems will provide consideration to location of shut-off valves in relation to the possible need to isolate sections of the system for safety and security reasons. The domestic water system will be looped from either end (risers) with floor level main shut-off valves for each riser. Shutoff valves in Patient care areas will be in corridors, near nursing stations or other staff locations (as required to suit the floor plan). Shutoff valves will be located as close to the supply mains as possible to prevent dead legs, as defined in CSA Z317.1, during renovation work or isolation of parts of the system for safety or security reasons.

7.2.9.7 Per CSA Z317.1 “Except for pipe run-out to fixtures, the hot water system will not have dead legs.in any service mains or branch lines.” This includes the domestic water distribution loops throughout the Building.

7.2.9.8 Domestic hot, cold and recirculation water piping will be type k copper or stainless steel.

7.2.9.9 Provide flushing and disinfection of domestic water systems to CSA Z317.1 requirements. Review the requirements of CSA infection control standards to ensure that all aspects of flushing and disinfection have been addressed. Provide independent testing of piping systems once flushing and cleaning has been completed and provide documentation of testing to the approval of the Authority.

7.2.9.10 Provide appropriately sized domestic water supply connections for equipment and fixtures that are installed throughout the Facility.

7.2.9.11 Provide all accessories needed to make the connection suitable for the intended use, to meet relevant Standards, and to meet manufacturer’s requirements for any connected equipment. This includes shut off valves, point-of-use micron filtration, pressure reducing valves, thermostatic mixing valves, backflow preventers.

7.2.10 Domestic Hot Water Systems

7.2.10.1 Provide a domestic hot water system, including a hot water circulation, designed to meet the hot water demand of the Facility in accordance with the British Columbia Building Code, ASPE Plumbing Engineering Design Handbook, and the requirements of CSA Z317.1.

7.2.10.2 Provide a domestic hot water system with sufficient capacity and recovery rate for the hot water requirements of the Facility. Allow for 20% expansion capacity within each system for future flexibility. The domestic hot water heating system will be configured so that with one component out of service the Facility has adequate capacity to meet the Facility demands.

7.2.10.3 The domestic hot water equipment and systems will meet or exceed the energy efficiency requirements of ASHRAE 90.1.

7.2.10.4 Supply temperatures:

7.2.10.4(1) The Domestic hot water supply temperatures will serve the needs of the Facility and be stored and circulated at temperatures noted in CSA Z317.1.

7.2.10.4(2) Provide a central mixing valve, in N + 1 configuration, to reduce the distributed temperature from stored tank temperature to distribution temperature as required by CSA Z317.1 (i.e. distribution temperature at minimum 60 °C). Provide fail safe bypass for over temperature water after central mixing valve. Provide alarm to BMS for over temperature conditions.

7.2.10.4(3) To permit uninterrupted service provide normally closed bypass around the mixing and diverting valves complete with lockable valve.

7.2.10.4(4) Bypass will connect to piping upstream of over temperature monitoring sensor to permit continuous monitoring of domestic hot water system supply temperature.

7.2.10.4(5) Provide pressure balanced/thermostatic mixing valves, where temperatures are required to be less than 60 °C at point of use as required by CSA Standards (per the recommendations of CSA Z317.1).

7.2.10.5 The domestic hot water system will be provided with multiple storage tanks with the remaining capacity to be supplied from a minimum of (2) two sources (heat exchangers for example) in an N +1 configuration.

7.2.10.6 The domestic hot water distribution system will be arranged as recommended in CSA Z317.1 to provide hot water at every outlet on demand.

7.2.10.7 Ensure that the design of the domestic hot water system will provide timely delivery of hot water to all fixtures with no dead legs in the system and will include a recirculation system between the distribution system and the hot water generation equipment.

7.2.10.8 Locate pressure / thermostatic mixing valves serving plumbing fixtures will be placed as close as possible to the fixture it serves to minimize dead legs.

7.2.10.9 Domestic hot water mixing valves when used for temperature sensitive locations within the hospital such as specialty baths or sinks will be required to have visual temperature gauges accessible at the point of use and are to have a high temperature alarm that would be both local and on the BMS.

7.2.10.10 Design the domestic hot water system to prevent growth and spread of bacteria (including Legionella) within the hot water generation plant, piping, fixtures, or any other component. Design methods may include heat-based control, active treatment systems, eliminating dead-leg piping; flush to drain valves; and minimizing uncirculated piping by connecting the circulation system as close as possible to fixtures. Designs will conform to the latest ASHRAE / NSF/ ASPE standard on Legionella Design for Health Care Facilities.

7.2.10.11 Install copper-silver ionization systems on each new domestic hot water system to treat the water and prevent the proliferation of legionellosis.

7.2.10.11(1) Each new unit installed will be an N+1 redundancy configuration.

7.2.10.11(2) Performance Criteria

7.2.10.11(2)a. Provide a domestic hot water generating plant and hot water storage equipment to meet the requirements of CSA Z317.1 and within the design guidelines as mentioned above.

7.2.10.11(2)b. Recirculate domestic hot water from the distribution system(s) back to the generating equipment within each appropriate pressure zone.

7.2.10.11(2)c. Piping and valves will be appropriately sized to ensure adequate flow which does not promote stagnation or accelerated pipe erosion.

7.2.10.11(2)d. Monitor hot water temperatures, at the storage tank, in the supply and return piping, and at the ends of each piping loop on each floor, via the BMS and provide alarm outputs when the temperature exceeds or drops below the design set point range.

7.2.10.12 Non potable domestic hot water return from the Medical Device Reprocessing department (i.e. domestic hot water run downstream of backflow prevention in the MDRD) will be returned to a dedicated set of non-potable water tanks and heaters as required by CSA B64

7.2.11 Valve Stations and Isolation Valves

7.2.11.1 Place valves stations in accessible locations within the plant rooms with provisions for adequate drainage of all components in the immediate vicinity of the stations.

7.2.11.2 The water systems within the Facility will ensure water is supplied at the required pressures for optimal fixture operation to all water outlets. Minimum domestic water pressure will be maintained at 240 kPa to the most remote fixture and is to be demonstrated during commissioning.

7.2.11.3 Provide isolation valves for all plumbing services to fixtures and equipment. Clearly identify the location of all valves, both on site and on the "Record Documents."

7.2.11.4 Valves will be located, at a minimum, at each set of piping branches from the main distribution line, at all locations where the branches serve group of rooms with similar uses, to each Patient washroom group, on branches serving individual speciality equipment and fixtures and on all branch lines to hose bibbs.

7.2.11.5 Provide isolation valves for all plumbing services and clearly identify the location of all valves.

7.2.11.6 Isolation valves for piping 50 mm and smaller will be ball valves with solid bronze body and a chrome plated bronze ball with lever handles. All isolation valves 100 mm and larger will be of a butterfly style with gear operators.

7.2.12 Back Flow Preventors

7.2.12.1 All backflow preventers will be installed and located in areas where maintenance and testing of the devices can be properly and easily addressed.

7.2.12.2 Drainage for all backflow preventors will be provided in the immediate vicinity of all backflow prevention stations and are to be sized to handle both the maintenance and operational flow rates from the backflow preventers in full operational mode.

7.2.12.3 In locations throughout the Facility where back flow preventers are required to serve equipment in finished areas, the entire assembly will be installed in a stainless steel cabinet with a solid door with a key access.

7.2.12.4 The cabinet will have a drain connection adequately sized to accommodate the discharge from the backflow preventer relief ports. All downstream drainage piping will be sized to accommodate the relief port flow.

7.2.12.5 Pressure reducing valves dedicated to specific equipment throughout the Facility with specific pressure requirements may be mounted beside the equipment served and do not require redundancy.

7.2.13 Plumbing Pumps

7.2.13.1 The number and arrangement of plumbing pumps will be such that peak demand will be met in the event of failure of any one pump. The number of pumps in the pump package will address both high and low flow conditions and the associated issues related to variable speed capabilities. If all conditions cannot be met, then additional pumps will be required to be added to the package.

7.2.13.2 Pumps will be connected to delayed essential power and will be required to provide minimum pressure requirements. Include the domestic water pumping system in the emergency generator calculations. The system will provide uninterrupted water service and constant pressure under all conditions including during the post disaster period.

7.2.13.3 Design pumping systems for subsurface, storm, or sanitary drainage with 100% redundancy (one redundant unit for each active unit) and supply related equipment with emergency power. Design the sump with twin compartments (separate chambers for settling and pumping) and size the sump to prevent short cycling of the pump.

7.2.13.4 Provide engineered packaged pumping system(s) complete with controls and alarms including high water level and pumps failure alarms. Provide local alarms annunciation with audible and visible alarms indication and remote connection via the BMS.

7.2.13.5 All pump chambers will have premanufactured access lids in either single or double configuration with hydraulic assist lift chambers. Design of the access lids will require consideration regarding the loads that will pass over the installation and be supplied accordingly.

7.2.14 Water Filtration and Treatment

7.2.14.1 Domestic water service, to point of use filtration for most applications, will utilize filters with 5 microns cartridges and will be designed with redundancy to allow for filter replacement without affecting water flow to equipment. Specialized equipment including scope washers and Ice machines will require finer level of filtration and water treatment.

7.2.14.2 Provide water softening system to prevent scale build-up in piping, on the domestic water service. Provide N+1 redundancy such that there is no disruption in either water service when maintenance or replacement of components is required.

7.2.14.3 Provide charcoal filtration for coffee, water and ice machines. Refer to manufacturers' literature for additional requirements. Filter housing will be stainless steel.

7.2.15 Labelling and Marking of Piping

7.2.15.1 All systems will be clearly labelled, and colour coded in accordance with the ANSI / ASME A13.1 Pipe Labelling and Marking Standards. Labelling will include including painting and labelling of all pipes, ceiling identification dots, valve tagging, flow directions, emergency valve identification signage etc.

7.2.16 Reverse Osmosis Water Systems

7.2.16.1 Reverse Osmosis Water Systems are to be provided by the Design-Builder based on the owner supply equipment – refer to Appendix 1B(II) Furniture & Equipment List.

7.2.17 Plumbing Fixtures – General

7.2.17.1 All plumbing fixtures will comply with the requirements of CSA Z317.1

7.2.17.2 Provide fixtures as described in the Schedule 1 Statement of Requirements and as needed to comply with all applicable codes and regulations.

7.2.17.3 Provide all plumbing fixtures made of impervious, durable materials suitable for a hospital facility. Select fixtures with proven acceptable hospital performance from previous installations.

7.2.17.4 All plumbing fixtures will be supplied complete with all hangers, accessories for mounting, water supplies and shutoffs, flexible connectors, drain waste and vent connections, water hammer arrestors, all low voltage wiring supplies, wall boxes and access panels.

7.2.17.5 All fixtures that are used for hand washing (lavatories, scrub sinks, and hygiene sinks) will be provided with hands-free type faucets as required by CSA Z317.1.

7.2.17.6 All plumbing fixtures will be provided with a single temperature discharge that can be adjusted and set to the CSA Z317.1 required temperatures (table 1) and delivery timeframes (10 seconds), at the mixing valve, below the fixture.

7.2.17.7 All low voltage wiring, cables will be mounted in junction boxes located within the wall below the fixture and will include stainless steel face plates with vandal proof screws.

7.2.17.8 All line voltage plugs to low voltage wiring connections will be concealed in access boxes that are not accessible to the public or in concealed ceiling locations that are not visible without removal of an access panel.

7.2.17.9 Select fixtures as determined with the Authority and pay special attention to performance relative to infection control and prevention of the spread of diseases.

7.2.17.10 Provide all appropriate services and connections to all equipment for Patient care areas and all other areas. Provide all accessories as needed.

7.2.17.11 All Faucets will have laminar flow design per CSA Z317.1

7.2.17.12 If system pressure exceeds the acceptable delivery pressure, then provide pressure reducing valves with 100% redundancy. Place the valves in accessible locations; and

7.2.17.13 The domestic hot water recirculation system will be connected to each fixture's hot water supply immediately next to the fixture shut-off at the wall;

7.2.18 Electronic Faucets

7.2.18.1 The base building power source – vital or delayed vital - hard wired with concealed power boxes and transformers.

7.2.18.2 The duration of sensor faucet flow will be adjustable. All sensors will be set at 10 seconds (as required by CSA Z317.1) but will be able to operate for a minimum of 45 seconds without interruption of flow, to facilitate proper hand washing;

7.2.18.3 Sensors will retain the ability to turn off automatically when hands are no longer in the sensor range;

7.2.18.4 Provide water hammer arresters on the cold water and hot water supply to each fixture or bank of fixtures served by a single branch in accordance with PDI Standards;

7.2.18.5 Ensure fixtures with electronic flush valves also have a manual flush operator. Pressure assist flush valves will not be used;

7.2.19 Faucet Overflows

7.2.19.1 All sinks are not permitted, by CSA Z317.1, to have an overflow opening installed in the body of the basin.

7.2.19.2 All faucets will be free of overflow opening installed in the body of the basin per CSA Z317.1.

7.2.19.3 Lavatories (sinks) with overflow outlets that are plugged with aftermarket plugs will not be accepted.

7.2.19.4 Fixtures not equipped with overflows will be provided with a waste tailpiece that does not have overflow openings.

7.2.20 Lavatory and Faucet Selections

7.2.20.1 Clinical lavatory fixtures will be wall-hung style fixtures.

7.2.20.2 Non-clinical lavatory fixtures will be wall hung style fixture or drop- in style vitreous china basin, or a solid surface fixture which is moulded into a countertop.

7.2.20.3 Counter-mounted lavatory basins will have all surfaces which slope into the basin.

7.2.20.4 All openings required for the faucet installation will be factory installed.

7.2.20.5 Select all lavatory and faucet combinations to minimize the potential for splatter and contamination.

7.2.20.6 High-profile, gooseneck lavatory faucet fittings will be provided for all lavatory basins, and the faucets will have anti-splash, anti- aerosolizing faucet fittings (i.e. laminar flow) that do not retain air. Low-profile gooseneck faucet fittings are not acceptable.

7.2.20.7 All public lavatory basins will not have drain plugs but will be installed with PO perforated drain openings.

7.2.20.8 All lavatory basins will have the water and waste fittingsbelow the fixture protected with a skirt, provided by the manufacturer, to hide the plumbing components and to address infection control. The design of the skirt will be in conformance with the requirements of the Accessibility Requirements of the BCBC.

7.2.20.9 Access for the plumbing and electrical to these fixtures will be provided external to the actual washroom complete with access panels.

7.2.20.10 Fixtures selected for these applications will have fully enclosed basins and skirts and be specifically designed for ligature resistant applications.

7.2.21 Bariatric Fixtures

7.2.21.1 Lavatories provided for Bariatric applications will be constructed as a wall mounted epoxy coated stainless steel sinks suitable for installation in a Bariatric room and will be capable of withstanding a downward pressure of 500 kg on the front of the fixture. The lavatory deck may be either epoxy coated stainless steel or be a solid surface material.

7.2.21.2 Bariatric fixtures will not be support from the Facility walls but must be supported by an independent support structure that is attached to the floor on which the fixture is installed. Stainless-steel Sinks – Utility Sink, Process Sink, Kitchen Sink and Scrub Sink., used in a clinical setting throughout the Facility, will be either a stand-alone wall hung stainless steel fixtures with wall hangers or will be stainless steel bowls which have been integrally welded into a continuous stainless-steel counter.

7.2.21.3 The grade of the stainless steel used for the fixture will need to be selected to match the application in which the fixture will be used. The size, depth, and number of bowls for each fixture will need to be selected in consultation with the Authority to accommodate the intended use of the fixture.

7.2.21.4 The bowls of the sink will have fully rounded corners and will be complete with a drain assembly which is appropriate for the intended end use of the fixture.

7.2.21.5 Drop-in or under-mounted stainless-steel sinks are not permitted.

7.2.21.6 Sinks will meet the requirements of CSA Z8000 including materials, size, construction, location, controls, backsplash, soap and lotion dispensers, and accessibility.

7.2.22 Hand Hygiene Sinks

7.2.22.1 Provide hand hygiene sinks that meet the requirements of CSA Z317.1. The basin of the sink will be wall hung and adequately sized and constructed in compliance with CSA Z8000. The hand hygiene sinks will be designed for proper washing and scrubbing of hands, including size, construction, location, backsplash, soap and lotion dispensers and accessibility.

7.2.22.2 Hand Hygiene sinks will be a single basin vitreous china scrub sink with integral backsplash, hands-free faucet (faucet spouts will be free of aerators, modulators or rose sprays and will not swivel) and soap dispenser for hand hygiene. Faucets will not discharge directly into the drain opening.

7.2.22.3 Hand washing sinks or Hand Hygiene Stations for nursing stations, Patient care areas, examination rooms, food services, emergency room, soiled utility rooms and other similar function rooms will have electronic hands-free type faucets. One (1) Hand Hygiene Sink will be provided per 15 seats (or portion thereof) in all waiting rooms.

7.2.22.4 The hand hygiene sink faucet will have sufficient clearance and height to allow for proper scrubbing to occur and will have a spray head that will provide no splash coverage during usage.

7.2.22.5 The water supply temperature will be pre-adjusted and be set for the required temperature defined in CSA Z317.1 at the concealed mixing valve.

7.2.22.6 Access for the plumbing and electrical to these fixtures will be provided below the hand hygiene sink complete with access panels. Fixtures selected for these applications are to have fully enclosed basins and skirts and be specifically designed for scrub procedures.

7.2.23 Scrub Sinks

7.2.23.1 Provide scrub sinks suitable for a user conducting sterile procedures and supplied as a proprietary equipment item by a medical equipment manufacturer.

7.2.23.2 The faucet will have sufficient clearance and height to allow for proper surgical scrubbing to occur and will have a spray head that will provide no splash coverage during usage.

7.2.23.3 The water supply temperature will be pre adjusted and be set for the required temperature defined in CSA Z317.1 at the concealed mixing valve.

7.2.23.4 Electronic hands-free type faucets will be specific to the needs of surgical scrubbing procedures and will remain on as required by the user.

7.2.23.5 Faucet will have a single temperature mixing valve to supply integral temperature control that can be user adjusted.

7.2.23.6 Electronic faucets will be connected to the base building power source - delayed vital - hard wired with concealed power boxes and transformers or will be provided with min 10-year battery operated units.

7.2.23.7 Access for the plumbing and electrical to these fixtures will be provided below the scrub sink complete with access panels. Fixtures selected for these applications are to have fully enclosed basins and skirts and be specifically designed for scrub procedures.

7.2.23.8 Fixtures selected for these applications are to have fully enclosed basins and skirts and be specifically designed for hospital scrub procedures.

7.2.24 Utility and other Miscellaneous Sinks

7.2.24.1 Provide Utility Sinks that meet or exceed the requirements of CSA Z317.1.

7.2.24.2 Sinks will be type 316 stainless steel sink with under deck mount faucets with 150 mm blade handle and gooseneck spout. Sinks will be large and deep enough to accommodate the intended application.

7.2.24.3 For equipment cleaning sinks and other utility sinks, provide sinks with underdeck-mounted, 200 mm manual blade handle faucets and gooseneck laminar flow spout. Ensure sinks provided are large and deep enough to accommodate proper washing of equipment and that materials and waste piping are suitable for the intended application of the sink.

7.2.24.4 The water supply temperature will be pre-adjusted and set for the required temperature defined in CSA Z317.1 at the concealed mixing valve.

7.2.24.5 Faucets for lunchrooms, Staff rooms, and general purpose work rooms may be deck-mounted, 200 mm centre to centre, with laminar flow gooseneck spout and 150 mm manual blade handles.

7.2.24.6 Faucets for all other areas will be chosen to ensure that infection control is addressed but will include underdeck-mounted faucet body, gooseneck spout with laminar flow discharge and either electronic control or 200 mm long blade handles.

7.2.25 Barrier-Free Requirements

7.2.25.1 Select all wall mounted sinks for Patient and handicap use to have a removable, purpose-built skirt to house the water and drain components. Skirt to be designed to allow for handicap access to the fixture, to protect Patients from touching hot objects, and for ease of maintenance.

7.2.25.2 Barrier-free plumbing fixtures, fittings, and carriers are to be provided where required and will need to be suitable for use by Bariatric users.

7.2.25.3 Barrier-free plumbing sink fixtures, fittings, and carriers are to be provided where required in the Clinical Specification and will be installed in accordance with the BCBC requirements.

7.2.26 Water Closets

7.2.26.1 Water closets are to be constructed of either vitreous china or stainless steel and are to be selected from fixtures that will reduce the spread of infection. The bowl must be designed to accommodate the flow rate of the flush valve and to minimize the aerosolization of the toilet contents. All water closets must meet a MAP rating of 1000.

7.2.26.2 All wall-hung fixtures are to be designed for installation in accordance with the manufacturer recommendation.

7.2.26.3 No requirement for Recessed Bedpan Flushers to be installed with water closets.

7.2.26.4 Provide seat covers on all Patient and accessible water closets. Ensure that all flush valve operators extend above the height of the open cover. All water closet seats are to be heavy duty construction with stainless steel posts and self-sustaining hinges.

7.2.26.5 Public water closets will consist of floor mounted elongated bowls with an open front seat with no cover. Flush Valve will be an electronic, hands-free flush valves with manual override. Flush valve connection to the water closet will be through an exposed top spud. Height to be 430 to 480 mm from floor to rim of seat.

7.2.26.6 Patient water closets will consist of floor mounted elongated bowls with an open front seat and with cover. Flush valve connection to the water closet will be through an exposed top spud. Mounting height to be 430 to 480 mm from floor to rim of seat. Flush valves will be exposed manual high/low dual flow flush valves except:

7.2.26.6(1) Patient water closets in Mental Health Inpatient Washrooms will have concealed flush valves.

7.2.26.7 Accessible water closets will consist of floor-mounted, elongated bowls with an open front seat, with cover. Flush valves will be concealed, manual high/low dual flow flush valves. Flush valve connection to the water closet will be through an exposed top spud. Mounting height to be 430 to 480 mm from floor to rim of seat. The location of the flush valve will be accordance with the accessibility requirements of the BCBC.

7.2.26.8 Bariatric water closets will be chosen and positioned to allow for the use of commodes. Floor mounted Bariatric water closets will require special water closet carriers that are extra heavy duty and will require additional wall space for installation. Provide barrier-free water closets that are suitable for use by Bariatric users. Provide designated Bariatric Patient washrooms with floor mounted, back discharge, anti-ligature, epoxy coated stainless steel toilet with integral seat, push button controls and in wall exposed flush valve with a minimum load for Bariatric Patients except:

7.2.26.8(1) Patient water closets in Mental Health Inpatient Bariatric washrooms will have concealed flush valves.

7.2.27 Urinals

7.2.27.1 Urinals will be wall-hung, vitreous china, institutional fixtures with wing walls to contain splashing.

7.2.27.2 The fixture will have a low consumption, concealed, electronic, hands-free flush valve operation.

7.2.27.3 Each urinal will be installed with a separate urinal carrier that is floor-mounted and independent of the wall systems.

7.2.28 Soiled Utility Room Fixtures

7.2.28.1 Each Soiled Utility Room will have a hand hygiene sink (HHS) located in the room.

7.2.28.2 Soiled Utility Rooms will have large, stainless-steel sinks to be used for cleaning equipment and hospital goods. These sinks will be an integral part of a larger stainless-steel counter.

7.2.28.3 The size of the sink will be appropriate to the size of the equipment and goods to be washed. Minimum depth to be 250 mm. The size, depth, and number of bowls for each fixture will be selected, in consultation with the Authority, to accommodate the intended use of the fixture.

7.2.28.4 Each sink will have a deck-mounted faucet with gooseneck spout and 200 mm manual blade handles on the hot and cold water supply. Each sink will also have a hot and cold water wall mounted pre-rinse spray with 200 mm manual blade handles on the hot and cold water supply.

7.2.29 Waste Disposal Systems

7.2.29.1 Each Soiled Utility Room will have a wall-mounted, closed-system waste disposal system. Appliance installation will be flush to the wall with a mounting frame. The appliance will have hot and cold water connections for a concealed application.

7.2.29.2 Water, drainage, and sanitary vent piping will be installed in accordance with the British Columbia Building Code, CSA, and the manufacturer's recommendations.

7.2.30 Housekeeping Room Plumbing Fixtures

7.2.30.1 The Housekeeping Room will have a floor-mounted mop sink for use in general housekeeping within the Facility. Supply Housekeeping Room with a plumbed eyewash station.

7.2.30.2 The size of the sink will be 600 mm x 900 mm x 250 mm deep and will have rigid vinyl protective caps on exposed sides and heavy duty stainless-steel wall guards on the walls.

7.2.30.3 Each fixture will have two sets of wall-mounted faucets each with manual cross blade handles on the hot and cold water supply. The one set of faucets will have a top pail brace, integral vacuum breaker, hose end, and integral stops for general water supply to mop pails. The second faucet will have 12 mm reduced pressure back flow preventors on the hot and cold supply, hose end supply, integral stops, hose end connections to allow for connection of chemical mix tanks.

7.2.30.4 The reduced-pressure back flow preventors will be mounted in a stainless-steel box with hinged solid door located within the walls of the Housekeeping Room and will have a direct drain from the box to the utility sink.

7.2.31 Emergency Room – Cast Area Plumbing Fixtures

7.2.31.1 The Emergency room will be provided with single compartment stainless-steel sinks, as required, to assist with the removal and setting of casts. Sinks for this purpose will have the following:

7.2.31.1(1) Gooseneck spout faucets with laminar flow outlet, manual 100 mm wrist blade handles, and will be mounted on wall behind the sink.

7.2.31.1(2) Sinks will have wall-mounted, pre-rinse spray assembly with heavy duty hose and hose retainer.

7.2.31.1(3) Water supply will have thermostatic mixing valves with temperatures pre-set to meet the temperature and delivery time requirements of CSA Z317.1.

7.2.31.1(4) Stainless-steel solids interceptors with perforated, removable, stainless-steel baskets. These interceptors will be mounted on a stainless-steel dolly with ball caster and will have valves and couplings on both inlet and outlet to allow for removal and cleaning.

7.2.32 Patient Shower Fixtures

7.2.32.1 Provide Patient showers as required to meet the needs of the facility.

7.2.32.2 Patient shower stalls will be free of barriers with no lip between the washroom floor and shower. Showers will have pressure-balanced and high limit shower mixing valve with additional soft-seated check valves on each of the water supplies to meet the requirements of CSA Z317.1.

7.2.32.3 Handheld shower hoses will have smooth, easy-to-clean surfaces. The length of the shower hoses will be sized to ensure the shower head cannot be submerged in any adjacent plumbing fixture.

7.2.32.4 If the shower stall is a fixed architectural stall, ensure that a floor drain is installed with the floor sloped to the drain.

7.2.32.5 Slide bars provided for handheld showers must be designed and load-rated to act as grab bars.

7.2.32.6 Shower bases must ensure that water is sloped towards the shower drain and contained within the shower area and drain fully without puddling. Shower bases constructed of fibreglass or acrylic are not permitted.

7.2.33 Staff Showers

7.2.33.1 Provide showers for Staff to meet the needs of the facility.

7.2.33.2 Showers will be fibreglass or acrylic and will not be less than 1200 mm x1200 mm. Staff showers will have pressure-balanced and high temperature limit shower mixing valves with additional soft-seated check valves on each of the water supplies to meet the requirements of CSA Z317.1.

7.2.33.3 Staff showers will be handheld style with a slide bar and locking mechanism. Handheld shower hoses must have smooth, easy-to-clean surface.

7.2.34 Emergency Eyewash and Showers

7.2.34.1 Provide emergency showers and eyewash stations required to serve the facility, which meet the requirements of WorkSafeBC, CSA, the British Columbia Occupational Health and Safety Regulation, and the British Columbia Building Code.

7.2.34.2 Emergency showers and eyewash stations are to be located and designed to supply tempered water within an acceptable time frame in accordance with the Occupational Health and Safety legislation of British Columbia. Provide signs identifying location and directions for their use. Eyewash stations will be activated when pulled down into position.

7.2.34.3 Emergency showers and eyewash stations are to be supplied by approved thermostatic mixing valve assemblies that are specifically designed for safety equipment installation. Each mixing valve assembly will be certified to ANSI Z358.1, will be sized to serve the demand of the fixtures served, and will fail safe to cold water. The hot water recirculation system will be installed as close as possible to the mixing valve assembly.

7.2.34.4 Where standalone emergency eyewash stations are required, the fixtures are to be a stainless steel recessed wall mounted assembly complete with a water receptor, two soft spray eye / face wash spray heads, tempered water supply and drain piping. The eyewash station will have a highly visible hand paddle that will operate the eyewash upon activation.

7.2.34.5 Where emergency eyewash stations are required to be located with a plumbing utility sink, the fixture will be a highly visible, swing away assembly that contains two soft spray heads, caps, and tempered water service.

7.2.34.6 The emergency showers and eyewash stations located within public and finished work areas of the Facility are to be recessed but highly visible. Activation of the shower will be from a wall mounted lever adjacent to the shower assembly. The eyewash component of the shower station will be a wall mounted concealed assembly which will be pulled down out of the wall and will activate upon dropping down. The waste from the eyewash station will be hard piped back into the wall and connected to the Sanitary Waste system.

7.2.34.7 Floor drains will not be used in clinical areas as recommended by CSA Z317.1

7.2.34.8 Cold Water hose bibbs will be used as required throughout the Facility.

7.2.34.9 Exterior hose bibb serving outdoor spaces will be encased non-freeze concealed type with lockable hinged doors. Each hose bibb will require an individual shut off on the branch line servicing the fixture located in a non-freeze location within the building.

7.2.34.10 The Facility water supply will be protected by an approved backflow prevention device.

7.2.34.11 Interior hose bibb for workshops and mechanical room will be exposed chrome plated ball valve with hose end fitting and cap securely anchored to the structure.

7.2.34.12 Hose bibb located on the roof to service equipment maintenance and the cooling towers will be non-freeze upright roof hydrants with shut off valves and drains located internal to the building.

7.2.34.13 Spacing of hose bibb around the exterior of the Facility will be no greater than 30 metres apart.

7.2.34.14 Provide an irrigation system for automatic (via timed/condition-controlled system) watering for all garden plots.

7.2.35 Morgue Plumbing Systems

7.2.35.1 In the Morgue, provide isolated plumbing services to all Morgue plumbing fixtures from “Non-Potable” water supply that is protected from back flow to the rest of the building.

7.2.35.2 All water services suppling the Morgue plumbing fixtures will require reduced-pressure backflow preventors (N+1 redundant)) on the main service to the Morgue department / zone. The backflow stations will need to be located exterior to the actual Morgue department in a location that allows for proper maintenance.

7.2.35.3 All sanitary waste piping and all floor drains / trench drains will be required to be constructed of stainless steel with mechanical couplings.

7.2.36 Plumbing Drainage and Venting Systems

7.2.36.1 Provide sanitary, storm, specialty drainage, and venting systems to avoid disruption to the operation of the Facility or interference with other services during operation and maintenance activities. Design the systems so that, as much as possible, Type I and Type II rooms do not need to be entered when performing these functions. Refer to CSA for space Type definitions.

7.2.36.2 Design all drainage systems, except for those serving the basement, such that the systems connect to the site drainage services, utilizing gravity drainage.

7.2.36.3 Provide drainage and venting piping and fittings of a material suitable for the expected effluent.

7.2.36.4 All pipe materials acceptable by the British Columbia Building Code for drainage systems are acceptable.

7.2.36.5 All vents will terminate outdoors; the use of air admittance valves will not be permitted.

7.2.36.6 All piping will be installed parallel to Facility gridlines wherever possible. Vertical piping will be installed plumb and horizontal piping level or graded as required by code for sanitary or storm systems. Provide support under all wyes located at ends of branches and all p-traps.

7.2.36.7 Conceal all sanitary, waste, and water piping in walls. Only trap arms and water supply piping will be permitted to be exposed below fixtures.

7.2.36.8 Provide solid supply tubing to sinks and lavatories for ease of cleaning, no braided flex supplies are permitted.

7.2.36.9 Drainage piping material may only be changed downstream at the following points:

7.2.36.9(1) where the hazardous properties of the effluent is reduced so a different piping material is suitable: i.e. the branch connects into a main drain line, such that the additional effluent flow dilutes the discharge; and

7.2.36.9(2) where a device is placed in-stream to reduce the hazard of the discharge, such as an acid neutralizer.

7.2.36.10 All piping at risk of freezing will not be located outside of a heated space. Heat tracing is not allowed.

7.2.36.11 Adjustable Height Fixtures

7.2.36.11(1) Fixture outlet piping for adjustable height fixtures will be installed so that no water can collect in the piping at any fixture height.

7.2.37 Floor Drains

7.2.37.1 Floor drains will not be provided in clinical areas other than the areas defined in CSA Z317.1.

7.2.37.2 Provide floor drains in all mechanical rooms as required to drain equipment, laboratory, kitchen (Floor Drains, Floor Sinks), workshop, showers, service spaces etc. as recommended in CSA Z317.1.

7.2.37.3 Floor drains will be sized to handle the maximum anticipated flows including sprinkler test full flow and from backflow preventer relief ports at full flow rated as noted in the manufacturer's information. Ensure all equipment drain piping is terminated at floor drains with the proper air gap. Ensure that drains are properly selected and of adequate size to prevent spillover of the waste product into adjacent areas.

7.2.37.4 Provide flushing rim type floor drains in all Mental Health secure rooms.

7.2.37.5 Provide floor or hub drains for all devices that may discharge water, including, emergency showers and backflow prevention devices not located in clinical spaces.

7.2.37.6 Provide electronic trap primers that are controlled by electronic time clocks or BMS or other equally effective means as approved by the Authority at all drains that are subject to losing the trap seal, including infrequently used fixtures as required by the British Columbia Building Code. Trap primers which rely on fixture use or pressure drop will not be accepted.

7.2.37.7 Any machinery/service rooms located below grade will be fitted with fast acting, free flowing drains to rapidly disperse flood waters arising from both outside the Facility (such as severe weather), as well as from any internal fluid system breaches.

7.2.37.8 Drainage flow capacity will exceed that of the calculated maximum flow from the worst case system breech.

7.2.37.9 Provide accessible clean-outs for all sinks and lavatories above the flood-level of the sink.

7.2.37.10 All flammable storage rooms will be provided with dedicated acid waste drainage to dedicated dry containment sumps.

7.2.38 Oil and Grease Interceptors

7.2.38.1 Provide grease interceptors for oil and grease, where necessary, and as required by the BC Building Code and any other municipal requirements.

7.2.38.2 Provide interceptors in accordance with the manufacturer's specifications.

7.2.38.3 Sizing of the interceptors will be in accordance with the guidelines set out in the ASPE Design manuals, City of Dawson Creek municipal guidelines, Plumbing Drainage Institute (PDI) design guidelines.

7.2.38.4 Provide grease interceptors to serve all kitchen sinks, floor drains, floor sinks and equipment in the Food Services areas. Run an independent drainage system sloped at a minimum 2%. Locate interceptors outside the food preparation areas to allow for servicing of the fixture. Hand Hygiene sinks and dishwashers do not need to connect to the grease interceptor.

7.2.38.5 Each grease trap installation for the kitchen will be complete with 50 mm stainless steel vacuum suction line running from the grease trap to a designated exterior location for grease removal. Each end of the vacuum tubing will have Camlock fittings attached.

7.2.38.6 Each grease trap installation will be complete with a 20 mm hot water hose bibb on the wall in the general vicinity of the grease trap that will be connected to the 60 °C hot water system.

7.2.38.7 Not used.

7.2.38.8 Drainage from Ambulance Garage will be linked to sump pumps/panels and oil receptors as required.

7.2.39 Plaster Traps and acid neutralizers

7.2.39.1 Install plaster traps for all process sinks where dust is expected in the room or where dust could be washed down the drainage system. Includes any locations where cast or splint procedures are done, modification to casts or splints (grinding bench for example) or workshops (carpentry, etc.).

7.2.39.2 Plaster trap installations are to be designed to allow for removal of the entire trap and taken to a maintenance location where it can be cleaned and returned to service.

7.2.39.3 Provide acid neutralizers at either the point of acid discharge to the drainage system or at the acid waste drainage system termination.

7.3 Medical Gases (Division 22)

7.3.1 The Design-Builder will provide required cylinders, piping, manifolds, equipment, and bulk supplies, as required to suit the needs of the new Building, for new medical gases for the Facility plus 20% additional capacity.

7.3.2 Medical gases and vacuum systems will be distributed and sized throughout the hospital to each department with caps for future expansion.

7.3.3 All medical gas systems will be designed and constructed to CSA Z7396.1 - Medical gas pipeline systems - Part 1: Pipelines for medical gases, medical vacuum, medical support gases, and anaesthetic gas scavenging systems.

7.3.4 At minimum, the following systems will be provided:

7.3.4.1 Medical air and reserve medical air cylinders;

7.3.4.2 Medical vacuum;

7.3.4.3 Instrument air;

7.3.4.4 Medical oxygen:

7.3.4.5 Nitrous oxide cylinders;

7.3.4.6 Nitrogen cylinders; and

7.3.4.7 Carbon dioxide cylinders

7.3.5 Medical Gas Equipment

7.3.5.1 Medical gas equipment (vacuum pumps, compressed air, etc.) will be located in a dedicated medical gas equipment room with convenient access for delivery and replacement of cylinders. All equipment will be sized and will consist of duplex, triplex or quadplex units to provide adequate resiliency, redundancy and will meet CSA requirements. The minimum equipment to be provided includes the following:

7.3.5.1(1) Medical vacuum pumps;

7.3.5.1(2) Medical grade compressed air units and dryers including reserve compressed air cylinders;

7.3.5.1(3) Instrument grade compressed air units and dryers;

7.3.5.1(4) Standard equipment (non-medical grade) compressed air units and dryers including reserve compressed air cylinders and

7.3.5.2 Provide new central medical air and medical vacuum pump systems. Medical air and medical vacuum pump systems will each consist of at least three (3) interconnected sources of supply. Systems will be capable of supplying the system flow with any two (2) sources of supply out of service.

7.3.5.3 Provide 'fail-safe' controls: all units will continue to run and maintain service in the event of failure of the electronic controls, without human intervention. Provide multi and/or variable speed systems to allow for varying conditions. Provide for 20% increase in a capacity, including control panels, for future.

7.3.5.4 Provide an oil-free medical vacuum system.

7.3.5.5 Connect new central medical air and medical vacuum systems to the essential system power supply in conformance with CSA Z32. Provide an essential system power supply from at least two (2) separate circuits such that these essential services are maintained in the event a motor control centre is de-energized.

7.3.5.6 Medical air compressors will be equipped with a carbon monoxide alarm system to measure the level of carbon monoxide in parts per million by volume in the medical air. The system will initiate an alarm and provide a means to prevent gas from entering the piping system if the level exceeds 10 parts per million by volume. Alarm will notify the BMS.

7.3.5.7 Air intakes for medical air compressors will be provided with carbon filters with pressure drop alarm notifying the BMS.

7.3.5.8 Spaces utilizing nitrous oxide will be provided with active waste gas scavenging systems (AWGSS) designed to the applicable standards including CSA Z7396.1 and CSA Z305.13.

7.3.6 Medical Gas Cylinders and Manifolds

7.3.6.1 Medical gas cylinders and their associated manifolds will be located in dedicated storage rooms. All equipment will be sized to provide adequate resiliency, redundancy and to meet CSA requirements.

7.3.6.2 Provide bottle medical gas reserve capacity within the Facility within a separate room for centralized bottle manifold supply systems for the following medical gases:

7.3.6.2(1) Oxygen;

7.3.6.2(2) Medical Air; and

7.3.6.2(3) Compressed Air;

7.3.6.3 Design the centralized bottle manifold supply systems so that they will, when required, automatically switch to the spare bank of bottles (and that switching to the spare bank is alarmed at the master alarm). Only medical gas piping and valves necessary for the installation of bottle manifolds will be included in the manifold supply room.

7.3.6.4 The manifold rooms will have designated storage space and racking for spare bottles equal to 72 hours capacity for each system not connected to the manifolds.

7.3.6.5 The Facility will be provisioned with adequate space at the loading dock for the storage and exchange of medical gasses, and a prescribed holding area. The sizes of these locations to be dependent on Quantity of each gas utilized, with spare capacity to meet the Facility's functional needs and requirements, and as supported by the established distribution of said mentioned gasses. For handling provide racks to secure bottles for transit from loading dock to storage. A piping system for these gases is not required. Refer to Appendix 1A Clinical Specifications for more detail and functional requirements. The regular replacement of cylinders will depend on the usage calculations, provided by the Design-Builder.

7.3.6.6 Flexible connectors will be specifically designed to withstand seismic activity and will have the ability to accommodate both vertical and horizontal seismic movement.

7.3.6.7 Frequency of fills for all medical gas cylinders will be coordinated, by the Design-Builder, based on consumption demand for the hospital plus 20% and local delivery capabilities to ensure delivery timelines will be adequate to ensure that the hospital has adequate medical supply at all times.

7.3.7 Medical Gas Zone Control and Monitoring

7.3.7.1 Provide a zone control valve box complete with zone alarm panel and removable window with pull-out ring at each zone.

7.3.7.2 Provide a main alarm panel to monitor all the medical gas systems installed in the Facility.

7.3.7.3 Supply systems will be equipped with alarm sensors as required by CSA Z7396.1. Sensing devices will also initiate audible and visual alarms on the control panels for the medical air compressor system, medical vacuum system, instrument air system and the AGSS. All alarms will notify the BMS. Provide BMS alarm interface signal to the Facility central system for critical alarms such as high or low pressure. Auditory alarm signals will be clearly audible and produce a sound level of not less than 70 dBA at a distance of 2 metres and will require manual silencing.

7.3.7.4 Provide the medical gas system so that there is a minimum of one zone shut off valve per programmed area as well as isolation valves for each Patient room.

7.3.7.5 Provide a local alarm panel for each zone. Alarm panels will be connected to the essential system power supply in conformance with CSA Z32. Provide a master medical gas alarm panel to monitor all medical gas functions. Remote alarm annunciation will be provided at a location with 24 hour continuous monitoring by personnel. Provide an interconnected status and alarm point and signal to the BMS.

7.3.7.6 All master alarm panels will be individually connected to the BMS. Provide an alarm interface signal to the BMS for critical alarms such as low or high pressure. Master alarms will be connected to the essential system power supply in conformance with CSA Z32.

7.3.7.7 All medical gas systems will be certified in accordance with CSA standards and reviewed by an independent and qualified testing agency (provided by the Authority).

7.3.7.8 All systems components requiring electrical power will be connected to the essential system power supply in conformance with CSA Z32.

7.3.7.9 The medical gas supply system will be for Patient consumption only. If equipment and/or procedure(s) require instrument air, then provide separate dedicated source equipment, piping, valving, and monitoring to accommodate that application.

7.3.7.10 Design-Builder will conduct all installation tests of the medical gas supply systems required by CSA Z7396.1 including leak tests and cross connection tests.

7.3.7.11 Zone valves will be installed immediately outside each anaesthetizing location.

7.3.8 Medical Gas Outlets

7.3.8.1 Provide medical gas outlets in conformance with the Clinical Specification and meeting the requirements of CSA Z7396.1 and CSA Z9170.1.

7.3.8.2 Each Patient room will be complete with two each of oxygen outlets, air outlets, and vacuum outlets. Outlet types will be DISS. Medical gas types and quantities provided for other clinical areas will be as determined with the users. Local and master alarm panels will be provided as required by CSA Z7396.

7.3.8.3 Provide medical gas outlets in the following Patient locations:

7.3.8.3(1) On both sides of all Patient beds.

7.3.8.3(2) At each baby care area in each LDRP room.

7.3.8.4 Provide Diameter Index Safety System (DISS) type outlets for all medical gases. Medical gas outlets provided in the Ambulance Garage and Decontamination areas will be in a protective enclosure.

7.3.8.5 Each medical gas outlet will have a permanently marked, colour-coded non-interchangeable index system so as to prevent the connection of the wrong gases. Provide a secondary check valve to hold the line pressure if the primary valve is removed for maintenance.

7.3.8.6 All medical gas outlets in procedure and Patient rooms will be provided with a Patient Reference Grounding system in conformance with the Canadian Electrical Code.

7.3.8.7 All oxygen outlets are to be dual connect style (two ports) except in the locations where a single connect (one port) oxygen outlet may be used as follows:

7.3.8.7(1) Chemotherapy Exam/Treatment - Open and Chemotherapy Exam/Treatment - Enclosed Room;

7.3.8.7(2) IV Therapy Exam/Treatment Area - Open;

7.3.8.7(3) Respiratory Therapy Storage/Workroom, Exercise/Stress Testing Room, and PFT Room;

7.3.8.7(4) Medical and Surgical Inpatient Bedrooms;

7.3.8.7(5) Convalescent Care Inpatient Bedrooms;

7.3.8.7(6) Maternal and Newborn Inpatient Unit Ante/Postpartum Rooms;

7.3.8.7(7) two (2) Mental Health Inpatient Rooms and the Mental Health Inpatient Room - Bariatric; and

7.3.8.7(8) Diagnostic Imaging treatment rooms.

7.3.9 Medical Gas Piping and Valves

7.3.9.1 Medical gas piping will be degreased type ‘K’ copper. Per CSA Z7396.1, type "K" or "L" copper can be used for compressed medical gases, medical vacuum, medical support gases, and AGSS, including relief vents. Type "K" piping will be used for pipe sizes greater that 75mm (3") where operating pressures are above 1275 kPa (185 psi). Medical gas supply piping and equipment will be sized to allow for 20% growth in capacity.

7.3.9.2 All piping and components of the pipeline distribution systems which come into contact with the medical gases will be supplied clean and free from oil, grease, and particulate material and capped or sealed to prevent contamination. On site cleaning of medical gas piping will not be permitted.

7.3.9.3 Service isolation valves will be valves of three piece bolted construction for medical gas service and will have ULC listing and CRN number. Valves will be labelled showing the appropriate gas service and pressure rating. All ball valves will have a quarter turn from closed to open and swing out during installation. Shut off valves exceeding 65mm used for medical vacuum systems may be butterfly valves. Provide degreased copper tube stubs with purge ports.

7.3.9.4 Area zone shut off valves will be housed in a single steel box comprised of multiple shut off valves with tube extensions, removable window incorporating a centre pull out ring. Provide pressure/vacuum gauges for each service. Provide label stating rooms served by valves. Boxes will be designed so that the shut off valve handles prevent the closure of the box door or replacement of the cover when the valve is in the off position. The boxes will be large enough to permit the manual operation of the shut off valves. The valves will be arranged such that the operation of one valve will not interfere with the proper operation of other valves located in the same box.

7.3.9.5 Departments will be served from looped medical gas piping such that the piping can be served from two directions if part of the systems is out of service. These loop mains will be provided with service valves so sections of each department can be isolated without affecting the remaining floor operation.

7.3.10 External Emergency Medical Gas Supplies

7.3.10.1 Provide concealed connections for Oxygen on the exterior of the Facility for supply into the Facility from external emergency support from tanks, trucks, etc.

7.3.11 Laboratory and Instrument Air

7.3.11.1 Where laboratories or any other non-clinical area require an air or a vacuum system, these systems will be independent from the medical air and medical vacuum systems, per CSA Z7396.1.

7.3.11.2 Instrument air with N+1 redundancy for non-Patient use will be clean and dry and used in such areas as Biomed/Pharmacy/Labs, braking systems on ceiling columns and operating door open and door close on sterilizers.

7.3.11.3 Connect systems to emergency power. System pressure will depend on requirements of final devices and equipment procured. Outlet pressures will be adjustable by the Authority. Instrument air supply and piping systems will comply with the requirements of CSA Z7396.1.

7.3.11.4 The Design-Builder will provide the services required to meet the requirements of the final equipment and devices procured.

7.3.11.5 Laboratory instrument air will be provided to the Lab and other areas requiring instrument air.

7.3.12 Utility Compressed Air

7.3.12.1 Utility compressed air systems will be independent from the medical air and instrument systems.

7.4 Heating, Ventilating and Air Conditioning (Division 23)

7.4.1 Heating Plant

7.4.1.1 The heating plant will be designed to meet the 1% peak coincident load with the largest heating source unit out of operation (N+1 redundancy) as required by CSA Z317.2. The heating plant will be provided with more than two boilers to help ensure that multiple failures, within the heating system, do not leave the boiler plant with less than 100% of the coincident load.

7.4.1.2 Pumps, heat exchangers and other ancillary equipment redundancy will match that of the main equipment. Ensure that no failure of any single pump, fan, variable frequency drive (VFD), or central system control valve will be able to prevent heating of the Facility to the required design conditions.

7.4.1.3 All heating boilers will be of dual fuel design and will be capable of operating on natural gas or propane by operation of valves and controls only.

7.4.1.4 Apply energy heat recovery systems to offset plant heating requirements.

7.4.1.5 Provide treatment equipment for introducing cleaners and/or corrosion inhibitors. Provide side stream filters for hydronic systems.

7.4.1.6 Design the heating equipment to sufficiently meet the maximum simultaneous Facility demand for all systems served by the central plant.

7.4.1.7 Ensure the plant is capable of controlling and responding to periods of low usage.

7.4.1.8 Heating plant equipment will be connected to the delayed vital essential electrical system in such a way that at least two-thirds of plant capacity (with 100% of the required heating capacity) is available at all times.

7.4.2 Heating Hot Water System

7.4.2.1 Redundancy will be based on meeting the final plant capacity with one boiler out of service. In addition, redundancy will be provided, when one boiler is out of service, from more than one boiler in service.

7.4.2.2 Heating water boilers will be of dual fuel design, high efficiency and configured for condensing operation.

7.4.2.3 Boilers will be forced draft type, fully modulating, low NOx, complete with variable speed burner fan, continuous oxygen trim and utilizing electronic ignition and flame sensing. Boilers will include a control package which will monitor all safety functions and will communicate with the overall process control system.

7.4.2.4 Provide primary hot water pumps with VFDs in a quantity that matches that of the boilers, plus one redundant, to distribute hot water throughout the primary loop. Primary pumps to be piped into common supply/ return headers such that any pump can serve any boiler. Boiler system to operate on variable flow principles governed by secondary loop demands.

7.4.2.5 Provide dedicated secondary pumping systems to serve the required loads and to maximize the temperature differential before the water is returned to the central plant.

7.4.2.6 Reheat systems will be based on low temperature distribution to maximize primary hot water loop temperature differential and to provide opportunity to use recovered heat.

7.4.2.7 Provide automatic isolation valves on the inlet of each boiler.

7.4.2.8 Provide coalescing type dirt and air separator on the primary hot water supply main in the central plant.

7.4.2.9 Provide energy metering to measure the heating load at the supply/ return mains.

7.4.2.10 Modular expansion tanks are to be provided in accordance with system volumes at Substantial Completion as well as future system volume. The allowance for future system volume is an additional 10% over Substantial Completion volumes. Make-up water will be measured via flow meter.

7.4.3 Humidification

7.4.3.1 Provide humidification for the Facility as required to meet the full range of space humidity requirements as outlined in Table 1 of CSA Z317.2.

7.4.3.2 Provide standalone steam generation equipment for all humidification requirements within the Facility.

7.4.3.3 Ensure the feed water quality to steam generators is within the required conditions of the applicable codes, standards, and manufacturer's recommendations for both the generator and the downstream equipment. Steam quality must be condensate free and minimum 97% saturated vapour.

7.4.3.4 Provide connections in the steam system near the point-of-use, which can be used to access the steam for quality measurement.

7.4.4 Flues

7.4.4.1 All flues will be accessible without the need for temporary ladders. Provide fixed structural platform(s) if required.

7.4.4.2 Provide individual flues for each hot water heating boiler, steam boiler and generator. Flues will be individually insulated.

7.4.4.3 Flues will not permit entrainment into Facility air intakes and openings.

7.4.4.4 Wind loading, seismic zone, exposure factor, and deflection will be in accordance with the BCBC.

7.4.5 Fuel Systems - Boilers

7.4.5.1 Boilers will utilize propane as the backup fuel source.

7.4.5.2 The Design-Builder will provide an above ground propane storage tank and associated direct fired vaporizer. Equipment will be located within a compound or enclosure to protect against public access.

7.4.5.3 Buried fuel tanks are not allowed.

7.4.5.4 Final above-ground storage capacity will be sufficient for 72 hours of operation at the design load.

7.4.6 Fuel Systems - Generators

7.4.6.1 Final storage capacity will be sufficient for 72 hours of operation at full nameplate prime kW rating of all generators combined.

7.4.6.2 Provide required fire code safety protection for each of the generator units integrated fuel system to meet CSA B139 and/or National Fire Code.

7.4.6.3 Provide duplex fuel pump package supplying 2.5X the aggregate flow of generators' demand. Duplex set to be run/ standby with dedicated pump control panels for true redundancy.

7.4.6.4 Provide anti syphon valve on supply line from the storage tanks to the fuel supply header.

7.4.6.5 Provide fuel equalizing lines between the generator unit In Base Fuel Tanks. Equalizing lines will be designed and supplied with a means to isolate each fuel tank independently.

7.4.6.6 In Base Fuel Tanks overflow will be returned to the Generator Unit In Base Fuel Tanks.

7.4.6.7 Provide a fully automated fuel system for the Generator Unit's fuel system.

7.4.6.8 Provide a fully automated fuel filtration system for each Generator Unit's fuel system.

7.4.7 Cooling

7.4.7.1 Chilled water will be produced in a central plant. The design and operation of the central plant must be optimized to allow energy recovery (for heating purposes) and to minimize the greenhouse gas usage on site.

7.4.7.2 Cooling plant equipment will be connected to the delayed vital essential electrical system in such a way that critical cooling and 24/7 cooling loads are served at all times as required in CSA Z317.2

7.4.7.3 All chillers are to be selected with less than 45 kPa water side pressure drop through evaporator and condenser sections. Single and two-pass heat exchangers only are acceptable. Three-pass and higher are not acceptable.

7.4.7.4 Each chiller plant will be configured in a parallel arrangement with means of automatic isolation of each chiller prevent flow through inactive units.

7.4.7.5 Provide equipment for all necessary cooling, including the required redundancy in the cooling systems and cooling required by Facility systems in a post disaster event.

7.4.7.6 Provide 100% outdoor air for free cooling as the first means of space cooling. Heat recovery strategies may override this requirement.

7.4.7.7 Closed loop fluid coolers will be provided with variable speed controllers on all motors. Provide sump heaters for cooling towers designed to operate in winter.

7.4.7.8 Chilled water plant to be controlled to optimize operation based on outdoor temperature and cooling demand.

7.4.7.9 Chillers will have multiple individual refrigerant circuits. Prime mover nameplate ratings for each circuit will not exceed 200 kW for groups Al, A2 or B1 refrigerants.

7.4.7.10 No open-type cooling towers are allowed except spray coil (closed circuit evaporative fluid cooler) type cooling towers, if such towers:

7.4.7.10(1) are located away from fresh air intakes.

7.4.7.11 Chillers and cooling towers will be designed and located so as not to have an adverse effect on the mechanical systems for this Facility or any adjacent building.

7.4.7.12 Provide chillers and cooling towers for ease of operation, accessibility for maintenance, safety, and appearance.

7.4.8 Facility Heat Recovery Chillers:

7.4.8.1 The chilled water system will be capable of operating as a heat recovery system.

7.4.8.2 Design the cooling plant to meet the maximum simultaneous Facility demand for all systems served by the cooling plant, as well as being capable of controlling and responding to periods of low usage. Systems include air handling units, fan-coil units, and heat recovery coils. All chillers will have the capability to unload down to 20% of rated capacity, to accommodate Facility part load conditions.

7.4.8.3 All chillers are to be institutional grade with expected life span of minimum 30 years.

7.4.8.4 Chilled water distribution will be configured to serve the Facility and future loads from supply and return headers located in the chiller room. Provide valved connections for the Facility and connections for future loads.

7.4.8.5 Central plant main chillers will be water cooled, high efficiency, electrical centrifugal or screw chillers, rated in accordance with AHRI 550/590. No absorption chillers may be used. Chillers will utilize non-CFC refrigerant.

7.4.8.6 Chiller control sequences will include chiller staging to maximize the overall plant efficiency at all loading conditions.

7.4.8.7 Chiller control sequences will also include chilled water temperature and system differential pressure reset and variable water flow. Base chilled water temperature and differential pressure reset on tracking position of all control valves (positive feedback).

7.4.8.8 Provide continuously available (24/7) cooling for all areas containing specialized equipment (such as Diagnostic Imaging) and continuous internal heat gains such as elevator machine rooms, server rooms, electrical, UPS and Communications Rooms via a process chilled water loop that can operate either independently or interconnected with the main chilled water system.

7.4.8.9 Design the heat recovery chiller plant to meet the maximum simultaneous Facility heating and cooling demand (including heat extracted by heat recovery coils), as well as being capable of controlling and unloading down to 20% of rated capacity to respond to periods of low usage.

7.4.8.10 All chillers are to be commercial grade with expected life span of minimum 20 years.

7.4.8.11 Chillers will be water cooled, high efficiency, electrical screw chillers rated in accordance with AHRI 550/590. Chillers will utilize non-CFC refrigerants.

7.4.8.12 Heat recovery chillers to be arranged to extract heat from the main chiller condenser water loop downstream of main chillers. Provide by-pass around main chillers such that the heat recovery chillers can be used to extract heat directly from the Facility chilled water system.

7.4.8.13 The heat recovery chiller plant will be configured such that units can be added to increase plant capacity in the future. The chilled water plant redundancy will be based on meeting the overall plant capacity with the largest chiller out of service. The chilled water plant will be configured such that 50% of the capacity will be fed from one electrical feeder, and 50% from a second feeder.

7.4.8.14 Heat recovery to be provided by separate, multiple-compressor chillers capable of heat recovery operation. Chillers will utilize non-CFC refrigerants.

7.4.8.15 Chiller plant redundancy will be such that a failed chiller can be repaired and/or removed and replaced without impacting ongoing operations.

7.4.8.16 Optimize heat recovery from the chiller system such that all the heat extracted from the main chilled water system condenser water can be recovered to provide heat to the Facility and the central plant. Recovered heat uses include all Facility heating, reheat, and domestic hot water preheating. Full or partial heat rejection to the cooling towers will be enabled when the ability to use the recovered heat is reduced or not available.

7.4.8.17 Provide chilled water pumps with VFDs in a quantity that matches that of the chillers to distribute chilled water throughout the primary Facility Loop. Interconnect the supply/return mains with isolation valves such that any pump can serve any chiller. Provide a minimum of three vertical risers within the facility.

7.4.8.18 Provide condenser water pumps with VFDs in a quantity that matches that of the chillers. Provide two pairs of condenser water supply / return mains between the chillers and the cooling towers. Interconnect the supply/return mains with isolation valves such that any pump can serve any chiller and cooling tower. The piping arrangement will permit replacement of condenser water mains while allowing the plant to continue delivering Design-cooling capacity.

7.4.8.19 Ensure that no failure of any single pump, fan, variable frequency drive (VFD), or central system control valve will be able to prevent cooling of the Facility.

7.4.8.20 Provide multi-cell induced draft fluid coolers or hybrid fluid coolers, with condenser water to cells valved to isolate individual cells while keeping the remainder of the fluid cooler operational at full design capacity. Locate the fluid coolers to ensure discharge does not enter the Facility or any other buildings through air intakes or other openings. Provide each cooler drain pan as all stainless steel construction, with a ladder and maintenance access platform to service all serviceable components. Provide access to service the basin. Provision for ancillary equipment, and structures, as required for maintenance and serviceability of each cooling tower. Make-up water to the fluid coolers will be measured via flow meter. The supporting fluid cooler frame/structure will be epoxy-coated steel.

7.4.8.21 Provide energy meters on the main chilled water loop and condenser water loop.

7.4.8.22 Provide energy meters on the heat recovery chiller condenser loop to measure the heat recovered from the chillers.

7.4.8.23 Chilled water plant is to operate on variable primary flow principles governed by Facility demands. Chillers are to be selected to operate on variable flows through both the evaporator and condenser. Minimum flow limits to be provided by chiller and cooling tower manufacturer.

7.4.8.24 For winter operation of chillers, sufficient fluid cooler capacity in an N+1 arrangement will be winterized, and heat traced. The winterized tower section will be easily isolated from the rest of the array when seasonal equipment is drained.

7.4.8.25 Provide automatic isolation valves on the inlet side of each chiller and fluid cooler.

7.4.8.26 Provide coalescing type dirt and air separator on chilled water supply main leaving the central plant. Provide side stream cartridge filters, chemical pot feeders, and corrosion coupons for all chilled water systems.

7.4.8.27 Provide water treatment packages for the condenser water systems. Provide treatment equipment for introducing corrosion inhibitors and biocides into the cooling towers. Provide packaged high efficiency solids separators.

7.4.8.28 Expansion tanks are to be provided in accordance with designed system volumes. Make-up water to the chilled water system will be measured via flow meter. Expansion tanks will be similarly sized and be of the same make and manufacturer for consistency of replacement parts.

7.4.9 Space Heating and Cooling

7.4.9.1 Heating, ventilation, and air conditioning (HVAC) system will provide a comfortable internal environment for the Patients and Staff and will meet the required environmental conditions for the equipment.

7.4.9.2 Provide all necessary space, ventilation, and process heating for the Facility.

7.4.9.3 Space heating and cooling capacity must be sufficient to meet the required indoor design temperature and relative humidity.

7.4.9.4 Space heating capacity must be sufficient to meet the required indoor design temperatures while using the January 1% outside design temperature for the nearest City as outlined in the British Columbia Building Code.

7.4.9.5 Space cooling capacity must be sufficient to meet the required indoor design while using the July 2.5% outside design wet and dry bulb temperatures for Dawson Creek.

7.4.9.6 Connect sources of heating to electrical power in accordance with CSA Z32.2.

7.4.10 Hydronic Pumps

7.4.10.1 Design pumps to:

7.4.10.1(1) Operate at the system fluid temperature without vapour binding and cavitation;

7.4.10.1(2) Be non-overloading in parallel or individual operation;

7.4.10.1(3) Operate within 25% of the midpoint of published maximum efficiency curve;

7.4.10.1(4) Incorporate a variable frequency drive (VFD) for pumps with 3HP or higher motors for energy savings under part-load conditions and to allow for balancing and adjustments in the future.

7.4.10.2 Ensure pump construction and installation will permit complete pump servicing without disrupting piping or motor connections.

7.4.11 Hydronic Piping

7.4.11.1 Insulate all piping, equipment, and accessories in accordance with all applicable standards as a minimum.

7.4.11.2 Provide seismic mitigation and Facility separation devices for all piping that crosses Facilities and/or utility corridors.

7.4.11.3 Provide adequate expansion compensation for heating piping. Locate anchors and guides, design expansion compensation loops and select expansion compensation devices based on a thorough review of piping layout and engineered piping stress analysis.

7.4.12 Cooling Systems

7.4.12.1 Ensure that no air within the air conditioning system, outside of the central air handling equipment, drops below its dew point temperature.

7.4.12.2 All refrigerants used will be environment friendly and will comply with the project's LEED rating target and all current Standards.

7.4.12.3 Once through cooling (single-pass cooling using domestic water, for example) is not permitted for any process or service within the Facility.

7.4.12.4 Provide continuously available chilled water or condenser water systems for all areas containing specialized medical equipment, Communication Rooms, elevator machines, server systems and electrical rooms for managing continuous internal heat gains.

7.4.12.5 Cooling and heat rejection for these critical loads may be served by the central cooling plant provided the system incorporates redundancy per CSA Z317.2 requirements and is connected to the Delayed-Vital electrical system.

7.4.12.6 Design HVAC terminal components in conjunction with equipment location in order to mitigate unnecessary heat gain into the space.

7.4.12.7 Provide continuously available chilled water for the water-cooled condensing units for the Food and Nutrition Services department. Make final connections to the condensers. Provide refrigerant piping between the condensers and the respective refrigerator, freezer or cooler, charge with refrigerant and oil and fully commission. Design the chilled water service to the equipment with consideration for low supply water impacts on fridge/freezer condenser systems.

7.4.12.8 HVAC terminal components for cooling of Communication Rooms and electrical rooms will be N+1 redundancy.

7.4.13 Hydronic Piping

7.4.13.1 In case pipes containing pressurized fluid are to be used, provide measures to minimize risk of leakage and provide leak detector system. Leak detection will communicate with the BMS.

7.4.13.2 Interconnect the risers on each floor with isolation valves. Arrange the piping and provide sufficient isolation valves on risers and interconnecting pipes such that individual department may be isolated to facilitate repair or future renovations, while not impacting operation of occupied areas.

7.4.13.3 Install piping in an orderly manner (aligned with structural elements and at right angles). Slope piping to permit complete drainage of the system.

7.4.13.4 Install equipment and piping with adequate service space, access panels and the ability to remove equipment for servicing or replacement.

7.4.13.5 Locate services that require access for regular maintenance above non-critical spaces, such as corridors, to minimize or eliminate disruptions to the delivery of health care services. Coordinate placement of ceiling devices to ensure sufficient access to ceiling spaces.

7.4.13.6 Equip all high points in piping with air removal devices such as air collection chambers and air vents. Do not locate automatic air vents above the ceilings of occupied spaces.

7.4.13.7 Provide isolation valves, unions, and bypass piping to allow for equipment isolation and removal without unduly affecting the system operation or major drain down.

7.4.13.8 Provide balancing valves, flow-measuring devices, and temperature and pressure sensors throughout the system to facilitate system balancing.

7.4.13.9 Ensure all piping is accessible. No under-slab piping is permitted, with the exception of glycol piping as noted above.

7.4.13.10 Room return air in specific spaces indicated in CSA Z317.2 will not recirculate within the terminal units serving the space.

7.4.13.11 Any ventilation and/or radiant heating sources serving the Patient rooms will be connected to the Facility's emergency power supply.

7.4.13.12 Insulate all chilled water and condenser water piping, equipment, and accessories in accordance with the most stringent of applicable Standards, including BCICA and ASHRAE standards. Provide a canvas or PVC service jacket on all exposed piping inside; exterior piping will have aluminum jacketing.

7.4.13.13 Chilled water, heating water, and condenser water piping will be Schedule 40 Steel or Type L copper. Copper piping for run outs and coil connections will be soldered with lead free or 95/5 solder.

7.4.13.14 Utilize screw fittings for 50mm piping and smaller, and welded fittings for 65mm piping and larger for steel piping. If used selectively, grooved fittings are acceptable given prior approval from the Authority.

7.4.13.15 CFC and HCFC based refrigerants will not be used in therefrigeration equipment.

7.4.14 Ventilation

7.4.14.1 Provide all necessary ventilation for all spaces as required by CSA Z317.2. Submit calculations with each design submittal showing air change rates and level of redundancy proposed for each space in the hospital. Include SMACNA recommended duct leakage rates for sizing air systems.

7.4.14.2 Design the air handling equipment for the Facility to provide 100% outdoor air capability at all times of the year per the requirements of CSA Z317.2 to provide Catastrophic Event Management. Requirement for 100% outside air includes operation during fire mode smoke control sequences and any internal catastrophic event (outbreak etc.).

7.4.14.3 Design the air handling equipment for the Facility to maximize recirculation air capability at all times of the year per the requirements of CSA Z317.2 to provide External Catastrophic Event Management. Requirement for maximized recirculation air includes operation during fire mode smoke control sequences and any external catastrophic event (forest fire, etc.).

7.4.14.4 The clinical support spaces, administration spaces, meeting spaces, and central plant ventilation systems may be designed to ASHRAE Standard 170 for Health Care Facilities provided these spaces are not served from a common ventilation system serving the Facility.

7.4.14.5 HVAC systems that maintain appropriate pressure relationships between various areas of the Facility and provide necessary outdoor air quantity, air filtration, cleansing and exhaust to control the transmission of infection.

7.4.14.6 Provide air handling units with sectional heating and cooling coils and manual isolation valves that will enable isolation and repairs to the damaged sections of coils without stoppage of the system. Provide air handling units with freeze proof coils. Air handling units will incorporate preheat coils using inhibited propylene glycol as the heating medium.

7.4.14.7 Design and construct the Facility to comply with the requirements of CSA Z317.2 (Special requirements for heating, ventilation & air conditioning systems in health care facilities) for a Class A-1 HCF (Health Care Facility).

7.4.14.8 HVAC systems for including but not limited to the Communications Rooms, entrance facility rooms, electrical rooms and -switch rooms will condition the spaces to meet temperature and relative humidity requirements as per the most restrictive of ASHRAE 2015 Environmental Guidelines for Datacom Equipment, TIA-942-A-2012.

7.4.14.8(1) Temperature: 18-27 °C dry bulb;

7.4.14.8(2) Maximum relative humidity: 60%;

7.4.14.8(3) Maximum dew point: 15 °C; and

7.4.14.8(4) Maximum rate of temperature change: 5 °C per hour.

7.4.14.8(5) The Design-Builder will provide cooling for equipment and systems required in 7.7 Communications (Division 27). This includes cooling loads in Communications Rooms, entrance facility room, the main electrical room, etc., as required for the Design-Builder's proposed design.

7.4.14.9 Provide air filtration in accordance with all applicable standards. Provide a minimum filtration level of MERV 14 on all supply air systems with the exception of generator radiator cooling air intakes. Ensure all HVAC systems will perform such that any indoor contaminants are maintained at less than 50% of their occupational exposure limits (OELs).

7.4.14.10 Provide dedicated supply air with HEPA filters for Operating Room and other spaces as required by applicable standards.

7.4.14.11 Provide the ventilation system and all components in accordance with all applicable standards.

7.4.14.12 Provide fans with Variable Frequency Drives (VFDs) for energy savings under part-load conditions. Motor loads of 100 HP or greater will be provided with reduced voltage motor starter acceptable to BC Hydro. Provide shaft grounding rings on all motors with VFDs.

7.4.14.13 Provide a heat recovery system on all Facility exhaust and relief air systems (other than highly contaminated exhaust).

7.4.14.14 Provide factory-fabricated air handling equipment to ensure the highest construction standard. The controls contractor will provide the associated monitoring and controls for connection to the BMS.

7.4.14.15 Air handling units will have double-walled construction with minimum 50mm thick insulation, painted steel exterior; stainless steel or painted aluminum interior.

7.4.14.16 Air handling unit floors will be reinforced minimum 3mm aluminum or 14-gauge stainless steel checker plate with continuously welded seams. Base will be structural steel minimum 150mm C-channel around perimeter.

7.4.14.17 Interior surfaces of air handling units will be light in colour, washable, smooth, non-porous and free of obstructions which may impede airflow or the ability to thoroughly clean the unit.

7.4.14.18 There will be no standing water in air handling units. Install leak-proof drain pans with continuously welded seams and corners. Drain pans will be 16-gauge type 304 stainless steel, double sloped to drain. Drain size minimum 32mm.

7.4.14.19 The air handling unit will have a 40mm perimeter collar around the entire unit and around each floor opening to ensure the unit is internally watertight. Each section of the air handling unit will have a capped and threaded drain connection.

7.4.14.20 All air handling units will be provided with a blank filter rack that can take either of the following future filters:

7.4.14.20(1) 100 mm MERV 13 pre-filter for use during forest fire situation to help filter smoke and ash. MERV 13 filter pressure drop will not exceed 125 Pa at 2 m/s.

7.4.14.20(2) 100 mm HEPA filter rack. HEPA filter pressure drop will not exceed 249 Pa at 2 m/s.

7.4.14.21 Provide an exhaust air system suitable for the laboratory requirements and any other special venting requirements as per CSA standards. These systems will be interlocked with the supply air systems. If system serves more than one piece of equipment, provide N+1 redundancy in fans.

7.4.14.22 Laboratory ventilation systems will supply sufficient make-up air for exhaust systems to maintain proper pressurization throughout the Facility.

7.4.14.23 Isolation rooms will be designed to function as typical Patient rooms when not in use as Isolation. Provide bag-in bag-out HEPA filtration for all Isolation room exhaust systems.

7.4.14.24 All spaces designated as infectious control or isolation will be connected to emergency power for ventilation and pressurization control.

7.4.14.25 Ensure the ventilation systems are designed to accommodate any additional ventilation supply needed for commercial spaces to maintain proper pressurization throughout the Facility.

7.4.14.26 Provide all ventilation for the Food Services department including NFPA exhaust hoods for the cooking equipment and condensate canopies over the dishwashers.

7.4.14.27 Provide a ventilation and heating system for the Ambulance Garage, including carbon monoxide and propane gas sensors.

7.4.14.28 Provide ventilation for smudging as follows:

7.4.14.28(1) For the Non-Denominational Spiritual Room only, provide a dedicated exhaust system for use during the smudge and for a period of time after the smudge has ended to ensure that the room has been purged of smoke. When the room is being used for smudging, the air will not be returned to the central system.

7.4.14.28(2) When the Non-Denominational Spiritual Room is not being used for smudging, the air supplied may be returned. The room will be negatively pressurized relative to the rest of the Facility.

7.4.14.29 Ventilation systems serving pharmacy spaces will be designed to comply with the most current version of NAPRA Standards for Pharmacy Compounding of Non-Hazardous Sterile Preparations. Where a conflict exists between the two standards, the latter will govern.

7.4.14.30 Provide exhausts for all of the biological safety cabinets and for the isolation chamber in the Pharmacy. All biological safety cabinets and ducted fume hoods will be provided with dedicated exhaust ducts and fans.

7.4.14.31 Provide ventilation workshops to accommodate woodworking, acetylene torch cutting and brazing, and welding. Ventilation systems are to incorporate dust collectors and close capture systems.

7.4.14.32 Cart washers in the MDRD will be served by dedicated high plume exhaust fans and fully welded stainless steel ductwork connected to the cart washer discharge.

7.4.14.33 All ductwork subject to high levels of moisture will be of stainless steel construction.

7.4.14.34 Operating Rooms and protective isolation rooms will be provided with high level supply via HEPA filtered non-aspirating laminar flow diffusers and low-level exhaust.

7.4.14.35 Invasive procedure rooms will be provided with high level non-aspirating laminar flow diffusers and low level exhausts.

7.4.14.36 Provide downdraft exhaust from the Autopsy Table and exhaust from the Cadaver Storage Room.

7.4.14.37 Airborne isolation rooms will be provided with ceiling level supply via non-aspirating laminar flow diffusers and low level exhausts.

7.4.14.38 Radial type supply air grilles will be provided in CT scanner rooms, in accordance with the imaging equipment manufacturers requirements.

7.4.14.39 Seclusion rooms will be provided with tamper and ligature proof ceiling level supply and exhaust grilles. Thermostats for these rooms will be installed either in secure recessed enclosures or in accessible locations within the local exhaust air ductwork. Temperature controls for secure rooms will be remotely adjustable at the nursing station.

7.4.14.40 Performance Criteria

7.4.14.40(1) Allow for the installation and removal of major HVAC equipment such as fans without disrupting Facility operations.

7.4.14.40(2) Locate fans, common filters (e.g. HEPA), and other equipment in the central mechanical rooms. Allow for adequate clearance for service access. Do not place this equipment in confined spaces and avoid small doors and hatch access.

7.4.14.40(3) Provide bag in – bag out HEPA filters with bubble tight dampers as per CSA Z317.2 and 100% redundancy for exhaust systems serving Airborne Isolation Rooms and their associated washrooms. Filter system will be designed so that filters can be replaced without impacting the operation of the rooms served by the system.

7.4.14.40(4) All equipment for supply air, return air will be located inside the building or within weatherproof enclosures. All supply air, return air, and general exhaust air systems will be accessible for routine maintenance without exposure to the elements/outdoors. Ductwork will not be exposed to the atmosphere.

7.4.14.40(5) Exhaust systems will be designed to meet the requirements of CSA Z317.2 Section 6.13 Exhaust Systems. This includes the location of equipment for dedicated exhaust systems that are transporting potentially contaminated air streams (Morgue, bio-safety cabinets, decontamination, etc.). Discharge and exhaust fans for these air streams will be located exterior to the Facility, and equipment will be designed and constructed to withstand the exposure to outdoor conditions.

7.4.14.40(6) Make allowances in supply, return and exhaust duct sizing and equipment selections to provide flexibility for future changes in spaces. Allow for a future increase in capacity of duct mains and the capability of the air handling units in accordance with the requirements set out in Section 5 Mechanical Systems Design Principles.

7.4.14.40(7) Provide fresh air intakes, cooling coil drain pans, air handling units, ductwork, and all other interconnected components to prevent moisture or contaminants from collecting within the system. Provide sufficient access panels to allow for inspection and cleaning. Do not use duct mounted humidifiers.

7.4.14.40(8) Locate fresh air intakes so as not to entrain contaminants from outdoor sources, Facility exhaust points, or parking areas. Locate all intakes in areas that are not accessible by the public and are not near exhaust air outlets. Take into account the location of the emergency generator exhaust and ensure that fumes from the generator exhaust are not introduced into the Facility or adjacent buildings' fresh air intakes.

7.4.14.40(9) Ensure all supply, return, and exhaust air is fully ducted to the space being served. Ceiling area will not be used as return air plenums. Door grilles are only permitted for non-medical storage and service rooms without a Fire-Rating. Utilizing door undercuts or door leakage to transfer air for rooms with greater than 45 l/s (95 cfm) air change requirements or located within a fire separation are not permitted.

7.4.14.40(10) Locate services that require access for regular maintenance above non-critical spaces so that there is minimal disruption to the delivery of health care services. VAV boxes serving individual Inpatient rooms located on the Patient care floors in the Facility may be located in the ceiling of the Patient rooms but associated reheat coil controls valves are to be located within the corridors for ease of access.

7.4.14.40(11) Insulate all ductwork to all applicable standards as a minimum. Insulate all exposed to outside air exhaust ducts from connection to the exhaust equipment up to termination point on roof or outside walls. Provide canvas service jacket on all exposed insulation inside and up to 3 metres above finished floor in mechanical rooms.

7.4.14.40(12) Provide seismic mitigation and building separation devices for all ductwork that crosses buildings and/or utility corridors.

7.4.14.40(13) No in-slab or under slab-on-grade ductwork is permitted.

7.4.14.40(14) Ensure all ductwork that provides humid air is constructed of welded stainless steel of a suitable alloy or of a material equally resilient to corrosion. Ensure all ducts are sloped to drain points and are accessible for inspection and cleaning.

7.4.14.41 Airborne isolation rooms (AIRs), protective environment rooms (PERs), and other special precaution rooms requiring high-level air separation.

7.4.14.41(1) Airborne isolation rooms (AIRs), protective environment rooms (PERs), and other special precaution rooms requiring high-level air separation will meet the requirements of CSA Z317.2.

7.4.14.41(2) Refer to Appendix 1A Clinical Specifications for a description of the different types of isolation rooms and their locations.

7.4.14.41(3) Provide the following:

7.4.14.41(3)a. For all infection isolation rooms (negatively pressurized), locate supply air diffusers and exhaust air grilles to reduce the exposure of uninfected occupants in the space. Utilize directional and dilution airflow principles: supply air from high- level non-aspirating diffusers located away from the Patient bed, and exhaust air from low-level grilles located next to the Patient's head.

7.4.14.41(3)b. Provide differential pressure monitors will be provided at all isolation rooms to monitor and to ensure proper pressurization has been achieved as required. Incorporate door contact switches for all differential pressure monitors to prevent nuisance alarming;

7.4.14.41(3)c. For isolation rooms with an ante room; the ante room will be provided with both supply and exhaust air. Differential pressure monitors will measure pressure between the isolation room and adjacent corridor, between the isolation room and the ante room, and between the ante room and adjacent corridor.

7.4.15 Exhaust Systems

7.4.15.1 Design exhaust air discharges to ensure that there is no cross contamination with outdoor air intakes and operable windows on the Site. Refer to dispersion study requirement in submittals.

7.4.15.1(1) Ensure all ductwork that provides humid air is constructed of welded stainless steel of a suitable alloy or of a material equally resilient to corrosion. Ensure all ducts are sloped to drain points and are accessible for inspection and cleaning.

7.4.15.2 Provide exhaust fans and locate them at the end of the exhaust ductwork systems. Ensure that the fans will be readily serviceable and are separated from spaces that house other mechanical equipment.

7.4.15.3 Integrate control of the exhaust systems with the ventilation supply air systems for spaces with differential pressure requirements from adjacent spaces.

7.4.15.4 Provide exhaust air systems suitable for special venting requirements.

7.4.15.5 Interlock these systems with associated supply air systems.

7.4.15.6 Provide commercial-grade NFPA-96 exhaust hood systems where commercial cooking operations will occur. Interlock the hood(s) with a make-up air system to ensure proper pressurization within the Facility is maintained.

7.4.15.7 Ensure exhaust termination points are located so flue gases are not entrained in air intakes, operable windows or any other building opening for the Facility or adjacent buildings.

7.4.15.8 Provide refrigerant detection and exhaust system as required by applicable codes and standards.

7.4.15.9 Make provisions in the Facility exterior for connections of portable negative pressurization ventilation units that are used during future Facility renovations. These connection points will be available for use without adversely affecting the Facility envelope. Provide four (4) connection points on each floor at the Facility exterior (north, east, south, west) so all internal areas can be served by negative pressurization ventilation units.

7.4.15.10 In addition to the cooling requirements called for in previous clauses, provide exhaust for elevator machine rooms and/or elevator shafts.

7.4.15.11 Provide local exhaust within vicinity of all sanitary sumps within the Facility.

7.4.15.12 Performance Criteria

7.4.15.12(1) Isolation rooms and their associated washrooms and the Decontamination unit will be provided with dedicated exhaust systems with 100% redundancy. HEPA filters will be provided in the Isolation Room exhaust ductwork in readily accessible locations for servicing.

7.4.15.12(2) Biosafety cabinets, laminar flow cabinets, fume hoods, chemical storage cabinets, grossing tables/specimen mounting tables and downdraft tables will be provided with dedicated exhaust systems that are appropriate for their CSA class and type. Provide canopies connected to the general exhaust system for ovens, autoclaves and other heat emitting equipment belonging to the Authority. Where multiple cabinets are tied into a common system, a 100% redundant central exhaust system will be provided. Specimen mounting tables and grossing tables will be equipped with countertop level exhaust. Provide a close capture exhaust arm for the biomedical workbench. Ensure that all equipment, rough in for equipment and support systems have been accounted for and provided. Allow for ducting, commissioning, testing, and balancing the exhaust from all biosafety cabinets, fume hoods, chemical storage cabinets, grossing workstations and laminar flow cabinets. Include face velocity, containment and any other testing for fume hoods as required by WorkSafe BC.

7.4.15.12(3) Provide vents to outdoors for flammable storage cabinets. Installation to meet applicable fire code and WorkSafe BC requirements.

7.4.15.12(4) Fume hoods and other smoke/fume generating process booths/space will be provided with dedicated exhaust systems that are corrosion/ chemical resistant to the exhaust media.

7.4.15.12(5) Provide dedicated exhaust systems as required for medical equipment.

7.4.15.12(6) Do not use portable systems.

7.4.15.12(7) Ensure all ductwork that exhausts humid air at or near saturation is constructed of welded stainless steel of a suitable alloy or of a material equally resilient to corrosion. Ensure all ducts are sloped to drain points and are accessible for inspection and cleaning. Provide all recovery coils with drain pans and properly sloped drains.

7.4.16 Metering Requirements for Energy Measurement and Verification

7.4.16.1 Refer to Section 7.4 Integrated Automation (Division 25) and Schedule 9 – Energy for additional requirements to this section.

7.4.16.2 Provide meters on all services connecting to the Facility from an external infrastructure including natural gas service, domestic water and electrical service.

7.4.16.3 Provide all required meters, sensors, and trend logging equipment at end uses within the Facility to meet the energy monitoring requirements set out in Schedule 9 Energy.

7.4.16.4 Connect all meters to the BMS to monitor, record, report and analyze energy consumption. Coordinate electrical metering and the energy management system with the applicable requirements of in this Schedule.

7.4.16.5 Design metering intervals to be fifteen minutes or less with all points trended and data logged for a minimum of 14 months for all points associated with LEED or energy model verification.

7.4.17 Sound Attenuation and Vibration Isolation

7.4.17.1 Design all mechanical systems to prevent sound and vibration transmission between spaces, to prevent transmission from mechanical equipment to the spaces, and to minimize sound and vibration transmission to the outside of the Facility. Provide sound attenuation to limit sound levels in accordance with Appendix 1C Acoustics and Noise Control Measures.

7.4.17.2 All flexible rubber connections and isolators are to have been manufactured no more than one year prior to installation to ensure maximum service life. Date of manufacture is to be clearly shown on each device.

7.4.17.3 Systems will be provided with noise attenuation screening if the equipment or their exterior openings are located facing and within 200 m of residential areas.

7.4.17.4 Provide vibration isolation devices on all equipment with rotating components.

7.4.17.5 Ensure all suspended equipment utilize spring isolators designed for the weight and vibration characteristics of the equipment.

7.4.17.6 Provide flexible connections to isolate mechanical equipment sound and vibration from ducting, piping, and electrical wiring systems.

7.4.17.7 Ensure duct silencers meet or exceed the requirements of the ductwork for cleanliness and inspection and comply with CSA standards for infection control.

7.4.17.8 Utilize fibre free internal insulation.

7.4.17.9 Refer to Section 5.7 Structural Design for structural vibration limits.

7.4.18 Variable Frequency Drives

7.4.18.1 Provide VFDs complete with harmonic filters for equipment and applications designated in all sections of this Schedule.

7.4.18.2 All VFDs and ancillary components will be procured by one supplier in order to assure an integrated system and one point of contact for service.

7.4.18.3 Manufacturer will have been engaged in the production of this type of equipment for a minimum of ten years. Manufacturer will have regional representation, a 24/7 service call number, and stock of standard drives, modification kits, and spare parts for the power input range of drives used in this Facility.

7.4.18.4 Provide a minimum 3-year warranty on all VFDs from date of Project substantial completion. Warranty will include all parts and labour.

7.4.18.5 Each VFD, with all standard and optional features, will be factory packaged in a ULC rated and listed enclosure most appropriate for each application and location, completely assembled and tested by the manufacturer in an ISO9001 facility. VFD assembly, associated options and peripherals will comply with the applicable requirements of the latest standards of ANSI, IEEE, NEMA, and the Canadian Electrical Code.

7.4.18.6 The VFD will meet product standard EN 61800-3 for the First Environment restricted level (Category C2). Base drives that only meet the Second Environment (Category C3, C4) will be supplied with filters to bring the drive in compliance with the First Environment levels.

7.4.18.7 The VFD assembly, including the bypass (if specified), will be seismically certified and label as such. Seismic importance factor of 1.5 rating is required and will be based upon actual shake table test data as defined by ICC AC-156.

7.4.18.8 VFDs sized less than 100 HP to be of the 6-pulse Pulse-Width Modulated (PWM) type with a full wave diode bridge converter to convert incoming fixed voltage/frequency to a fixed DC voltage. The PWM strategy will incorporate a microprocessor to handle all logic functions as well as the complex, sine coded PWM generating algorithms that control output stage switching.

7.4.18.9 The variable frequency drives will convert three-phase, 60 Hz utility power to proportionally variable voltage and frequency, three-phase, AC power using the latest insulated-gate bipolar transistor (IGBT) technology for step less motor speed control of one or more three-phase induction motors. The VFD output waveform to be the PWM or Vector type waveform producing smooth torque at low frequencies and low motor current harmonics.

7.4.18.10 VFDs will be capable of controlling and setup for either variable or constant torque load as follows:

7.4.18.10(1) Variable torque: loads such as centrifugal fans, pumps, and compressors.

7.4.18.10(2) Constant torque: loads such as positive displacement pumps, reciprocating compressors, and screw compressors.

7.4.18.11 VFD will provide full rated output from voltages +/-10% of nominal voltage. Overload rating of the drive will be minimum 110% of its normal duty current rating for 1 minute in every 10 minutes.

7.4.18.12 VFDs will be capable of continuous full load operation under the installed environmental operating conditions.

7.4.18.13 All VFDs will have the same customer interface, including digital display, and keypad regardless of horsepower rating.

7.4.18.14 VFDs will have cooling fans. Fans will be replaceable without requiring VFD removal or removal of circuit boards. VFD cooling fans will cycle via thermal sensing and not operator continuously.

7.4.18.15 Loss-of-load (broken belt / broken coupling) relay output. The drive will be programmable to signal the loss-of-load condition via keypad warning, relay output, and / or over the serial communications bus.

7.4.18.16 If the input reference is lost, the VFD will give the user the option of: (1) stopping and displaying a fault, (2) running at a programmable pre-set speed, (3) hold the VFD speed based on the last good reference received, or (4) cause a warning to be issued, as selected by the user.

7.4.18.17 VFDs will be capable of starting into a coasting load (forward or reverse) up to full speed and accelerate or decelerate to set point without tripping or component damage (flying start).

7.4.18.18 VFDs will have the ability to automatically restart after an over-current, over-voltage, under-voltage, or loss of input signal protective trip. The number of restart attempts, trial time, and time between attempts will be programmable.

7.4.18.19 VFDs will also be capable of DC injection braking that can be employed to stop a freewheeling motor before starting to avoid overvoltage nuisance tripping.

7.4.18.20 VFDs will be capable of automatically extending the ramp down time to keep the drive from tripping on overvoltage caused by regeneration of power by the load.

7.4.18.21 Line Conditioning and Filtering. In addition to the requirements in Division 23 and Division 26:

7.4.18.21(1) Provide internal swinging (non-linear) chokes providing impedance equivalent to 5% to reduce the harmonics to the power line. Linear chokes are not acceptable. 5% impedance may be from dual (positive and negative DC bus) chokes, or 5% swinging AC line chokes. VFDs with only one DC choke will add an AC line choke.

7.4.18.21(2) Provide a coordinated AC transient surge protection system consisting of 4 MOVs (phase to phase and phase to ground), a capacitor clamp, 1600 PIV Diode Bridge and internal chokes. The MOVs will have a minimum 125 joule rating per phase across the diode bridge. VFDs that do not include coordinated AC transient surge protection will include an external TVSS (Transient Voltage Surge Suppressor).

7.4.18.21(3) Provide EMI / RFI filters. VFD assembly to be CE Marked and comply with product standard EN 61800-3 for the First Environment restricted level (Category C2). Second environment (Category C3, C4) is not acceptable. Submit certified test reports with the shop drawing submittal confirming compliance.

7.4.18.21(4) Provide an additional output (load) reactor directly downstream of the inverter, for all applications where the motor wiring downstream of the inverter exceeds 30m.

7.4.18.22 VFDs will automatically reduce applied motor voltage to the motor to optimize energy consumption and reduce audible motor noise. VFDs will have selectable software for optimization of motor noise, energy consumption, and motor speed control.

7.4.18.23 VFD Interface:

7.4.18.23(1) Provide a backlit LCD display. The display will be in complete English words for programming and fault diagnostics (alpha- numeric codes are not acceptable). All VFD faults will be displayed in English words.

7.4.18.23(2) The keypad will include Hand-Off-Auto selections and manual speed control.

7.4.18.23(3) The drive will incorporate “bump less transfer” of speed reference when switching between “Hand” and “Auto” modes.

7.4.18.23(4) There will be a built-in time clock in the VFD keypad. The clock will have a battery backup with 10 years minimum life span.

7.4.18.23(5) The clock will date and time stamp faults and record operating parameters at the time of fault. VFD programming will be held in non-volatile memory and is not dependent on battery power.

7.4.18.23(6) All applicable operating values will be capable of being displayed in engineering (user) units. Minimum display values will be:

7.4.18.23(6)a. Output frequency;

7.4.18.23(6)b. Motor speed (RPM, %, or Engineering units);

7.4.18.23(6)c. Motor current;

7.4.18.23(6)d. Motor torque;

7.4.18.23(6)e. Motor power (kW);

7.4.18.23(6)f. DC bus voltage; and

7.4.18.23(6)g. Output voltage.

7.4.18.23(6)h. Provide a fireman's override input.

7.4.18.24 Serial Communications. All VFDs will have a TIA-485 (RS-485) port as standard for interface with Facility BACnet IP network. BACnet protocol will be certified with BTL listing. The use of non-certified protocols is not allowed.

7.4.18.24(1) Serial communication minimum capabilities will include run- stop controls; speed setpoint adjustment; output speed / frequency; current (in amps); percent torque; power (kW); kilowatt hours; operating hours; drive temperature; all diagnostic warming and fault information; monitoring of VFD relay output status, digital input status, and all analogue input and output values; remote VFD fault reset.

7.4.18.24(2) Serial communication minimum capabilities when in bypass mode will include bypass run-stop control; monitoring bypass relay output status and all digital input status; all bypass diagnostic warning and fault information; remote bypass fault reset; control of bypass digital and analogue outputs.

7.4.18.25 VFD Bypass. Bypasses will be furnished and mounted by the manufacturer as required for the application and specified in Division 22, 23, 25 or 26. All VFD with bypass configurations will be ULC listed by the manufacturer as a complete assembly and carry a UL508 label.

7.4.18.25(1) A complete factory wired and tested bypass system consisting of a door interlocked; pad lockable circuit breaker, output contactor, bypass contactor, and fast acting VFD input fuses. UL Listed motor overload protection will be provided in both drive and bypass modes.

7.4.18.25(2) Standalone keypad with LCD display.

7.4.18.25(3) The VFD and bypass package will have a UL listed short circuit current rating (SCCR) of 100,000 Amps and this rating will be indicated on the UL data label.

7.4.18.25(4) Motor protection from single phase power conditions - the bypass system will be able to detect a single-phase input power condition while running in bypass, disengage the motor in a controlled fashion, and give a single-phase input power indication.

7.4.18.25(5) The bypass system will be designed for stand-alone operation and will be completely functional in both Hand and Automatic modes even if the VFD has been removed from the system for repair / replacement. Serial communications will remain functional even with the VFD removed. Bypass systems that do not maintain full functionality with the drive removed are not acceptable.

7.4.18.25(6) Serial communications – the bypass will be capable of being monitored and / or controlled via serial communications that match the VSD.

7.4.18.25(7) The bypass serial communications will allow control of the drive/bypass (system) digital outputs via the serial interface. This control will be independent of any bypass function or operating state. All system analogue and digital I/O will be capable of being monitored by the BMS system.

7.4.18.25(8) Provide manual or automatic transfer to bypass. Drive faults for automatic transfer to bypass mode will be user selectable for the following drive fault conditions:

7.4.18.25(8)a. Over current;

7.4.18.25(8)b. Over voltage;

7.4.18.25(8)c. Under voltage; and

7.4.18.25(8)d. Loss of analogue input.

7.4.18.25(9) The bypass will include the ability to select the operating mode of the system (VFD/Bypass) from either the bypass keypad or digital input.

7.4.18.25(10) Provide a separate terminal strip for connection of freeze, fire, smoke contacts, and external start command. All external safety interlocks will remain fully functional whether the system is in VFD or Bypass mode. The remote start/stop contact will operate in VFD and bypass modes. The terminal strip will allow for independent connection of up to four (4) unique safety inputs.

7.4.18.25(11) Fireman's Override Mode: Programmable override input which will allow the user to configure the unit to acknowledge some digital inputs, all digital inputs, ignore digital inputs or any combination of the above to suit the local authority having jurisdiction (AHJ). The Override action may be initiated via the serial communications link.

7.4.18.26 Harmonics Testing. The Design-Builder is to demonstrate a computerized harmonics analysis of the facility electrical system based on the final single line diagram. Analysis will illustrate the effect of all VFDs (including pump VFDs) on system harmonics. The Design-Builder is to provide input line reactors and/or line filters required to reduce the total harmonic distortion (THD) at the point of common coupling or at each VFD input where the analysis has shown that the incremental effect of the addition of the VFDs would cause the THD to exceed these values as per IEEE 519 latest edition standard.

7.4.19 Testing, Adjusting, Balancing (TAB) and Commissioning (Cx)

7.4.19.1 Without limiting the Design-Builder's commissioning obligations of the Design-Build Agreement, the Design-Builder will:

7.4.19.1(1) perform TAB & Cx of all mechanical equipment and systems.

7.4.19.1(2) demonstrate to the Independent Commissioning Agent and Authority that the mechanical and electrical systems are substantially operational.

7.4.19.1(3) Integrate the TAB into the project Construction and start-up schedules. Configure the TAB plan so it will support a phased occupancy of the Facility, if required by Construction conditions and approved by the Authority.

7.4.19.1(4) utilize a quality assurance system throughout the TAB & Cx process to ensure that TAB & Cx has been performed to all equipment and systems requiring TAB & Cx. Demonstrate the quality assurance system to the Authority prior to beginning TAB & Cx;

7.4.19.1(5) ensure any construction or installation errors are identified and remedied prior to the start of Cx functional testing;

7.4.19.1(6) perform follow-up TAB & Cx services during each season over the first year of the Facility's operation starting from Substantial Completion;

7.4.19.1(7) make all TAB & Cx reports available to the Authority. The reports will identify how much additional capacity and redundancy is available for in all systems, as required by Section 5.10 Mechanical Systems Design Principles; and

7.4.19.1(8) Independent Commissioning Agent to complete records of all TAB and Cx data and submit one copy to Independent Commissioning Authority for record purposes and retention by the Authority.

7.5 Integrated Automation (Division 25)

7.5.1 Overview

7.5.1.1 Principles, Guidelines and Requirements

7.5.1.1(1) Design-Builder will provide an integration and automation framework to converge all base-building systems and select equipment into an open, interoperable software platform for centralized command and control.

7.5.1.1(2) The software platform will employ object-oriented technology for representation of all data and control devices within the FM Management System.

7.5.1.1(3) All components and controllers supplied will be true "peer-to-peer" communicating devices. Components or controllers requiring "polling" by a host to pass data will not be acceptable.

7.5.1.1(4) All networked devices for systems identified as integrating to the FM Management System will connect to the Authority Network. There will be no silo vendor networks/switches permitted except as approved by the Authority through the Review Procedure.

7.5.1.1(5) Software for all Facility systems will reside on Authority provided FM servers and computers. All Facility software applications will be required to operate within a virtualized server environment. There will be no silo vendor servers and/or computers except as approved by the Authority through the Review Procedure.

7.5.1.1(6) Adherence of all Facility systems to industry standard protocol ANSI / ASHRAE STD 135-2016 BACnet/IP is required to assure protocol and data object interoperability between all system components. Minimum BACnet protocol revision compliance is Level 4 or greater, with the ability to support data read and write functionality.

7.5.1.1(7) All devices to use BACnet\IP and physical connection will be via Ethernet. If BACnet\IP is not available for a device connection, other protocols may be used on a case by case basis if they can seamlessly integrate into the FM Management.

7.5.1.1(8) All control point naming and tagging conventions will be standardized using the ASHRAE 223P (Haystack) standard.

7.5.1.1(9) All Facility systems will be designed to operate independently, such that if they lose server connectivity they continue to function without loss of service.

7.5.1.1(10) The Design-Builder will provide a virtualized environment for the FM Management System simulating a facility of similar size to the Facility. This virtualized environment will simulate all systems contained in Division 25 and be used to train Authority user groups on the programming and use of the FM Management System by a system expert provided by the Design-Builder. The Design-Builder will make this training service available to the Authority at least 12 months prior to Substantial Completion.

7.5.2 FM Management System

7.5.2.1 Basic Requirements

7.5.2.1(1) System Overview

7.5.2.1(1)a. The FM Management System will consist of an Integrated Building Management Platform (IBMP) software, which is composed of a Folio Database and Analytics Platform.

7.5.2.1(2) The IBMP will be integrated to the Mechanical BMS to pull point data and Facility alarm information from the BMS.

7.5.2.1(2)a. The IBMP will be integrated to selected electrical and other equipment systems to pull point data and Facility alarm information from these systems.

7.5.2.1(3) Applicable Area

7.5.2.1(3)a. Applies to the Facility.

7.5.2.1(4) System Responsibilities

7.5.2.1(4)a. Authority will:

7.5.2.1(4)a.1 Provide design feedback to Design-Builder.

7.5.2.1(4)b. Design-Builder will:

7.5.2.1(4)b.1 Select the system as determined with the Authority;

7.5.2.1(4)b.2 Design, supply, install and commission all system infrastructure;

7.5.2.1(4)b.3 Design, supply, install and commission all system equipment;

7.5.2.1(4)b.4 Design, supply, install and commission all system software;

7.5.2.1(4)b.5 Train the Authority’s team on the use of the system; and

7.5.2.1(4)b.6 Integrate the system to the following equipment and sub-systems:

7.5.2.1(4)b.7 The BMS;

7.5.2.1(4)b.8 Electrical systems, including:

.7.5.2.1.4.b.8.1 Generators;

.7.5.2.1.4.b.8.2 Main transformer fan controllers;

.7.5.2.1.4.b.8.3 Lighting controls;

.7.5.2.1.4.b.8.4 Load management system;

.7.5.2.1.4.b.8.5 Metering;

.7.5.2.1.4.b.8.6 Switchgear and protection relays;

.7.5.2.1.4.b.8.7 UPS;

.7.5.2.1.4.b.8.8 Fire alarm system; and

.7.5.2.1.4.b.8.9 Clock system.

7.5.2.2 Performance Criteria

7.5.2.2(1) Integrated Building Management Platform (IBMP)

7.5.2.2(1)a. Requirements of the IBMP include analyzing data produced by energy and equipment systems in order to identify faults, trends, anomalies and opportunities for improved performance and reduced energy use in the operation of Facility mechanical, electrical, and equipment systems.

7.5.2.2(1)b. The IBMP will utilize a database technology designed for the efficient storage and analysis of large volumes of time series data. Time stamps will support second resolution and be synchronized to the wireless clock system time. The software will not employ a relational database structure but will instead use tagging to model and describe data and will support the use of the open-source data modelling/tagging standards developed by Project-Haystack (ASHRAE 223P). In addition to supporting all Project-Haystack tags, the system will support the creation of custom tags as required by the Authority.

7.5.2.2(1)c. Provide a folio database within the IBMP that organizesdata into a three-tier hierarchy:

7.5.2.2(1)c.1 Tier 1: Projects are the top-level unit of organization used to group records together (typically corresponds to a real-life project). Projects encapsulate a flat list of records, there are no pre-defined tree structures or tables in folio.

7.5.2.2(1)c.2 Tier 2: Records are the basic unit of data modelling. Records are essentially associative arrays defined by a flat map of tags.

7.5.2.2(1)c.3 Tier 3: Tags are the leaf level of the model. A tag is a name/value pair.

7.5.2.2(1)d. Design-Builder will use name and tagging conventions developed by Project Haystack to provide a consistent, standardized methodology for naming and describing data points associated with the networked devices and Integrated Automation Topology for this Project. This includes the building automation systems, equipment systems, energy metering systems, other smart devices including mobile assets, and associated descriptive information known as metadata.

7.5.2.2(1)e. The IBMP is to provide verification that energy optimization measures are operating as expected through the analysis of energy usage at the point of use, identification of faults showing where control sequences are not functioning as prescribed, and identification of opportunities for improved performance in the operation of Facility systems.

7.5.2.2(1)f. In consultation with the Authority, the Design-Builder will create energy optimization measures and analytical rules to verify the sequence of operations as specified for each Facility system for use during commissioning and on-going Facility operations.

7.5.2.2(1)g. The analytic software application will operate on the latest versions of Microsoft Windows, Linux and Apple OSX operating systems available at Substantial Completion.

7.5.2.2(1)h. The IBMP will accept and normalize data from a variety of sources via connectors for BACnet\IP, oBIX Modbus TCP, Sedona, OPC, MQTT and the web services protocol defined by Project-Haystack. It will also support data access via SQL compatible databases, CSV format files, XML format files, web services, JSON, and other electronic data interchange techniques. Once data has been imported, the software will provide a unified data format to enable analytics algorithms to identify patterns across the different data sets independent of original format.

7.5.2.2(1)i. The IBMP will provide open, REST-based APIs to enable integration with third party software applications. The open APIs will enable data to be entered/imported into the database, exported from the database, posting of analytic queries from external applications and output of analytic results to external applications, and integration with third party software applications such as maintenance management and work order processing. APIs will be fully documented and available as part of the standard product. All data and analytic results will be available via the REST API.

7.5.2.2(1)j. The IBMP will be able to be deployed locally in the Facility (on-premise). Deployment will not be limited to a SaaS (Software as a Service) deployment model. Cloud-based operation will be supported on Microsoft Azure and Amazon Web Services as a minimum.

7.5.2.2(1)k. The IBMP will include a built-in subscription to a worldwide weather service providing weather data for all major metropolitan areas. Weather service will provide an update frequency of at least every 3 hours. Weather data will include:

7.5.2.2(1)k.1 Current temperature;

7.5.2.2(1)k.2 High temperature for the day;

7.5.2.2(1)k.3 Low temperature for the day;

7.5.2.2(1)k.4 Sunrise and sunset times;

7.5.2.2(1)k.5 Relative Humidity; and

7.5.2.2(1)k.6 Degree days (heating and cooling with adjustable balance point value).

7.5.2.2(1)l. The weather service will include a three-day forecast and provide historical weather data extending back at least one (1) year. The IBMP software must be capable of integrating to other weather services and locally connected sensors via a documented weather data API.

7.5.2.2(1)m. The IBMP will provide automatic notification of detected issues via email as well as automated emailing of reports. The rules and conditions that trigger automated notification will be created in consultation with the Authority.

7.5.2.2(1)n. Email notification services will as a minimum provide:

7.5.2.2(1)n.1 immediate notification of detected issues;

7.5.2.2(1)n.2 daily digest or summary of detected issues; and

7.5.2.2(1)n.3 the ability to delineate which issue notifications are sent to which recipients down to the level of specifying that specific issues or categories of issues are sent to individual recipients.

7.5.2.2(1)o. Email notifications will include hyperlinks which when selected will take the user directly to the visualization of the issue in the software application. Users will be required to authenticate for access to the visualizations.

7.5.2.2(1)p. Email of reports formatted as PDF, HTML, PNG, or Excel documents.

7.5.2.2(1)q. The IBMP will provide the ability to develop customized rules and algorithms tailored to the operational needs and characteristics of individual departments within the Facility, monitoring and verification of any data points in the Facility, and the fault detection requirements of the project without dependence on the manufacturer for rule development. Tools for user development of customized rules will be provided as a standard part of the product and fully documented.

7.5.2.2(1)r. The IBMP will provide an extensive library of standard analytic functions. In consultation with the Authority, the Design-Builder will use these standard analytic functions as elements to build custom analytic rules for the specific needs of individual facilities. Source code for the standard analytic functions will be provided as part of the standard product.

7.5.2.2(1)s. The IBMP will present all views and data visualizations in a standard web browser using HTML5 technology. The use of plug-ins or Java in the browser will not be permitted. The system will support the use of the current version of industry leading browsers as a minimum.

7.5.2.2(1)t. The IBMP will include standard views to present analytic results, which will be automatically generated when issues are found by analytic rules. No programming or development will be required to create these views. These views will include as a minimum:

7.5.2.2(1)t.1 All rule violations across a portfolio of sites, all rule violations per site, and rule violations per equipment system, including time, date, and duration of all violations.

7.5.2.2(1)t.2 Cost relationships assigned to rules to provide cost calculations. Cost calculations will be selectable on a minimum of 3 factors including: duration of violation, occurrence of violation, per day that a violation is detected. In addition, the system will support development of custom formula-based cost calculations.

7.5.2.2(1)t.3 Standard filters to enable the user to easily look at rule violations by site, data, exception type for anyselected date or date range.

7.5.2.2(1)t.4 Automatic calculation and presentation of Key Performance Indicators (KPIs). It will be possible to define custom KPIs as needed. It will be possible to filter KPI results based on: Department, building, KPI type, and date range as a minimum.

7.5.2.2(1)t.5 Custom KPIs are to be developed in consultation with the Authority through the Design and Review process and as part of the extended training for the system.

7.5.2.2(1)u. The IBMP will allow for any standard view to be saved as a report for easy access by the Authority and will allow all reports to be emailed as PDF, HTML, PNG, or Excel documents. Any standard system view will be able to be saved as a custom report including its configuration criteria, e.g. time range, targets (sites or equipment), rule violations or other configuration options as applicable to the standard system view.

7.5.2.2(1)v. In consultation with the Authority, the Design-Builder will use the IBMP to create custom reports and data views. Custom reports will be able to be created by making queries against the database and saving the query as a saved report. Saved reports will be able to be executed by typical system users with a single mouse click.

7.5.2.2(1)w. The IBMP will allow for the export of any and all report views and will support export in CSV, Excel, XML, HTML PNG, SVG and text format. Export of report views will be a feature available to the typical operator and be able to be accomplished with 2-3 mouse clicks and include the ability for operators to send the report as an email when selecting the export format.

7.5.2.2(1)x. The IBMP will automatically create 2-axis charts for all-time series data once it has been entered into the database.

7.5.2.2(1)y. Examples of data that will be presented in auto-generated charts include sensor values, control point status, setpoints and other numeric, time stamped data values. An application to enable navigation of the data charts will be provided and will organize data into groups related to equipment systems.

7.5.2.2(1)z. The IBMP will support the presentation of analytic results on mobile and handheld devices providing the following capabilities as a minimum:

7.5.2.2(1)z.1 Presentation of analytic information in a text-based format with drill down hierarchy including site level summary, equipment level summary, and detailed listing of detected issues on individual equipment.

7.5.2.2(1)z.2 Ability to view graphic representations data and analytic visualizations in a standard PDF file format.

7.5.2.2(1)z.3 Handheld user interface will not require the download or installation of an application. Rather, the handheld user interface will utilize native web interfaces for presentation of information to the user.

7.5.2.3 Integration

7.5.2.3(1) Facility System Alarms

7.5.2.3(1)a. The IBMP will record and annunciate all Facility base-building events and alarms, including mechanical, electrical, fire alarm, security alarms, lighting, UPS, generators and switchgear alarms, temperature and humidity set point deviations;

7.5.2.3(1)b. Design-Builder will integrate the IBMP to the following systems:

7.5.2.3(1)b.1 The BMS;

7.5.2.3(1)b.2 Electrical systems:

.7.5.2.3.1.b.2.1 Generators;

.7.5.2.3.1.b.2.2 Main transformer fan controllers;

.7.5.2.3.1.b.2.3 Lighting controls;

.7.5.2.3.1.b.2.4 Load management system;

.7.5.2.3.1.b.2.5 Metering;

.7.5.2.3.1.b.2.6 Switchgear;

.7.5.2.3.1.b.2.7 UPS;

.7.5.2.3.1.b.2.8 Fire alarm system; and

.7.5.2.3.1.b.2.9 Clock system.

7.5.2.3(1)c. Elevators

7.5.2.3(2) Equipment Alarms

7.5.2.3(2)a. The IBMP will record and annunciate equipment alarms including the status, temperature, humidity, and asset data for equipment including freezers, coolers, labs, and medical equipment; and

7.5.2.3(2)a.1 Sterilizers; and

7.5.2.3(2)a.2 Fridges and freezers.

7.5.3 Building Management System

7.5.3.1 System Overview

7.5.3.1(1) The BMS network will reside on the Authority Network.

7.5.3.1(2) All BMS software will reside on Authority servers and computers.

7.5.3.1(3) The BMS includes the following sub-systems as minimum but not limited to:

7.5.3.1(3)a. DDC and PLC controls network systems,

7.5.3.1(3)b. Energy metering and other Sub-Metering

7.5.3.1(3)c. HVAC and Environmental Controls,

7.5.3.1(3)d. Any other Mechanical systems Controls,

7.5.3.1(3)e. Steam and condensate related systems controls,

7.5.3.1(3)f. Plumbing system controls (sewer and storm drainage pumping and other system stations controls),

7.5.3.1(3)g. Plumbing system controls (Domestic hot, cold, tempered, and other associated potable water systems controls),

7.5.3.1(3)h. Any other plumbing systems controls,

7.5.3.1(3)i. Medical gases and other Facility gases system controls (this applies to generated, bottled or any other sources of supply),

7.5.3.1(3)j. Compressed air system controls,

7.5.3.1(3)k. Lab Instrumentation Air systems,

7.5.3.1(3)l. Sterilization and other associated equipment,

7.5.3.1(3)m. Kitchen systems controls, (including but not limited to: Make-up air system, kitchen exhaust air and general exhaust system, space thermal and other controls, Coolers and Freezers systems,),

7.5.3.1(3)n. Other specific medical or other unique hospital/Facility equipment (in consultation with Authority) to be monitored for alarms or other parameters (e.g. freezers, coolers)

7.5.3.1(3)o. Fire Suppression, including fire alarm panelintegration,

7.5.3.1(3)p. Smoke "Evacuation" system controls,

7.5.3.1(3)q. Smoke "Management" system controls,

7.5.3.1(3)r. Electrical systems monitoring, including:

7.5.3.1(3)r.1 Generators;

7.5.3.1(3)r.2 Main transformer fan controllers;

7.5.3.1(3)r.3 Lighting controls;

7.5.3.1(3)r.4 Load management system;

7.5.3.1(3)r.5 Electrical metering;

7.5.3.1(3)r.6 Switchgear and protection relays;

7.5.3.1(3)r.7 ATS's;

7.5.3.1(3)r.8 UPS;

7.5.3.1(3)r.9 Fire alarm system;

7.5.3.1(3)r.10 Clock system; and

7.5.3.1(3)r.11 Other systems identified in Division 25 and 26.

7.5.3.1(3)s. Post disaster unique systems pertaining to mechanical, plumbing, fire protection, and other building systems being part of it,

7.5.3.1(3)t. Back-up systems pertaining to mechanical, plumbing, fire protection, and other building systems being part of it,

7.5.3.1(3)u. Other specific medical or other unique hospital/Facility equipment (in consultation with Authority) to be monitored for alarms or other parameters (such as, but not limited to: "closed loop sanitizers," Patient lifts, freezers, coolers,

7.5.3.1(3)v. Other systems called for within this Division or in Schedule One-Statement of Requirements to be integrated with BMS.

7.5.3.1(4) The Design-Builder will

7.5.3.1(4)a. Select the system as determined by the Authority. This system is considered to be a critical system with serviceability and maintenance being the priority. The Owner reserves the right to reject this system based on consideration of this priority. Note the following vendors are acceptable for this project:

7.5.3.1(4)a.1 Delta/ESC;

7.5.3.1(4)a.2 Siemens;

7.5.3.1(4)a.3 Honeywell; and

7.5.3.1(4)a.4 Reliable Controls.

7.5.3.1(4)b. Design, supply and install all system infrastructure.

7.5.3.1(4)c. Design, supply and install all system equipment.

7.5.3.1(4)d. Design, supply and install all system software.

7.5.3.1(4)e. Commission all system infrastructure, equipment, and software.

7.5.3.1(4)f. Integrate the system to the following systems/network levels:

7.5.3.1(4)f.1 Authority Network; and

7.5.3.1(4)f.2 Integrated Building Management Platform.

7.5.3.2 Basic Requirements

7.5.3.2(1) Provide a complete and fully functional integrated Building Management System (BMS) which resides on dedicated network with static IP address (integrated with Authority Network and Integrated Building Management Platform) for the Facility that performs the following functions:

7.5.3.2(1)a. Automatically operates, monitors, and manages the Facility's mechanical and other systems to provide a high level of occupant comfort and maintains a healthy and productive environment without disruption to the delivery of clinical and Patient treatment services.

7.5.3.2(1)b. Provides an internet-based means of external monitoring by the Authority, including all associated hardware and software. Change or control rights by external access will not be allowed.

7.5.3.2(1)c. Interfaces with the Facility mechanical, electrical and Communications Systems, and controls.

7.5.3.2(1)d. Meters, trends, and archives all data related to the flow of services into and out of the Facility, including domestic water, steam, condensate, medical oxygen, electricity, gas, and hot water and considers seasonal variations in flow rate.

7.5.3.2(1)e. Annunciates building and equipment alarms, including fire alarm, security alarms, freezer alarms, lab alarms, medical equipment alarms, medical gas alarms, space pressure alarms, lighting, UPS, emergency systems switchgear alarms, temperature and humidity setpoint alarm. Coordinate with Authority for any additional alarm monitoring requirements. Monitors the status, temperature, humidity and alarms for equipment identified in consultation with the Authority.

7.5.3.2(1)f. Acquires, collates, and archives all data associated with energy measurement and verification.

7.5.3.2(1)g. Contains safeguards to prevent unauthorized external access and follows vendor best practices for security handling.

7.5.3.2(2) Design the controls system to allow monitoring and operation of the Facility from a BMS location in the Facility, from the central plant control room, or from any location with appropriate security controls in place via an integrated BMS over IP. BMS to operate on a dedicated network.

7.5.3.2(3) The BMS will be non-proprietary and designed with open protocol.

7.5.3.2(4) The BMS platform will be completely integrated (front-end and back-end) Native BACnet/IP system and able to facilitate integration of a wide range of building systems via BACnet or protocol gateways to convert the data into BACnet.

7.5.3.2(5) All equipment and point naming conventions for all BMS points will follow the ASHRAE 223P (Project Haystack) standard.

7.5.3.2(6) The BMS will be provided as a complete package from one manufacturer, not a composite of several.

7.5.3.2(7) The BMS will optimize the system performance under all operating conditions to minimize Facility energy usage.

7.5.3.2(8) The BMS will accommodate future technological changes, and the architecture of the BMS will permit expansion of the system for future renovations.

7.5.3.2(9) The BMS will be an independent system separate from the fire alarm and other control systems.

7.5.3.2(10) Provide BMS complete with automated fault detection, diagnosis, and reporting (AFDDR) software. The system will be able to set an optimized baseline of Facility operation for future re-commissioning. Configure and operate the AFDDR Software to ensure Facility remains continuously optimized, and the need for fault diagnosis by the Facility operator is minimized. AFDDR Software will provide customizable web- accessible reports available to the Authority, with rules and dashboard customized in consultation with the Authority.

7.5.3.2(11) Data archiving, Measurement & Verification and Continuous Commissioning: provide a data collection and data archiving and analytics package to facilitate Measurement & Verification, Continuous Commissioning and AFDDR.

7.5.3.2(12) BMS hardware will be connected to vital power and UPS to ensure continued availability during utility power disruptions.

7.5.3.2(13) BMS system to include all necessary devices and programming to provide automatic changeover to all backup systems with no unnecessary delays.

7.5.3.2(14) The BMS will monitor, control, indicate alarms, and provide trending where applicable for all connected sensors and control points.

7.5.3.2(15) User Interface will be graphical in nature with animated graphics to indicate equipment operation. Graphics will be grouped in systems and in departments.

7.5.3.2(16) The BMS documentation will include a detailed narrative description of the sequence of operation of each system.

7.5.3.2(17) Install equipment to provide access and ease of maintenance.

7.5.3.2(18) Connect to equipment specified in other sections and to equipment supplied and installed by other Divisions or by the Authority.

7.5.3.2(19) Provide a separate, dedicated VLAN on the Authority Network for the BMS.

7.5.3.2(20) Provide integration of setpoint control for all major equipment, zone setpoints and energy dashboard with Authority Network level interface.

7.5.3.2(21) Provide industrial grade sensors, valves, and actuators for large AHUs where supply fan installed nameplate power is 50 HP and larger.

7.5.3.3 Zoning

7.5.3.3(1) Zoning for HVAC systems will be based on occupancy, room location within the Facility, CSA C371.2 space classification, room orientation, and room heating and cooling loads. Configure zoning to minimize reheat/re-cool.

7.5.3.3(2) Provide independent zone for each Patient care room, procedure room and consult rooms.

7.5.3.3(3) For non-patient care areas, a maximum of three (3) rooms will be on one zone.

7.5.3.3(4) Interior control zones will not exceed 180 m^2 per zone for Open Areas.

7.5.3.3(5) Perimeter zones will be no more than 4.7m from an outside wall along a common exposure. Perimeter zones will not exceed 30 m^2.

7.5.3.3(6) Provide zone level display on zone sensor of all sensed parameters required by CSA Z317.2, Table 5.

7.5.3.3(7) Zone floor areas to provide control of smoke in a fire situation.

7.5.3.3(8) Zone floor areas to ensure infection control for each of the nursing stations.

7.5.3.3(9) Measure supply air temperature delivered to each zone. Where zone heating or cooling coils are utilized, modulate coil output to maintain zone supply air temperature at setpoint. Directly controlling off the zone temperature control loop is not acceptable.

7.5.3.3(10) Design all components to default to a safe position upon failure and install all components to ensure reliable operation at any failure situation. Fail safe components will be hard-wired to provide reliable operation in all circumstances.

7.5.3.3(11) Monitor critical alarms for essential building and life safety systems at the BMS. Critical alarms include:

7.5.3.3(11)a. Fire alarm system for alarm, supervisory and trouble

7.5.3.3(11)b. All temperature alarms resulting from setpoint deviations.

7.5.3.3(11)c. Failure of any HVAC or plumbing equipment including zone level equipment.

7.5.3.3(11)d. Medical gas system high- and low-pressure alarms.

7.5.3.3(11)e. All alarms relating to the fire protection system.

7.5.3.3(11)f. All alarms relating to the emergency and standby power generators and transfer switch control system.

7.5.3.4 BMS Performance

7.5.3.4(1) System will conform to the following minimum standards:

7.5.3.4(1)a. Graphic Display. A graphic with 20 dynamic points will display with current data within 10 sec.

7.5.3.4(1)b. Graphic Refresh. A graphic with 20 dynamic points will update with current data within 8 sec. and will automatically refresh every 15 sec.

7.5.3.4(1)c. Configuration and Tuning Screens. Screens used for configuring, calibrating, or tuning points, PID loops, and similar control logic will automatically refresh within 6 sec.

7.5.3.4(1)d. Object Command. Devices will react to command of a binary object within 2 sec. Devices will begin reacting to command of an analogue object within 2 sec.

7.5.3.4(1)e. Alarm Response Time. An object that goes into alarm will be annunciated at the workstation within 45 sec.

7.5.3.4(1)f. Program Execution Frequency. Custom and standard applications will be capable of running as often as once every 5 sec. Select execution times consistent with the mechanical process under control.

7.5.3.4(1)g. Performance. Programmable controllers will be able to completely execute DDC PID control loops at a frequency adjustable down to once per sec. Select execution times consistent with the mechanical process under control.

7.5.3.4(1)h. Multiple Alarm Annunciation. Each workstation on the network will receive alarms within 5 sec of other workstations.

7.5.3.4(1)i. Reporting Accuracy. System will report values with minimum end-to-end accuracy listed in Table 1.

7.5.3.4(1)j. Control Stability and Accuracy. Control loops will maintain measured variable at setpoint within tolerances listed in Table 1.

7.5.3.4(1)j.1 Table 1: Sensors, Meters, Calculated Values, and Required Accuracies.

Table 1

#	Object Description and Location if Applicable	Sensor or Value Type	Sensor Type or Calculation Method	Expected Range	Required End-to-End Accuracy	Display Resolution	Refresh Interval min	Trend Interval min	Accuracy Required for Control
S1	Ambient Dry-Bulb Temperature	AI	Locate in weather station or ventilated enclosure in fully shaded location away from thermal mass bodies	-29°C to 40°C	±0.5°C	±0.25°C	1	10	±1.0°C
S2	Ambient Wet-Bulb Temperature	AI	Locate in weather station or ventilated enclosure in fully shaded location away from thermal mass bodies	–29°C to 40°C	±1.5°C	±0.25°C	1	10	±1.5°C
S6	Building Main Meter Power	AI/BI (pulse)	Refer to Electrical Sections						

S8	Zone (Space) Temperatures	AI	10000 ohm Thermistor or 1000 ohm RTD	–1°C to 38°C	±0.5°C	±0.25°C	1	1	±0.5°C
S9	Carbon Dioxide	AI	Nondispersive Infrared Sensor Technology	0 to 2000 ppm	±50 ppm	50 ppm	1	1	50 ppm
S10	Carbon Monoxide	AI	Electrochemical Sensor	0 to 100 ppm	±5 ppm	50 ppm	1	1	50 ppm
S11	Air Pressure (Ducts)	AI	Variable Capacitance	0 to 2 kPa	±25 Pa	125 Pa	1	1	25 Pa
S12	Air Pressure (Space)	AI	Variable Capacitance	-25 to 25 Pa	3 Pa	3 Pa	1	1	1.3 Pa
S13	Water Pressure	AI		0 to 1034 kPa	±2% of Full Scale	7 kPa	1	1	3.5 kPa

Table 1									
#	**Object Description and Location if Applicable**	**Sensor or Value Type**	**Sensor Type or Calculation Method**	**Expected Range**	**Required End-to-End Accuracy**	**Display Resolution**	**Refresh Interval min**	**Trend Interval min**	**Accuracy Required for Control**
S14	Water Temperature	AI		(0°C to 107°C)	±0.5°C	±0.5°C	1	1	±0.5°C
S15	Delta-T	AI	10000 ohm Thermistor or 1000 ohm RTD Matched Pair		±0.15°C	±0.25°C	1	1	±0.15°C
S16	Relative Humidity	AI		0% to 100%	±5% RH	5%	1	1	±5% RH
S17	Water Flow	AI			±2% of Reading	1000 L/s	1	1	
S18	Ducted Air Temperature	AI	10000 ohm Thermistor or 1000 ohm RTD	7°C to 60°C	±0.5°C	±0.5°C	1	1	±0.5°C
S19	Electrical (Amps, Volts, Watts, PF not specified elsewhere)	AI/BI (Pulse)	Refer to Electrical Sections						
S28	Airflow Rate (Measuring Stations)	AI	Electronic or Differential Pressure		±5% of Reading Down to 0.75 m/s)	0.05 L/s	1	1	±5% of Reading Down to 0.75 m/s
S30	Airflow (Terminal)	AI	Electronic or Differential Pressure		±10% of Reading	47 L/s	1	1	±10% of Reading
S31	Airflow (Pressurized Spaces)	AI	Electronic or Differential Pressure		±3% of Reading	24 L/s	1	1	±3% of Reading

AI = analogue input; BI = binary input; calculated = value calculated by the BMS hardware or BMS software

7.5.3.5 Interface with Other Systems

7.5.3.5(1) Control/monitor and interface with systems.

7.5.3.5(2) Work, materials, and equipment will comply with the most restrictive of local, provincial, and federal authorities' codes and ordinances or as specified herein.

7.5.3.6 Materials

7.5.3.6(1) Use new products the manufacturer is currently manufacturing and selling for use in new installations. Do not use this installation as a product test site unless explicitly approved in writing by Authority. Spare parts will be available for at least five years after completion of this contract.

7.5.3.7 Communication and System Architecture

7.5.3.7(1) All networked control products will be comprised of an industry standard open protocol BACnet internetwork. Communication involving control components (i.e. all types of controllers and operator interfaces) will conform to ASHRAE Standard 135. Networks and protocols proprietary to one company or distributed by one company are prohibited.

7.5.3.7(2) Provide new wiring and network devices as required to provide a complete and workable control network.

7.5.3.7(3) Each controller will have a communication port.

7.5.3.7(4) Network operator interface and value passing will be transparent to internetwork architecture.

7.5.3.7(4)a. An operator interface connected to the BMS will allow the operator to interface with each networked controller as if directly connected. BMS information such as data, status, reports, system software, and custom programs will be viewable and editable.

7.5.3.7(4)b. Inputs, outputs, and control variables used to integrate control strategies across multiple controllers will be available on the network.

7.5.3.7(5) Workstations, building control panels, and controllers with real-time clocks will use the BACnet time synchronization service. System will automatically synchronize system clocks daily from an operator- designated device via the internetwork. The system will automatically adjust for daylight saving and standard time as applicable.

7.5.3.7(6) Provide at a minimum one (1) operator interface to be designated at the BMS server with server application software. Additional operator interfaces will use operator workstation licensees or connect via a thin- client application.

7.5.3.7(7) BMS server will be capable of simultaneous direct connection and communication with BACnet/IP, OPC and TCP/IP corporate level networks without the use of interposing devices.

7.5.3.7(8) Any break in ethernet communication between the standard client and server workstations on the network will result in a notification at each workstation.

7.5.3.7(9) The building controllers (BCs) will be capable to support subnetwork MS/TP communication with terminal unit controllers.

7.5.3.7(10) The network architecture will consist of two levels of networks:

7.5.3.7(10)a. The automation and floor level network will be BACnet/IP over ethernet. It will network all the building controllers (BCs), advanced application controllers (AACs), the automation server, and operator workstations. Provide network media converters, routers and switches as necessary for a complete network. Network will interface with the Authority Network.

7.5.3.7(10)b. Sub-network: Subnetworks will be BACnet MS/TP LAN. These subnetworks will network Advanced Application Controllers (ASCs), Custom Application Controllers (CACs) and Application Specific Controllers (ASCs). Each MS/TP subnetwork will be limited to a maximum of 70 connected devices. Each MS/TP subnetwork will be limited to one floor level.

7.5.3.7(11) The following devices will reside on the automation level BACnet/IP over ethernet network:

7.5.3.7(11)a. All systems and their controllers (other than ones indicated below to be on MS/TP) indicated in 1.1.3. will be on BACnet/IP network.

7.5.3.7(12) The following devices can reside on MS/TP sub-networks:

7.5.3.7(12)a. Terminal units such as VAV units or fan coils.

7.5.3.7(12)b. Other minor terminal equipment.

7.5.3.7(12)c. Advanced application controllers for AHUs less than 2,500 L/s.

7.5.3.7(12)d. Controllers for air moving equipment less than 2,500 L/s.

7.5.3.7(12)e. Local hydronic circulating equipment not part of the central plant and less than 5 HP.

7.5.3.7(13) Zone and floor level controllers, terminal units, packaged AC units, auxiliary equipment will reside on either BACnet/IP over ethernet network of a MS/TP sub-network.

7.5.3.7(14) The system will meet peer-to-peer communication services such that the values in any one controller can be read or changed from all other controllers. The software will provide transparent transfer of all data, control programs, schedules, trends, and alarms from any one controller through the internetwork to any other controller, regardless of subnetwork routers.

7.5.3.7(15) Central plant Network

7.5.3.7(15)a. All central plant equipment associated with the central plant will utilize Direct Digital Controls (DDC) for increased reliability. Provide back-up electrical systems which will permit the BMS system to operate in the event of a power failure. Central plant controllers will communicate on the BMS network, a dedicated sub-network to all I/O interfaces (hard-wired points).

7.5.3.7(15)b. The BMS will provide a control and data acquisition system interface for control, trending, archiving.

7.5.3.7(15)c. Provide interface from central plant controllers to BMS BACnet/IP network. Provide graphics, dedicated server, on-site trend logging, and storage (historian).

7.5.3.7(15)d. All heating plant, cooling plant, heat recovery plant, steam plant and other central plant systems in the central plant will be controlled by the BMS system.

7.5.3.7(15)e. Provide network capability to pick up all network cards within all packaged equipment within central plant, including VFDs, chillers, boilers for any points that are not required to be hard- wired.

7.5.3.7(16) Provide a dedicated static IP address for each network including the central plant network.

7.5.3.7(17) BMS (dedicated) network will interface with building Authority Network and high-level monitoring/controlling platform (Sky Spark or similar).

7.5.3.8 Distributed Control Requirements

7.5.3.8(1) The loss of any one controller will not affect the operation of other systems, only for the points connected to the controller.

7.5.3.8(2) The system will be scalable in nature and will permit expansion of both capacity and functionality through the addition of sensors, actuators, controllers, and operator devices.

7.5.3.8(3) System architecture will eliminate dependence upon any single device for alarm reporting and control execution. Each controller will operate independently by performing its own specified control, alarm management, operator I/O, and data collection. The failure of any single component or network connection will not interrupt the execution of any control strategy, reporting, alarming and trending function, or any function at any operator interface device.

7.5.3.8(4) Controllers will be able to access any data from or send control commands and alarm reports directly to any other controller on the network without dependence upon a central processing device.

7.5.3.8(5) Controllers will also be able to send alarms to multiple operator workstations without dependence upon a central or intermediate processing device.

7.5.3.8(6) Control panels will be mounted in the same mechanical room as the equipment being controlled, or an adjacent utility room.

7.5.3.8(7) Remote sensors will be wired to the control panel of the equipment it is controlling, not across the network.

7.5.3.8(8) Signals to remote Motor Control Centres will be hard wired to the control panel, not across the network.

7.5.3.9 Operator Interface

7.5.3.9(1) Operator Interface. Web server and PC-based workstations will reside on a high-speed network with building controllers. Each workstation or each standard browser connected to the server will be able to access all BMS information.

7.5.3.9(2) Workstation and controllers will communicate using BACnet protocol. Workstation and control network backbone will communicate using ISO 8802-3 (ethernet) data link/physical layer protocol and BACnet addressing as specified in ANSI/ASHRAE Standard 135 guidelines and requirements.

7.5.3.9(3) Provide dedicated operator interface stations for the central plant.

7.5.3.9(4) Provide dedicated operator interface for the central plant PLC-based control system.

7.5.3.9(5) Provide dedicated operator interface stations for each mechanical room.

7.5.3.9(6) Provide laptop or tablet with full operator interface capability.

7.5.3.9(7) Hardware. Each operator workstation or web server will consist of the following:

7.5.3.9(7)a. Computer. Hardware will meet or exceed BMS manufacturer's recommended specifications and will meet response times specified elsewhere in this Division. The following hardware requirements also apply:

7.5.3.9(7)a.1 The hard disc will have enough memory to store all required operator workstation software; A BMS database at least four-times the size of the delivered system data-based; and two years of trend data based on all points being trended at a trend interval of 5-minutes.

7.5.3.9(7)a.2 Provide additional hardware (communication ports, video drivers, network interface cards, cabling) to facilitate all control functions and software requirements specified for the BMS.

7.5.3.9(8) System Software.

7.5.3.9(8)a. Operating system. Provide a concurrent multitasking operating system. The operating systems also will support the use of other common software applications. Examples include Microsoft Excel, Microsoft Access, or other SQL database software. Acceptable operating systems are Windows or the latest Windows Server release.

7.5.3.9(8)b. All BMS software (not residing on system controllers) such as operator workstation software, BMS database and trend data will reside on Authority provided FM servers and computers. There will be no silo vendor servers and/or computers except as approved by the Authority through the Review Procedure.

7.5.3.9(8)c. System Graphics. The operator workstation software will be graphically oriented. The system will allow display of up to 10 graphic screens at once for comparison and monitoring of system status. Provide a method for the operator to easily move between graphic displays and change the size and location of graphic displays on the screen. The system graphics will be able to be modified while online. An operator with the proper password level will be able to add, delete, or change dynamic objects on a graphic. Dynamic objects will include analogue and binary values, dynamic text, static text, and animation files. Graphics will have the ability to show animation by shifting image files based on the status of the object.

7.5.3.9(8)d. Custom Graphics. Custom graphic files will be created with the use of a graphics generation package furnished with the system. The graphics generation package will be a graphically based system that uses the mouse to create and modify graphics that are saved in industry standard formats. The graphics generation package also will provide the capability of capturing or converting graphics from other programs such as Designer or AutoCAD.

7.5.3.9(8)e. Graphics Library. Furnish a complete library of standard HVAC equipment graphics such as chillers, boilers, air handlers, terminals, fan coils, and unit ventilators, and others are required for this project. This library also will include standard symbols for other equipment including fans, pumps, coils, valves, piping, dampers, and ductwork. The library will be furnished in a file format compatible with the graphics generation package program.

7.5.3.9(9) System applications. Each workstation will provide operator interface and off-line storage of system information. Provide the following applications at each workstation:

7.5.3.9(9)a. Automatic system database save and restore. Each workstation will store on the hard disk a copy of the current database of each building controller. This database will be updated whenever a change is made in any system panel. The storage of these data will be automatic and not require operator intervention. In the event of a database loss in a building management panel, the first workstation to detect the loss will automatically restore the database for that panel. This capability may be disabled by the operator.

7.5.3.9(9)b. Manual database save and restore. A system operator with the proper password clearance will be able to save the database from any system panel. The operator also will be able to clear a panel database and manually initiate a download of a specified database to any panel in the system.

7.5.3.9(9)c. System configuration. The workstation software will provide a method of configuring the system. This will allow for future system changes or additions by users under proper password protection.

7.5.3.9(9)d. Online help. Provide a context-sensitive online help system to assist the operator in operating and editing the system. Online help will be available for all applications and will provide the relevant data for that particular screen. Additional help information will be available through the use of hypertext.

7.5.3.9(9)e. Security. Each operator will be required to log on to the system with a username and password in order to view, edit, add, or delete data. System security will be selectable for each operator. The system supervisor will have the ability to set passwords and security levels for all other operators. Each operator password will be able to restrict the functions accessible to viewing and/or changing each system application, editor, and object. Each operator will automatically be logged off the system if no keyboard or mouse activity is detected. This auto logoff time period will be user adjustable. All system security data will be stored in an encrypted format.

7.5.3.9(9)f. System diagnostics. The system will automatically monitor the operation of all workstations, printers, network connections, building management panels, and controllers. The failure of any device will be annunciated to the operator.

7.5.3.9(9)g. Alarm processing. Any object in the system will be configurable to alarm in and out of normal state. The operator will be able to configure the alarm limits, alarm limit differentials, states, and reactions for each object in the system.

7.5.3.9(9)h. Alarm messages. Alarm messages will use the English language descriptor for the object in alarm in such a way that the operator will be able to recognize the source, location, and nature of the alarm without relying upon acronyms or other mnemonics.

7.5.3.9(9)i. Alarm reactions. The operator will be able to determine (by object) what, if any, actions are to be taken during an alarm. Actions will include logging, printing, starting programs, displaying messages, dialling out to remote stations, paging, providing audible annunciation, or displaying specific system graphics. Each of these actions will be configurable by workstation and time of day.

7.5.3.9(9)j. Trend logs. The operator will be able to define a custom trend log for any data object in the system. This definition will include interval, start time, and stop time. Trend data will be sampled and stored on the building controller panel, be archived on the hard disk, and be retrievable for use in spreadsheets and standard database programs. Trend data will be exportable in a standard electronic format (e.g. .xls, .csv, .xml) for analysis external to the BMS.

7.5.3.9(9)k. Alarm and event log. The operator will be able to view all system alarms and change of states from any location in the system. Events will be listed chronologically. An operator with the proper security level may acknowledge and clear alarms. All that have not been cleared by the operator will be archived to the hard disk on the workstation.

7.5.3.9(9)l. Group trend time series plots.

7.5.3.9(9)l.1 Provide user-selectable Y points.

7.5.3.9(9)l.2 Provide user-editable titles, point names, and Y axis titles.

7.5.3.9(9)l.3 Individual trended points will be able to be grouped in groups of up to five points per plot with up to four plots per page.

7.5.3.9(9)m. X-Y Trend Plots

7.5.3.9(9)m.1 User-selectable X and Y trend inputs

7.5.3.9(9)m.2 User-editable titles, point names, and X and Y axis titles.

7.5.3.9(9)m.3 user-selectable time period. The user will be able to select the beginning and ending period for each X-Y chart, within the time domain of the database being used.

7.5.3.9(9)m.4 User-selectable display of up to 6 plots per screen in 2 columns.

7.5.3.9(9)n. Object and property status and control. Provide a method for the operator to view and edit if applicable, the status of any object and property in the system. The status will be available by menu, on graphics, or through custom programs.

7.5.3.9(9)o. Reports and logs. Provide a reporting package that allows the operator to select, modify, or create reports. Each report will be definable as to data content, format, interval, and date. Report data will be archivable on the hard disk for historical reporting. Provide the ability for the operator to obtain real-time logs of all objects by type or status (e.g. alarm, lockout, normal).

7.5.3.9(9)p. Reports and logs will be stored on the hard disk in a format that is readily accessible by other standard software applications, including spreadsheets and word processing. Reports and logs will be readily printed to the system printer and will be set to be printed either on operator command or at a specific time each day.

7.5.3.9(9)q. Standard reports. The following standard BMS reports will be provided for the Facility. Provide ability for the Authority to readily customize these reports for this project.

7.5.3.9(9)q.1 All objects/points/variables: all system (or subsystem) objects, points, variables, configuration properties, and their current values.

7.5.3.9(9)q.2 Alarm summary: all current alarms (except those in alarm lockout).

7.5.3.9(9)q.3 Disabled objects/points: all objects/points that are disabled.

7.5.3.9(9)q.4 Alarm lockout objects/points: all objects/points in alarm lockout (whether manual or automatic).

7.5.3.9(9)q.5 Alarm lockout objects/points in alarm: all objects/points in alarm lockout that are currently in alarm.

7.5.3.9(9)q.6 Logs:

.7.5.3.9.9.q.6.1 Alarm history

.7.5.3.9.9.q.6.2 System messages

.7.5.3.9.9.q.6.3 System events

.7.5.3.9.9.q.6.4 Trends

.7.5.3.9.9.q.6.5 Operator Activity. At a minimum, system will log operator log in and log out, control parameter changes, schedule changes, and alarm acknowledgment and deletion. System will date and time stamp logged activity.

7.5.3.9(9)r. Custom reports. Provide the capability for the operator to easily define any system data into a daily, weekly, monthly, or annual report. These reports will be time and date stamped and will contain a report title and the name of the facility. Provide the following custom reports for this project:

7.5.3.9(10) Workstation applications editors. Each workstation will support editing of all system applications. Provide editors for each application at the workstation. The applications will be downloaded and executed at one or more of the controller panels.

7.5.3.9(10)a. Controller. Provide a full-screen editor for each type of application that will allow the operator to view and change the configuration, name, control parameters, and set points for all controllers.

7.5.3.9(10)b. Scheduling. An editor for the scheduling application will be provided at each workstation. Provide a method of selecting the desired schedule and schedule type. Exception schedules and holidays will be shown clearly on the calendar. Provide a method for allowing several related objects to follow a schedule. The start and stop times for each object will be adjustable from this master schedule. Schedules will be easy to copy to other objects and/or dates.

7.5.3.9(10)c. Custom Application Programming. Provide the tools to create, modify, debug, and download custom programs. The operator will be able to create, edit, and download custom programs at the same time that all other system applications are operating. The BMS will be fully operable while custom routines are edited, compiled, and downloaded.

7.5.3.9(11) Provide software update on all operator workstations at Substantial Completion to the most current commercially available software version.

7.5.3.10 Graphics

7.5.3.10(1) Provide graphics for all systems interfaced, controlled and monitored by the BMS. Show on each graphic all input and output points for the system and relevant calculated points such as setpoints.

7.5.3.10(2) Provide an overall Facility graphic.

7.5.3.10(3) Provide separate floor plan graphics of the Facility for each integrated, controlled, and monitored systems.

7.5.3.10(4) Provide dedicated graphics for fire alarm system monitoring and smoke control management.

7.5.3.10(5) Provide dedicated graphics for each system and sub-system with graphically representation of all equipment including all input and output points and relevant calculated points.

7.5.3.10(6) Provide graphic summary tables for all demand-based reset parameters.

7.5.3.10(7) Show terminal equipment information on a graphic summary table.

7.5.3.10(8) Provide dynamic information for each point shown.

7.5.3.11 Alarms

7.5.3.11(1) Provide full integration of all alarms with the Authority Network for monitoring and acknowledgement of alarms.

7.5.3.11(2) All alarms will include a time/date stamp using real-time and date.

7.5.3.11(3) Each alarm will be configured in terms on level, latching (requires acknowledgement of a return to normal), non-latching (does not require acknowledgement of a return to normal), entry delay, exit deadband, and post suppression period.

7.5.3.11(4) Operators will be able to sort alarms based on level, time and date, and current status.

7.5.3.11(5) Alarms will be reported with the following information:

7.5.3.11(5)a. Date and time of the alarm;

7.5.3.11(5)b. Level of the alarm;

7.5.3.11(5)c. Description of the alarm;

7.5.3.11(5)d. Equipment tags for the units in alarm;

7.5.3.11(5)e. Possible causes of the alarm provided by the fault detection routines; and

7.5.3.11(5)f. The source that serves the equipment in alarm.

7.5.3.11(6) Provide the following levels of alarm:

7.5.3.11(6)a. Level 1: Life-safety message

7.5.3.11(6)b. Level 2: Critical equipment message

7.5.3.11(6)c. Level 3: Urgent message

7.5.3.11(6)d. Level 4: Normal message

7.5.3.11(7) Maintenance mode. Operators will have the ability to put any device in/out of maintenance mode. All alarms associated with a device in maintenance mode will be suppressed except for life safety alarms. A daily Level 3 alarm will be issued at a scheduled time indicating that the device is still in maintenance mode.

7.5.3.11(8) Entry delays. All alarms will have an adjustable delay time such that the alarm is not triggered unless the alarm condition is true for the delay time. Default entry delays are as follows:

7.5.3.11(8)a. Level 1 alarms: 1 second

7.5.3.11(8)b. Level 2 alarms: 10 seconds

7.5.3.11(8)c. Level 3 alarms: 1 minute

7.5.3.11(8)d. Level 4 alarms: 5 minutes

7.5.3.11(9) Exit Hysteresis

7.5.3.11(9)a. Each alarm will have an adjustable time-based hysteresis to exit the alarm. Once set, the alarm does not return to normal until the alarm conditions have ceased for the duration of the hysteresis. Default hysteresis is 5 seconds.

7.5.3.11(9)b. Each analogue alarm will have an adjustable percent-of-limit- based hysteresis the alarmed variable required to exit the alarm. Alarm conditions have ceased when the alarmed variable is below the triggering threshold by the amount of the hysteresis.

7.5.3.11(10) Latching. Each alarm can be configured as latching or non-latching. A latching alarm requires acknowledgment from the operators before it can return to normal, even if the exit deadband has been met. A non-latching alarm does not require acknowledgment. Default latching status is as follows:

7.5.3.11(10)a. Level 1 alarms: latching;

7.5.3.11(10)b. Level 2 alarms: latching;

7.5.3.11(10)c. Level 3 alarms: non-latching; and

7.5.3.11(10)d. Level 4 alarms: non-latching.

7.5.3.11(11) Postexit suppression period. To limit alarms, each alarm will have an adjustable suppression period such that, if the alarm is triggered, its post suppression timer is triggered, and the alarm will not trigger again until the post suppression timer has expired. Post suppression only applies to a particular instance of an alarm. Default suppression periods are as follows:

7.5.3.11(11)a. Level 1 alarms: 0 minutes;

7.5.3.11(11)b. Level 2 alarms: 5 minutes;

7.5.3.11(11)c. Level 3 alarms: 8 hours; and

7.5.3.11(11)d. Level 4 alarms: 2 days.

7.5.3.11(12) 7.4.3.10(12) For both latching and non-latching alarms, the operator will be able to acknowledge the alarm. Acknowledging an alarm clears the alarm, the exit deadband, and suppression period. A device can go right back into alarm as soon as the entry delay elapses.

7.5.3.11(13) Hierarchical Alarm Suppression

7.4.3.10(13)(a) For each piece of equipment and zone, define its relationship (if any) to other equipment in terms of “source”, “load” or “system”.

7.5.3.11(13)a.1 A component is a “source” if it provides resources to a downstream component.

7.5.3.11(13)a.2 A component is a “load” if it receives resources from an upstream component.

7.5.3.11(13)a.3 The same component can be both a load (receiving resources from an upstream source) and a source (providing resources to a downstream load).

7.5.3.11(13)a.4 A set of components is a “system” if they share a load in common.

7.5.3.11(13)b. For each system, there will be a SystemOK flag, which is either true or false.

7.5.3.11(13)c. SystemOK will be true when all of the following are true:

7.5.3.11(13)c.1 The system is proven on;

7.5.3.11(13)c.2 The system is achieving its temperature and/or pressure set point(s) for at least 5 minutes;

7.5.3.11(13)c.3 The system is ready and able to serve its load.

7.5.3.11(13)d. SystemOK will be false while the system is starting up or when enough of the system’s components are unavailable to disrupt the ability of the system to serve its load. This threshold will be proposed for each system by the Design-Builder. And reviewed for acceptance by the Authority.

7.5.3.11(13)d.1 By default, Level 1 through Level 3 component alarms will inhibit SystemOK. Level 4 component alarms will not affect SystemOK.

7.5.3.11(13)d.2 The operator will have the ability to individually determine which component alarms will and will not inhibit SystemOK.

7.5.3.11(13)e. The BMS will selectively suppress alarms for load components if SystemOK is false for the source system that serves that load.

7.5.3.11(13)e.1 If SystemOK is false for a cooling water system, then only high-temperature alarms from loads will be suppressed.

7.5.3.11(13)e.2 If SystemOK is false for a heating water system, then only low-temperature alarms from loads will be suppressed.

7.5.3.11(13)e.3 If SystemOK is false for an air-side system, then all alarms from the loads will be suppressed.

7.5.3.11(13)f. Hierarchical suppression will cascade through multiple levels of load-source relationship such that alarms at downstream loads will also be suppressed.

7.5.3.11(13)g. The following types of alarms will never be suppressed by this logic:

7.5.3.11(13)g.1 Life safety and Level 1 alarms;

7.5.3.11(13)g.2 Failure-to-start alarms;

7.5.3.11(13)g.3 Failure-to-stop alarms;

7.5.3.11(13)g.4 All alarms associated with critical environment areas.

7.5.3.11(14) Time-based suppression. Calculate a time-delay period after any change in setpoint based on the difference between the controlled variable and the time of the change and the new setpoint. The default time delay period will be as follows:

7.5.3.11(14)a. For thermal zone temperature alarms: 10 minutes per °C of difference but no longer than 120 minutes;

7.5.3.11(14)b. For thermal zone temperature cooling requests: 5 minutes per °C of difference but no longer than 30 minutes;

7.5.3.11(14)c. For thermal zone temperature heating requests: 5 minutes per °C of difference but no longer than 30 minutes.

7.5.3.12 Energy Sub-Metering Systems and Energy Reporting

7.5.3.12(1) Provide all required meters, sensors, and trend logging equipment at end uses within the Facility to meet the energy monitoring requirements outlined in Schedule 9.

7.5.3.12(2) All meters will be connected to an integrated energy management system to monitor, record, report, and analyze energy consumption. Coordinate electrical metering and the energy management system with the requirements of Electrical (Division 26).

7.5.3.12(3) Provide complete digital metering systems.

7.5.3.12(4) Provide runtime logs on all compressors included freezers.

7.5.3.12(5) Metering intervals will be confirmed with the Authority's Mechanical engineer prior to meter selection and programming.

7.5.3.12(6) Refer to measurement and verification section for more information on Metering data storing and reporting.

7.5.3.12(7) Energy Reports. System will include an easily configured energy reporting tool that provides the capabilities described in this section.

7.5.3.12(7)a. The energy reporting tool will be accessible through the same user interface (Web browser or operator workstation software) as is used to manage the BMS.

7.5.3.12(7)b. The energy reporting tool will be preconfigured to gather and store energy demand and consumption data from each energy source that provides metered data to the BMS. Meter data will be stored at 5-minute intervals. This data will be maintained in an industry standard SQL database for a period of not less than five years.

7.5.3.12(7)c. The energy reporting tool will allow the operator to select an energy source and a time period of interest (day, week, month, year, or date range) and will provide options to view the data in a table, line graph, bar graph, or pie chart. The tool will also allow the operator to select two or more data sources and display a comparison of the energy used over this period in any of the listed graph formats, or to total the energy used by the selected sources and display that data in the supported formats.

7.5.3.12(7)d. The energy reporting tool will allow the operator to select and energy source and two time periods of interest (day, week, month, year, or date range) and display a graph that compares the energy use over the two time periods in any of the graph formats listed in the previous paragraph. The tool will also allow the operator to select multiple energy sources and display a graph that compares the total energy used by these sources over the two time periods.

7.5.3.12(7)e. The energy reporting tool will allow the operator to easily generate the previously described graphs “on the fly,” and will provide an option to store the report format so the operator can select that format to regenerate the graph at a future date. The tool will also allow the user to schedule these reports to run on a recurring basis using relative time periods, such as automatically generating a consumption report on the first Monday of each month showing consumption over the previous month. Automatically generated reports will be archived on the server in a common industry format such as Adobe PDF or Microsoft Excel with copies e-mailed to a user editable list of recipients.

7.5.3.12(7)f. The energy reporting tool will be capable of collecting and displaying data from all the connected meter types.

7.5.3.12(7)g. The User will have the option of using multiple unit types. All selected sources will be automatically converted to the selected units. The user will similarly have the option of entering facility area and occupancy hours and creating reports that are normalized on an area basis, an annual use basis, or an occupied hour basis.

7.5.3.12(7)h. The User will have the option of entering benchmark data for an individual facility or a group of facilities.

7.5.3.12(7)i. The user will have the option of displaying any or all of the following data on any chart, line, or bar graph generated by the energy reporting tool:

7.5.3.12(7)i.1 Low/High/Average value of the metered value being displayed.

7.5.3.12(7)i.2 Heating and/or Cooling Degree Days for the time period(s) being displayed.

7.5.3.12(7)i.3 The Environmental Index for the facilities and time periods being displayed.

7.5.3.12(7)j. Provide dashboard configured as per the energy breakdown requirements as defined in Schedule 9: Energy to assist the independent energy consultant assess the energy performance of the Facility. Provide all required KPIs.

7.5.3.12(7)k. Provide a dedicated energy report per department (per AHU). Report for each department will include end-use breakdown and KPIs.

7.5.3.12(7)l. ASHRAE Standard 147 Report: provide a daily report that shows the operating conditions of each chiller as recommended by ASHRAE Standard 147.

7.5.3.13 Controller Software

7.5.3.13(1) Furnish the following applications for building and energy management. All software application will reside and operate in the system controllers. Applications will be editable through operator workstation, web browser interface, or engineering workstation.

7.5.3.13(2) Provide software update on all controllers at Substantial Completion to the most current commercially available software version.

7.5.3.13(3) System security. User access will be secured using individual security passwords and usernames. Passwords will restrict the user to the objects, applications, and system functions as assigned by the system manager. User log on/log off attempts will be recorded. The system will protect itself from unauthorized use by automatically logging off following the last keystroke. The delay time will be user adjustable.

7.5.3.13(4) System coordination. Provide a standard application for the proper coordination of equipment. This application will provide the operator with a method of grouping together equipment based on function and location. This group may then be used for scheduling or other applications.

7.5.3.13(5) Scheduling. Provide the capability to execute control functions according to a user created or edited schedule. Each schedule will provide the following schedule options as a minimum:

7.5.3.13(5)a. Weekly Schedule. Provide separate schedules for each day of the week. Each schedule will be able to include up to 5 occupied periods (5 start-stop pairs or 10 events).

7.5.3.13(5)b. Exception Schedules. Provide the ability for the operator to designate any day of the year as an exception schedule.

7.5.3.13(5)c. Exception schedules may be defined up to a year in advance. Once an exception schedule has executed, the system will discard and replace the exception schedule with the standard schedule for that day of the week.

7.5.3.13(5)d. Holiday Schedules. Provide the capability for the operator to define up to 24 special or holiday schedules. These schedules will be repeated each year. The operator will be able to define the length of each holiday period.

7.5.3.13(6) Binary Alarms. Each binary object will have the capability to be configured to alarm based on the operator-specified state. Provide the capability to disable alarming automatically and manually.

7.5.3.13(7) Analogue Alarms. Each analogue object will have both high and low alarm limits. The operator will be able to enable or disable these alarms.

7.5.3.13(8) Alarm Reporting. The operator will be able to determine the action to be taken in the event of an alarm. An alarm will be able to start programs, print, be logged in the event log, generate custom messages, and display on graphics.

7.5.3.13(9) Remote Communication. The system will have the ability to transmit the alarm/event using the BACnet control network.

7.5.3.13(10) Demand Limiting

7.5.3.13(10)a. The demand limiting program will monitor building power consumption from signals generated by a pulse generator mounted at the building power meter or from a watt transducer or current transformer attached to thebuilding feeder lines.

7.5.3.13(10)b. The demand limiting program will predict the probable power demand such that action can be taken to prevent exceeding the demand limit. When demand prediction exceeds demand limit, action will be taken to reduce loads in a predetermined manner. When demand prediction indicates the demand limit will not be exceeded, action will be taken to restore loads in a predetermined manner.

7.5.3.13(10)c. Demand limiting parameters, frequency of calculations, time intervals, and other relevant variables will be based on the means by which the local power company computes demand charges.

7.5.3.13(10)d. Provide demand limiting prediction and control for any individual meter monitored by the system or for the total of any combination of meters.

7.5.3.13(10)e. Any implemented demand limiting will not compromise Patient care functions or Patient care area environmental and thermal comfort.

7.5.3.13(11) Maintenance Management. The system will monitor equipment status and generate maintenance messages based upon user-designated runtimes, starts, and/or calendar data limits. Configure and enable maintenance alarms based on equipment manufacturer recommended maintenance schedule.

7.5.3.13(12) Sequencing. Provide application software based upon the sequence of operation to properly sequence chillers, boilers, pumps, and additional system equipment to provide orderly start-up, operation, and shut- down of equipment.

7.5.3.13(13) PID Control. System will provide direct- and reverse-acting PID (proportional-integral-derivative) algorithms. Each algorithm will have anti-windup and selectable controlled variable, setpoint, and PID gains. Each algorithm will calculate a time-varying analogue value that can be used to position an output or to stage a series of outputs. The calculation interval, PID gains, and other tuning parameters will be adjustable by a user with the correct security level.

7.5.3.13(14) Will stagger controlled equipment restart after power outage. Operator will be able to adjust equipment restart order and time delay between equipment restarts.

7.5.3.13(15) Energy Calculations. Provide software to allow instantaneous power or flow rates to be accumulated and converted to energy usage data.

7.5.3.13(16) Provide an algorithm that calculates a sliding-window average (e.g. rolling average). The algorithm will be flexible to allow window intervals to be user specified (e.g. 15 min, 30 min, 60 min). provide an algorithm that calculates a fixed-window average. A digital input signal will define the start of the window period (e.g. signal from a utility meter) to synchronize the fixed-window average with that used by the energy service provider.

7.5.3.13(17) Anti-Short Cycling. All binary output objects will be protected from short cycling by means of adjustable minimum on-time and off-time settings.

7.5.3.13(18) On and Off Control with Differential. Provide an algorithm that allows a binary output to be cycled based on a controlled variable and a setpoint. The algorithm will be direct-acting or reverse-acting and incorporate an adjustable differential.

7.5.3.13(19) Runtime Totalization. Provide software to totalize runtime for each binary input and output. Operator will be able to enable runtime alarm based on exceeded adjustable runtime limit. Configure and enable runtime totalization and alarms as specified.

7.5.3.14 Controllers

7.5.3.14(1) Provide an adequate number of Building Controllers, Advanced Application Controllers (AAC), Application Specific Controllers (ASC), Smart Actuators (SA), and Smart Sensors (SS) as required to achieve performance specified in this Division. Every device in the system which executes control logic and directly controls HVAC equipment will conform to a standard BACnet Device profile as specified in ANSI/ASHRAE 135, BACnet Annex L. Unless otherwise specified, hardwired actuators and sensors may be used in lieu of BACnet Smart Actuators and Smart Sensors.

7.5.3.14(1)a. Building Controllers. Each Building Controller will conform to BACnet Building Controller (B-BC) device profile as specified in ANSI/ASHRAE 135, BACnet Annex L, and will be listed as a certified B-BC in the BACnet Testing Laboratories (BTL) Product Listing.

7.5.3.14(1)b. Advanced Application Controllers (AACs). Each AAC will conform to BACnet Advanced Application Controller (B-AAC) device profile as specified in ANSI/ASHRAE 135, BACnet Annex L and will be listed as a certified B-AAC in the BACnet Testing Laboratories (BTL) Product Listing.

7.5.3.14(1)c. Application Specific Controllers (ASCs). Each ASC will conform to BACnet Application Specific Controller (B-ASC) device profile as specified in ANSI/ASHRAE 135, BACnet Annex L and will be listed as a certified B-ASC in the BACnet Testing Laboratories (BTL) Product Listing.

7.5.3.14(2) Smart Sensors (SSs). Each SS will conform to BACnet Smart Sensor (B-SS) device profile as specified in ANSI/ASHRAE 135, BACnet Annex L and will be listed as a certified B-SS in the BACnet Testing Laboratories (BTL) Product Listing.

7.5.3.14(3) Each piece of equipment will be controlled by a single controller to provide stand-alone control in the event of communication failure. All I/O points specified for a piece of equipment will be integral to its controller. Provide stable and reliable stand-alone control using default values or other method for values normally read over the network such as outdoor air conditions, supply air or water temperature coming from source equipment.

7.5.3.14(4) Provide a separate controller for each AHU or other HVAC system. A controller may control more than one system provided that all points associated with the system are assigned to the same controller. Points used for control loop reset, such as outside air or space temperature, are exempt from this requirement.

7.5.3.14(5) All controllers will use the same programming language.

7.5.3.14(6) All controllers and software will be BTL listed at the time of installation.

7.5.3.15 Packaged Equipment Controls

7.5.3.15(1) Electronic controls packaged with any equipment provided under this contract will communicate with the Facility BMS. The BMS will communicate with these controls to read the information and change the control setpoints. The information to be communicated between the BMS and the controls will be in the standard object format as defined in ANSI/ASHRAE Standard 135 (BACnet). Controllers will communicate with other BACnet objects on the network using the read (execute) property service as defined in clause 15.5 of Standard 135.

7.5.3.15(2) Controllers will be capable of stand-alone operation and will continue to provide control functions if the network connection is lost.

7.5.3.15(3) Controllers will contain sufficient I/ O capacity to control the target system.

7.5.3.15(4) Controllers will have a physical connection for a laptop computer or a portable operator's tool.

7.5.3.15(5) The hardware will be suitable for the anticipated ambient conditions. Controllers used outdoors and/or in wet ambient conditions will be mounted within waterproof enclosures and rated for be expected ambient temperature conditions. Controllers used in conditioned space will be mounted in dust-proof enclosures and be rated for expected operating temperature conditions.

7.5.3.15(6) Provide diagnostic LEDs for power, communication, and processor. All wiring connections will be made to field removable, modular terminal strips or to a termination card connected by a ribbon cable.

7.5.3.15(7) Controllers will maintain all BIOS and programming information in the event of a power loss for at least 30 days.

7.5.3.15(8) Controllers will be able to operate at 90% to 110% of nominal voltage rating.

7.5.3.15(9) Power supply for the controllers will be rated at minimum of 125% of ASC power consumption and will be fused or current limiting type.

7.5.3.15(10) Packaged controllers will not be used for air handling units (AHUs).

7.5.3.16 Input/output Interface

7.5.3.16(1) Hardwired inputs and outputs may tie into the BMS through BCs, AACs, ASCs.

7.5.3.16(2) All input points and output points will be protected such that shorting of the point to itself, to another point, or to ground will cause no damage to the controller. All input and output points will be protected from voltage up to 24 V of any duration, such that contact with this voltage will cause no controller damage.

7.5.3.16(3) Binary inputs will allow the monitoring of on/off signals from remote devices. The binary inputs will provide a wetting current of at least 12 mA to be compatible with commonly available control devices and will be protected against contact bounce and noise. Binary inputs will sense dry contact closure without application of power external to the controller.

7.5.3.16(4) Pulse accumulation inputs will conform to all binary input requirements and will also accumulate up to 10 pulses per second.

7.5.3.16(5) Analogue inputs will allow the monitoring of low-voltage (0–10 Vdc), current (4–20 mA), or resistance (thermistor or RTD) signals. Analogue inputs will be compatible with and field configurable to commonly available sensing devices.

7.5.3.16(6) Binary outputs will provide for on/off operation or a pulsed low-voltage signal for pulse width modulation control. Binary outputs on BCs and AACs will have three-position (on-off-auto) override switches and status lights. Outputs will be selectable for normally open or normally closed operation.

7.5.3.16(7) Analogue outputs will provide a modulating signal for the control of end devices. Outputs will provide either a 0–10 Vdc or a 4–20 mA signal as required to properly control output devices. Analogue outputs on BCs and AACs will have status lights and a two-position (auto-manual) switch and manually adjustable potentiometer for manual override. Analogue outputs will not drift more than 0.4% of range annually.

7.5.3.16(8) The use of tri-state outputs is not permitted.

7.5.3.16(9) I/O points will be universal type, i.e. controller input or output may be designated (in software) as either binary or analogue type point with appropriate properties. ASCs are exempted from this requirement.

7.5.3.16(10) The system size will be expandable to at least twice the number of input/ output objects required for this project. Additional controllers (along with associated devices and wiring) will be all that is necessary to achieve this capacity requirement. The operator interfaces installed for this project will not require any hardware additions or software revisions in order to expand the system.

7.5.3.17 Hardwired Points

7.5.3.17(1) Control points used for control or equipment may use BACnet unless they are controlling rooms. Controlling rooms are deemed a critical environment, whereby they will be hardwired.

7.5.3.17(2) All control and monitoring points for critical environment rooms such as, but not limited to labs, pharmacy, clean rooms, operating theatres, ante rooms, and isolation rooms will be hardwired points.

7.5.3.18 Software Points

7.5.3.18(1) Integrate all software points available via equipment BACnet interface.

7.5.3.19 Power Supplies

7.5.3.19(1) All BMS and controls hardware will be connected to UPS to ensure continued availability during utility power disruptions.

7.5.3.19(2) Power Supplies. Control transformers will be approved for installation in Canada. Furnish Class 2 current-limiting type or furnish over-current protection in primary and secondary circuits for Class 2 service in accordance with CEC requirements. Limit connected loads to 80% of rated capacity.

7.5.3.19(3) Power Line Filtering. Provide internal or external transient voltage and surge suppression for workstations and controllers.

7.5.3.19(4) Immunity to power and noise. Controllers and control equipment will be able to operate at 90% to 110% of nominal voltage rating. Operation will be protected against electrical noise of 5 to 120 Hz and from keyed radios up to 5 W at 1 m.

7.5.3.19(5) Power-fail restart. Controllers and control equipment to have power fail auto restart to ensure proper safety during power failure and a safe orderly recovery after power restoration.

7.5.3.20 Wiring

7.5.3.20(1) All wiring installations will comply with the Canadian Electrical Code, and all applicable governing codes, statutes, and ordinances.

7.5.3.20(2) All line voltage wiring will be approved products in approved raceway according to Canadian Electrical Code and Division 26 requirements.

7.5.3.20(3) All low-voltage wiring will meet CEC Class 2 requirements. Low-voltage power circuits will be sub-fused when required to meet Class 2 current limit.

7.5.3.20(4) All wiring (line and low voltage) will be installed in conduit in all areas of the Facility.

7.5.3.20(5) Do not install Class 2 wiring in raceways containing Class 1 or line voltage wiring. Boxes and panels containing line-voltage wiring and equipment may not be used for low-voltage wiring except for the purpose of interfacing the two (e.g. relays and transformers).

7.5.3.20(6) All wiring within enclosures will be neatly bundled and anchored to permit access and prevent restriction to devices and terminals.

7.5.3.20(7) All wiring will be installed as continuous lengths, with no splices permitted between termination points.

7.5.3.20(8) Size of raceway and size and type of wire type will be the responsibility of the Design-Builder in keeping with the manufacturer's recommendations and CEC requirements, except as noted elsewhere.

7.5.3.20(9) Use colour-coded conductors throughout with conductors of different colours.

7.5.3.20(10) Adhere to this specification's Division 26 requirements where raceway crosses building expansion joints.

7.5.3.20(11) Design-Builder. Will maintain updated (record) wiring diagrams with terminations identified at the Facility.

7.5.3.20(12) All insulated wire to be copper conductors, approved and labelled for 90 °C minimum service.

7.5.3.20(13) Life-safety wiring raceways to be a distinctive colour different from other wiring types.

7.5.3.21 Communication Wiring

7.5.3.21(1) Provide all cabling including, but not limited to, backbone, horizontal and signal. All cabling will meet at minimum the Northern Health IMIT Communications Infrastructure Standards (1.7) requirements for category and fibre cabling and will support a complete and fully functioning system.

7.5.3.21(2) All communication wiring will be run in conduit or cable tray in all areas of the Facility.

7.5.3.21(3) Do not install communication wiring in raceways containing line voltage, Class 1, or Class 2 wiring.

7.5.3.21(4) Verify the integrity of the entire network following cable installation.

7.5.3.21(5) When a cable enters or exits a building, a lightning arrestor will be installed between the lines and ground. The lighting arrestor will be installed according to the manufacturer's instructions.

7.5.3.21(6) All runs of communication wiring will be unspliced length when that length is commercially available.

7.5.3.21(7) All communication wiring will be labelled to indicate origination and destination data.

7.5.3.21(8) BMS communication wiring will be provided in a distinct colour from other building network wiring.

7.5.3.21(9) BACnet MS/TP communications wiring will be installed in accordance with ASHRAE/ANSI Standard 135.

7.5.3.21(10) Ethernet and MS/TP cabling can be run together.

7.5.3.21(11) Fibre optics can be run with Ethernet and MS/TP cabling as long as conduit is bent to fibre optic standards, fibre optic cable is protected from damage by a protective sheath, and junction boxes are sized for fibre optic use.

7.5.3.22 Sensors

7.5.3.22(1) Provide sensors to achieve end-to-end accuracy specified in Table 1.

7.5.3.22(2) Install sensors in accordance with the manufacturer's recommendations.

7.5.3.22(3) Mount sensors rigidly and adequately for the environment in which the sensor operates.

7.5.3.22(4) Room temperature sensors will be installed on concealed junction boxes properly supported by wall framing.

7.5.3.22(5) All wires attached to sensors will be air sealed in their raceways or in the wall to stop air transmitted from other areas affecting sensor readings.

7.5.3.22(6) Sensors used in mixing plenums and at air handling unit discharge air will be of the averaging type.

7.5.3.22(7) All pipe-mounted temperature sensors will be installed in wells. Install all liquid temperature sensors with heat-conducting fluid in thermal wells.

7.5.3.22(8) Install outdoor air temperature sensors on north wall, complete with sun shield at designated location.

7.5.3.22(9) Piping to the pressure ports on all pressure transducers will contain a capped test port located adjacent to the transducer.

7.5.3.22(10) All pressure transducers, other than those controlling variable air volume (VAV) boxes, will be located in field device panels, not on the equipment monitor or on ductwork. Mount transducers in a location accessible for service without use of ladders or special equipment.

7.5.3.22(11) All air and water differential pressure sensors will have gauge tees mounted adjacent to the taps. Water gauges will also have shutoff valves installed before the tee.

7.5.3.22(12) Smoke detectors, freeze stats, high-pressure cut-offs, and other safety switches will be hard-wired to de-energize equipment as described in the sequence of operation. Switches will require manual reset. Provide contacts that allow BMS to monitor safety switch status.

7.5.3.22(13) Install humidity sensors for humidifiers at least 3 m downstream of the humidifier. Do not install filters between the humidifier and the sensor.

7.5.3.22(14) Sensor range will be suitable for the specific application.

7.5.3.22(15) Humidity sensors will not drift more than 1% of full scale annually.

7.5.3.22(16) Provide matched calibrated sensors for differential temperature measurement applications.

7.5.3.22(17) Provide adjustable type thermostats in all Patient rooms with temperature readout. The BMS will control the temperature range and be able to lock out manual adjustments of the thermostats.

7.5.3.22(18) Provide airflow sensors at infectious control isolation dampers in ductwork to ensure isolation has been achieved.

7.5.3.22(19) Provide sensors to monitor outdoor air volumes, space CO2 levels, and other levels as required.

7.5.3.22(20) Provide continuously operating sensors between all spaces requiring differential pressurization to monitor that the required pressure differential is in place. In addition to BMS alarms, provide local audio and visual alarms at the room entrance as well as at the local monitoring station if applicable.

7.5.3.22(21) Provide particle count sensors downstream of all HEPA filter installations.

7.5.3.22(22) Provide thermostats and humidity sensors throughout the Facility as required by CSA Z317.2. For areas critical to Facility operation, room sensors will be provided. Mercury-containing components are not permitted.

7.5.3.22(23) Provide adjustable type thermostats in all Patient rooms with temperature readout. The BMS will control the temperature range and be able to lock out manual adjustments of the thermostats.

7.5.3.22(24) In secure rooms, provide electronic, flat plate type (transducer) thermostats located flush mount on wall surface at minimum 2.4m above finished floor. Temperature control for Secure rooms will be controlled by the BMS – no user override is permitted.

7.5.3.22(25) Provide local pressure control for each isolation room and anteroom. Provide a local annunciator panel located in the corridor outside each of these rooms.

7.5.3.22(26) Occupancy sensors will utilize Passive Infrared (PIR) and/or Microphonic Passive technology to detect the presence of people within a room. Sensors will be mounted as indicated on the approved drawings. The sensor output will be accessible by any lighting and/or HVAC controller in the system. Occupancy sensors will be capable of being powered from the lighting or HVAC control panel, as shown on the drawings. Occupancy sensor delay will be software adjustable through the user interface and will not require manual adjustment at the sensor.

7.5.3.22(27) Outdoor air temperature sensors.

- 7.5.3.22(27)a. Each building within the Facility will have a separate outdoor air temperature sensor.
- 7.5.3.22(27)b. Each air handling unit processing outdoor air will have a dedicated outdoor air temperature sensor.
- 7.5.3.22(27)c. Outdoor air sensors will be located on the north or east side of the building with a waterproof enclosure and sun shield to minimize the effects of solar loading.

7.5.3.22(28) Provide a human machine interface (HMI) for display, monitoring and adjustment of zone environment parameters for all critical environment rooms. For each application provide display, monitoring and adjustment to the following parameters: space pressure, air change rate, temperature, humidity, door contact switch status, occupancy mode, lighting level.

7.5.3.23 Motorized Control Dampers

7.5.3.23(1) Type. Outdoor and return air mixing dampers and face and bypass dampers will be parallel blade and will direct airstreams toward each other. Other modulating dampers will be opposed blade. Two-position shut-off dampers will be parallel or opposed blade.

7.5.3.23(2) Leakage. Damper will be AMCA rated for leakage class 1A at 250 Pa static pressure differential.

7.5.3.23(3) All dampers will be modulating type, unless noted otherwise.

7.5.3.23(4) Floating actuators are not acceptable for modulating service.

7.5.3.23(5) All control dampers will have spring-return mechanism or electronic failsafe, configured for specified fail position.

7.5.3.23(6) Provide damper position feedback output for all motorized dampers.

7.5.3.23(7) Provide a visible and accessible indication of damper position on the drive shaft ends.

7.5.3.23(8) Dampers blades, axles, and linkages will operate without binding. On multiple assemblies, all sections will open and close simultaneously.

7.5.3.24 Smoke Dampers

7.5.3.24(1) Smoke dampers will be UL/ULC approved for use in passive systems, smoke control systems, and smoke management systems.

7.5.3.24(2) Smoke dampers will be UL/ULC rated leakage Class 1.

7.5.3.24(3) Actuators will be factory-mounted as required by UL 555S / ULC-S112.1.

7.5.3.24(4) Ensure smoke dampers function properly and respond to the proper fire alarm system general, zone, and/or detector trips.

7.5.3.25 Control Valves

7.5.3.25(1) Control valves will be installed so that they are accessible and serviceable and so that actuators may be serviced and removed without interference from structure or other pipes and/or equipment.

7.5.3.25(2) Isolation valves will be installed so that the control valve body may be serviced without draining the supply/return side piping system. Unions will be installed at all connections to screw-type control valves.

7.5.3.25(3) Provide manual bypass valves around all control valves serving air handling unit coils to allow uninterrupted operation during valve servicing.

7.5.3.25(4) All control valves will be modulating type, unless noted otherwise. Two-position control valves are acceptable where an isolation function is required and where the control sequence does not require a modulating valve.

7.5.3.25(5) Provide valve position status output for all major plant control valves and air handling unit control valves.

7.5.3.25(6) Major plant control valves and air handling unit control valves will have spring-return mechanism or electronic failsafe, configured for specified fail position.

7.5.3.25(7) Control valves

7.5.3.25(7)a. Zone valves – normally open.

7.5.3.25(7)b. Heating coils at air handlers – normally open.

7.5.3.25(7)c. Chilled water control valves at air handlers – normally closed.

7.5.3.25(7)d. Steam humidification control valves – normally closed.

7.5.3.25(7)e. All other valves – normally open or closed as required to provide safe and reliable operation under failure situation.

7.5.3.25(8) Control Valves – Hydronic.

7.5.3.25(8)a. Valve actuator and trim minimum close-off (differential) pressure rating will be 150% of total system (pump) head for two-way valves and the greater of 300% of pressure differential between ports A and B at design flow or 100% of total system (pump) head for 3-way valves.

7.5.3.25(8)b. Sizing Criteria: Two-position service will be line size to minimize pressure drop. Modulating service will be sized to maintain adequate control valve authority to provide stable control of the load served.

7.5.3.25(9) Control Valves – Steam.

7.5.3.25(9)a. Valve actuator and trim minimum close-off (differential) pressure rating will be 150% of operating (inlet) pressure.

7.5.3.25(9)b. Sizing Criteria.

7.5.3.25(9)b.1 Two-position service: pressure drop 10% to 20% of inlet pressure.

7.5.3.25(9)b.2 Modulating service (100 kPa or less): pressure drop 80% of inlet pressure.

7.5.3.25(9)b.3 Modulating service (101 kPa to 350 kPa): pressure drop 50% of inlet pressure.

7.5.3.25(9)b.4 Modulating service (over 350 kPa): pressure drop 50% of inlet pressure.

7.5.3.26 Valve and Damper Actuators

7.5.3.26(1) Floating actuators are not acceptable for modulating service.

7.5.3.26(2) Stall Protection. Mechanical or electronic stall protection will prevent actuator damage throughout the actuator’s rotation.

7.5.3.26(3) Spring-return Mechanism. Actuators used for power-failure and safety applications will have an internal mechanical spring-return mechanism or an uninterruptible power supply (UPS).

7.5.3.26(4) Manual Positioning. Operators will be able to manually position each actuator when the actuator is not powered. Non-spring-return actuators will have an external manual gear release. Spring-return actuators with more than 7 N·m torque capacity will have a manual crank.

7.5.3.27 Airflow Monitoring

7.5.3.27(1) Provide airflow meters where required as part of the sub-metering system, where required for LEED prerequisites/credits, and where specified elsewhere in the Statement of Requirements.

7.5.3.27(2) Provide airflow monitoring of all outdoor air intakes.

7.5.3.27(3) Provide airflow monitoring of supply air and return/exhaust air from all air handling units.

7.5.3.27(4) Provide airflow monitoring of all exhaust systems larger than 2,500 L/s.

7.5.3.27(5) All airflow monitoring stations will comply with minimum end-to-end accuracy requirements specified in Table 1.

7.5.3.27(6) Provide type of flow meter suitable for application and level of air contamination. Selected device will maintain specified accuracy throughout expected range of flow variation for specific system application.

7.5.3.28 Fluid Flow Meters

7.5.3.28(1) Provide fluid flow meters where required as part of the sub-metering system and as required for optimized system operation. Refer to Schedule 9: Energy.

7.5.3.28(2) All fluid flow meters to comply with minimum end-to-end accuracy requirements specified in Table 1.

7.5.3.28(3) Each meter will be individually calibrated and tagged accordingly against the manufacturer's primary standards which will be accurate to within 0.1% of flow rate and traceable to the National Institute of Standards and Technology (NIST).

7.5.3.28(4) All wetted metal parts will be stainless steel.

7.5.3.28(5) Required accuracy will be maintained through expected range of flow variation for specific system application.

7.5.3.28(6) Provide type of flow meter suitable for application and service fluid. For hydronic flow meters, provide electromagnetic flow-tube type to reduce maintenance requirements.

7.5.3.28(7) Strap-on flow meters are not permitted.

7.5.3.29 Thermal Energy Meters

7.5.3.29(1) Provide thermal energy meters where required as part of the sub- metering system.

7.5.3.29(2) All thermal energy meters to comply with minimum end-to-end accuracy requirements specified in Table 1.

7.5.3.29(3) All meters will be factory calibrated and traceable to NIST with certification.

7.5.3.30 Auxiliary Control Devices

7.5.3.30(1) Flow switches

7.5.3.30(1)a. Flow-proving switches will be paddle (water service only) or differential pressure type (air or water service). Switches will be ULC listed, single-pole double-throw (SPDT) snap-acting, and pilot duty rated (125 VA minimum). Paddle switches will have adjustable sensitivity. Differential pressure switches will have scale range and differential suitable for intended application.

7.5.3.30(1)b. Use correct paddle for pipe diameter.

7.5.3.30(2) Relays

7.5.3.30(2)a. Control relays will be plug-in type, ULC listed, and will have dust cover and LED "energized" indicator. Contact rating, configuration, and coil voltage will be suitable for application.

7.5.3.30(2)b. Time delay relays will be solid-state plug-in type, UL listed, and will have adjustable time delay. Delay will be adjustable ±100% from setpoint shown. Contact rating, configuration, and coil voltage will be suitable for application.

7.5.3.30(3) Override timers

7.5.3.30(3)a. Unless implemented in control software, override timers will be spring-wound line voltage, ULC Listed, with contact rating and configuration required by application. Provide 0–6 hour calibrated dial unless otherwise specified. Flush mount timer on local control panel face or where shown.

7.5.3.30(4) Current transmitters

7.5.3.30(4)a. AC current transmitters will be self-powered, combination split- core current transformer type with built-in rectifier and high- gain servo amplifier with 4–20 mA two-wire output. Full-scale unit ranges will be 10 A, 20 A, 50 A, 100 A, 150 A, and 200 A, with internal zero and span adjustment. Unit accuracy will be ±1% full-scale at 500-ohm maximum burden.

7.5.3.30(4)b. Transmitter will meet or exceed ANSI/ISA S50.1 requirements and will be CSA approved.

7.5.3.30(5) Current transformers

7.5.3.30(5)a. AC current transformers will be CSA approved and will be completely encased (except for terminals) in approved plastic material.

7.5.3.30(5)b. Transformers will be available in various current ratios and will be selected for ±1% accuracy at 5 A full-scale output.

7.5.3.30(6) Voltage transmitters

7.5.3.30(6)a. AC voltage transmitters will be self-powered single-loop (two- wire) type, 4–20 mA output with zero and span adjustment.

7.5.3.30(6)b. Adjustable full-scale unit ranges will be 100–130 VAC, 200–250 VAC, 250–330 Vac, and 400–600 VAC. Unit accuracy will be ±1% full-scale at 500-ohm maximum burden.

7.5.3.30(6)c. Transmitters will meet or exceed ANSI/ISA S50.1 requirements and will be UL/CSA recognized at 600 VAC rating.

7.5.3.30(7) Voltage transformers

7.5.3.30(7)a. AC voltage transformers will be CSA approved and will have built-in fuse protection.

7.5.3.30(7)b. Transformers will be suitable for ambient temperatures of 4 °C –55 °C (40 °F–130 °F) and will provide ±0.5% accuracy at 24 VAC and 5 VA load.

7.5.3.30(8) Power monitors

7.5.3.30(8)a. Selectable rate pulse output for kWh reading, 4–20 mA output for kW reading, N.O. alarm contact, and ability to operate with 5.0 A current inputs or 0–0.33 V inputs.

7.5.3.30(8)b. 1.0% full-scale true root mean square (RMS) power accuracy, +0.5 Hz, voltage input range 120–600 V, and auto range select.

7.5.3.30(8)c. Under voltage/phase monitor circuitry.

7.5.3.30(8)d. Current transformers having a 0.5% full scale accuracy, 600 VAC isolation voltage with 0–0.33 V output. If 0–5 A current transformers are provided, a three-phase disconnect/shorting switch assembly is required.

7.5.3.30(9) Current switches

7.5.3.30(9)a. Current-operated switches will be self-powered, solid-state with adjustable trip current. Select switches to match application current and BMS system output requirements.

7.5.3.30(10) Pressure transducers

7.5.3.30(10)a. Transducers will have linear output signal and field-adjustable zero and span.

7.5.3.30(10)b. Transducer sensing elements will withstand continuous operating conditions of positive or negative pressure 50% greater than calibrated span without damage.

7.5.3.30(10)c. Water pressure transducer diaphragm will be stainless steel with minimum proof pressure of 1000 kPa (150 psi). Transducer will have 4–20 mA output, suitable mounting provisions, and block and bleed valves.

7.5.3.30(10)d. Water differential pressure transducer diaphragm will be stainless steel with minimum proof pressure of 1000 kPa (150 psi). Over-range limit (differential pressure) and maximum static pressure will be 2000 kPa (300psi) Transducer will have 4–20 mA output, suitable mounting provisions, and 5-valve manifold.

7.5.3.30(11) Differential pressure switches

7.5.3.30(11)a. Differential pressure switches (air or water service) will be UL listed, SPDT snap-acting, pilot duty rated (125 VA minimum) and will have scale range and differential suitable for intended application and NEMA 1 enclosure unless otherwise specified.

7.5.3.30(12) Pressure-electric (PE) switches

7.5.3.30(12)a. Will be metal or neoprene diaphragm actuated, operating pressure rated for 0–175 kPa (0–25 psig), with calibrated scale minimum setpoint range of 14–125 kPa (2–18 psig) minimum, UL listed.

7.5.3.30(12)b. Provide one- or two-stage switch action as required by application. Electrically rated for pilot duty service (125 VA minimum) and/or for motor control.

7.5.3.30(12)c. Switches will be open type (panel-mounted) or enclosed type for remote installation. Enclosed type will be NEMA 1 unless otherwise specified.

7.5.3.31 Identification

7.5.3.31(1) Warning labels. Provide permanent warning labels to all equipment that can be automatically started by the control system. Permanent warning labels will be affixed to all motor starters and control panels that are connected to multiple power sources utilizing separate disconnects.

7.5.3.31(2) Control equipment and device labelling.

7.5.3.31(2)a. Permanently label or code each point of field terminal strips to show the instrument or item served.

7.5.3.31(2)b. Identify all control panels. Install panel identification label on outside of panel door.

7.5.3.31(2)c. Identify all other control components with permanent labels. All plug-in components will be labelled such that label removal of the component does not remove the label.

7.5.3.31(2)d. Labels and tags will match unique identifiers shown on the record drawings.

7.5.3.31(2)e. All sensors and actuators not in occupied areas will be tagged.

7.5.3.31(2)f. Each device inside enclosures will be tagged.

7.5.3.31(3) Manufacturers' nameplates and CSA certification/approval labels will be visible and legible after equipment is installed.

7.5.3.31(4) Identification of wires.

7.5.3.31(4)a. All wiring and cabling, including that within factory-fabricated panels will be labelled at each end of termination with control system address or termination number.

7.5.3.31(4)b. Tag each network wire with a common identifier on each end.

7.5.3.31(4)c. Tag each power source with the panel and breaker number it is fed from.

7.5.3.31(4)d. Identify low voltage conduit runs as BMS conduit, power feeds not included.

7.5.3.31(4)e. Identify each electric box, junction box, utility box with permanent label. Provide control company label.

7.5.3.31(4)f. For conduit runs more than 2.4m between junction boxes in one room, place identifier at least every 2.4 m.

7.5.3.31(4)g. Place identifier on each side where a conduit passes through a wall or other inaccessible path.

7.5.3.31(4)h. Identify BMS communication conduits in same manner as above.

7.5.3.31(5) Provide tags for all control valves indicating service and number.

7.5.3.31(6) Provide tags for all motorized dampers indicating service and number.

7.5.3.32 Programming

7.5.3.32(1) Provide sufficient internal memory for the specified sequence of operation and trend logging of all points at 5-minute intervals for a period of 2-years.

7.5.3.32(2) All equipment and point naming conventions for all BMS points will follow the ASHRAE 223P (Project Haystack) standard.

7.5.3.32(3) Provide all programming for each system to provide a fully operating system under all operating conditions.

7.5.3.32(4) Imbed into the control program sufficient comment statements to clearly describe each section of the program.

7.5.3.32(5) Use the appropriate programming types. All techniques used will provide actions for all possible situations and will be documented.

7.5.3.32(6) All setpoints, timers, deadbands, PID gains will be adjustable by the user with appropriate access level. Software points will be used for these variables. Fixed scalar numbers will not be embedded in programs except for physical constants and conversion factors.

7.5.3.32(7) Values for all points, including read (hardware) points used in control sequences will be capable of being overridden by the user with appropriate access level. If hardware design prevents this for hardware points, they will be equated to a software point, and the software point will be used in all sequences. Exceptions will be made for machine or life safety.

7.5.3.33 Automatic Fault Detection and Diagnostics

7.5.3.33(1) Provide BMS complete with automated fault detection, diagnosis, and reporting (AFDDR) software, hardware interface and communication devices. Configure the AFDDR software to ensure building systems remain continuously optimized and the need for fault diagnosis by the Facility operator is minimized. Ensure the AFDDR software will record and provide reports of the BMS controller database software modification instances, facility air quality, key performance indication of central system HVAC equipment control loops, key performance indication of zone control loops, occupant comfort, energy performance, ability to create virtual metering utilizing the BMS points to allow drill down capability from the main metering points to facilitate the operators in isolating poorly performing systems, operation / machine fault, manual override and other customizable web-accessible reports available to the Authority. AFDDR software vendor will advise BMS of all points necessary to meter or build virtual meters that optimize AFDDR function. AFDDR Software will provide customizable web-accessible reports available to the Authority, with rules and dashboard customized in consultation with the Authority.

7.5.3.34 Measurement and Verification (M&V)

7.5.3.34(1) Provide a complete measurement and verification (M&V) system for collection and storage of Facility energy and water consumption and performance to confirm Facility performance.

7.5.3.34(2) Provide all physical and virtual meters as required.

7.5.3.34(3) Provide a complete digital metering system to monitor and track electricity, natural gas, thermal meter, and domestic water measurements of the building via the BMS.

7.5.3.34(4) Software will store all data in comma separated variable (.CSV) file format. Meters and points are to be read and stored every 5 minutes.

7.5.3.34(5) The software will allow the user to view instantaneous readings of voltage, current, energy, power, phase angle, present and peak demand from all electricity meters.

7.5.3.34(6) The software will allow the user to view all meter measurements in either metric or imperial units for any thermal or water meter.

7.5.3.34(7) The software will have the ability to export data into reporting applications (e.g. Web, Excel, and Notepad).

7.5.3.34(8) The software will store measurements for a minimum period of 36 months. Measurements will commence from the date of occupancy and be stored for the entire duration of the measurement and verification period.

7.5.3.34(9) The software will include service menus for diagnostic monitoring of the metering equipment.

7.5.3.34(10) The software will allow remote access through either a modem/telephone link or Internet access. Provide security access control to assign permission levels for remote access.

7.5.3.34(11) Output file format and storage.

- 7.5.3.34(11)a. Data will be recorded every hour.
- 7.5.3.34(11)b. Data will be provided in comma separated value (.CSV) files.
- 7.5.3.34(11)c. Each row in the output file will represent a successive sample time.
- 7.5.3.34(11)d. Include a time stamp for each line in the file.
- 7.5.3.34(11)e. Separate each field by a single comma character.
- 7.5.3.34(11)f. Each required monitoring point will contain a unique and understandable identifier.
- 7.5.3.34(11)g. Each required monitoring point will be identified with a unique and understandable column.
- 7.5.3.34(11)h. All recorded data is to be stored on the BMS server.
- 7.5.3.34(11)i. Provide data files to the Authority in electronic format.

7.5.3.34(12) The system will be capable of storing data for a minimum of all metering points for a period of no less than 36 months.

7.5.3.34(13) The BMS will be utilized for the M&V process. All energy measurement points (mechanical and electrical) will be connected to the BMS for energy and water monitoring and calculation.

7.5.3.34(14) Division 22 and 23 energy metering devices will be connected directly to the BMS system. The BMS will provide for continuous monitoring of all related M&V metering points.

7.5.3.34(15) BMS system will connect separately to the main incoming electrical utility meter and other electrical sub-meters through BACnet interface connection to measure the total power consumption and subsystems of the building.

7.5.3.34(16) To reconcile actual energy use to predicted energy use, energy by end- use will be metered.

7.5.3.34(17) Energy metering for mechanical systems.

7.5.3.34(17)a. Divisions 22 and 23 energy metering will include various thermal energy meters, domestic water flow meters, airflow stations, air and water temperature sensors, electrical power consumption of variable frequency drives (pumps and fans) from BACnet interface, start/stop status of pump, fan as well as current transformers (CTs) used for measuring mechanical equipment consumption, and other inputs indicated in the M&V Plan. All mechanical equipment not being supplied by packaged network interface card capable of recording energy consumption, will be equipped with dedicated CTs used for metering purposes.

7.5.3.34(17)b. All variable frequency drives for fans and pumps will provide system status, speed (%) and power consumption (kW or kWh) information to the BMS.

7.5.3.34(17)c. Configure VFDs such that they populate continuous power consumption data to the BMS. Any energy optimization capabilities available within the VFD will also be programmed and activated.

7.5.3.34(17)d. Water meters other than the municipal meter will have a digital output to the BMS providing flow rate and instantaneous totalizing water volume/consumption information.

7.5.3.34(17)e. Thermal energy meters will connect to the BMS providing instantaneous data for liquid flow rate, supply and return water temperatures, kW and kWh and load/energy information.

7.5.3.34(17)f. Gas meters will have connection to the BMS providing instantaneous data for totalizing gas consumption in cubic metres.

7.5.3.34(18) Energy metering for electrical systems

7.5.3.34(18)a. The electrical system metering will be capable to measure the power line through dedicated meter and CTs for interior lighting, exterior lighting, emergency lighting, plug load and mechanical circuits. The BMS will connect to the electrical systems meters through BACnet interface connection.

7.5.3.34(18)b. CTs interval trending for lighting and plug loads to be minimum 30sec.

7.5.3.34(19) Provide commissioning of the metering system to the satisfaction of the Authority and demonstrate the proper functioning of the metering system on the BMS.

7.5.3.34(20) Calibrate and test all energy and water monitoring sensors. Provide a calibration report to verify that the meters have been installed and calibrated to read within acceptable limits of accuracy as specified in Division 22, 23, 25 and 26.

7.5.3.35 Start-Up and Checkout Procedures

7.5.3.35(1) Start-up testing. All testing will be performed by the Design-Builder and will make up part of the necessary verification of an operating control system. this testing will be completed before the Authority is notified of the system demonstration.

7.5.3.35(2) Start up, check out, and test all hardware and software and verify communication between all components.

7.5.3.35(3) Verify that all control wiring is properly connected and free of all shorts and ground faults. Verify that terminations are tight.

7.5.3.35(4) Verify that all input/output points read properly.

7.5.3.35(5) Verify all alarms and interlocks.

7.5.3.35(6) Verify operation of the integrated system.

7.5.3.35(7) Calibrate and prepare for service all instruments, controls, and accessory equipment furnished as part of the Project.

7.5.3.35(8) Verify calibration of all input devices individually. Perform calibration procedures according to manufacturer's recommendations.

7.5.3.35(9) Verify that all binary output devices operate properly and that the normal positions are correct.

7.5.3.35(10) Verify that all analogue output devices are functional, that start and span are correct, and that direction and normal positions are correct. Verify that all control valves and automatic dampers to ensure proper action and closure.

7.5.3.35(11) Verify that the system operation adheres to the sequences of operation.

7.5.3.35(12) Simulate and observe all modes of operation. Tune all control loops.

7.5.3.35(13) Check each alarm separately to ensure correct annunciation.

7.5.3.35(14) Test all interlocks to check logic and ensure that the fail-safe condition is in the proper direction.

7.5.3.36 Control System Demonstration and Acceptance

7.5.3.36(1) Prior to acceptance, the control system will undergo a series of performance tests to verify operation and compliance with this specification. These tests will occur after installation is complete, equipment has been started up, and system and equipment tests have been completed.

7.5.3.36(2) Provide the tests described in this section in addition to the tests required as a necessary part of the installation, start-up, and debugging process. The Authority's representative will be present to observe and review these tests. Provide at least 14 days notification in advance of the start of the testing procedures.

7.5.3.36(3) The demonstration process will follow that approved at part of the Commissioning procedures. Approved checklists and forms will be completed for all systems as part of the demonstration.

7.5.3.36(4) Demonstrate actual field operation of each control and sensing point for all modes of operation including day, night, occupied, unoccupied, fire/smoke alarm, seasonal changeover, and power failure modes. The purpose is to demonstrate the calibration, response, and action of every point and system. Provide all test equipment required to prove proper operation.

7.5.3.36(5) Provide a log indicating the date, technician's initials, and any corrective action taken or needed for each control input and output.

7.5.3.36(6) Demonstrate compliance with "System Performance" section of Division 25.

7.5.3.36(7) Demonstrate compliance with sequences of operation through all modes of operation.

7.5.3.36(8) Demonstrate complete operation of operator interface.

7.5.3.36(9) Provide trend data output in a graphical form showing the step response of each BMS control loop. The test will show the loop's response to a change in setpoint, which represents a change of actuator position of at least 25% of its full range. The sampling rate of the trend will be from 10 seconds to 3 minutes, depending on the speed of the control loop. The trend data will show for each sample the setpoint, actuator position, and controlled variable values. Provide all tuning necessary to ensure each loop operates in an optimally tuned manner.

7.5.3.36(10) Provide trend data output showing the action of demand limiting on a minute-by-minute basis over at least a 30-minute period. The trend will include kW, demand limiting setpoint, and the status of sheddable equipment outputs.

7.5.3.36(11) Provide trend data output showing the capability of optimum start/stop algorithms. The change-of-value or change-of-stage trends will include the output status of all optimally started and stopped equipment, as well as temperature sensor inputs of affected areas.

7.5.3.36(12) Demonstrate interface to the building fire alarm system.

7.5.3.36(13) Demonstrate compliance with smoke control sequences of operation through all modes of fire and smoke event response throughout the Facility.

7.5.3.36(14) Provide operational logs for each system that indicate all setpoints, operating points, valve positions, modes, and equipment status. These logs will cover three 48-hour periods and have a sample frequency of not more than 5 minutes.

7.5.3.36(15) Provide all necessary repairs or revisions to the hardware and software as required to successfully complete all tests.

7.5.3.36(16) All tests described in Division 25 will be performed to the satisfaction of the Authority prior to the acceptance of the control system as meeting the requirements of completion.

7.5.3.36(17) The system will not be accepted until all forms and checklists have been completed as part of the demonstration and are submitted and approved as required.

7.5.3.37 Training

7.5.3.37(1) Provide training for Authority Staff prior to Authority taking over the Facility. Training will be provided on-site and be video recorded for future self-paced training.

7.5.3.37(2) Train the designated Authority Staff to enable them to do the following:

7.5.3.37(2)a. Day-to-day operators:

7.5.3.37(2)a.1 Proficiently operate the system;

7.5.3.37(2)a.2 Understand BMS architecture and configuration;

7.5.3.37(2)a.3 Understand system components;

7.5.3.37(2)a.4 Understand system operation, including BMS control and optimizing routines and algorithms;

7.5.3.37(2)a.5 Operate the workstation and peripherals;

7.5.3.37(2)a.6 Log on and off the system;

7.5.3.37(2)a.7 Access graphics, point reports, and logs;

7.5.3.37(2)a.8 Adjust and change system setpoints, time schedules, and holiday schedules;

7.5.3.37(2)a.9 Recognize malfunctions of the system by observation of graphical visual signals;

7.5.3.37(2)a.10 Understand system drawings and operating and maintenance manuals;

7.5.3.37(2)a.11 Access data from controllers; and

7.5.3.37(2)a.12 Operate portable operator's terminals.

7.5.3.37(2)b. Advanced operators:

7.5.3.37(2)b.1 Make and change graphics on the workstation;

7.5.3.37(2)b.2 Create, delete, and modify alarms, including annunciation and routing of these;

7.5.3.37(2)b.3 Create, delete, and modify point trend logs and graph;

7.5.3.37(2)b.4 Create, delete, and modify reports;

7.5.3.37(2)b.5 Add, remove, and modify system's physical points;

7.5.3.37(2)b.6 Create, modify, and delete programming;

7.5.3.37(2)b.7 Add panels when required;

7.5.3.37(2)b.8 Add operator interface stations;

7.5.3.37(2)b.9 Create, delete, and modify system displays, both graphical and others;

7.5.3.37(2)b.10 Perform BMS field checkout procedures;

7.5.3.37(2)b.11 Perform BMS controller unit operation and maintenance procedures;

7.5.3.37(2)b.12 Perform workstation and peripheral operation and maintenance procedures;

7.5.3.37(2)b.13 Perform BMS diagnostic procedures;

7.5.3.37(2)b.14 Configure hardware including PC boards, switches, communication, and I/O points; and

7.5.3.37(2)b.15 Maintain, calibrate, and replace system components.

7.5.3.37(2)c. System managers and administrators:

7.5.3.37(2)c.1 Maintain software and prepare backups;

7.5.3.37(2)c.2 Interface with project-specific, third-party operator software; and

7.5.3.37(2)c.3 Add new users and understand password security procedures.

7.5.3.37(3) Provide a virtualized environment for the BMS simulating a facility of similar size to the Facility. This virtualized environment will simulate all systems contained in Division 25 and be used to train Authority user groups on the use and troubleshooting of the BMS by a system expert provided by the Design-Builder. The Design-Builder will make this training service available to the Authority at least twelve months prior to Substantial Completion.

7.5.3.37(4) Provide an expert in the BMS who has experience using the system in healthcare environments. The expert will assist in commissioning the BMS, as well as programming to assist in smart commissioning of the Facility and provide ongoing training and system development.

7.5.4 Electrical Systems

7.5.4.1(1) System Overview

7.5.4.1(1)a. Electrical systems requiring BMS interfaces include:

7.5.4.1(1)a.1 Generators;

7.5.4.1(1)a.2 Lighting controls;

7.5.4.1(1)a.3 Load management system;

7.5.4.1(1)a.4 Electrical metering;

7.5.4.1(1)a.5 Switchgear;

7.5.4.1(1)a.6 UPS;

7.5.4.1(1)a.7 Fire alarm system; and

7.5.4.1(1)a.8 Clock System.

7.5.4.1(2) Applicable Area

7.5.4.1(2)a. Applies to the Facility.

7.5.4.1(3) System Responsibilities

7.5.4.1(3)a. The Authority will:

7.5.4.1(3)a.1 Provide design feedback to the Design-Builder.

7.5.4.1(3)b. The Design-Builder will:

7.5.4.1(3)b.1 Design the system as determined by the Authority.

7.5.4.1(3)b.2 Provide BMS interfaces for the control, data and alarm points listed under “Performance Requirements” below, and as noted in Division 26 sections.

7.5.4.1(3)b.3 Design, supply and install all system infrastructures.

7.5.4.1(3)b.4 Design, supply and install all system equipment.

7.5.4.1(3)b.5 Design, supply and install all system software.

7.5.4.1(3)b.6 Commission all system infrastructure, equipment and software.

7.5.4.1(3)b.7 Integrate the system to the following systems:

.7.5.4.1.3.b.7.1 Integrated Building Management Platform.

7.5.4.1(4) Performance Criteria

7.5.4.1(4)a. Generators (for each generator);

7.5.4.1(4)a.1 Generator trouble points (all available points);

7.5.4.1(4)a.2 Generator run status;

7.5.4.1(4)a.3 Coolant temperature;

7.5.4.1(4)a.4 Battery voltage; and

7.5.4.1(4)a.5 Fuel level for each tank.

7.5.4.1(4)b. Lighting controls;

7.5.4.1(4)b.1 Refer to requirements in Section 7.5

7.5.4.1(4)c. Load management system;

7.5.4.1(4)c.1 Refer to requirements in Section 7.5

7.5.4.1(4)d. Electrical metering;

7.5.4.1(4)d.1 Refer to requirements in Section 7.5

7.5.4.1(4)e. Switchgear;

7.5.4.1(4)e.1 Refer to requirements in Section 7.5

7.5.4.1(4)f. UPS;

7.5.4.1(4)f.1 Refer to requirements in Section 7.5

7.5.4.1(4)g. Fire Alarm System;

7.5.4.1(4)g.1 Refer to requirements in Section 7.5

7.5.4.1(4)h. Clock System

7.5.4.1(4)h.1 Alarm for loss of central time signal; and

7.5.4.1(4)h.2 Synchronization of BMS system time and all alarm inputs with central time signal.

7.5.5 Network and Infrastructure Requirements

7.5.5.1 Provide all cabling including, but not limited to, backbone, horizontal and signal. All cabling will meet at minimum the Northern Health IMIT Communications Infrastructure Standards (1.7) requirements for category and fibre cabling and will support a complete and fully functioning system.

7.5.5.2 Provide all active equipment, network switches, and servers required for a complete and fully functioning system.

7.5.5.3 Design-Builder will provide all cabling infrastructure including, but not limited to, horizontal structured cabling, backbone cabling, connectors, pathways, supports, patch cords, jacks, faceplates, labels required to connect all systems and field devices that are not part of Division 27 or Division 28 to the Authority Network.

7.5.5.4 Provide complete Cat6A cabling for each device that requires access to the Authority Network or FM Management System:

7.5.5.4(1) BMS controllers and devices that require connections to the Authority Network;

7.5.5.4(2) lighting controllers;

7.5.5.4(3) electrical meters;

7.5.5.4(4) Load Management System devices;

7.5.5.4(5) elevator controllers;

7.5.5.4(6) IBMP connected devices;

7.5.5.4(7) sterilizers; and

7.5.5.4(8) other devices identified by the Authority.

7.5.5.5 The Design-Builder will provide a dedicated software application to monitor and troubleshoot all BACnet/IP device traffic on the Authority Network.

7.5.5.6 Design-Builder will provide a single software GUI for the Authority Network to manage all network operations without the need for Command Line Interface (CLI) programming. The GUI will allow for a simple to use centralized management of the following for all network devices:

7.5.5.6(1) VLAN assignments;

7.5.5.6(2) PoE; and

7.5.5.6(3) Port Restrictions.

7.5.5.6(4) Design-Builder will provide all necessary project management, qualified technical expertise, infrastructure design, installation coordination, labour, materials, equipment, services, and other items required to fulfil its scope of work as defined in this section.

7.6 Electrical (Division 26)

7.6.1 Design Principles

7.6.1.1 This section is accompanied and will be read in conjunction with all the Appendices.

7.6.1.1(1) All electrical systems, materials and equipment will be new and of a type and quality intended for use in a health care facility. Configure electrical systems to meet requirements of the identified program and Patient care needs in an efficient manner with optimal utilization of space, Staff and equipment resources.

7.6.1.1(2) All electrical systems for the Mental Health Services will be tamper-proof, tamper resistant and be of a type and quality suitable for use in a Mental Health care facility.

7.6.1.1(3) All systems for the Mental Health Services will adhere to all relevant Mental Health standards.

7.6.1.1(4) Configure electrical systems to meet requirements of the identified program and Patient care needs in an efficient manner with optimal utilization of space, Staff and equipment resources.

7.6.1.1(5) Provide electrical systems that provide redundancy, protection, continuity of service and a comfortable and safe working environment for Patients, visitors and Staff.

7.6.1.1(6) Integrate systems where integration provides efficiency, operational and cost advantage.

7.6.1.1(7) Incorporate into the design and construction, the principle that change will be a constant and inevitable fact within the Facility. Completed electrical systems will permit change while minimizing the cost of change and the amount of interruption to the regular Facility activities.

7.6.1.1(8) Include systems and equipment coordinated to provide synergy and reliable electrical performance for the various Facility functions.

7.6.1.1(9) Provide provisions to minimize the noise and vibrations of electrical equipment/components (transformers, luminaries, cables etc.) to below an acceptable level as required in a health care facility.

7.6.1.1(10) Locate electrical rooms and power distribution equipment in order to minimize the distances for feeder runs and to provide easy access for the equipment to be moved in and out of the electrical rooms and or replace the distribution equipment with new. Locate power distribution equipment to avoid interference with other services and equipment.

7.6.1.1(11) Provide clear aisle ways and routes to permit removal of major electrical equipment from the Facility as well as to bring in new equipment into the electrical rooms without impacting Hospital operations and site access. Indicate on the floor plans the removal aisle ways and routes for major electrical equipment including diesel generators, transformers sized 225kVA and greater and switchgear sections.

7.6.1.1(12) Install equipment, conduits, piping, ductwork etc. in electrical rooms such that a minimum clear height of 2100 mm AFF is available.

7.6.1.1(13) Electrical and communication rooms will not have drainpipes, plumbing pipes or water-cooled fan-coil units located in the room.

7.6.1.1(14) Incorporate energy management systems to minimize demand pressures on the facility systems and minimize the anticipated increase to energy costs.

7.6.1.1(15) Refer to Appendix 9 Energy regarding energy incentive programs. Integrate any requirements of those programs into the electrical systems.

7.6.1.1(16) Electrical systems to be made up of components with the latest technology and proven systems that are available at time of procurement. The low voltage 600V main electrical distribution switchboards will be of the Type 2B switchgear with either arc flash quencher and transfer system, Arc flash sentry system in conjunction with zone interlocking, or arc quenching optical detection system to initiate arc quenching and to contain the arc energy.

7.6.1.1(17) All MCCs will be of the high arc resistance mitigation type. The MCCs will lower the probability of the creation of a short circuit phase-to-phase or phase-to-ground fault, lowering the possibility of an arc flash event.

7.6.1.1(18) EMI is to be considered in installation of electrical equipment. EMI reduction to be achieved by electromagnetic shielding for transformers and switchgear, use of ferrous raceways including EMT as required by electrical Code, close spacing of conductors in feeders, running all the spaces of a feeder together to cancel net magnetic fields, locating all distribution transformers in electrical rooms and running feeders in service spaces and ceiling spaces away from occupied areas. Should there be an electromagnetic field that results in interference to equipment, the Design-Builder will mitigate the electromagnetic field with appropriate techniques. After commissioning measure and record the EMF milligauss (mG) levels at locations indicated by the Authority. Provide EMF shielding as required to limit magnetic fields to the following levels:

7.6.1.1(18)a. 10 mG in any occupied area, or in any area containing computer or communications equipment;

7.6.1.1(18)b. 5 mG in any Clinical Space; and

7.6.1.1(18)c. 2 mG in any area where medical electrical equipment is to be tested, (i.e. biomedical workshop), or very sensitive medical electrical equipment is to be used (i.e. EEG, ECG/EKG)

7.6.1.1(19) Install electrical systems and equipment in a fixed and permanent manner, seismically restrained to meet post-disaster facility standards. Plan installation of equipment to allocate space for future additions and to facilitate easy access to other systems and equipment which will require inspection or maintenance.

7.6.1.1(20) Incorporate redundancy into the electrical system design such that failure of any electrical equipment or feeder will not impair Facility operation or leave any area, room, floor plate or Component, or department of the Facility without at least one active light and one active receptacle unless stated otherwise.

7.6.1.1(21) Design and construct all systems with protection, grounding, isolation, and control to address the functional requirements where they are located. Power throughout the building will comprise of a combination of 600V 3 wire for mechanical loads and 120/208V 4 wire for all power, lighting and equipment loads except where 277/480V is required for Owner's equipment. Localized transformers will be allowed for owner's equipment with specialized power requirements as required.

7.6.1.1(22) In addition to allowing for future requirements, operating factors, safety factors, and mechanical loads and requirements, design and construct the Facility electrical systems with a minimum 25% spare capacity and 25% physical space. This spare capacity is to be provided throughout the distribution network elements on secondary distribution and all major electrical equipment.

7.6.1.1(23) Design and construct the Facility to provide a minimum of 25% additional physical floor and wall space within all electrical rooms and service spaces.

7.6.1.1(24) Redundancy will be incorporated into systems and equipment such that the failure of a single piece of major equipment or major conductor will not impair the operation of the New Facility nor the clinical or administrative activities.

7.6.1.1(25) The installation will economically occupy available space, leaving space for future additions, and will be planned to facilitate easy access to other systems and equipment, including mechanical equipment, building systems access ways and architectural building components which will require periodic inspection or maintenance.

7.6.2 Wiring Methods, Materials and Devices

7.6.2.1 Basic Requirements

7.6.2.1(1) Use wiring methods, materials and devices that result in a safe, reliable, and flexible electrical power, lighting control, communication, data and life safety system.

7.6.2.1(2) Install all wiring in a neat and secure manner so that it is protected from damage, is not in conflict with mechanical or architectural components and allows for future changes and additions.

7.6.2.1(3) Do not install conduit or wiring in floor slabs, except where it is impossible to supply the device from the ceiling, or specific approval has been granted by the Authority.

7.6.2.1(4) Feeders to panelboards will be routed to the panelboard from the ceiling space above. Panelboards will not be fed via suspended slab below, nor will they be 'daisy-chained' through floors. Panelboards may be fed from below slabs that is on grade as long as a spare conduit of equal size and routing is installed for future use if required and the routing of the conduits below the slab will be indicated in a permanent manner on the slab as well as reflected in the As Build Drawings.

7.6.2.1(5) Branch circuits from panelboards will be routed to a large pullbox located in the ceiling space immediately above the panelboard for distribution through the above-ceiling service space.

7.6.2.1(6) Colour of power receptacles will be as follows:

7.6.2.1(6)a. Conditional power – YELLOW

7.6.2.1(6)b. Normal power – WHITE

7.6.2.1(6)c. Delayed Vital - BLUE

7.6.2.1(6)d. Vital power – RED

7.6.2.1(6)e. UPS power – GREY

7.6.2.1(6)f. Housekeeping – BLACK

7.6.2.1(7) All power receptacles will be identified with panel and circuit number with laminated labels that wrap around the device cover plate.

7.6.2.1(7)a. Not used.

7.6.2.1(7)b. Not used.

7.6.2.1(7)c. Not used.

7.6.2.1(7)d. Not used.

7.6.2.1(7)e. Not used.

7.6.2.1(8) Design-Builder will submit to the Authority the proposed classification of all Patient care areas in the Facility as per relevant CSA standard. The Authority will review these classifications and confirm the areas as basic, intermediate, or critical care. Provide as a minimum the circuit and receptacle requirements identified in the relevant CSA standard. Where this Schedule identifies requirements beyond the relevant CSA standard. The Design-Builder will comply with the requirements of this Schedule 1 Statement of Requirements.

7.6.2.1(9) The Design-Builder will provide room reference bonding in accordance with all relevant CSA standards. The Design-Builder will provide a dedicated room reference ground bus located in accessible location, typically in the ceiling space behind the door to the room. Room reference ground bus will consist of a CSA listed enclosure complete with terminal strips, and mechanical divider to isolated different sources. All branch circuits will enter the room reference ground bus. The Design-Builder is to provide #8 AWG bond conductors for all Clinical Spaces bonding. The Design-Builder will oversize conductors to all branch circuits within the Patient care environment as defined by the relevant CSA standard to accommodate the voltage drop requirements and to facilitate the code required CSA Z32 testing.

7.6.2.1(10) All outlets to be installed at a height which allows for good ergonomics and not less than 460mm AFF unless required by code. Outlets to be typically installed at 500mm AFF except in storage rooms, equipment rooms, MDR, Operating Room and procedure rooms; which will have outlets mounted at 1100mm AFF unless noted otherwise or as developed and agreed upon through Review Procedure.

7.6.2.1(11) Outlets, connections, and data for equipment must be coordinated with all equipment included in Schedule 1 Statement of Requirements.

7.6.2.1(12) Design-Builder will coordinate with the Authority and provide as required.

7.6.2.1(13) Branch circuits will be labelled with shrinkable core markers (but not shrunk) and clearly marked with the panel number and circuit number at each splice, junction boxes and at all termination points at electrical devices.

7.6.2.2 Performance Criteria

7.6.2.2(1) Utilize non-alloyed copper for all conductors and all conducting components of electrical equipment, which form part of the Facility's wiring systems. Minimum conductor size will be #12 AWG. Aluminum conductors installed in conduits may be used for feeders to bussing systems only that is 100A and larger.

7.6.2.2(2) All conductors #12 AWG and larger will be stranded.

7.6.2.2(3) TECK cables are permitted to be used within Mechanical and Electrical Rooms only. The TECK cables must be supported and spaced per code requirements and access provisions must be provided.

7.6.2.2(4) Armoured cable (BX) may be used for final connections from concealed junction boxes to lighting fixtures on suspended ceilings only when light fixtures are recessed or flush mounted. BX are not permitted to be used when fixture is suspended below any ceiling type by hangers or cable. The maximum length of any armoured cable (BX) from the junction box to lighting fixture is 3 m. In non-clinical areas, armoured cables (BX) may be used only as follows:

7.6.2.2(4)a. will be routed straight and parallel from the room's local electrical junction box;

7.6.2.2(4)b. will run vertically down partition walls; and

7.6.2.2(4)c. are not permitted to be installed horizontally or around corners within partition walls.

7.6.2.2(5) Each branch circuit will be provided with a dedicated neutral conductor.

7.6.2.2(6) Provide panel boards, feeders and branch circuiting with double neutral(s) capacity where significant non-linear load(s) are anticipated. This includes all offices, open offices, drop-down areas, workstations diagnostic and treatment equipment, and other areas with a medium to high density of personal computers.

7.6.2.2(7) Conceal all wiring and wiring support systems from public view.

7.6.2.2(8) Separate all wiring for systems of different voltages and from different sources and do not run in common raceways.

7.6.2.2(9) Maintain adequate shielding and separation between wiring for power and communication systems to prevent interference.

7.6.2.2(10) Provide hospital grade receptacles in all Patient Care areas and in Patient Care Environments as defined in CSA Z32-21 and in Section 24 of CSA C22.1. Receptacles in all other areas will be specification grade devices. Receptacles will be colour coded.

7.6.2.2(11) Utilize smooth stainless steel cover plates for receptacles and switches. Arrange grouped devices in an intuitive and aesthetically pleasing manner.

7.6.2.2(12) Provide minimum quantity of receptacles as indicated in relevant CSA standard, unless a higher quantity is required in this Schedule and is required to support the needs of the equipment or activities being performed in the area.

7.6.2.2(13) Design-Builder will provide receptacles and connections to Authority supplied equipment listed in 1B (II) Furniture Medical Equipment as directed by the user group.

7.6.2.2(14) The Design-Builder will provide power, data and make all connections in accordance with manufacturer’s installation recommendations for the following: all light arms, articulation arms, equipment booms, anesthesia booms, auxiliary booms, diagnostic treatment, testing and observation equipment.

7.6.2.2(15) The Design-Builder will make allowances for the installation of all Authority supplied equipment, the surgical and procedure equipment, devices noted in this schedule, and identified in Appendix 1B(II) Furniture & Equipment List.

7.6.2.2(16) Unless otherwise requested by the Authority or required elsewhere in this specification, provide emergency power in Patient care environments as per the relevant CSA standard requirements. Provide emergency power to 75% of the receptacles within the Emergency Department. The remainder of the receptacles in the Emergency Department will be provided with conditional or UPS emergency power.

7.6.2.2(17) Allow a maximum connection of five general use receptacles to one 15/20A circuit.

7.6.2.2(18) Provide one duplex receptacle rated at 15A or 20A, 125V for all microwaves, coffee makers, refrigerators, ice machines, water dispensers as noted in the Appendix 1B(II) Furniture & Equipment List, and Appendix 1A Clinical Specifications. This is in addition to all other receptacles identified in this Schedule and all other relevant references in all other associated Appendices.

7.6.2.2(19) In 25% of the rooms, to be determined by the Authority, provide one duplex convenience receptacle rated at 15A, 125V in all rooms. This is in addition to all other receptacles identified in this Schedule.

7.6.2.2(20) Utilize NEMA 5-20R 15/20Amp style receptacles for printers and multi-functional devices (MFD). Provide 20A rated dedicated circuits for each printer and MFD.

7.6.2.2(21) In LDRP washrooms, provide one (1) GFCI 15A 120V duplex receptacle minimum, located above the counter. All outlets connected to conditional or vital power.

7.6.2.2(22) In Staff, public and Patient washrooms, provide one GFCI 15A 120V duplex receptacle above the counter connected to conditional power.

7.6.2.2(23) Utilize NEMA 5-20R 15/20A style receptacles for Housekeeping staggered on alternate sides of the corridors spaced a maximum of 10 m apart. Provide 20A rated dedicated circuits for each area, to a maximum of six (6) receptacles per circuit.

7.6.2.2(24) Provide a minimum of one (1) 20A, 208V 3-phase twist lock receptacle spaced at 10m centres maximum, each connected to the conditional power branch, in the following spaces:

7.6.2.2(24)a. Carpentry / Paint Shop / General Maintenance

7.6.2.2(24)b. Plumbing / Mechanical / Millwright / Metal Shop

7.6.2.2(24)c. Bed Maintenance Area

7.6.2.2(24)d. Loading Dock / Post Receiving Bay

7.6.2.2(24)d.1 one (1) 20A, 208V 3-phase twist lock receptacle only required in the Loading Dock / Post Receiving Bay

7.6.2.2(24)e. Main Mechanical rooms

7.6.2.2(25) Provide a minimum of one power outlet on each wall in all offices. In single occupancy offices, two outlets will be quadplexes located to serve the location of possible workstations, the other two will be convenience duplexes.

7.6.2.2(26) Provide one USB receptacle per workstation in each office, open office or drop-down workstation.

7.6.2.2(27) Provide two USB receptacles per public areas, lounges, Staff rooms waiting areas and similar areas.

7.6.2.2(28) Provide one USB receptacles per Patient room headwall.

7.6.2.2(29) Provide a minimum of two 20A outlets for all alcoves.

7.6.2.2(30) Provide one 20A outlet in each storage closet.

7.6.2.2(31) Provide a minimum of two 20A circuits per four open office workstations.

7.6.2.2(32) Provide a minimum of one 20A circuit per two single person enclosed offices.

7.6.2.2(33) In each multi-occupancy office provide a minimum of one quadplex receptacles for each desk or workstation and a minimum of one duplex receptacle spaced every 3 m of open wall space.

7.6.2.2(34) Each workstation will have a minimum of two receptacles utilizing one quad receptacle (dedicated circuit) and one duplex receptacle (shared circuit). At a minimum, locate the quad receptacle above the work surface. Final layout and location of receptacles will be as directed by the Authority during the review process.

7.6.2.2(35) Provide a minimum of five duplex receptacles connected to three dedicated circuits in each exam or treatment room, two of which will be fed from vital power.

7.6.2.2(36) Provide a minimum of six (6) duplex receptacles at each clean utility room, 50% of which will be fed from vital power and the remainder connected to conditional power.

7.6.2.2(37) Provide electrical and communications infrastructure to support the future installation of four (4) electric vehicle (EV) dual charging stations (two in visitor parking and two in Staff parking). Reference to SOR Section 4.3.4.3.

7.6.2.2(37)a. Future EV chargers charging stations will be Level 2 dual charging stations with cellular and wired controls. Each charging station will serve two (2) adjacent parking stalls.

7.6.2.2(37)b. Provide all associated power distribution, conduit, pull and junction boxes to support all chargers charging at full capacity (est. 7kW per stall).

7.6.2.2(37)c. Provide separate conduit infrastructure to closest communications room for future controls system.

7.6.2.2(37)d. Provide concrete bases in parking lot for installation of future pedestals and wiring routed to weatherproof junction box mounted on top of base.

7.6.2.2(38) In each team care station (nursing station) and satellite team station, provide one quadplex receptacle spaced 1 m on centre below work counters in knee space or above counter if no knee space is provided. 50% of these receptacles will be fed from vital power and the remainder connected to conditional power.

7.6.2.2(39) All conference rooms, meeting rooms, break-out rooms, similar rooms and all rooms noted in the Appendix 1A Clinical Specifications as requiring videoconferencing capabilities will be provided with, at a minimum, one (1) duplex receptacle spaced every one (1) metre of wall space and one duplex receptacle spaced a maximum every metre above work counters. In addition, provide receptacles for all dedicated equipment such as microwaves, coffee makers, refrigerators, etc. At all locations with overhead projectors, provide 15A/120V receptacle located at ceiling, and provide one 27 mm conduit and pullstring to floor box and connection to wall outlet for the video signal to the projector.

7.6.2.2(40) Provide three (3) duplex receptacles per Patient treatment bed or care location in each Patient care area defined by relevant CSA standard as "Basic Care Area" and connect one (1) of the receptacles to vital power.

7.6.2.2(41) Provide six (6) duplex receptacles per Patient care location in each Patient care area defined by relevant CSA standard as "Intermediate Care Area" and connect three (3) of the receptacles to vital power.

7.6.2.2(42) Provide 12 duplex receptacles per Patient care location defined by relevant CSA standard as “Critical Care Area” and connect 75% of these receptacles to vital power. Remainder of receptacles will be connected to conditional power.

7.6.2.2(43) Provide one (1) duplex receptacle for each electric bed, where applicable, in all Patient care areas and connect to vital power. Provide one (1) 15A/120V dedicated circuit for a maximum of two (2) Patient beds.

7.6.2.2(44) Provide a minimum of four (4) duplex receptacles in each Medication Room and connect 50% of these receptacles to vital power.

7.6.2.2(45) Not used.

7.6.2.2(46) Provide special receptacles for fixed and movable equipment as defined in Appendix 1B(II) Furniture & Equipment List.

7.6.2.2(47) In Operating Rooms, surgical rooms, procedures rooms and similar usage rooms, and as directed by department representatives, provide each articulated arm and boom with a minimum of 10-15/20A duplex receptacles on seven (7) dedicated circuits for equipment booms and 10- 15/20A duplex receptacles on five (5) dedicated circuits for anesthesia booms and auxiliary booms. Additionally, provide receptacles and power connections such as a 30A 208V (L5-30R) receptacle on a dedicated circuit and a 20A 208V twist lock duplex receptacle on a dedicated circuit as required by the manufacturer and as directed by the user groups. Connect receptacles on the boom to the vital and UPS branches.

7.6.2.2(48) In Operating Rooms, surgical rooms, procedure rooms and similar usage rooms, provide receptacle for laser on boom(s) and/or locate one (1) adjacent to the anesthesia boom at the foot of the bed as required and directed by the Authority. Connect laser receptacles to the UPS branch.

7.6.2.2(49) In Operating Rooms, surgical rooms, procedure rooms and similar usage rooms, provide 1-15/20A 120V duplex receptacle at 2 m centres, connected to vital and UPS branches as determined by the Authority through Review Procedure.

7.6.2.2(50) In each Operating Rooms, surgical rooms, procedure rooms and similar usage rooms and as directed by department representative provide one (1) 15/20A 120V duplex receptacle for housekeeping outlet in two (2) locations.

7.6.2.2(51) In each Operating Room, surgical room, procedure room and similar usage rooms as directed by department representative, provide one (1) 20A, 208V twist lock receptacle in two (2) locations.

7.6.2.2(52) Provide a ‘Laser-in-Use’ light above each door of Operating Rooms, procedure rooms and similar usage rooms. Interlock the laser outlet(s) with the doors to Operating Rooms. Laser to automatically shut-off when doors open.

7.6.2.2(53) Provide an ‘X-Ray in Use’ light above each door of Operating Rooms, surgical rooms, and Urology and similar usage rooms. Provide ‘X-Ray in Use’ lights above both doors to theatres, racetrack corridor and sterile core.

7.6.2.2(54) Provide each workbench (testing station) in the Biomedical Engineering Department with two (2) 30A 208V outlets, plus 10 dedicated 20A 120V circuits each of which serves two (2) outlets for a total of 20 outlets. Provide 50% of the outlets with vital power circuits. Provide three (3) ceiling mounted retractable cord reels complete with two (2) NEMA 5-20R 15/20A style receptacles on one (1) dedicated circuit per cord reel.

7.6.2.2(55) Locate cord reels as directed by the Authority during the review procedure process.

7.6.2.2(56) Provide one (1) NEMA 5-20R 15/20A style receptacles every 2 m of wall space in the Biomedical Engineering Department. Final layout of devices to be confirmed during user group meetings and in consultation with the Authority.

7.6.2.2(57) Provide one (1) NEMA 5-20R 15/20A style receptacle for every 5m^2, or portion thereof, of all back of house and storage spaces, except provide one (1) NEMA 5-20R 15/20A style receptacle for every 10m^2, or portion thereof, for service rooms. Connect these receptacles to the conditional power branch.

7.6.2.2(57)a. Provide a minimum of one (1) 15/20A GFCI duplex receptacle in Central Housekeeping Area and all Housekeeping Rooms and Closets and, at a minimum, one 15/20A housekeeping receptacle on each wall in Central Housekeeping Area and Housekeeping Rooms.

7.6.2.2(58) Utilize weatherproof NEMA 5-20R 15/20A style receptacles on the exterior of the Building, including Courtyards, located not more than 30 m apart. Provide Class A type GFCI breakers for all exterior outlets. Additionally, strategically locate receptacles in soffits, overhangs and entrance and exits to the Facility. Locate an additional 10 outlets in consultation with the Authority.

7.6.2.2(59) Provide special receptacles for fixed and movable equipment. Coordinated locations and heights of all the receptacles as required for equipment, for example the RFID locations of the electronic inventory management system. Provide all necessary electrical equipment devices to provide an electrical installation in accordance with manufacturers installation recommendations and make all connections for Authority supplied equipment. Provide source of power as directed by department representative. The Design-Builder to increase emergency capacity including all additional spare capacity as required to accommodate additional emergency power requirements.

7.6.2.2(60) Provide two (2) digital count-up and count-down timers in each surgical operating and procedure rooms and as directed by department representative.

7.6.2.2(61) Provide NEMA 5-20R 15/20A 120V vital circuit, low voltage transformers, and junction boxes for all ceiling lifts and overhead lifting equipment. Make all required connections and install in accordance with the manufacturer’s recommendations.

7.6.2.2(62) Provide NEMA 5-20R 15/20A 120V duplex receptacles in two locations located on the ceiling of all surgical rooms, procedures rooms and similar usage rooms.

7.6.2.2(63) Provide 15A 120V circuit for all hands-free automatic door operators throughout the Facility. Typically, all surgical suites, medication rooms, utility rooms, storage rooms and similar usage rooms will be provided with automatic door operators. Provide power for all automatic door operators as noted in the Appendix 1A Clinical Specifications.

7.6.2.2(64) Install approved fire stopping systems to maintain all fire separations.

7.6.2.2(65) Final location of all receptacles and connections will be determined in user group meetings and as directed by the Authority during the review procedure process.

7.6.2.2(66) Utilize stainless steel cover plates for receptacles and switches. Grouped receptacles and switches will have a single cover plate for the whole group.

7.6.2.2(67) Provide ACFI breakers for receptacles as required by the Canadian Electrical Code.

7.6.2.2(68) Provide 15A 125V vital power circuits complete with junction box and receptacle for all heat-traced mechanical p-traps. Provide a maximum of four (4) p-traps connections per dedicated circuit. Coordinate with the mechanical division for exact locations.

7.6.2.2(69) Provide a 15A 125V circuit complete with junction box and low voltage transformer and connect to all mechanical trap primers. Provide a maximum of four (4) trap primer connections per dedicated circuit. Coordinate with the mechanical division for exact locations.

7.6.2.2(70) All receptacles in the Mental Health Services Department including the clinical spaces and gathering areas will be fed with ACFI breakers located in the panelboard, except where medical equipment is permanently or frequently connected. The Design-Builder will confirm with the Authority to determine the exact areas where medical equipment is permanently or frequently connected.

7.6.2.2(71) Medical Device Reprocessing (MDR) departmental area will be provided with a minimum of one (1) general use NEMA 5-20R 15/20A 120V duplex receptacle on the walls at 3m centres. Fifty percent (50%) of these receptacles to be connected to the vital power branch and the other 50% of receptacles to be fed from the normal power branch. Provide additional receptacles identified in this Schedule and as required by code or applicable standard.

7.6.2.2(72) All power systems in Mental Health Services Inpatient bedrooms and secure rooms will be complete with key overrides located outside of the rooms and a master override located at the team care station. Provide manufactured master control remote toggle switch controller in stainless steel enclosure complete with green and red LED indicating lights.

7.6.2.2(73) Receptacles in the Mental Health Services Department will be extra heavy duty, hospital grade, tamper-proof type.

7.6.2.2(74) All electrical devices and equipment located in the Mental Health Services Department will have tamper-proof type screws and nuts. Tamper-proof screws require specific tools to fasten and remove. Commercial screwdrivers and wrenches cannot remove these screws as they require a dedicated tool for mounting and removing. Tamper-proof nuts will be stainless steel and can be removed only with a dedicated tool specific to the product.

7.6.2.2(75) All receptacles, devices, outlets and switches in the Mental Health Services Department will have extra strength, high impact, virtually unbreakable, nylon faceplates with grade 10 tamper-proof screws. Provide 10 spare grade 10 tamper-proof keys per department.

7.6.2.2(76) Provide hospital grade receptacles in clinical spaces; surgical procedure, testing, observation, and exam/treatment areas; holding areas; stretcher bays and similar usage areas. Receptacles in all other areas, unless otherwise noted, will be specification grade.

7.6.2.2(77) Provide tamper-resistant receptacles in public areas. Tamper resistance is resistance to tampering (intentional malfunction or sabotage) either by the normal users of a product, package or system, or by others with physical access to it. Tamper-resistant receptacles will be equal to the LEVITON 8300-SGW series.

7.6.2.2(78) Provide a 30A 208V, 3-phase, 4-wire dedicated conditional power circuit complete with NEMA L15-30R receptacle and a 30A 208V, 1-phase, 3-wire dedicated conditional power circuit complete with NEMA 6-30R receptacle for retherm units located in all Food Services areas. The Design-Builder will locate receptacles as directed by the Authority.

7.6.2.2(79) Provide a 15/20A conditional circuit for an electronic 'Take a Number' dispenser type system at the Registration cubicles area in the Main Entry Services component. Provide a 2-digit electronic 'Take a Number' system with ticket dispenser which has:

7.6.2.2(79)a. a wall-mounted 9.1 inch LED display complete with power adapter, mounting brackets and hardware; and

7.6.2.2(79)b. a countertop ticket dispenser with stand-mounting hardware, two (2) hardwired push buttons and wireless infrared remote controller.

7.6.2.2(80) Provide an additional four (4) 20A duplex receptacles with two (2) receptacles connected to vital power, one (1) to conditional power and one (1) to UPS power in the Debriefing / Multipurpose VC Room. These outlets are to support additional workstation(s) and equipment during a disaster response and will be additional to any other receptacles required for this space.

7.6.3 Electrical Utilities

7.6.3.1 Basic Requirements

7.6.3.1(1) Coordinate with BC Hydro to extend existing 25kV overhead line to the new proposed Building site. Provide an underground dip service from the property line to the high voltage BC Hydro service entrance room for a single service.

7.6.3.1(2) The BC Hydro service entrance switchgear, main breaker, utility metering and the service entrance room are to meet the BC Hydro's *Primary Guide: Requirements for customer-owned primary services supplied at 4kV to 35 kV* and the metering guide.

7.6.3.1(3) Identify the location of existing underground and overhead service lines in the area to avoid interference with proposed routing of new services and future services for known expansions. Use latest techniques (ground penetration radar test) to verify and confirm all existing underground services. Remove or relocate existing site lighting, branch circuit power, underground electrical distribution and communications to accommodate the Facility and BC Hydro. Reconnect all power and controls to electrical power and communication circuits affected by the site preparation work.

7.6.3.1(4) The Design-Builder is to coordinate with the utility provider and pay all associated costs required to extend the BC Hydro high voltage distribution lines feeding the site in order to handle the electrical capacity required for the Facility.

7.6.3.1(5) The Design-Builder is to coordinate with the utility provider and provide the required civil works and duct banks from the overhead lines to the BC Hydro service entrance room.

7.6.3.1(6) Design and construct the electrical system with adequate spare capacity to accommodate an increase in site electrical demand by 25%. The service is to be sized to carry the maximum anticipated demand load, all additional Authority requirements plus 25% spare capacity will be added to the total calculated load.

7.6.3.1(7) Provide a concrete encased duct bank with four (4) 103 mm spare conduits from the main electrical room and from the BC Hydro service entrance room and stubbed out a minimum of 5 m from the Facility and terminated in two (2) 1.5 m x 1.0 m BC Hydro approved concrete pullboxes. Located on the site to facilitate future extensions. Coordinate the location of the spare duct bank with the Authority.

7.6.3.1(8) Utilize distribution equipment that are robust, reliable, easily operated, maintained and designed for healthcare facilities.

7.6.4 Service Switchgear – Over 600 Volts

7.6.4.1 Basic Requirements

7.6.4.1(1) The Facility will be constructed with all necessary infrastructure including spare capacity, spare circuit breakers, pull-pits, sleeves, housekeeping pads, wiring, controls, ducts stubbed out a minimum of 5 m from the enclosure footprint and capped off in an under-ground concrete pull boxes for easy future extension.

7.6.4.1(2) Design and construct the electrical system with adequate spare capacity to accommodate an increase in site electrical demand by 25%. Size the main normal power transformers associated switchgear, and power feeders accordingly. For high voltage switchgear line up provide an additional two spare breakers and two spare breaker spaces.

7.6.4.1(3) Utilize transmission and distribution equipment that are robust, reliable, easily operated, maintained and designed for healthcare facilities.

7.6.4.1(4) Provide two 25kV breakers feeding the 25kV:12.47kV – 600V step down transformers.

7.6.4.1(5) Provide the spare 25kV distribution circuit breakers adjacent to the two main transformer circuit breakers.

7.6.4.2 Performance Criteria

7.6.4.2(1) Provide arc resistant Type 2B switch gear for all HV switchgear.

7.6.4.2(2) Provide rackable 500 MVA rated metal-clad switchgear with vacuum circuit breakers, potential transformers, current transformers and metering sections.

7.6.4.2(3) The incoming 12.47/25 kV feeder is to terminate on a load-break switch. This load-break switch, in turn, is to feed a 25 kV rated switchboard that is comprised of:

7.6.4.2(3)a. one main breaker, two transformer feeder breakers, two spare breakers and two spare spaces configured with one breaker per vertical section.

7.6.4.2(3)b. draw-out vacuum circuit breakers.

7.6.4.2(3)c. revenue-grade digital metering at the main.

7.6.4.2(3)d. 3-phase, solid-state multi-function type protective relay at each breaker.

7.6.4.2(3)e. vacuum circuit breaker with ANSI functions 50/51, 50N/51N, 86 and additional functions as required. Protective relay to have integral digital metering capable of displaying V, A, kVA, kW and harmonic parameters.

7.6.4.2(3)f. communication port integrated with the Facility's BMS to indicate status of each breaker.

7.6.4.2(3)g. 125V DC battery-backed power supply with charger for protective relays and controls.

7.6.4.2(4) Power transformers

7.6.4.2(4)a. The two 25 kV – 600V transformers may be installed exterior of the Building in suitable weatherproof enclosures of equal kVA capacity or, in the alternative, within the building in a suitable enclosure and of equal kVA capacity.

7.6.4.2(4)b. Each transformer to be sized to carry the maximum anticipated demand load; all additional Authority requirements plus 25% spare capacity will be added to the total calculated load. The sizing of the transformers will be based on natural convection cooling.

7.6.4.2(4)c. Provide a site fence and adequate site lighting for the utility service compound. The Design-Builder to provide lighting calculations and layout for Authority review.

7.6.4.2(4)c.1 Fencing with a lockable gate is to be provided around exterior transformer(s) and panels. Fencing is to have aesthetic value and will reduce snow and dust infiltration.

7.6.4.2(4)d. The power transformers are to:

7.6.4.2(4)d.1 be suitable for interior installation and to be dry type, with copper windings. The kVA capacity indicated to be based on Class 220 °C insulation, 115 °C rise maximum in 40 °C ambient.

7.6.4.2(4)d.2 not used.

7.6.4.2(4)d.3 Cooling Type ANN/ANF to have cooling fans that will provide an additional 33% capacity over the base rating.

7.6.4.2(4)d.4 have four 2.5% full capacity primary taps consisting oftwo above and two below nominal voltage.

7.6.4.2(4)d.5 have a digital thermometer indicating average coil temperature with two stage alarm contacts connected to the BMS. The first stage to alarm when the fans start up and the second stage to alarm at a higher temperature. Alarms to be indicated on the BMS.

7.6.4.2(4)d.6 have transformer over-temperature protection by tripping the transformer feeder breakers.

7.6.4.2(4)d.7 have integral intermediate class lightning arrestors connected to the primary terminals.

7.6.5 Raceways

7.6.5.1 Basic Requirements

7.6.5.1(1) Provide raceways for all power and telecommunications, security, and health care systems wiring and cabling to support, protect and organize all wiring and cabling systems.

7.6.5.1(2) Design and allow 20% spare space adjacent to main raceway pathways in risers and corridors. Provide ease of access for installation of future conduits. Oversize all the conduit runs between junction boxes and panelboards by 125% above the electrical code requirements and provide a 53mm spare conduit from each distribution centre and control centre to the first junction box or stubbed above the ceiling, whatever is larger to permit installation of future wiring to accommodate expansions.

7.6.5.1(3) Install all raceways in a neat and secure manner in such a way that they are protected from damage, are not in conflict with mechanical or architectural components and allow for future changes and additions.

7.6.5.1(4) Except as noted otherwise, install power wiring in EMT with steel couplings and connectors.

7.6.5.1(5) Install Communications System wiring (unless otherwise required by applicable codes and standards) in EMT with steel couplings and connectors and/or cable trays. Install individual steel backboxes for all Communications System devices. Conduits connecting to cable trays for Communications System wiring will be mechanically connected, completed with grounding bushings.

7.6.5.1(6) EMT is to be surface mounted in service rooms and concealed in ceiling spaces and partition walls. Do not encase EMT in concrete.

7.6.5.1(7) Minimum EMT conduit size for all power, systems and data drops are 27 mm (1”).

7.6.5.1(8) Minimum EMT conduit size for power and systems conduits are 21 mm (3/4”) except for the conduits from any distribution panel, branch circuit panel and control panel to the first associated junction box which will be 27 mm (1"). Minimum EMT size for low voltage door hardware connections is 16 mm (1/2”). Minimum EMT size for data drops are 27 mm (1”).

7.6.5.1(9) Minimum flexible conduit size is 27 mm (1”) and maximum length of any flexible conduit run is 1.5 m.

7.6.5.1(10) Minimum flexible conduit size is 21 mm (3/4”) and maximum length of any flexible conduit run is 1.5 m. Minimum flexible conduit size for low voltage door hardware connections is 16 mm (1/2”).

7.6.5.1(11) Armoured cable (BX) may not be used except as noted in section 7.6.2.2(4).

7.6.5.1(12) Install individual bonding conductor in each conduit and/or raceway.

7.6.5.1(13) Provide cable trays for installation of selected Communications System wiring. Install cable trays from Communication Rooms and above all corridors. If cable trays pass through walls with fire resistance ratings, provide a non-removable ULC approved firestopping system. (Refer to section 7.7 – Communications Division 27.)

7.6.5.1(14) Cable tray will be aluminum or steel wire mesh or ladder type with manufactured fittings. Provide continuous #6AWG minimum bare copper bonding wire which is connected by split bolt to each length of the cable tray. Provide bare copper bonding jumper between the cable tray and every associated conduit to ensure continuous bond between tray and low-tension raceways.

7.6.5.1(15) Identify all conduits, raceways, pull boxes, and junction boxes using painted colour bands. Colouring scheme will be determined by the Authority at a later date. Provide all power and Communications Systems with unique colours in accordance with the colouring scheme. Major colour to be 100 mm wide and minor colour to be 50 mm wide. Identify raceways with coloured bands (using either spray paint or coloured duct tape) at intervals of 6 m, plus at the point where the raceway enters a wall or floor (i.e. raceway is identified on both sides of a penetration to facilitate tracing of raceway). Colour-code all junction boxes using spray paint on the cover. Neatly identify the relevant system and circuit ID using permanent identification. Identify parallel conduit runs at common locations.

7.6.5.1(16) Indicate the location of conductors encased or embedded in concrete or masonry by conspicuous permanent identifiers set in the walls, floors, or ceilings, which will indicate each point at which buried conductors penetrate a wall every 10 m and at each change in direction.

7.6.5.2 Performance Criteria

7.6.5.2(1) Construct separate raceways or barriered raceways to isolate systems of different voltages and prevent magnetic interference to low voltage system conductors.

7.6.5.2(2) Design and install raceways without sharp edges or tight bends so that cables can be pulled in or laid in and removed without damage to the cables.

7.6.5.2(3) Provide all cable trays with minimum 20% spare capacity for the installation of future cables.

7.6.5.2(4) Provide a minimum of two (2) spare 103 mm conduits with pull strings from the main electrical room to each sub-distribution room, mechanical room, or similar rooms that house electrical distribution.

7.6.5.2(5) Provide a minimum of one (1) spare 53 mm EMT conduit from all panelboards to terminate in a 308 mm x 308 mm ceiling mounted junction box located in the ceiling space immediately above the panelboard in the above-ceiling service space for future use. When multiple voltages are present in a control panel, provide one (1) spare 53 mm conduit and 308 mm x 308 mm ceiling mounted junction box for each voltage in the ceiling space. Install smoke seal and pull string for future use.

7.6.5.2(6) Provide a minimum of two (2) spare 53 mm EMT conduits from all CDPs to terminate in a 308 mm x 308 mm ceiling mounted junction box located in the ceiling space immediately above the panelboard in the above-ceiling service space for future. Install smoke seal and pull string for future.

7.6.5.2(7) -All control conduits will be provided and installed by the Design-Builder. The Design-Builder will allow for all low voltage installations and provide all pathways, junctions, pull boxes related to controls.

7.6.5.2(8) Provide all duct banks with minimum one (1) equivalent size spare conduit for future changes to the Facility.

7.6.5.2(9) Install all conduits in finished areas within finished walls and above finished ceilings.

7.6.5.2(10) Provide pull string and smoke seal all spare and unused conduits. Label accordingly.

7.6.6 Post Disaster Design Criteria

7.6.6.1 Design the electrical rooms to be accessible to authorized personnel only. Provide security measures as required by the Authority including access controls for all electrical rooms.

7.6.6.2 Design the electrical systems and equipment to comply with the latest adopted addition of the BCBC requirements for a post-disaster facility.

7.6.6.3 Design the electrical systems and equipment to comply with post-disaster and the following design requirements:

7.6.6.3(1) Provide underground hydro power service.

7.6.6.3(2) All installations to be underground not over-head.

7.6.6.3(3) Service rooms to be at least 2-hour fire rated.

7.6.6.3(4) Provide emergency power (generators) with redundancy plus 25% spare capacity for vital and delayed vital loads in the hospital. Conditional, vital, and delayed vital loads will be fed from the generator bus when all the generators are connected and synchronized.

7.6.6.3(5) Drains to be installed in electrical and communication rooms.

7.6.6.3(6) Dry sprinkler fire suppression systems to be installed in the main electrical and Communication room.

7.6.6.3(7) All automatic transfer switches to have double by-pass manual switches.

7.6.6.3(8) Provide at least 72-hour backup fuel for each emergency generator.

7.6.6.3(9) Ensure site is accessible for refuelling.

7.6.6.3(10) All servers, data switches, security equipment, nurse call system and fire alarm system to be on UPS power.

7.6.6.3(11) Provide a UPS system with N+1 redundancy and with an external maintenance bypass switch.

7.6.6.3(12) Design building structure in accordance with best practices as defined in IBC2009, ASCE-7.

7.6.6.3(13) Specify equipment to comply with ICC – ES AC156 for three-dimension shake table (seismic withstand) tests.

7.6.6.3(14) Specify sprinkler-proof equipment and drainage throughout service areas.

7.6.6.3(15) All equipment specified to be specification grade.

7.6.6.3(16) Avoid routing of feeders through non-service areas.

7.6.6.3(17) Ensure adequate separation of power distribution from higher risk mechanical equipment such as boilers.

7.6.6.3(18) Ensure vital feeders are fire rated and segregated from each other, have limited risk from structural failure and from mechanical services (e.g. steam).

7.6.7 Emergency Power

7.6.7.1 Basic Requirements

7.6.7.1(1) Provide a Tier 2 emergency power generating plant comprising a minimum of two diesel powered generators. Generators will be located in exterior rated enclosure and will be located on site.

7.6.7.1(2) The generator enclosures will be of the hospital grade maximum sound attenuation complete with hospital grade silencers and to be suitable for −40 °C environments.

7.6.7.1(3) Design and construct the electrical system with adequate spare capacity to accommodate an increase electrical demand by 25%. Size the emergency power generators, feeders and 600V and 208V switchgear accordingly. For switchgear and panelboards provide 25% spare capacity, and 25% spare physical space for future circuit breaker addition.

7.6.7.1(4) Exterior generators will be located at grade housed in secure, walk-in, illuminated and heated enclosures. Enclosures will be supervised for unauthorized intrusion. Exterior rated generation system will be located exterior of the building footprint and located at a minimum 10 m from the building.

7.6.7.1(5) Locate generators to enable routine and emergency maintenance activities to be performed quickly and efficiently. Removal of the generators from the Site will be simple and will not require disassembly of the sites Buildings or systems, nor special lifting equipment.

7.6.7.1(6) Generators will be designed and located where they are protected and are not subject to damage from vandalism, falling objects or debris, road traffic, fire, flood, or adverse weather conditions. Provide a site fence and adequate site lighting.

7.6.7.1(7) The emergency power system to include at a minimum, two (2) prime power rated synchronized diesel generator units of equal capacity.

7.6.7.1(8) The generators will be sized as follows:

7.6.7.1(8)a. The capacity of all the generators when operational and synchronized should be capable of supplying power to all the vital, delayed vital and conditional loads as well as 100% of all cooling loads, all UPS branch loads and the fire pump. In addition, provide 25% spare capacity for future growth. This additional capacity is to be added to the demand code load after all other loads and requirements are accounted for. This capacity will be in addition to any spare capacity included for the mechanical equipment and all other Authority requirements.

7.6.7.1(8)b. When one diesel generator unit is unavailable the remaining generator or generators should be capable of supplying power to all the vital and delayed vital loads as well as process cooling loads, all UPS branch loads and the fire pump and the above-mentioned redundancy and spare capacity requirements.

7.6.7.1(8)c. Capacities will be demonstrated to the Authority in real time after commissioning of the Facility is complete. Mechanical loads will be simulated via the BMS. The Design-Builder will provide a load bank to simulate all linear and nonlinear demand loads that cannot be simulated by the BMS, plus 25% spare capacity.

7.6.7.1(9) Proved a load management system that will interface, monitor, and control all the generators, generator breakers as well as all 600V main feeder breakers.

7.6.7.1(10) Plug and lighting loads will be in accordance with the energy model calculations, and mechanical equipment not activated by the BMS will be accounted for in demand load.

7.6.7.1(11) Full load rating of the generator will be determined by the generator set name plate rating as referenced in CSA 282-15 Emergency Electrical Power Supply for Buildings section 6.1.1.4.

7.6.7.1(12) Provide an environmental study of the sites prevailing winds and model the sites environmental impact to the site and surrounding areas to determine the location of the emergency generation plant as noted in all relevant Appendices and other sections of Schedule 1 Statement of Requirements.

7.6.7.1(13) Generators will be located, vibration isolated, and muffled so that neither sound nor vibration are perceptible outside of the generator enclosure containing the generators. Provide acoustic panels and silencers at air intake and exhaust to limit the generated noise in compliance with local regulations, sound by-laws and as noted in Appendix 1C Acoustics and Noise Control Measures, all relevant Appendices and other sections of this Schedule.

7.6.7.1(14) Generator and the generator controller will be of the same manufacturer and will be compatible with transfer switches. Manufacturer supplied wiring diagrams for the installation, testing and commissioning of generators will be provided to ensure complete emergency generation system compatibility.

7.6.7.1(15) Breakers in the synchronization board and generators will be of the same manufacturer as the 600V electrical distribution equipment.

7.6.7.1(16) Provide annunciation of alarms for each generator to the BMS. Include ‘run’ and ‘fail to run’ alarms to the BMS.

7.6.7.2 Performance Criteria

7.6.7.2(1) Generators will be supplied by an established supplier of generators to healthcare facilities in British Columbia. The generator supplier will have a full service repair facility within 10 hours travel time (by road) to the Site. Generator spares will be routinely stocked within the British Columbia Lower Mainland and/ or Alberta and will be available on Site within 24 hours.

7.6.7.2(2) The generators will normally operate in parallel and provide features including bumpless (closed transition) transfer operation, load sharing and base loading. It will be possible to use the Facility load as a base load for annual load testing of the generators.

7.6.7.2(3) Provide a generator exhaust system to discharge exhaust fumes in a manner that does not create an objectionable odour or noise issue to the Facility or neighbouring properties.

7.6.7.2(4) Provide a fuel system capable of supplying the maximum capacity of the emergency power plant at 100% load (including spare capacity) for a minimum of 72 hours. Generators will be diesel to ensure a continuous source of fuel supply. The fuel supply will be independent to other building equipment and will be stored on site in permanent storage for the New Facility. Fuel level to be electronically monitored by the BMS system to alarm when fuel supply drops below 24 hours. Fuel system to comprise dedicated belly tanks for each generator.

7.6.7.2(5) Provide a dedicated load bank connection point for each generator which does not require the disconnection of existing cabling. The circuit breaker will automatically shunt trip the load bank upon loss of utility power to the Facility.

7.6.7.2(6) Provide a dedicated resistive load bank for testing the generator. The load bank will not require the disconnection of cabling.

7.6.7.2(7) The essential electrical systems will include tie breakers from the main conditional distribution to each of the main vital and delayed vital distributions.

7.6.7.2(8) Conditional power will be derived at 600V by means of an automatic transfer switch connected between the generator bus and normal power distributions and also controlled by the load management system which can be an integral part of the demand limiting Program as required by clause 7.5.3.13(10) in this Schedule of Requirements.

7.6.7.2(9) For redundancy, the conditional power distribution throughout the Facility will include tiebreakers and be sized to provide power simultaneously to both the conditional load plus the larger of the vital or delayed vital loads in that locality.

7.6.7.2(10) Implement redundancy such that if an automatic transfer switch system fails, there is a manual means to restore power to the essential loads in the Facility. All transfer switches will have double sided bypass capability. Transfer switch mechanism will be capable of being withdrawn for servicing while the switch is in bypass mode.

7.6.7.2(11) Transfer switches and will be listed to UL1066 with a 30 cycle withstand rating at maximum available short circuit current.

7.6.7.2(12) Essential power branches will serve essential loads as defined by CSA Z32-15 and as required to meet Appendix 1A Clinical Specifications, including:

7.6.7.2(12)a. Vital branch loads:

7.6.7.2(12)a.1 Path of egress lighting,

7.6.7.2(12)a.2 Exit signs,

7.6.7.2(12)a.3 Stair and ramp lighting,

7.6.7.2(12)a.4 Receptacles and lights at service rooms for emergency distribution.

7.6.7.2(12)a.5 Medical gas alarm panels.

7.6.7.2(12)a.6 Elevator cab and machine room lighting.

7.6.7.2(12)a.7 Fire alarm system and sprinkler system.

7.6.7.2(12)a.8 Smoke venting fans and smoke control fans.

7.6.7.2(12)a.9 Communications Systems and network equipment in all IT Communication Rooms.

7.6.7.2(12)a.10 80% of lighting, receptacles and all permanently connected equipment in procedure rooms unless otherwise noted.

7.6.7.2(12)a.11 50% of receptacles and lights in all Patient care rooms.

7.6.7.2(12)a.12 50% of lights and outlets in nursing station.

7.6.7.2(12)a.13 Nurse call system power supplies.

7.6.7.2(12)a.14 Medical vacuum pumping systems.

7.6.7.2(12)a.15 Diagnostic Imaging Equipment as per Appendix 1B(II) Furniture & Equipment List and Appendix 1A Clinical Specifications.

7.6.7.2(12)a.16 Pharmacy dispensing areas.

7.6.7.2(12)a.17 Medication rooms and other similar dispensing areas,

7.6.7.2(12)a.18 Emergency generator related equipment such as ventilation, battery charger or air compressor for starting engine and derangement signals.

7.6.7.2(12)a.19 Hands-free sinks with electronic operators.

7.6.7.2(12)a.20 Medical air pumping systems.

7.6.7.2(12)b. Delayed vital branch loads including:

7.6.7.2(12)b.1 Centralized UPS system.

7.6.7.2(12)b.2 Sump pumps and sewage ejector pumps.

7.6.7.2(12)b.3 Fume hoods.

7.6.7.2(12)b.4 Selective operation of one elevator in each elevator bank containing more than one elevator.

7.6.7.2(12)b.5 All individual elevators that are not within an elevator bank.

7.6.7.2(12)b.6 100% of all heating, ventilation, and plumbing systems.

7.6.7.2(12)b.7 Alarmed freezers and refrigerators.

7.6.7.2(12)b.8 100% of all ventilation and air conditioning/cooling equipment serving the main cross-connect room, on-floor communication riser rooms and 24x7 cooling loads.

7.6.7.2(12)b.9 100% of all ventilation and air conditioning/cooling equipment serving the main electrical room, electrical riser rooms on each floor and the central UPS room.

7.6.7.2(12)b.10 Fire pump and jockey pump via dedicated transfer switch.

7.6.7.2(12)b.11 The BMS will monitor and record emergency loads.

7.6.7.2(12)b.12 Process cooling loads.

7.6.7.2(12)b.13 All elevators within the Facility will operate on emergency power.

7.6.8 Uninterruptible Power Supply (UPS) Systems

7.6.8.1 Basic Requirements

7.6.8.1(1) Provide a centralized uninterruptible power supply (UPS) system to serve all areas, equipment and systems that require a continuous and uninterrupted source of power as per the requirements of this Schedule, Appendix 1A Clinical Specifications and for the following additional outlets, equipment and systems:

7.6.8.1(1)a. 25% of lighting, room receptacles, and permanently connected equipment in the OR and Procedure Rooms.

7.6.8.1(1)b. Provide UPS capacity allowance for 10% of the initial quantity of lights, receptacles and equipment;

7.6.8.1(1)c. the Building Management System;

7.6.8.1(1)d. fixed panic system;

7.6.8.1(1)e. electronic access control systems;

7.6.8.1(1)f. intrusion detection system;

7.6.8.1(1)g. surveillance (CCTV) system;

7.6.8.1(1)h. medical equipment which is deemed life safety equipment; and in accordance with the Authority user groups requirements. Coordinate with Authority representative to confirm exact requirements;

7.6.8.1(1)i. nurse call system;

7.6.8.1(1)j. public address system;

7.6.8.1(1)k. intercom;

7.6.8.1(1)l. patient wandering system;

7.6.8.1(1)m. Vocera system; and

7.6.8.1(1)n. Main Cross Connect Room (MCCR) and Back-up Cross Connect Room (BCCR).

7.6.8.1(2) Provide a UPS that in addition to the above loads, meets the requirements specified in telecommunications section of this schedule.

7.6.8.2 Performance Criteria

7.6.8.2(1) The UPS system will be certified as suitable for post-disaster facility.

7.6.8.2(2) UPS system will have:

7.6.8.2(2)a. external maintenance bypass switch for servicing;

7.6.8.2(2)b. fully rated internal static bypass switch to bypass UPS in the event of UPS failure;

7.6.8.2(2)c. fully redundant UPS bypass breaker arrangement;

7.6.8.2(2)d. battery string; and

7.6.8.2(2)e. battery monitoring system.

7.6.8.2(3) UPS loads will be circuited from a UPS distribution panel and will be rated for the connected load plus a minimum 25% spare capacity.

7.6.8.2(4) Connect UPS units to an emergency generator circuit and provide adequate batteries rated for a minimum of 15 minutes at full UPS capacity.

7.6.8.2(5) Where vital functions are connected to a UPS circuit, include an audible warning in the vital function area 10 minutes before the UPS battery supply is exhausted. Provide additional monitoring by the BMS.

7.6.8.2(6) The UPS will be capable of providing adequate fault clearing current for a 100A circuit breaker without operation of the static bypass switch.

7.6.8.2(7) Centralized UPS system:

7.6.8.2(7)a. To have modular architecture with no system-level single-point- of-failure.

7.6.8.2(7)b. To have two (2) or more UPS modules connected in parallel providing N+1 redundancy, to ensure UPS power to support 100% of the initial load and 25% spare capacity when one UPS module is unavailable. The spare capacity will be calculated by using the connected loads.

7.6.8.2(7)c. To have a dedicated battery string for each UPS module rated to provide 15 minutes of back up time when the UPS module is carrying 100% rated load.

7.6.8.2(7)d. To be online, double-isolation type having output power factor of minimum 0.9.

7.6.8.2(7)e. To have input filter at each UPS module to limit the total harmonic current distortion to 5% when the UPS module is carrying 100% rated load.

7.6.8.2(7)f. To have static bypass to automatically bypass the UPS in the event of UPS failure.

7.6.8.2(7)g. To have external maintenance bypass switching cabinet for servicing the UPS system.

7.6.8.2(7)h. Each UPS module and the static bypass to have a dedicated input feeder connected to the delayed-vital branch.

7.6.8.2(7)i. Will have a network connection for monitoring and will indicate any alarms to the BMS.

7.6.8.2(8) The main distribution panel that is fed from the UPS system output to have an alternate input that can be energized directly from the main delayed vital distribution equipment in the event of a UPS system- failure. Provide interlock controls such that only one feeder can be energized at any one time.

7.6.8.2(9) Provide a modular UPS system with the capacity of the modular UPS such that the addition of future modules in the UPS will not require an upgrade to the electrical equipment infrastructure.

7.6.8.2(10) Size breakers, electrical equipment and conductors feeding the UPS unit and the conductors and immediate electrical equipment connected on the load side of the UPS to the maximum capacity of the modular UPS such that the addition of future modules in the UPS will not require an upgrade to the electrical equipment infrastructure.

7.6.9 Distribution Equipment – 600 Volts and below

7.6.9.1 Basic Requirements

7.6.9.1(1) The main electrical room will be designed and constructed to facilitate future expansion with minimal disruption to Facility operation and continuity. The Facility will be constructed with all necessary infrastructure including spare capacity, spare circuit breakers, physical expansion space, ducts stubbed out from the building footprint and capped off for easy future extension, pull-pits, sleeves, housekeeping pads, wiring, controls, distribution routes, and ventilation as necessary to accommodate any future system expansion.

7.6.9.1(2) Design and construct the electrical system with adequate spare capacity to accommodate an increase electrical demand by 25%. Size the emergency power generators, main normal power transformers, feeders and 600V and 208V switchgear accordingly. For switchgear and panelboards provide 25% spare capacity, and 25% spare physical space for future circuit breaker addition.

7.6.9.1(3) Provide electrical distribution from the main sources of supply to meet all requirements of the Facility and Appendix 1A Clinical Specifications. Provide electrical equipment to establish a building distribution voltage of 600V.

7.6.9.1(4) Design the distribution system to provide security of supply and the flexibility to allow concurrent safe maintenance without impacting Hospital operations. Provide tie breakers with key interlocking devices on all main and secondary distribution.

7.6.9.1(5) The two main HV transformers will feed two main 600V distribution boards with a normally open tie breaker between the two boards. Each board will have a main breaker with a main-tie-main key interlocking system. Each board will have a spare breaker and spare breaker space. These two boards will feed the normal distribution, the vital ATS, delayed-vital ATS and the conditional ATS. Each board will be sized based on the main HV transformer size with the additional transformer fan capacity.

7.6.9.1(6) Provide rackable power circuit breakers for all circuit breakers upstream of the transfer switches in the normal and generator boards. Provide motorized operators on these circuit breakers to reduce the arc flash exposure hazard.

7.6.9.2 Low Voltage Distribution Protective, Coordination and Short-Circuit Criteria

7.6.9.2(1) Incorporate design features and practices to reduce arc flash hazards on electrical systems such that routine operations such as transfer switch operation, opening and closing distribution breakers, and inspection and maintenance activities will require (as defined in NFPA 70E) PPE Level 2. No activities will expose personnel to arc flash hazards which exceed the protection afforded by PPE Level 2.

7.6.9.2(2) Utilize zone selective interlocking protection, limiting available fault current from transformer, maintenance mode settings of circuit breakers and remote control of switching and motorized racking devices.

7.6.9.2(3) Prepare and submit to the Authority detailed Protective Device Coordination, and Short Circuit study signed and sealed by a professional engineer registered in British Columbia and provide equipment labelling indicating available energy levels and level of PPE required when servicing the equipment.

7.6.9.2(4) Prepare and submit to the Authority a detailed arc flash study signed and sealed by a professional engineer registered in British Columbia and provide equipment labelling indicating available energy levels and level of PPE required when servicing the equipment.

7.6.9.2(5) Provide a fully selective protection scheme for all the circuit breakers on all essential system distribution equipment immediately downstream of the transfer switches, for both hydro and generator available fault currents. Additionally, all circuit breakers will be of the electronic fully selective type for all circuit breaker sizes 100A and larger.

7.6.9.2(6) Prepare and submit to the Authority a detailed distribution coordination study signed and sealed by a professional engineer registered in British Columbia.

7.6.9.3 Performance Criteria

7.6.9.3(1) Protect the main electrical room from ground water infiltration and separate it from plumbing and mechanical equipment. Provide raised housekeeping pads, drainage, and sump pumps (on vital power) as required in electrical service areas to mitigate the risk of flooding.

7.6.9.3(2) Design the electrical room to be readily accessible, secure, well-ventilated, and free of corrosive or explosive fumes, gases, or any flammable material. Establish routes clear of obstruction to and from the electrical room which facilitate the addition and removal of the largest current and future components located within the room.

7.6.9.3(3) Main normal power 600V Distribution Equipment will be fed from the BC Hydro pad mounted transformer. One spare circuit breaker and two equipped spaces will be provided on the normal distribution equipment.

7.6.9.3(4) The main normal power 600V Distribution Equipment will directly feed:

7.6.9.3(4)a. automatic transfer switches (ATS) for the vital branch, delayed-vital branch, and conditional branch;

7.6.9.3(4)b. surge protection device (SPD);

7.6.9.3(4)c. large individual loads, e.g. chillers;

7.6.9.3(4)d. fire pump transfer switch; and

7.6.9.3(4)e. automatic power factor correction systems.

7.6.9.3(5) The main automatic transfer switches (ATS) serving vital, delayed-vital and conditional branches to be closed transition transfer type with integral dual-source bypass and isolation features. These transfer switches are to be similar and to have identical voltage and short-circuit withstand ratings; the ampacity (current) rating of the ATS serving the delayed-vital and conditional branches is required to be identical as is the rating of the ATS serving the vital branch. The preferred source input of each of these transfer switches is to be directly connected to a separate air-circuit breaker on the main normal power 600V distribution equipment. The alternate source input of each of these transfer switches is to be directly connected to a separate air--circuit breaker on the generator synchronizing switchboard.

7.6.9.3(6) Configure the distribution downstream of the main ATS such that each one of the main ATS's feed a double-ended 600V distribution panel for emergency power, one ATS feeds a double-ended 600V distribution panel for delayed vital power, and one ATS feeds a double-ended 600V distribution panel for conditional power. Provide two such 600V Distribution Panels for emergency power (vital & delayed-vital). One of these Distribution Panels to be arranged with one main breaker and one tiebreaker and to feed the vital branch plus load breakers. The second emergency 600V distribution panel will be arranged with one main breaker and two tie breakers and to serve the delayed-vital branch loads plus load breakers; the tie breakers to provide redundancy to the vital bus and the conditional bus.

7.6.9.3(7) 600V Switchgear Distribution Panels:

7.6.9.3(7)a. Will be designed, factory-assembled and tested in accordance with CSA C22.2 No.31-10 "Switchgear Assemblies";

7.6.9.3(7)b. Will be provided with motorized draw-out type power circuit breakers complying with ANSI/IEEE C37.13 at mains, ties, and outgoing feeder breaker positions and labelled to work continuously at 100% rated current. Fuses will not be used;

7.6.9.3(7)c. Will have circuit breakers with solid-state trip units with adjustable time and current elements for Long time, Short time, Instantaneous, and Ground fault pickup settings. The trip units to have integral digital metering capable of displaying V, A, kVA and kW parameters and retaining the maximum recorded value of each parameter. The metering function of the circuit breaker trip units to be connected to the overall metering system and the Building Management System; breakers 100A and larger will be LSI electronic trip fully adjustable selective breakers.

7.6.9.3(7)d. Breakers 400A and larger will be LSGI electronic trip fully adjustable selective breakers;

7.6.9.3(7)e. Will have circuit breaker auxiliary contacts connected to the Building Management System to indicate operational status of each breaker;

7.6.9.3(7)f. Will have a coloured lamacoid mimic bus single line diagram riveted on the front;

7.6.9.3(7)g. Will have coloured engraved lamacoid nameplates for cubicle and circuit identification on front and rear sections;

7.6.9.3(7)h. Will be coloured red for Vital, blue for Delayed Vital, yellow for Conditional, and orange for UPS.

7.6.9.3(8) Each double-ended emergency 600V Switchgear Distribution Panel to directly feed:

7.6.9.3(8)a. 600V Centralized Distribution Panels (CDPs). Provide a minimum of one CDP for each of the normal, vital, delayed- vital, conditional, and normal branches;

7.6.9.3(8)b. Motor Control Centres (MCC);

7.6.9.3(8)c. Surge Protection Device; and

7.6.9.3(8)d. Large individual loads. Example: chillers.

7.6.9.3(9) Provide individual dry-type step-down 600V – 120/208V transformers in the main electrical room and all secondary electrical rooms for each of the following distribution branches: vital and conditional. Additional 600V 120/208V transformers to be located as required by the design.

7.6.9.3(10) The individual step-down transformers will be fed from a 600V Centralized Distribution Panel and located in an electrical room.

7.6.9.3(11) Centralized Distribution Panels located on the same floor will have tie breakers to at least one other system CDP.

7.6.9.3(12) All CDPs to utilize moulded case circuit breakers;

7.6.9.3(13) 600V Centralized Distribution Panels for Vital and Conditional power to feed 120/208V Centralized Distribution Panels in electrical rooms. These 120/208V CDPs to feed panel boards on each floor.

7.6.9.3(14) The 600V Delayed Vital CDP will feed 120/208V CDPs or panelboards in the same location. Additional 120/208V panelboards will be installed throughout the Building as required by the design.

7.6.9.3(15) Provide a minimum of one (1) electrical room per floor and add as required to minimize branch circuit lengths and voltage drops. Vertically stack the electrical rooms on all floors throughout the height of the Building where possible.

7.6.9.3(16) Install 600:120/208V dry-type transformers for small equipment loads in electrical rooms on concrete pads or suspend from structure. Install transformers so that removal can be facilitated without removal of any other equipment or conduit serving the room. Utilize sound and vibration mitigation installation methods for all transformers.

7.6.9.3(17) Install 600:277/480V dry-type transformers in electrical rooms connected to 480V equipment supplied by the Authority. These transformers will be fed from the 600V Centralized Distribution Panels or the 600V Distribution Panels depending on the size.

7.6.9.3(18) Locate major electrical equipment to minimize run length of feeders and branch circuits and locate within the Facility so as to provide a clean, dry, safe, accessible installation protected from unauthorized access.

7.6.9.3(19) Locate and design electrical equipment for ease of maintenance and with due regard for future expansion and renovation.

7.6.9.3(20) Provide a ground fault protection scheme such that ground faults are selective between the transformer and generator main circuit breakers and the downstream breakers sized 200A and larger.

7.6.9.3(21) Install 120/208V dry-type transformers for small equipment loads in electrical rooms on concrete pads or suspend from structure. Install transformers so that removal can be facilitated without removal of any other equipment or conduit serving the room, except for luminaires.

7.6.9.3(22) All transformers will have copper windings and be rated minimum K-13. Provide areas with significant non-linear loads with transformers with a higher K-rating.

7.6.9.3(23) Provide dedicated automatic-transfer switches for each elevator bank to allow all elevators to run in the event of an emergency power test.

7.6.9.3(24) Rate all distribution devices to handle available fault duty at line terminals. Perform a computer-generated fault study to ensure that all devices are properly rated. All circuit breakers 100A and larger will be fully selective.

7.6.9.3(25) Design and install protection equipment so that the initial electrical installation, future additions and modifications will be fully coordinated to isolate only the faulty portion of the system.

7.6.9.3(26) Select, configure, locate, and install all components of transmission and distribution systems to minimize the transmission of noise, vibration or unwanted heat into other parts of the Facility.

7.6.9.3(27) Provide a networked digital metering system to monitor and record electrical loads and quality of power in the Facility.

7.6.9.3(28) Provide power factor correction equipment within the Building to ensure the Building power factor does not fall below .95 lag. Coordinate capacitors with adjustable frequency drives and other harmonic generating equipment to avoid resonance conditions.

7.6.9.3(29) Provide dedicated transformation equipment for diagnostic imaging equipment as required by the imaging equipment vendors.

7.6.9.3(30) Provide circuit breaker type panelboards fully rated to handle calculated fault current level. Series rating of breakers and panel boards is not acceptable.

7.6.9.3(31) Provide oversize neutral(s) for panel boards, feeders, and branch circuiting where significant non-linear load(s) are anticipated, such as in open office and other areas with a high density of personal computers.

7.6.9.3(32) Construct flush mounted panel boards with two spare 53 mm conduits stubbed into an accessible location above the panel. Do not feed panelboard from below. All feeders must be routed down from the ceiling for top entry into the panelboard.

7.6.9.3(33) Provide electronic grade panel boards to serve electronic equipment susceptible to electrical transients.

7.6.9.3(34) Install vital & conditional panelboards on the same floor as the loads they serve.

7.6.9.3(35) Do not daisy-chain the feeders to panelboard. All panelboard feeders must be dedicated.

7.6.9.3(36) Provide panelboards with integral surge protective devices to serve all electronic equipment and equipment susceptible to electrical transients including Patient care areas, offices, and communication equipment.

7.6.9.3(37) Install CDPs and Panelboards on the same floor as the loads they serve. Where panelboards are located outside of electrical rooms, installation of these panelboards will be in interdepartmental, non-public corridors, provided they are painted to match the adjoining surface for finished appearance. Staff only cross-corridors in Inpatient units will also be considered.

7.6.9.3(38) All panelboards to have 25% spare capacity and 25% spare physical space after all connected loads have been installed. Provide metered documentation that proves that the 25% spare capacity has been provided once all loads are connected to the panelboard. Provide metered documentation submittal to the Authority.

7.6.9.3(39) Components of the electrical distribution systems in any public, clinical, administrative or Staff area will have long life expectancy without perceptible deterioration and a good appearance. Design and install so as to permit easy and complete cleaning.

7.6.9.3(40) Provide individual enclosed motor starters for individual motors. Utilize Motor Control Centres for groups of four or more motors that require individual motor starters.

7.6.9.3(41) Motor starters will be combination of magnetic MCP (Motor Circuit Protector) type with integral control power transformers, Hand-Off- Auto (HOA) or start/stop control and at least two auxiliary contacts in addition to seal-in contacts. Provide “power on” and “running” LED type indicators on each motor starter.

7.6.9.3(42) Provide combination starters for all motors 1/2 HP and larger that are not already controlled by adjustable frequency drive or include an integral control package. All motors of ½ HP or more will be 600V 3 phase. Where 600V 3-phase equipment is not readily available, use of 208V 3-phase equipment will be acceptable.

7.6.9.3(43) Provide voltage transient / surge protection for the main 600V and 120/208V switchgear loads and all other panels serving sensitive electrical loads including diagnostic equipment, lab equipment and adjustable frequency drives.

7.6.9.3(44) All panelboards, CDPs and Switchgear will be coloured red for Vital, blue for Delayed Vital, yellow for Conditional, and orange for UPS.

7.6.9.3(45) All panels and electrical equipment will be identified with (lamacoid) labels.

7.6.9.3(46) Nameplates for panels and equipment (lamacoid):

7.6.9.3(46)a. 3 mm thick laminated plastic plates,

7.6.9.3(46)b. Size to suit number of lines and line heights as identified with minimum 7 mm border on all sides.

7.6.9.3(46)c. On front and rear sections for switchboards

7.6.9.3(46)d. engraved lettering to be as follows (unless otherwise identified):

7.6.9.3(46)d.1 first line: 11 mm high lettering,

7.6.9.3(46)d.2 second line: 7mm high lettering,

7.6.9.3(46)d.3 third line: 5mm high lettering,

7.6.9.3(46)e. colour coded as follows:

7.6.9.3(46)e.1 black lettering on white background for panels and equipment on normal power,

7.6.9.3(46)e.2 white lettering on red background for panels and equipment on vital power,

7.6.9.3(46)e.3 white lettering on blue background for panels and equipment on delayed-vital,

7.6.9.3(46)e.4 white lettering on yellow background for panels and equipment on conditional power

7.6.9.3(46)e.5 white lettering on light blue background for panels and equipment on UPS power,

7.6.9.3(46)f. with bevelled edges,

7.6.9.3(46)g. mechanically attached with self-tapping stainless-steel screws.

7.6.10 Metering

7.6.10.1 Basic Requirements

7.6.10.1(1) Provide networked, digital microprocessor metering to provide detailed information about power quality and power consumption at key points throughout the Building. Key points include:

7.6.10.1(1)a. 600V feeder from the utility;

7.6.10.1(1)b. Distribution breakers in the main 600V distribution;

7.6.10.1(1)c. 600V Centralized Distribution Panels, mains and each panel feeder breaker;

7.6.10.1(1)d. UPS;

7.6.10.1(1)e. IMIT PDUs;

7.6.10.1(1)f. Power loads in 600V and 120/208V panelboards, metered separately;

7.6.10.1(1)g. Lighting loads in 600V and 120/208V panelboards, metered separately;

7.6.10.1(1)h. Motor Control Centres;

7.6.10.1(1)i. Panelboards feeding mechanical equipment and elevators; and

7.6.10.1(1)j. All other requirements of ASHRAE 90.1 and LEED Gold.

7.6.10.1(2) Ensure that metering is provided to record total energy consumed by lighting fixtures and equipment. Integrate information from all meters on a common software platform residing on a dedicated electrical metering server.

7.6.10.1(3) Metering will be provided on all normal, vital, delayed vital, conditional and UPS power branches.

7.6.10.1(4) Ensure that sufficient metering is provided to record the energy consumed by all major mechanical equipment including chillers, steam consumption, fan and pump motors, medical air, and vacuum. Refer to the electrical Section 7.6 of Division 26.

7.6.10.1(5) Implement a networked metering system with terminals for maintenance and plant administration, and data transfer to the Building's BMS. Provide network software, hardware, licensing to provide remote monitoring and third-party assistance, re-programming, and troubleshooting.

7.6.10.1(6) Connect electrical demand and consumption meters to the BMS.

7.6.10.1(7) Include trend logging equipment sensors to comply with and fulfil energy measurement and verification requirements. Logged information will not be overwritten and will be archived.

7.6.10.2 Performance Criteria

7.6.10.2(1) The metering system will provide easily read locally displayed information for all distribution at primary voltage and for each secondary distribution switchboard.

7.6.10.2(2) Metering intervals will be one hour or less.

7.6.10.2(3) Design the metering system network to store historical data and to have the capability to generate user configurable electronic and printed reports on demand.

7.6.10.2(4) Support the metering system by a backup power source(s), which ensures operation when the metered circuit is de-energized. The metering system will not be dependent on power from the metered circuit for its operation.

7.6.10.2(5) The metering system will, at a minimum, provide the following information about each metered circuit: Phase-to-Phase Voltage (all phases), Line-to-Neutral Voltage (all phases), Phase Demand and Peak Current (all phases and neutral), kW (peak and average), kVA (peak and average), Power Factor, kWh, VAR, hours and frequency. The metering system will also provide current and voltage harmonic information at the mains of each CDP.

7.6.10.2(6) Utilize power quality type meters for monitoring harmonics and surges / sags. Provide power quality meters capable of monitoring harmonics on the normal, vital, delayed vital and conditional distribution panels.

7.6.10.2(7) Draw-out circuit breakers on the 600V main normal and emergency Distribution Panels will be provided with trip units with integral 3 phase true RMS digital meter with local LCD display to indicate the phase current for each phase, kW, and kVA.

7.6.11 Energy Management

7.6.11.1 Basic Requirements

7.6.11.1(1) Provide an integrated energy management system to monitor, record, analyze, report on and control energy consumption from all sources that supply energy to the Facility. This system to be connected to the BMS. Refer to Section 7.6. of Division 26.

7.6.11.1(2) Design the system to provide sufficient information to enable the Authority to make Facility-wide “demand-side management” decisions relating to overall energy demand, with the intent of reducing overall energy consumption and demand throughout the Facility. Incorporate data from the digital meters required by Section 7.6 of Division 26.

7.6.11.1(3) Provide and coordinate with the Authority’s representative to provide IP addresses for energy management monitoring capabilities.

7.6.11.1(4) Provide a system and equipment that is flexible, controllable, and will form an integral part of the Facility.

7.6.11.2 Performance Criteria

7.6.11.2(1) Design the energy management system to be accessible from any networked computer using appropriate software.

7.6.11.2(2) Provide a minimum of five site software licenses if licensing is required.

7.6.12 Grounding and Bonding

7.6.12.1 Basic Requirements

7.6.12.1(1) Provide grounding and bonding for all electrical equipment and systems in the Facility for the safety of people and for protection against damage to equipment or property in the case of a fault occurring in any of the equipment or systems. Install grounding and boding as required by all applicable standards.

7.6.12.1(2) Provide supplementary grounding per relevant CSA standards in areas identified as Patient care areas.

7.6.12.2 Performance Criteria

7.6.12.2(1) Utilize non-alloyed copper for all conductors and all conducting components of electrical equipment which form part of the grounding and bonding systems in the Facility.

7.6.12.2(2) Provide solid system grounding including conductors and bussing.

7.6.12.2(3) Provide a minimum #12 copper bonding conductor in each and every conduit or raceway. Provide a #6 copper bonding conductor on each communications tray and ensure each section of the tray is securely bonded.

7.6.12.2(4) Provide equipotential grounding systems and equipment for all Patient care areas. Provide a #6 AWG copper bond from the panelboard to each room reference ground bus RRGB in each Patient care area. RRGB will be located in a flush mounted enclosure, installed below the ceiling on the left-hand side of the door upon entering the room, above the headwall or outside of room in accessible ceiling space as directed by the Authority. All branch circuits serving the Patient care area will be routed through the RRGB enclosure. Provide a stainless-steel cover with gasket over the enclosure with an identification label on it.

7.6.12.2(5) Bond all exposed non current carrying components of communication, radio, or television equipment in Patient care areas to ground using a properly sized equipment bonding conductor. Uniquely identify each bonding conductor at each end.

7.6.12.2(6) Provide a solidly grounded system including conductors and bussing. Provide equipotential grounding systems and equipment for all Clinical Spaces, including a common ground bus for each Patient bed location.

7.6.12.2(7) Bond all exposed non current carrying components of communication, radio, or television equipment in Clinical Spaces to ground using a properly sized equipment bonding conductor.

7.6.12.2(8) Provide a ground bus in each electrical and communication room connected to the central grounding system.

7.6.12.2(9) Provide a copper ground conductor within all raceways for feeders and branch circuit wiring.

7.6.12.2(10) Provide a minimum #6 AWG copper ground conductor to be run to the Telecommunications Main Bus Bar and bond all Communications Systems in accordance with relevant standard requirements.

7.6.12.2(11) Label all grounding and bonding conductors and bus bars consisting of the ‘bonding backbone’ with printed labels.

7.6.12.2(12) Complete a lightning protection study for the Facility, such study to be done by a specialist in lightning protection work and to be signed and sealed by a professional engineer registered in British Columbia.

7.6.12.2(13) Implement a lightning protection study on any risk value of 4 or higher, as defined by relevant CSA standard. Provide a complete lightning protection system for the new Facility if required by study.

7.6.13 Seismic Requirements for Electrical Systems

7.6.13.1 Basic Requirements

7.6.13.1(1) Provide seismic restraint for all electrical equipment and components of electrical systems. Design the electrical systems and its associated equipment to comply with the BC Building Code for a post-disaster facility.

7.6.13.1(2) Provide seismic restraint systems and methods that facilitate ease of maintenance and ease of replacement and reconfiguration of electrical equipment and systems and other equipment and building components.

7.6.13.1(3) Provide seismic restraint systems and methods that coordinate with the Facility's architecture and finishes. Wherever practicable, conceal components of seismic restraints from public view. Where concealment is not practicable, provide systems that complement the Facility's architecture and finishes.

7.6.13.2 Performance Criteria

7.6.13.2(1) Provide seismic support for all electrical equipment and components of electrical systems that have the potential to cause injury or damage during or following a seismic event.

7.6.13.2(2) Use seismic restraint systems that are designed by a professional engineer, registered in British Columbia, or, where an identified pre- designed standard restraint device or system exists for a particular item, that equipment may be used provided that written confirmation of its acceptability for the installation is provided by a professional engineer registered in British Columbia. This Seismic Engineer will cover off all seismic requirements within this schedule. Provide signed and sealed drawings as well as typewritten field reports from a professional seismic engineer, registered in British Columbia. Obtain certification of the main electrical distribution equipment for "seismic withstand capability" and, to maintain the certification, anchor such equipment according to the manufacturer's instructions.

7.6.14 Power Quality

7.6.14.1 Basic Requirements

7.6.14.1(1) Establish and maintain an overall power quality which assures suitable conditions for operation of all electrical and electronic equipment throughout the Facility.

7.6.14.1(2) Provide equipment and systems which assure that electrical equipment and systems will not be harmed or impaired either by external events or conditions, such as lightning and disturbances on the utility service, or by internal events or conditions generated within the Facility.

7.6.14.1(3) Provide harmonic mitigation equipment, as necessary, to ensure that power quality meets the recommendations in IEEE, including relevant standards. For the purposes of measuring the harmonic distortion, the "Point of Common Coupling" will be any of the two main transformers. As part of commissioning, confirm compliance to applicable reference tables by field measurements after building occupancy and under normal operating conditions.

7.6.14.1(4) Provide individual harmonic filters ahead of and coordinated with variable speed drive for every motor greater than 7.5 HP.

7.6.14.2 Performance Criteria

7.6.14.2(1) Provide equipment, such as filters, TVSS (transient voltage suppression system), specifically designed to control and remove all adverse power quality conditions that could damage or impair function of sensitive electronic equipment used in the Facility. Adverse power quality conditions include voltage spikes, dips and droops, transients, harmonics, power factor and radio frequency interference.

7.6.14.2(2) Provide the ability to demonstrate to the Authority at any time that there are no potentially harmful power conditions present, and that equipment intended to guard against such conditions is in proper working order.

7.6.14.2(3) The voltage phase imbalance will not exceed 3 percent between phases A, B, C anywhere within the power distribution system.

7.6.14.2(4) Provide integral surge protective devices (TVSSs) on all 600V centralized distribution panels, all 120/208V centralized distribution panels. 120/208V panel boards supplying power to sensitive electronic equipment will also have integral TVSS and dedicated neutrals for electronic equipment.

7.6.14.2(5) Provide phase detection/protection at all centralized distribution panels feeding mechanical equipment, elevator equipment and medical equipment.

7.6.14.2(6) Provide a third party specializing in power quality systems to fully test and commission all power quality systems. The reports are to be submitted with the commissioning documents.

7.6.15 Lighting

7.6.15.1 Basic Requirements

7.6.15.1(1) The Design-Builder will utilize LED technology for all lighting. Utilize hospital grade luminaires in all clinical and general hospital areas and specification grade quality luminaires in utility and storage closets. All luminaires to be selected with emphasis on energy efficiency, aesthetics, glare reduction and high colour rendering. The Design-Builder will provide healthcare luminaires in all clinic service areas. All lighting will be dimmable and will provide various lighting levels to accommodate individual control and comfort. Healthcare luminaires will be appropriate to the unique requirements of each application, including but not limited to the following:

7.6.15.1(1)a. All spaces will be illuminated to meet or exceed the most stringent requirements for light levels, uniformity ratios and general design methods from IES RP-29-16 and IESNA 10th Edition Handbook, or later, CSA Z317.5 and WorkSafeBC requirements applicable to that space.

7.6.15.1(1)b. Examination lighting to provide high powered lighting for Patient exams. Provide an exam control function in emergency, treatment areas, procedure, Patient rooms and exam rooms or bays and specialty exam lighting in LDRP with a remote control function.

7.6.15.1(1)c. Task lighting to support a variety of tasks requiring enhanced illumination as noted in Appendix 1A Clinical Specifications and as determined through Schedule 2 Review Procedure.

7.6.15.1(1)d. Healing lights to soothe the Patient during anxiety providing procedures.

7.6.15.1(1)e. Ambient lighting to promote overall Patient wellness.

7.6.15.1(1)f. Chart lights to support caregiver notations on Patient progress as noted in Appendix 1A Clinical Specifications and as determined through Schedule 2 Review Procedure.

7.6.15.1(1)g. Wayfinding – night lights in Patient rooms and areas to promote overall Patient wellness as noted in Appendix 1A Clinical Specifications and as determined through Schedule 2 Review Procedure. Lighting will provide maximum uniformity.

7.6.15.1(1)h. Provide a low voltage relay-based lighting control system with a broad selection of energy-efficient LED luminaires with a low voltage sensor that controls the lighting system in compliance with the latest energy codes and collects valuable data about the building performance and use. Software applications provide granular data into information through energy dashboards and specialized applications (APPs) that make it simple and help optimize the use of building resources. Provide low voltage dual technology occupancy/vacancy and daylight harvesting sensors for all public areas, including general corridors, all department corridors, waiting areas and similar areas. Provide software and integrate into the BMS to provide time of day usage, historical data, and power consumption. Provide sufficient allowance to design and develop a web-based application (APP) to provide an integration portal to access data collection.

7.6.15.1(2) All Operating Rooms, treatment rooms, procedure rooms and similar room luminaries will be NSF2 listed IP65 rated UL certified IP65 per IEC 60598, and K230 rated. Provide FED-STD-209E/Class 1 (ISO 3) Clean rooms and conducted emissions controlled as per MIL-STD-461F luminaires for all procedure rooms and Patient rooms.

7.6.15.1(3) All Operating Rooms, treatment rooms, procedure rooms, Patient rooms, Patient bays, stretcher bays and similar room luminaries will be rated with a CRI value greater than 90 and with a high R9 value. All other areas will have luminaires with a CRI value rated between 83 and 90.

7.6.15.1(4) Provide aesthetically pleasing, exceptional visual comfort luminaires with dimming and scene setting as detailed in this section.

7.6.15.1(4)a. Provide aesthetically pleasing specialty lighting for all nursing stations, kiosks. Specialty lighting will consist of suspended fixtures above Millwork, LED cove lighting in bulkhead and architectural clouds and wall washing down lights for feature walls and similar locations.

7.6.15.1(5) Luminaries will have the following characteristics:

7.6.15.1(5)a. Interior LEDs to be rated at 3000K to 3500K as directed by the Authority.

7.6.15.1(5)b. Exterior LED fixtures to be rated at 3000K or as directed by the Authority.

7.6.15.1(5)c. Not used.

7.6.15.1(6) Patient room lighting will accommodate the needs of both Patient and caregiver. Lighting requirements within the Patient rooms differ based on the task being performed, including testing, Patient examination, charting, reading and Wayfinding. Additionally, the Patient room will optimize Patient comfort. Provide multi-function lighting, night lighting, chart lighting and head wall illumination.

7.6.15.1(7) In Medical Patient Units, locate lighting fixtures that remain on during the night so that they cannot be seen from bed positions from within the Patient Room.

7.6.15.1(8) Medical in-patient room lighting will consist of multi-function luminaires to provide ambient and exam lighting. Provide examination and general area lighting above bed or stretcher with 0% - 100% dimming. Provide a dimmable reading luminaire and general overhead room lighting. Provide LED night lights for Wayfinding switched from Patient pillow control and at entrance to room. Provide LED charting lights to accommodate charting. Provide dimmable down lights for Patient visitors area separately switched for convenience. The Design-Builder will also provide a separately switched wall mounted vanity luminaire above all Patient washroom sinks, a separately switched dimmable down light above the toilet and a heat lamp on a timer in Patient washrooms with a shower.

7.6.15.1(9) Corridors / nursing station and similar area lighting to meet performance requirements as follows:

7.6.15.1(9)a. Sealed for infection control;

7.6.15.1(9)b. Appropriately placed lighting for tasks;

7.6.15.1(9)c. Wayfinding capabilities;

7.6.15.1(9)d. Dependable and effective signage exit and emergency lighting;

7.6.15.1(9)e. Provide recessed wall washing down lights for feature walls.

7.6.15.1(9)f. Provide master override dimming control for at least one fixture in all Inpatient bedrooms and observation rooms.

7.6.15.1(9)g. Provide master override dimming control in all observation alcoves to control at least one fixture in all Inpatient bedrooms and observation rooms.

7.6.15.1(9)h. Corridor lighting primary requirement is the ability to ease transitions to adjacent areas.

7.6.15.1(9)i. Provide down lights in alcoves and similar locations to deliver soothing corridor illumination.

7.6.15.1(9)j. Provide under cabinet task lighting proposal to support a variety of caregivers' duties as described in Review Procedure.

7.6.15.1(10) Design-Builder will provide Patient room, Patient holding and stretcher bay and similar area lighting to the performance requirements as follows:

7.6.15.1(10)a. Conducted emissions controlled as per MIL-STD-461G.

7.6.15.1(10)b. Sealed and gasketed for infection control;

7.6.15.1(10)c. Not used;

7.6.15.1(10)d. Will be NSF2 splash/non-food zone;

7.6.15.1(10)e. UL certified IP65 per IEC 60598;

7.6.15.1(10)f. Provide FED-STD-209E/Class 1 (ISO 3) Clean rooms;

7.6.15.1(10)g. Multi-function capability;

7.6.15.1(10)h. Aesthetic appeal;

7.6.15.1(10)i. Ease of maintenance and cleanability; and

7.6.15.1(10)j. Dimmable lighting.

7.6.15.1(11) Provide luminaires and light sources that enhance safety and allow personnel to circulate throughout spaces and perform required tasks.

7.6.15.1(12) Design lighting with the objective of creating a comfortable working environment and an environment conducive to healing and recovery.

7.6.15.1(13) Lighting will comply with all characteristics recommended by the CSA Standard Z317.5-98 Illumination Systems in Health Care Facilities and ANSI/IESNA RP-29-06.

7.6.15.1(14) Lighting power density levels will be lower than the latest adopted version of the ASHRAE Standard 90.1 by 5% and the lighting installation will meet the requirements of Appendix 1A Clinical Specifications and ASHRAE standard 90.1.

7.6.15.1(15) Provide connections to the BMS and energy management system.

7.6.15.1(16) An electrically powered LED "X-ray In Use" signs will be located outside any room in which fixed x-ray equipment is anticipated to be used. The sign will be connected to an internally illuminated switch inside the room label "X-ray". The switch will be interlocked with the x-ray equipment such that the equipment will not operate with the switch in the “off” position. The “X-Ray In Use” sign will be interlocked with the doors to the Operating Room and the X-Ray machine will not function while the doors are open. Internal illumination of the switch will be on only when the “X-ray in Use” sign is illuminated.

7.6.15.2 Performance Criteria

7.6.15.2(1) Provide luminaires that require minimal cleaning and permit practical and easy access and disassembly. All luminaries will be ULC listed, provided with anti-microbial finish, and rated for intended usage.

7.6.15.2(2) Provide infection control rated luminaires throughout all Clinical Spaces. All lighting components to be specification or hospital grade.

7.6.15.2(3) Utilize LED lighting. Use wall sconces or down lighting for decorative purposes. Do not use incandescent, fluorescent, compact fluorescent, or HID lighting.

7.6.15.2(4) Not used.

7.6.15.2(5) Minimize use of battery-operated unit emergency lighting. Battery- operated emergency lighting may be an acceptable alternative as a second level of emergency lighting in areas including, procedure rooms, Inpatient areas, electrical rooms, mechanical areas, and other areas determined and directed by any other specification section or reference document, code or standard. Remote heads will utilize LED technology.

7.6.15.2(6) Connect, at a minimum, 10% of the lighting in Clinical Spaces and rooms and areas used by the public to the UPS system.

7.6.15.2(7) No area will have luminaires circuited from one power source only.

7.6.15.2(8) Circuit the luminaires in all interior and exterior areas from both conditional and vital power so that if one power source is not available emergency light levels are met.

7.6.15.2(9) Utilize recessed volumetric or indirect LED luminaries in offices, reception areas, nursing stations, and other areas where computer terminals and similar screens are present. Provide lighting control in accordance with ASHREA 90.1 latest adopted addition. Provide dual technology occupancy sensors with manual on/auto off in offices. Utilize 1% - 100% dimming control or multi-level switching and daylight dimming where appropriate.

7.6.15.2(10) Design lighting in conference rooms, meeting rooms and video conferencing facilities to maximize viewing of monitors and screens and provide suitable vertical and horizontal illumination of people being viewed. Provide 0 – 100% dimmable lighting with switching to allow for general and ambient lighting selection. Provide illuminance levels as per IES DG-17-05 recommendations.

7.6.15.2(11) Provide special task lighting designed for the types of procedures conducted for rooms and areas where treatment is provided, including medication rooms, nursing stations and rooms, and areas where specialized analytical or diagnostic work is carried out, e.g. sterile core, biomed, birthing units, Inpatient bedrooms, Triage/Observation, surgical, operating, procedure rooms and similar.

7.6.15.2(12) As architectural features, main lobbies, waiting areas, Staff lounges, and the main entrance will be provided with design lighting in high quality products aesthetically pleasing to the public and Staff. Staff areas and rooms will have multiple switching and dimming controls.

7.6.15.2(13) Where Patients are being transferred and/or lying on a stretcher provide volumetric or indirect lighting separately controlled by a master multi-zone low voltage controller located in the nursing station and observation alcoves. Areas include stretcher bays, stretcher recover bays in higher acuity, recovery and Operating Room support areas, interim PARR, and other similar areas.

7.6.15.2(14) Provide LED under counter lights on a dedicated switch for all above counter cabinets.

7.6.15.2(15) Provide an LED above counter light for all hand hygiene sinks.

7.6.15.2(16) Where multi-level lighting is required, each luminaire will have multiple levels of lighting. Switching of different luminaires on and off will not constitute multi-level lighting control.

7.6.15.2(17) Utilize daylight dimming for lighting at exterior glazing.

7.6.15.2(18) Controls to be to ASHRAE 90.1 requirements. Occupancy and vacancy sensors to be dual technology and designed for the application in which they are used.

7.6.15.2(19) Provide luminaires and light sources that enhance safety and allow personnel to circulate throughout spaces and perform required tasks. Tamper resistant fixtures will be provided in the Mental Health Services.

7.6.15.2(20) Not used.

7.6.15.2(21) Lighting design will consider the light pollution reduction requirements as outlined in LEED to eliminate light trespass from the building and site, improve night sky access and reduce development impact on nocturnal environment. Fixtures for exterior area will be mounted at a height no more than 7m above ground surface being illuminated.

7.6.15.2(22) Utilize LED type edge lit green pictogram exit signs in finished areas, and steel in unfinished areas. All exit signs will be LED type powered by the vital system. Provide exit signs as required by Code. Additional exit signs will be provided to provide wayfinding to all exit doors and paths of egress from all internal corridors and corridor intersections. Provide direction to two paths of egress from corridors and intersections.

7.6.15.2(23) Operating Rooms and Procedure Rooms

7.6.15.2(23)a. Provide maximum uniformity between zones in all surgical and Operating Rooms. Provide illumination as recommended by relevant CSA standard. Provide minimal luminance contrast between zones to allow surgical teams to work effectively and in maximum comfort for extended time periods. Provide optical systems design to achieve maximum luminance uniformity between all three zones;

7.6.15.2(23)b. Provide IP65 rated UL certified IP65 per IEC 60598 and K230 rated luminaires suitable for a "Clean Room" environment;

7.6.15.2(23)c. Not used;

7.6.15.2(23)d. Connect Surgical Procedure Lights to the UPS branch;

7.6.15.2(23)e. Provide infrastructure services (power, raceway, grounding, wiring) for Procedure Room lighting provided by vendors. The Design-Builder to supply/install, set-up, test, and commission all Authority supplied equipment. Provide all necessary devices/equipment and provide all connections and installation in accordance with manufacturers requirements;

7.6.15.2(23)f. Provide dimmable down lights or 1’ x 4’ recessed luminaires around the perimeter of the room; 0%-100% dimmable.

7.6.15.2(23)g. Provide, at a minimum, a 4-zone lighting controller to provide pre-set lighting zones to control all general lighting. At a minimum, locate one master and two slave controllers at the entrances to the rooms.

7.6.15.2(24) Offices and Workrooms

7.6.15.2(24)a. Provide uniformly luminous, recessed mounted volumetric or indirect luminaires;

7.6.15.2(24)b. Position ceiling luminaires to avoid direct and reflected glare;

7.6.15.2(24)c. Provide multi-level or dimming lighting controls, dual technology occupancy sensors with manual on/auto off and daylight sensing.

7.6.15.2(24)d. Provide under counter luminaire for above sinks and under upper cabinetry. Provide separate switching for these lights.

7.6.15.2(25) Meeting Rooms (including Multipurpose, Videoconference, Conference rooms)

7.6.15.2(25)a. Provide recessed mounted volumetric or indirect luminaires or linear luminaries mixed with down lights. Provide appropriate luminaires where videoconferencing will take place to illumine faces while minimizing glare;

7.6.15.2(25)b. Position ceiling luminaires to avoid direct and reflected glare;

7.6.15.2(25)c. Provide dimming lighting controls, dual technology occupancy sensors with manual on/auto off and daylight sensing where appropriate;

7.6.15.2(25)d. Provide under counter luminaire above sinks and under upper cabinetry. Provide separate switching for these lights;

7.6.15.2(25)e. Provide a minimum of two (2) zone lighting controllers in all meeting rooms to provide pre-set lighting zones as determined in consultation with the user groups.

7.6.15.2(26) Areas, such as Reception, Waiting, Lobby and Seating

7.6.15.2(26)a. Provide decorative lighting for visual interest, and lighting that illuminates feature wall and specialty signage, design features, and special features of the area;

7.6.15.2(26)b. Provide master dimmable control of all corridors, stretcher bays and general area lighting.

7.6.15.2(26)c. Provide lighting controls for these areas at nursing stations and other similar areas not available to the public.

7.6.15.2(27) Nursing and Care Stations

7.6.15.2(27)a. Provide volumetric or indirect recessed lighting anddown lighting;

7.6.15.2(27)b. All lighting to be dimmable;

7.6.15.2(27)c. Provide decorative lighting;

7.6.15.2(27)d. Provide dual technology occupancy sensors with manual on/auto off and daylight sensors where appropriate and required by ASHRAE;

7.6.15.2(27)e. Provide master dimming controls for at a minimum one luminaire within Inpatient rooms.

7.6.15.2(28) Staff and Public Washrooms

7.6.15.2(28)a. Provide down lighting for general illumination and aesthetically pleasing vanity light above sink.

7.6.15.2(28)b. Provide ceiling mounted dual technology occupancy sensor.

7.6.15.2(29) Public and Non-Public Corridors

7.6.15.2(29)a. In publicly accessible corridors, provide volumetric or indirect recessed lighting and in corridors not accessible by the public provide lensed recessed lighting;

7.6.15.2(29)b. Provide daylight dimming sensors for corridors with exterior glazing. Provide dimming controls of corridors. Lighting in corridors to be reduced to 50% at each fixture during night-time.

7.6.15.2(29)c. Corridor lighting to be 10% UPS power, 40% Vital power, 50% conditional power. UPS powered luminaires to be located at corridor intersections and corners.

7.6.15.2(30) Post Anaesthetic Recovery Room (PARR)

7.6.15.2(30)a. Provide a wall or ceiling mounted exam light for each PARR bay. Locate as directed by the Authority.

7.6.15.2(30)b. Provide separate controls for the Patient exam light at each of the following locations:

7.6.15.2(30)b.1 On the column at the entrance to the PARR bay; and

7.6.15.2(30)b.2 On the column on the Patient side.

7.6.15.2(30)c. Provide an amber LED nightlight that is switched from the column at each PARR bay;

7.6.15.2(30)d. Provide a separately switched vanity luminaire above all hand hygiene sinks;

7.6.15.2(30)e. Lighting in recovery bays to be dimmable;

7.6.15.2(30)f. Provide a separately switched dimmable down light shared between two bays.

7.6.15.2(31) Medical and Surgical Inpatient (including Isolation and Bariatric)

7.6.15.2(31)a. Provide two dimmable, asymmetrical, 1'x4' lights (flanking the Patient bed) with antimicrobial finish. Patient exam room lights will function as exam light and ambient light with no glare and will be architecturally pleasing.

7.6.15.2(31)b. Provide two amber LED night lights that are switched and dimmed inside the room at the entrance from the corridor, in the anteroom and through the Patient-controlled nurse call pillow speaker or headwall system.

7.6.15.2(31)c. Provide a dimmable reading luminaire.

7.6.15.2(31)d. Provide dimmable down lighting at visitor areas.

7.6.15.2(31)e. Provide dimming controls for all fixtures separately at the following locations:

7.6.15.2(31)e.1 inside the room at the entrance from the corridor;

7.6.15.2(31)e.2 the headwalls;

7.6.15.2(31)e.3 the Patient-controlled nurse call pillow speaker;

7.6.15.2(31)e.4 the anteroom if required.

7.6.15.2(31)f. Provide at a minimum at least one fixture within the Patient room to be controlled from the nurses observation/charting alcove.

7.6.15.2(31)g. Provide task lighting in the respective anteroom and general area lighting.

7.6.15.2(32) Not used.

7.6.15.2(33) Not used.

7.6.15.2(34) Medical Patient washrooms (including Bariatric and Isolation):

7.6.15.2(34)a. Provide an amber LED night light in each Patient washroom that is not switched. Provide a dimmable vanity light over the sink and dimmable general area lighting utilizing down lights switch together. Night light to illuminate on photocell only.

7.6.15.2(35) Mental Health Services:

7.6.15.2(35)a. Provide tamper resistant or Institutional vandal resistant type ceiling mounted or wall mounted luminaires throughout the Mental Health Services. The fixtures will be dimmable from 1-100%.

7.6.15.2(35)b. Washrooms

7.6.15.2(35)b.1 Provide vandal resistant amber night lights at low level with photocell control such that when lights are turned on in washrooms, night light turns off automatically. Night light will be located near the toilet and sink such that toilet and sink are visible without turning on ceiling light.

7.6.15.2(35)b.2 Provide flush ceiling mounted vandal resistant vanity lighting in washroom.

7.6.15.2(35)c. Secure Room

7.6.15.2(35)c.1 Provide ceiling recessed, vandal resistant, ligature proof, and dimmable luminaires.

7.6.15.2(35)c.2 All dimmer switches for lighting in secure room will be located in the Anteroom.

7.6.15.2(35)c.3 Luminaries will be vandal resistant, locate away from other equipment that could assist in gaining access.

7.6.15.2(36) Provide effective illumination with colour tunable lighting fixtures and control system (Circadian Rhythm) in each birthing unit room, corridor, and Patient bays. The system will achieve the following functions:

7.6.15.2(36)a.1 Programmable colour temperature variability across a range from 2700°K to 6500°K.

7.6.15.2(36)a.2 Programmable dimming from a maximum lighting intensity at 1000lux average over the bed down to a minimum of >0%, plus OFF.

7.6.15.2(36)a.3 Programmable astronomic, 365 day/year, automatic time-of- day control of ON/OFF, lighting intensity and colour temperature with a minimum of four schedule settings. Suggested colour temperature settings for initial set up:

.7.6.15.2.36.a.3.1 morning 7AM to 2PM 6000°K;

.7.6.15.2.36.a.3.2 afternoon 2PM to 6PM 4100°K;

.7.6.15.2.36.a.3.3 evening 6PM to 8PM 2700°K; and

.7.6.15.2.36.a.3.4 night-light 8PM to 7AM 2700°K.

7.6.15.2(36)a.4 System to allow scheduled program settings to be manually overridden through a local control station at team care station.

7.6.15.2(36)a.5 Colour temperature and lighting intensity program changes to fade smoothly across a programmable time period so illumination changes are not abrupt.

7.6.15.2(37) Exam, Consulting and Similar Rooms

7.6.15.2(37)a. Provide dimmable, asymmetrical, volumetric, or indirect 305mm x 1219mm (1'x4') ceiling mounted recessed lights with antimicrobial finish. The fixtures will dim 1-100%.

7.6.15.2(37)b. Provide connection and controls for Patient Exam Light. 7.5.15.2

7.6.15.2(37)c. Provide dual technology occupancy sensor.

7.6.15.2(38) Exterior Lighting

7.6.15.2(38)a. Provide LED fixtures suitable for exterior use with full cut off and vandal resistant below 4m. Provide low level lighting, bollards, wall mounted and post top lighting where needed to provide safe, well-lit walkways, parking areas and roads.

7.6.15.2(38)b. The lighting design for all on site roadways, pedestrian pathways and parking areas will comply to ANSI/IES RP-8-18. Provide light level calculations to show compliance.

7.6.15.2(38)c. The exterior lighting levels should comply to ANSI/IES RP-8-18 for high pedestrian conflict areas.

7.6.15.2(38)d. Exterior lighting to be connected to the Vital and Conditional power sources. Mix lighting sources so no area is dark with loss of one source of power.

7.6.15.2(38)e. Control exterior lighting to ASHRAE 90.1 requirements.

7.6.15.2(38)f. Not used.

7.6.15.2(38)g. Connect Exterior lighting to the BMS system. Exterior lights to be controlled via astronomical time clock and photocell.

7.6.16 Lighting Controls

7.6.16.1 Basic Requirements

7.6.16.1(1) Lighting controls to comprise a significant part both of the energy management of the facilities and of the flexibility required to adjust lighting to suit functions and activities.

7.6.16.1(2) The lighting control system will be a low voltage digital relay-based system using relays and/or DALI protocol controllers, occupancy sensors, vacancy sensors, photo sensors, LED 0-10V or DALI dimming drivers, compatible dimmers switches and low voltage switches and switch stations. Lighting control to permit simple and integrated control of lighting; controls will be easily operated and located for each area and function in consultation with the Authority.

7.6.16.1(3) Lighting controls are to meet or exceed ASHRAE 90.1 requirements.

7.6.16.1(4) All of the lighting in a space to be capable of being switched at all entrances to the space.

7.6.16.1(5) Integrate the lighting control system with the Building Management System for remote control of the lighting and energy management.

7.6.16.1(6) Staff and Patients to have the ability to control the lighting in their environment. All Clinical Spaces to have Staff and Patient lighting control. All other rooms to have Staff lighting control.

7.6.16.1(7) Patients to have the ability to control the lighting levels in their rooms or bays directly and easily from their beds.

7.6.16.1(8) Dual technology occupancy sensors, vacancy sensors and daylight dimming control systems to be utilized to maintain light levels at levels based upon the occupancy of the room and the quantity of daylight.

7.6.16.1(9) On/off daylight controls are not permitted.

7.6.16.2 Performance Criteria

7.6.16.2(1) Where lighting controls are required to be located in areas accessible to the public, they will be protected from unauthorized operation.

7.6.16.2(2) Corridor lighting controls to be located at the nursing stations and reception desks, where applicable. Controls to be multilevel (to provide a lower light level at night) and capable of overriding the BMS night setback control. There will be no night setback in critical care areas.

7.6.16.2(3) Lighting control system to be interfaced to the BMS to permit override ‘100% on’ and night set back control. Lighting program to be established by the Authority and Design-Builder to address different conditions such as power outage and fire alarm.

7.6.16.2(4) All manually operated lighting controls to be of a type, which can be completely cleaned and disinfected without requiring any disassembly. Manually operated controls will not be deteriorated or otherwise adversely affected by frequent cleaning and disinfections.

7.6.16.2(5) Lighting controls in locations where they may be subjected to excessive moisture or to chemicals that might cause deterioration are to be rated specifically for the application.

7.6.16.2(6) Locate all lighting control panels and relay panels within electrical rooms and non-public corridor walls and, if required due to volume of components, in corridor ceiling spaces.

7.6.16.2(7) Provide lighting control schedules that respond to individual departmental requirements and occupancy/use. Design a schedule of lighting control and include in the design specifications.

7.6.16.2(8) Lighting in open areas and common areas to be zoned and subdivided to permit energy management control and variation of light levels.

7.6.16.2(9) Provide zone control of lighting for all corridor, circulation, waiting and gathering areas. Zoning control will include floor by floor and department by department, as a minimum. Provide master switches to control groups of lighting zones with the capability of direct on/off control or on/flick-then-off control ('flick-then-off' function is that the lights will flick prior to turning completely off). Any master switch which could cause an occupant to be left in the dark will have the 'flick-then-off' warning function.

7.6.16.2(10) Dual technology occupancy sensors in ceilings will be automatic on/off type and will control both room lighting and HVAC systems (via sensor contact interface to BMS).

7.6.16.2(11) Dual technology occupancy sensors on the wall to be manual on/automatic off type and will control both lighting and HVAC systems (via sensor contact interface to BMS).

7.6.16.2(12) Vacancy sensors, a subset of occupancy sensors, manual on/off/dimming, automatic off type.

7.6.16.2(13) Daylighting controls to be provided for all lighting in areas adjacent to exterior glazing and to provide dimming to 0% of lamp output. Provide combination daylight harvesting and occupancy control to the rooms exposed to daylight and requiring occupancy sensors.

7.6.16.2(14) Daylighting to meet the following performance criteria:

7.6.16.2(14)a. The average luminance across a representative portion of the task surface to be at least 30% of the target design level for that space type within 5 m of the daylight source;

7.6.16.2(14)b. Overhead lights within the space to be dimmed as low as possible (or turned off) while satisfying above criterion (a).

7.6.16.2(15) Occupancy sensors and daylighting controls to be extra-low or line voltage type; and where low voltage will be integrated into the lighting control system and located on ceilings to avoid interference with furniture. Occupancy sensors will typically be dual technology with other types to suit application.

7.6.16.2(16) Exterior lighting to be controlled via BMS and photocell.

7.6.17 Mechanical Equipment Connections

7.6.17.1 Basic Requirements

7.6.17.1(1) Provide electrical power control and monitoring connections to all mechanical equipment as required for proper operation, protection, and maintenance of the equipment. Materials and installation methods will result in safe, reliable, and serviceable mechanical equipment and systems in the Facility.

7.6.17.2 Performance Criteria

7.6.17.2(1) Utilize institutional or industrial quality cables, connectors, conduit systems, fittings and hardware used to make connection to mechanical equipment so as to provide for high levels of reliability, durability, and ease of maintenance of the equipment.

7.6.17.2(2) Design connections made to motors and/or motor driven equipment or equipment with noticeable levels of vibration to accommodate the vibration.

7.6.17.2(3) Design connections to mechanical equipment to easily permit removal and replacement of the equipment.

7.6.17.2(4) Size Motor Control Centres, main feeders to Motor Control Centres, and mechanical distribution centres to accommodate the mechanical equipment with an additional 20% spare capacity.

7.6.17.2(5) Utilize Motor Control Centres when four 3-phase motors that require a starter are located within 50 m of each other.

7.6.17.2(6) Provide labelling on MCCs to match motors.

7.6.17.2(7) Provide wring diagrams of each starter type.

7.6.17.2(8) Provide full size starters.

7.6.17.2(9) For motors 20 HP. and above, provide reduced current starters. Provide integral harmonic cancellation devices to limit harmonics to 5% current harmonics (iTHD) of the full load fundamental current if solid-state starters are employed.

7.6.17.2(10) Starters and MCCs to be indoor sprinkler-proof, type 2 enclosures. Arc Flash reducing type will be utilized for 600V MCCs.

7.6.17.2(11) Provide individual control transformers for each starter.

7.6.17.2(12) Starters or MCCs connected to emergency and normal power to be coloured to match the corresponding system colour. All interiors to be white.

7.6.17.2(13) Electrical connections and power-paths to mechanical equipment should reflect the redundancy considerations of the corresponding mechanical system or portion of the mechanical system serving an area.

7.6.18 Major Medical Equipment

7.6.18.1 Basic Requirements

7.6.18.1(1) Provide all electrical requirements for connection, operation and monitoring and control of any supplied major medical equipment.

7.6.18.2 Performance Criteria

7.6.18.2(1) Each item of equipment to be installed and electrically connected for proper and full operation.

7.6.18.2(2) Electrical characteristics of this equipment, including voltage, wattage, phase, demand, inrush, frequency, connection method and control and monitoring requirements to be confirmed by the designer and provided for.

7.6.18.2(3) Space, access and ventilation requirements and other operation critical characteristics of this equipment to be provided for and outlets and connection points to be located correctly for installation and so as to permit proper and safe isolation for servicing and disconnection for removal or replacement.

7.6.18.2(4) Any motorized equipment is to be equipped with a local lockable disconnect switch.

7.6.18.2(5) Feed all major medical equipment (imaging, procedure) from a dedicated transformer.

7.6.19 Medical Service Headwall Units Systems

7.6.19.1 Basic Requirements

7.6.19.1(1) Incorporate headwall power, communications, equipment mounting, medical gases, nurse call and lighting control into the medical service units specified under another division. Provide data, power, nurse call and lighting control systems as describe within and as noted in all relevant Appendices and as directed by user group consultation.

7.6.19.1(2) Provide the minimum quantity of power outlets in Patient care areas in accordance with relevant CSA standard and the classification of loads and branches in accordance with this standard.

7.6.19.1(3) Provide the minimum quantity of data outlets in accordance with Divisions 27 and 28.

7.6.19.2 Performance Criteria

7.6.19.2(1) Provide horizontal or vertical type medical service headwall units as directed by department representative and identified in Appendix 1A Clinical Specifications.

7.6.19.2(2) Coordinate and install the required electrical services, including nurse call, normal, emergency and UPS power, IP Video Surveillance, Patient entertainment, Patient information, communications outlets, exam light, and reading light and switches, in the medical service units.

7.6.19.2(3) Conceal within walls all the mechanical and electrical services feeding the medical service units.

7.6.19.2(4) Avoid back-to-back installations between bedrooms that could compromise acoustic rating of such assembly. Where back-to-back installations are unavoidable, acoustic isolation will be provided.

7.6.19.2(5) Exact medical service unit dimensions and configurations to depend on the room layout and the available space. Generally, the medical service unit length will suit the quantity and location of outlets and all outlets will be clear from the width of the bed.

7.6.19.2(6) Design-Builder will note that if an area behind the bed is free of services that these services be placed on the side of the bed;

7.6.20 Specialty Systems

7.6.20.1 Basic Requirements

7.6.20.1(1) Special electrical and Communications Systems are required in the Facility (as described in this Schedule) and form essential parts of the Building. Provide power supply, specially conditioned power and communication conduits and other electrical operational support equipment to meet all requirements of these special electrical and electronic systems.

7.6.20.2 Performance Criteria

7.6.20.2(1) Utilize institutional or industrial quality cables, connectors, conduit systems, fittings, and hardware to make connection to special equipment and to provide for high levels of reliability, durability, and ease of maintenance of the equipment.

7.6.20.2(2) Provide connections to special equipment that easily permit removal and replacement of the equipment.

7.6.21 Clock System

7.6.21.1 Basic Requirements

7.6.21.1(1) Provide a synchronized wireless clock system to assure accurate, consistent time is available throughout the Facility. The system will self-correct if power fails.

7.6.21.1(2) Provide clocks by a recognized industry leader with all components by the same manufacturer.

7.6.21.1(3) All clocks in the Facility will be synchronized.

7.6.21.1(4) Clock types include digital with seconds indicator (DSC), digital with day/date indicator (DDC), elapsed timer (ETC) and analogue (ANC) and are specified with the following notation in the list provided in 7.6.21.1(5).

7.6.21.1(5) Provide clocks in the following areas:

7.6.21.1(5)a. Reception Desk (ANC);

7.6.21.1(5)b. Information Desk (ANC);

7.6.21.1(5)c. Exam/ Treatment Rooms – in corridor, visible from all doorways (ANC);

7.6.21.1(5)d. Not used;

7.6.21.1(5)e. Group Consultation, Group Therapy, and Group Counselling rooms (if 8+ occupants) (ANC);

7.6.21.1(5)f. Collaboration Station (ANC);

7.6.21.1(5)g. Not used;

7.6.21.1(5)h. Meeting, Education, Conference rooms (8+ occupants) (ANC);

7.6.21.1(5)i. Staff Lounge (ANC);

7.6.21.1(5)j. Not used;

7.6.21.1(5)k. Resuscitation/ Trauma Room (DSC and ETC);

7.6.21.1(5)l. Operating Rooms (DSC);

7.6.21.1(5)m. Minor Procedure Room (DSC);

7.6.21.1(5)n. Endoscopy rooms (DSC);

7.6.21.1(5)o. Cancer Care and IV Therapy Bays – in general vicinity, to be visible from all bays (ANC);

7.6.21.1(5)p. Maternal and Newborn Inpatient Unit Triage/Assessment Bays and Triage/Assessment Rooms (DSC);

7.6.21.1(5)q. LDRPs (DDC);

7.6.21.1(5)r. Holding Nursery (DSC);

7.6.21.1(5)s. Ante/Postpartum Room (ANC);

7.6.21.1(5)t. LDRP Washroom (w/Tub) (DSC;

7.6.21.1(5)u. Inpatient Bedrooms (Bariatric) (DDC);

7.6.21.1(5)v. Inpatient Bedrooms (DDC);

7.6.21.1(5)w. IPU Isolation Anterooms (DDC).

7.6.21.2 Performance Criteria

7.6.21.2(1) All clocks are synchronized either directly or indirectly to an Authority designated NTP source.

7.6.21.2(2) Provide synchronized clocks minimum 300 mm in diameter with stepping second hand and 24-hour numbering. Numbering to include hours 1-12 in large numbers on outer ring and hours 13-24 in smaller numbers on inner ring.

7.6.21.2(3) In the event of a power loss, the control system will continuously maintain proper internal time.

7.6.21.2(4) No clocks will be solely battery powered.

7.6.21.2(5) Clock System Standard of acceptance: Time Trackers or Primex.

7.6.22 Fire Alarm System

7.6.22.1 Basic Requirements

7.6.22.1(1) Provide a new fire alarm system for the Facility and ensure that that system meets or exceeds the requirements in this Section.

7.6.22.1(2) Provide a complete two stage (general and evacuation), supervised, 24 VDC fire detection and alarm system that includes addressable, intelligent, automatic, and manual initiation devices and audio/visual alarm devices with voice evacuation capabilities. Alarm activation will be initiated by manual pull stations, smoke / heat detection, and fire sprinkler water flow devices. Alarm indication to consist of visual and combination visual/audible devices.

7.6.22.1(3) The fire alarm system to comply with all applicable standards, including:

7.6.22.1(3)a. Can/UL S524 Standard for Installation of fire alarm systems;

7.6.22.1(3)b. Can/UL S537 Standard for Verification of fire alarm systems;

7.6.22.1(3)c. Applicable NFPA Codes; and

7.6.22.1(3)d. Elevator Code CSA-B44.

7.6.22.2 Performance Criteria

7.6.22.2(1) Install all fire alarm wiring in conduit. Provide two hour rated cable where required to meet survivability requirements of NFPA 72.

7.6.22.2(2) Provide addressable smoke detectors as required, self-correcting analogue type to maintain consistent sensitivity. The following areas to be provided with smoke detector coverage, in addition to sprinklers, for early detection:

7.6.22.2(2)a. Electrical rooms;

7.6.22.2(2)b. Communication rooms;

7.6.22.2(2)c. Procedure rooms and similar areas;

7.6.22.2(2)d. Corridors;

7.6.22.2(2)e. Patient bays;

7.6.22.2(2)f. Patient bedrooms;

7.6.22.2(2)g. Stretcher bays.

7.6.22.2(3) Provide addressable two stage manual pull stations at all exit doors and entrances to exit stairs as required.

7.6.22.2(4) Connect the sprinkler system to the fire alarm system and provide full annunciation of all alarms and trouble conditions (wet, dry and pre- action).

7.6.22.2(5) Connect the fire alarm to the generator system to annunciate ‘Generator Run’ and ‘Generator Fail-to-Run’ troubles.

7.6.22.2(6) Provide fire alarm speakers throughout the Building as required. Speaker system will be available to announce alarm conditions. Provide a microphone at the main reception desk, with telephone interface, for use of the speaker system. Pre-programmed messages will be transmitted over overhead paging system to annunciate origin of alarm. Any program sources on paging system to be muted while alarm messages are transmitted.

7.6.22.2(7) Audible alert levels will be 10 dBA above ambient with a minimum of 75 dBA and be audible in every room of the building.

7.6.22.2(8) Alternate fire alarm speakers to be wired to the same circuit with a minimum of two (2) circuits per floor (riser wiring in two separate locations).

7.6.22.2(9) Use combination audible alarm and visual notification devices where applicable, including boiler, conference rooms and mechanical rooms.

7.6.22.2(10) Include control devices and connection to close fire and smoke doors on activation of alarm condition.

7.6.22.2(11) Incorporate smoke control systems with control fans and dampers.

7.6.22.2(12) Provide a minimum of two (2) isolation modules per floor for alarm circuits to isolate wire to wire shorts.

7.6.22.2(13) Provide separate paging zones for all operating, procedure, treatment, Patient rooms and similar areas.

7.6.22.2(14) Provide a graphic annunciator complete with LCD display at the main reception area for the New Facility, as required and approved by the local fire department.

7.6.22.2(15) Provide remote annunciators at all nursing stations, and as noted and required by relevant code or standard.

7.6.22.2(16) The fire alarm system to control the smoke evacuation system. Building controls to interface with the fire alarm system to provide an integrated system.

7.6.22.2(17) Cross-corridor doors to be equipped with electromagnetic hold-open devices and electric locks, magnetic locks and to be released on first stage fire alarm.

7.6.22.2(18) Provide elevator homing and sequencing as per CSA B44 Elevator Code.

7.6.22.2(19) The fire alarm system to have the capability for remote notification.

7.6.22.2(20) Full automatic smoke detection coverage for major egress corridors will be provided, in addition to the Patient sleeping room and Inpatient corridors.

7.6.22.2(21) The fire alarm system to monitor fire pumps, heat tracing for sprinkler system and generator equipment.

7.6.22.2(22) The smoke detector in the Patient sleeping room will also annunciate at the nurse call dome light located outside of the Patient room, and at the nurse call zone light in the corridor and at the nurse call master station and be announced on the fire alarm system annunciator located at all nursing stations.

7.6.22.2(23) Provide LED type indicators for remote indication that a heat and/or smoke detector has been activated in an elevator shaft (located at elevator lobby ceiling) or duct sensors that are not readily visible (located on ceiling or at visible location nearest to sensor installation). Provide remote detection (air sampling) for elevator shafts and other inaccessible locations.

7.6.22.2(24) Sprinkler zoning and fire speaker zoning to be compatible with the fire alarm zoning.

7.6.22.2(25) Provide a computer workstation in the maintenance department within the Building.

7.6.22.2(26) The fire alarm control panel (FACP), remote annunciators and printers will indicate general alarm and trouble conditions.

7.6.22.2(27) Provide gel electrolyte type batteries with overcharge protection for FACP and all transponders. Provide solid state battery charger(s) with capacity to recharge entire battery system in 4 hours. Batteries will have enough capacity (with 25 percent spare time) to operate entire system (except magnetic door holders) in accordance with the BC Building Code.

7.6.22.2(28) Train Staff on operation of system and incorporate fire plan in training to alert Staff to policy and procedures in case of fire alarm, and safe gathering points in case of evacuation.

7.7 Communications (Division 27)

7.7.1 Principles, Guidelines and Assumptions

7.7.1.1 Achieving the “Next Generation” electronic health record (EHR) is the ultimate goal of the Authority when it comes to gathering, storing, and transmitting Patient information. The intent of the EHR is to allow health care providers the ability to make more accurate, faster decisions on courses of action for Patients, provide efficiencies for Staff and Patients to reduce costs, and provide better privacy and security of the Patient record by controlling where it is stored.

7.7.1.2 It is envisioned that all components of a next generation electronic health record will be developed and will be ready for deployment within the Facility.

7.7.1.3 Most applications will be hosted on servers located at the remote sites. Some applications may be hosted locally within the Facility. Any applications/systems installed therein and the processes for maintenance of said systems are all subject to the Authority’s approval and any defined standards/requirements outlined in this Schedule and the Appendices.

7.7.1.4 The management of all the Authority’s employees’ and Patients’ information is the responsibility of the Authority.

7.7.2 Basic Requirements

7.7.2.1 Design-Builder will ensure that all new technology, systems, and equipment are fully compatible and seamlessly interfaced and/or integrated with the existing systems and equipment used by the Authority.

7.7.2.2 Except as explicitly stated otherwise the Design-Builder will be responsible for designing and providing complete and fully functional IMIT and security systems (Communications Systems) which will include, but are not limited to:

7.7.2.2(1) Telephony (VoIP and Analogue) (supporting infrastructure);

7.7.2.2(2) Cellular DAS;

7.7.2.2(3) Public address;

7.7.2.2(4) Wireless networks (WiFi);

7.7.2.2(5) Not used;

7.7.2.2(6) Intercom;

7.7.2.2(7) Video conferencing, telehealth and audio-visual (AV);

7.7.2.2(8) Electronic inventory management system;

7.7.2.2(9) Patient wandering;

7.7.2.2(10) Not used;

7.7.2.2(11) Infant Protection;

7.7.2.2(12) nurse call (includes Staff assist and Code Blue);

7.7.2.2(13) Access Control;

7.7.2.2(14) Fixed Panic;

7.7.2.2(15) Intrusion Detection;

7.7.2.2(16) Connexall System;

7.7.2.2(17) Asset Tracking System; and

7.7.2.2(18) Surveillance System (CCTV).

7.7.2.3 All applications used in the Facility for clinical purposes will be provided by the Authority. The Design-Builder will provide all communication infrastructure necessary to support, interface, and integrate these systems.

7.7.2.4 The Communications Systems will be proven technology used in healthcare facilities similar to the Facility.

7.7.2.5 All Communications Systems infrastructure and equipment provided by Design-Builder will be the latest version of the equipment at the time of procurement. No end-of-life or discontinued products will be used.

7.7.2.6 All equipment and devices installed in the Mental Health Inpatient Unit rooms will be of the anti-ligature type.

7.7.2.7 Responsibilities for communications, audio-visual, electronic safety and security systems, and IMIT equipment are outlined in Appendix 1D Technology Narrative; Appendix 1D(I) Technology Responsibility Matrix; Appendix 1D(II) Technology Systems Integration Matrix; Appendix 1D(III) IMIT General Requirements and Cash Allowance; Appendix 1D(IV) Meetings Rooms, Resuscitation/Trauma Rooms, Specialty Rooms; and Appendix 1D(V) IMIT List.

7.7.3 IMIT Design and Construction Responsibility

7.7.3.1 System Design

7.7.3.1(1) Design-Builder will design and provide all Communications Systems and equipment, integration, interfacing, performance, and quality requirements as described in Schedule 1 – Statement of Requirements and the Appendices to it. In the event of any conflict between standards, Schedule 1 – Statement of Requirements, and the Appendices the more stringent requirement will apply.

7.7.3.2 System Procurement

7.7.3.2(1) If a Communications System procured for use in the Facility represents a new addition to the overall Authority systems inventory, the Design-Builder will ensure that any contract it enters into for that system includes provisions for:

7.7.3.2(1)a. permitting assignment of the contract to the Authority on the same terms and conditions as included in the contract between the Design-Builder and the system vendor; and

7.7.3.2(1)b. allowing use of the system to be expanded beyond the Facility to other Authority sites provided the associated increase of scope charges are paid.

7.7.3.2(2) The Design-Builder will ensure that its contracts for supply of Communications Systems:

7.7.3.2(2)a. Will have a defined service level commitment that supports the Authority service level expectation;

7.7.3.2(2)b. have a privacy protection schedule that aligns with the British Columbia Freedom of Information and Protection of Privacy Act; and

7.7.3.2(2)c. adheres to the Personal Information Protection and Electronic Documents Act legislation as applicable.

7.7.3.2(3) Applications, software modules and any software installed, operated, or used by the Design-Builder must not interfere with the operation or performance of, or reduce the security or privacy of, any Authority applications or equipment.

7.7.3.3 System Development/Implementation

7.7.3.3(1) For development and implementation of all systems that will be Integrated with, or that interface with the Authority's systems, the Design-Builder will comply with Schedule 2 Review Procedure.

7.7.4 Telecommunications Infrastructure

7.7.4.1 Basic Requirements

7.7.4.1(1) Provide a complete communications infrastructure to ensure all systems and equipment identified in communications (division 27) and electronic safety and security (division 28) are complete and fully functioning to the satisfaction of the Authority.

7.7.4.1(2) Coordinate with the Authority for IP addressing and VLAN separation requirements prior to installation and programming of IP devices and equipment.

7.7.4.1(3) Prior to connecting to the Authority Network, the Design-Builder will consult with the Authority. The Design-Builder will be responsible for any adjustments necessary to equipment at the discretion of the Authority prior to connecting to the Authority Network.

7.7.4.1(4) Provide Communications Systems which promote operational efficiency and integrate and/or interface systems where this integration and/or interfacing provides efficiency and operational and cost advantages.

7.7.4.1(5) Train the Authority's IMIT specialist(s) on configuration/setup and testing of the Communications Systems equipment in the Facility.

7.7.4.1(6) Design and install equipment and infrastructure to remain operational in the event of an earthquake, flood, or fire. Seismic isolation platforms will be provided for equipment and server racks to mitigate damage to network equipment due to an earthquake.

7.7.4.1(7) Not used.

7.7.4.2 Performance Criteria

7.7.4.2(1) IP Protocol will be used for data, voice, and video network-based equipment.

7.7.4.2(2) All network equipment and protocols will be IPV4 compatible.

7.7.4.2(3) Design-Builder will maintain the manufacturer's best warranties on all Communications Systems and equipment at time of procurement and ensure that the warranties are assignable to the Authority.

7.7.4.2(4) All Communications Systems and equipment provided by Design-Builder will support all applications run by the Authority, which include, but are not limited to Cerner, PACS and Microsoft Office.

7.7.4.2(5) All network equipment provided by Design-Builder intended for integration and/or interfacing with the Authority Network and systems will include any adapters necessary to integrate and/or interface with the Authority's IP based network.

7.7.4.2(6) Ground all communications system infrastructure and pathways to the ANSI/TIA-607-D standard.

7.7.4.2(7) Design-Builder will provide and terminate all fibre and copper cables.

7.7.4.3 Quality Requirements

7.7.4.3(1) The Design-Builder will:

7.7.4.3(1)a. use the latest technology for transferring, securing, and storing information available at the date of procurement of the communications system for the Facility;

7.7.4.3(1)b. use equipment and materials that are certified and clearly sealed by CSA or ULC; and

7.7.4.3(1)c. In the event of a conflict between this Schedule and the Appendices, the more stringent standard will apply.

7.7.5 Site Utilities / Service Provider

7.7.5.1 The Design-Builder will provide redundant incoming copper (category cable) and fibre services via physically diverse and redundant pathways. Outside plant cable infrastructure will be continuous and terminate in redundant entrance facility rooms. The Design-Builder will perform all work (including providing all necessary parts and components) required to connect the Authority's communications infrastructure to the service provider network.

7.7.5.2 The Design-Builder will coordinate with the Authority's preferred internet and telephone eservice providers (SP) in Dawson Creek to ensure all necessary SP cabling and infrastructure is provided and installed for connection to the Authority Network. The Design-Builder will ensure there will be no project schedule delays due to SP connectivity.

7.7.5.3 The Communications Systems that will be integrated, interfaced and/or interoperate with Authority systems, will be compatible with the systems of the Authority's service providers on the date of installation, be designed to integrate and interface with the service providers' equipment and, if required by the Authority, utilize the Authority's existing service agreements by extending them to the Facility.

7.7.6 Communications Rooms

7.7.6.1 Basic Requirements

7.7.6.1(1) Communications Room naming convention will align with Northern Health IMIT Communications Infrastructure Standards (1.7).

7.7.6.1(2) The Design-Builder will provide Communications Rooms (entrance facilities, Telecommunications Rooms (TRs), Main Cross Connect Room (MCCR) and Back-up Cross Connect Room (BCCR)) to accommodate the telecommunications infrastructure and equipment in accordance with Section 2.6 Standards.

7.7.6.1(3) General for all rooms housing telecommunications and technology equipment (passive or active), cabling or infrastructure:

7.7.6.1(3)a. They will be located to minimize the possibility of two rooms being adversely impacted simultaneously (including impacts resulting from flood, fire, vandalism, mechanical or structural failure);

7.7.6.1(3)b. They will be provided and sized to accommodate the telecommunications and technology requirements of the Facility, including, but not limited to equipment racks, cabling systems, active and passive network equipment, security equipment and panels, IMIT equipment and panels, and electrical equipment.

7.7.6.1(3)c. The Design-Builder will provide all structured cabling (fibre, copper or other) between these rooms.

7.7.6.1(4) Entrance Facility (EF)

7.7.6.1(4)a. The EF will be utilized as the main point of connection between public and private network service cabling.

7.7.6.1(4)b. Provide two EFs locations to accommodate the two physically diverse, redundant telecommunications services to the Facility.

7.7.6.1(4)c. Locate EFs to minimize the possibility of both rooms being adversely impacted simultaneously (including impact resulting from flood, fire, vandalism, mechanical or structural failure).

7.7.6.1(4)d. Not used.

7.7.6.1(4)e. Not used.

7.7.6.1(4)f. The Design-Builder will coordinate all work with the service providers to ensure all service provider requirements are met.

7.7.6.1(5) Main Cross-Connect (MCC) / Back-up Cross Connect (BCC)

7.7.6.1(5)a. The MCC and BCC will:

7.7.6.1(5)a.1 be centrally located (i.e. no exterior walls);

7.7.6.1(5)a.2 be sized to allow for 30% expansion for wall mounted equipment and 20% spare rack space in each rack;

7.7.6.1(5)a.3 include sufficient wall space and equipment racks to support all Communications Systems;

7.7.6.1(5)a.4 include 2 additional racks for future expansion (c/w vertical cable managers, PDU and power receptacles);

7.7.6.1(5)a.5 house all head-end equipment and servers for the Communications Systems;

7.7.6.1(5)a.6 be located above any 200-year floodplains and below the top level of the facility. An exemption will be permitted for the MCCR to be located at the top level of the Facility if it is provided a floor drain that will prevent any back flow of liquids, racks are placed on 100 mm concrete housekeeping pads, leak sensors are provided with SMS/Email notification capabilities and the entire ceiling area is provided with a drip pan complete with a drain line. An exemption will be permitted for the BCCR to be located at the lowest level of the Facility if it is provided a floor drain that will prevent any back flow of liquids, racks are placed on 100 mm concrete housekeeping pads and leak sensors are provided with SMS/Email notification capabilities;

7.7.6.1(5)a.7 will be 2-hour fire rated;

7.7.6.1(5)a.8 be located to minimize the risk of both the MCC and BCC being impacted by flood, fire and vandalism at the same time and at minimum provide 30m horizontal separation (independent of floor location).

7.7.6.1(5)a.9 accommodate the main audio (PA) rack and audio (PA) equipment; and

7.7.6.1(5)a.10 meet all requirements of 7.7.6.1(6) Telecommunications Room (TR) excluding future expansion and rack requirements.

7.7.6.1(6) Telecommunications Room (TR)

7.7.6.1(6)a. TRs will comprise enclosed architectural spaces throughout the facility to house communications equipment, provide horizontal cross connects and cable terminations.

7.7.6.1(6)b. All cabling entering or exiting the TR not enclosed in conduit will utilize sleeves specifically designed for that purpose. Sleeves will be manufactured by Hilti or STI Firestop. Short sections of conduit will not be utilized as sleeves.

7.7.6.1(6)c. All horizontal and riser data/voice cabling for a given floor will terminate in a TR on patch panels rated to match the cable category provided (i.e. Cat6A).

7.7.6.1(6)d. TRs will only serve the floor they are located on and will be located to minimize the distances of cable runs. TRs will provide easy access for equipment modifications and working space and will avoid interference with other services and systems.

7.7.6.1(6)e. The TRs will support PoE devices which includes, but is not limited to, wireless access points (WAP) and VoIP phones. The Design-Builder will supply and install WAP devices and will coordinate with the Authority for WAP and VoIP phone requirements.

7.7.6.1(6)f. For each TR provide 1 additional rack for future expansion (c/w vertical cable managers, PDU and power receptacles).

7.7.6.1(6)g. TRs will be sized to allow for 20% expansion space for wall mounted equipment.

7.7.6.1(6)h. One TR will be located within 15m of the laboratory.

7.7.6.1(7) For each GigaBIX cross-connect wall, provide space to accommodate 50% expansion on the same and adjacent wall. GigaBIX cross connect will only be used for analogue phone lines where required, structured cabling will terminate on rack mounted patch panels.

7.7.6.1(8) not used.

7.7.6.1(9) Wall space in the TRs and MCCR and BCCR will be provided for, but not limited to:

7.7.6.1(9)a. nurse call system;

7.7.6.1(9)b. service provider equipment;

7.7.6.1(9)c. public address system;

7.7.6.1(9)d. patient entertainment and education system;

7.7.6.1(9)e. access control panels and back-up batteries;

7.7.6.1(9)f. cellular DAS system and back-up battery bank;

7.7.6.1(9)g. intrusion detection system and back-up batteries;

7.7.6.1(9)h. electrical panels serving the TR; and

7.7.6.1(9)i. fibre storage loops/rings.

7.7.6.1(9)j. telecommunications closet (TC)

7.7.6.1(9)k. TCs will comprise enclosed architectural spaces at minimum 3.5m x 2m in size. TCs will only be used to:

7.7.6.1(9)k.1 house pull boxes for assisting in the reduction of pulling tension to the TRs, BCCR, MCCR, EFs and other rooms housing telecommunications equipment and/or racks.

7.7.6.1(10) Equipment Racks

7.7.6.1(10)a. Equipment racks installed in each communication room will include, but are not limited to, network racks, server racks, voice gateway racks, and fibre termination racks. Each rack will include 20% spare capacity for future growth.

7.7.6.1(10)b. All racks will be provided with floor space as per Section 2.6 Standards.

7.7.6.1(10)c. Voice gateway and fibre termination racks will be two-post types.

7.7.6.1(10)d. Network and server racks will be of the four-post type, 48U in size, minimum width: 750mm, minimum depth: 1000mm.

7.7.6.1(10)e. Server racks will have front and rear door locks, 48U in size, minimum width: 750mm, minimum depth: 1000mm.

7.7.6.1(10)f. All racks, unless otherwise specified, will be mounted on seismic isolation bases.

7.7.6.1(10)g. Racks utilized for horizontal cabling, backbone cabling, and associated active equipment (e.g. network switches) will not accommodate any other systems.

7.7.6.1(10)h. Voice gateway racks will meet the requirements of NH IMIT Communications Infrastructure Standard 1.7 for power (sections 2.1 & 12.1) and PDUs (section 12.2), and clause 7.6.10.1(1)e. of this Schedule. Coordinate exact PDU receptacle types with the Authority prior to procurement. Each PDU will have sufficient receptacles to support the equipment within the racks and 20% spare, but not fewer than 20 receptacles.

7.7.6.1(10)i. Server racks will meet the requirements of NH IMIT Communications Infrastructure Standard 1.7 for power (sections 2.1 & 12.1) and PDUs (section 12.2), and clause 7.6.10.1(1)e. of this Schedule. Coordinate exact PDU receptacle types with the Authority prior to procurement. Each PDU will have sufficient receptacles to support the equipment within the racks and 20% spare, but not fewer than 20 receptacles.

7.7.6.1(10)j. Network racks will meet the requirements of NH IMIT Communications Infrastructure Standard 1.7 for power (sections 2.1 & 12.1) and PDUs (section 12.2), and clause 7.6.10.1(1)e. of this Schedule. Coordinate exact PDU receptacle types with the Authority prior to procurement. Each PDU will have sufficient receptacles to support the equipment within the racks and 20% spare, but not fewer than 20 receptacles.

7.7.6.1(10)k. The centralized UPS will be sized to support each rack, including all equipment residing within each rack, in the Facility for 15 minutes in the event of a power outage. At minimum, the UPS will be sized to allow for 5kW per rack without applied duty factor(s); the final applied duty factor assumption will be coordinated and approved by the Authority. There will be no differentiation between racks with equipment and rack without equipment.

7.7.6.1(10)l. Provide 1m clearance on the front, back and to one side of each rack or rows of racks. The 1m clearance will be measured from the vertical cable managers or the farthest protruding rack mounted equipment (into room) to farthest protruding wall mounted equipment (into room).

7.7.6.1(11) The Design-Builder in coordination with the Authority will carry out analyses of the Laboratory Equipment located in the existing facility and ensure appropriate rack space allocated in the TR room in the new Facility.

7.7.7 Structured Cabling

7.7.7.1 Basic requirements

7.7.7.1(1) The structured cabling system will be designed, installed, and tested (commissioned) in accordance with Northern Health IMIT Communications Infrastructure Standards (1.7).

7.7.7.1(1)a. Structured cabling standard of acceptance: Belden, CommScope, Panduit or approved equal.

7.7.7.1(2) Horizontal structured cabling will be of the Cat6A type where category cable is required.

7.7.7.1(3) Backbone cabling will be minimum OM5 24-strand and OS2 24-strand, tight buffered. Backbone fibre cables will run from the MCCR and BCCR to each TR as to provide full redundancy. In the event that one backbone fibre feeding a TR is cut, each TR will remain fully operational utilizing the secondary redundant backbone fibre.

7.7.7.1(4) Backbone cabling will be run in dedicated conduits with 40% spare capacity for future use.

7.7.7.1(5) The Design-builder will terminate all fibre cables in Design-Builder provided fibre enclosures using LC/APC type connectors. Only fusion splicing is permitted. Coordinate with the Authority for exact connector type.

7.7.7.1(6) The cabling infrastructure will be universal and support all networks, systems, and equipment requiring network connections in the Facility.

7.7.7.1(7) The cabling infrastructure will support all forms of end-use equipment, including, but not limited to computers, phones, video conferencing equipment, telemetry equipment, printers, fax machines and other digital end-use equipment and systems access.

7.7.7.1(8) Any cabling required by Design-Builder to support its own networks will be provided in addition to that required to support the Authority equipment.

7.7.7.1(9) Design-Builder will cause:

7.7.7.1(9)a. the cabling infrastructure to be designed by an RCDD;

7.7.7.1(9)b. the RCDD to work with the Authority to complete the physical network design; and

7.7.7.1(9)c. the RCDD to provide, as required by the Authority, a network plan which would include the following: all active network devices, non-Authority applications, all connecting end-use equipment and each separate virtual and physical network.

7.7.7.1(10) Design-Builder will assist the Authority in the network plan by supplying all necessary information to the Authority about the building network. The building network equipment is to match the network equipment specified by the Authority.

7.7.7.1(11) Design-Builder will provide preliminary conceptual drawings of proposed telecommunications outlet locations to the Authority for review.

7.7.7.1(12) Create, in consultation with the Authority, a plan for cable infrastructure management and resource requirements for maintenance.

7.7.7.1(13) Provide and install a complete and fully functional structured cabling solution for the Facility.

7.7.7.1(14) Provide separate physical networks, in accordance with equipment vendor specifications and in consultation with the Authority, for the Communications Systems and equipment installed or used in the Facility.

7.7.7.1(15) In consultation with the Authority, design and provide physically diverse and redundant pathways between the Communications Rooms.

7.7.7.2 Telecommunication Outlets and Data Drops

7.7.7.2(1) In this Schedule and the Appendices to this Schedule, the terms “telecommunication outlet,” “data outlet,” and “communications outlet” are used interchangeably.

7.7.7.2(2) Notwithstanding any standard referenced in this Schedule, all data outlets, data drops, communications outlets or telecommunication outlets included in the Facility will:

7.7.7.2(2)a. Comprise of a complete Cat6A structured cabling connection between an RJ45 outlet jack and network switch port (including Cat6A patch cord);

7.7.7.2(2)b. include a 4-port cover plate for jack terminations, with labelling to match existing Authority facilities and filler plates on unused outlets. Cover plates will always have at least one unused jack termination space;

7.7.7.2(2)c. include all pathways and supports including, but not limited to minimum 27mm EMT conduits and cable tray pathways;

7.7.7.2(2)d. A minimum of two data drops will be provided at each data outlet location; and

7.7.7.2(2)e. follow all manufacturers recommendations for terminating and installation of data cabling, including bend radius limits.

7.7.7.2(3) All horizontal cables will be terminated on Cat6A patch panels located in a Communications Room. Provide harness cabling to support all horizontal cabling plus 15% spare and connect through to the corresponding switch port.

7.7.7.2(3)a. Design-Builder will, in consultation with the Authority, assign each applicable room and space in the Facility a work area data drop density ("High", "Medium" or "Low") in accordance with the ANSI/TIA-1179-A Healthcare Facility Telecommunications Cabling Standard Table 3.

7.7.7.2(4) Design-Builder will provide a minimum quantity of data drops as defined below for each of the three data drop density assignments. The data drop density can be updated based on room by room review by the Authority as the project progresses. The Design-Builder will proceed with the changes only after receiving written approval from the Authority.

7.7.7.2(4)a. Low Density Work Area – provide 6 data drops;

7.7.7.2(4)b. Medium Density Work Area - provide 8 data drops; and

7.7.7.2(4)c. High Density Work Area - provide 10 data drops.

7.7.7.2(4)d. Design-Builder will provide a total of 5,500 data drops and will work with the Authority to finalize their distribution based on a room by room review as the Project progresses.

7.7.7.2(5) Design-Builder will provide additional data drops as required to ensure the following systems are complete and fully functioning to the satisfaction of the Authority, including but not limited to:

7.7.7.2(5)a. Security Systems, infant protection system, intercom, nurse call, public address, electrical systems (metering, load management systems etc.) and their equipment and end use devices to be installed or used in the Facility.

7.7.7.2(5)b. not used;

7.7.7.2(5)c. fire alarm, integrated automation (Division 25), integrated Building Management System, and mechanical systems;

7.7.7.2(5)d. not used;

7.7.7.2(5)e. provide convenience, flexibility, and operational support throughout the Facility; and

7.7.7.2(5)f. not used.

7.7.7.2(6) Design-Builder will design each room in the Facility such that data drops are distributed throughout each room as required to support clinical functionality and convenient use of all equipment requiring data drops by Facility users.

7.7.7.2(7) Design-Builder will co-locate, at each telecommunications outlet location, one duplex receptacle. Additional receptacles will be provided where end-use equipment requires it. See Section 7.6 Electrical (Division 26) for receptacle type requirements. Outlet locations/equipment that are exempt from providing a duplex are as follows:

7.7.7.2(7)a. stand-alone telephone handsets;

7.7.7.2(7)b. security cameras;

7.7.7.2(7)c. intercom stations;

7.7.7.2(7)d. wireless access points.

7.7.7.2(8) All Communications Rooms will have physical floor and wall space to accommodate future cabling growth.

7.7.7.2(9) All ceiling spaces will have telecommunication outlets for each wireless access point, information display systems, and other ceiling mounted digital devices.

7.7.7.2(10) Follow the equipment and cable labelling standards currently utilized in other similar Authority facilities. Confirm details with the Authority prior to labelling.

7.7.7.2(11) Provide recessed floor telecommunications outlets and floor power (by Division 26) for the following systems including, but not limited to floor mounted self-registration kiosks and systems, meeting / videoconference / telehealth rooms, and other end-use equipment requiring network connectivity where it is not practical to feed it from a wall or it creates a tripping hazard, as approved by the Authority.

7.7.7.2(12) Provide a data outlet for phones dedicated for public use, minimum one (1) per lobby area per department in the Facility, Coordinate with the Authority prior to rough-in.

7.7.7.2(13) Run four (4) Cat6A network cables in a ring topology between each telecommunications equipment room to accommodate the Patient monitoring infrastructure required. The maximum allowable distance for each Patient monitoring Cat6A cable run will be 90m.

7.7.7.2(14) Not used.

7.7.7.2(15) Provide data drops for the vertical lift module to ensure seamless operation. Coordinate exact location with the vertical lift module manufacturer prior to rough-in.

7.7.7.2(16) Not used.

7.7.7.2(17) Provide data drops for one (1) flat screen display (TV) and one (1) workstation and phone in Staff lounges.

7.7.7.2(18) Provide one (1) data outlet with three (3) Cat6A data drops evenly spaced on each wall of UBC videoconferencing room in addition to any data drops required by UBC specifications to support additional workstation and equipment during an emergency scenario. The systems will comply with UBC Faculty of Medicine Design Guidelines and Functional Requirements for Learning Spaces which will take precedence over Northern Health IMIT Communications Infrastructure Standards 1.7 for this application.

7.7.7.2(19) Provide one (1) data outlet with one (1) Cat6A data drop (coordinate exact location with the Authority) in the UBC videoconferencing room in addition to any data drops required by UBC specifications to support an emergency phone. Provide all interfacing and connectivity so that the emergency phone operates on dedicated 1b line (i.e. POTS line). Provide label on phone outlet faceplate that reads "Emergency Phone Only". The systems will comply with UBC Faculty of Medicine Design Guidelines and Functional Requirements for Learning Spaces which will take precedence over Northern Health IMIT Communications Infrastructure Standards 1.7 for this application.

7.7.7.2(20) At minimum one (1) Telecommunications outlet complete with two (2) allocated Cat6A drops and one (1) unallocated Cat6A drop will be provided on both sides of all Lab benches.

7.7.7.2(21) Where equipment and/or devices requiring wired connection to the Authority's local area network are located within the same area (e.g. Workstation and Business Centre) the Cat6A data drop quantity specified in the Northern Health IMIT Communications Infrastructure Standards (1.7) for each Telecommunications outlet will be increased up to a maximum of three (3) allocated data ports and one (1) unallocated data port in order to serve as much equipment and/or devices as possible from a single Telecommunications outlet (e.g. Workstation with a computer, label printer, and VoIP phone). "Allocated data port" and "unallocated data port" are defined as per Northern Health IMIT Communications Infrastructure Standards (1.7).

7.7.7.2(22) The Cat6A data drops specified in the NH Communications Infrastructure Standard Telecommunications outlet will be reduced to one (1) allocated data port and one (1) unallocated data port when being provided for single instances of equipment and/or devices requiring wired connection to the Authority's local area network including: medical equipment devices and printers. "Allocated data port" and "unallocated data port" are defined as per Northern Health IMIT Communications Infrastructure Standards (1.7).

7.7.7.3 All IMIT systems and infrastructure will adhere to Northern Health IMIT Communications Infrastructure Standards (1.7).

7.7.8 Communications Pathways

7.7.8.1 Basic Requirements

7.7.8.1(1) Provide a complete pathway infrastructure system for the cabling required for all systems part of Communications (Division 27) and Electronic Safety and Security (Division 28).

7.7.8.1(2) J-hooks are not permitted.

7.7.8.2 Performance Criteria

7.7.8.2(1) Communications (Division 27) and Electronic Safety and Security (Division 28) cabling will be enclosed in cable tray, rigid electrical metallic tubing, or electrical metallic tubing outside of Communications Rooms.

7.7.8.2(2) Provide primary and redundant pathways between each Communications Room. Provide an equal amount of spare (empty) pathways.

7.7.8.2(3) Where cabling is required to penetrate through fire rated walls it will do so without derating the fire rating of the wall and without the requirement of addition equipment and/or materials.

7.7.8.2(4) Provide cable tray in all corridors to support all cabling filled to calculated maximum of 25% (i.e. a physical fill of 50%).

7.7.8.2(5) Provide cable tray in telecommunication rooms to minimize the cable drop distance from the cable tray to each equipment rack, server racks and wall mounted equipment.

7.7.8.2(6) Conduit runs to data outlets will be 27mm minimum.

7.7.8.2(7) Provide a separate dedicated pathway in Communication Rooms to support fibre optic cabling. Ensure this pathway will be installed to minimize fibre optic cable drop distances.

7.7.8.2(8) Protect and store excess fibre optic cabling inside Communication Rooms using fibre storage rings or approved equal.

7.7.8.2(9) When cabling transitions in and out of a cable tray, transition devices will be provided (i.e. waterfalls).

7.7.8.2(10) All cable trays will be easily accessible for future cabling installation and away from sources of EMI, hot water pipes and other obstructions.

7.7.8.2(11) Pull boxes will be used only for straight pulls.

7.7.8.2(12) Paint all junction, pull boxes and conduits at regular intervals in consultation with the Authority to easily identify the system they correspond with.

7.7.8.2(13) Ensure all conduits are free of sharp edges that could damage the cabling. All conduits will be provided with bushings.

7.7.8.2(14) Provide grounding/bonding bushing as to adhere to ANSI/TIA-607-C

7.7.8.2(15) All cabling pathways will be provided with pull strings for Authority's future use.

7.7.8.2(16) Cable trays will include barriers to separate Category cabling (supporting Authority voice, data and video), public address cabling, security cabling, and other Facility systems. Separation distance between systems will be such that there is no performance degradation due to interference between systems.

7.7.8.2(16)a. Not used.

7.7.8.2(16)b. Not used.

7.7.8.2(16)c. Not used.

7.7.8.2(16)d. Not used.

7.7.9 Equipment

7.7.9.1 Design-Builder's Equipment

7.7.9.1(1) Provide end-use equipment and communications equipment to provide a fully operational Facility and that the Design-Builder may require for its own use for the performance of its obligations.

7.7.9.1(2) Do not connect any of the Design-Builder's end-use equipment to the Authority Network, both wired and wireless, without prior approval from the Authority. The Design-Builder is responsible for paying any additional cost incurred by the Authority for the Design-Builder's use of the Design-Builder's end-use equipment on the Authority Network.

7.7.9.1(3) Any wireless devices used by the Design-Builder will not interfere with the Authority's wireless infrastructure or devices.

7.7.9.1(4) If the Design-Builder elects to reside on the Authority Network, the Design-Builder will conform to all Authority Network end-use standards.

7.7.9.2 Authority's End-Use Equipment

7.7.9.2(1)a. The Authority will supply its own end-use equipment. Refer to Appendix 1D(I) Technology Responsibility Matrix.

7.7.9.2(2) The Design-Builder will:

7.7.9.2(2)a. include the installation of the Authority supplied end-use equipment as part of the Move-in Schedule;

7.7.9.2(2)b. assist the Authority to define locations for the Authority supplied end-use equipment;

7.7.9.2(2)c. provide adequate space, infrastructure, power, and wired network data outlets for the Authority supplied end-use equipment; and

7.7.9.2(2)d. provide jack number information (on the Authority supplied cable information Excel spreadsheet) to the Authority to facilitate placement of the Authority supplied end-use equipment.

7.7.10 Authority and Facility Networks

7.7.10.1 Basic Requirements

7.7.10.1(1) For the Authority Network and Patient monitoring network, the Authority will:

7.7.10.1(1)a. program and configure the system network equipment;

7.7.10.1(1)b. test and commission the system network equipment.

7.7.10.1(1)c. not used.

7.7.10.1(2) For the Authority Network and Patient monitoring network, the Design-Builder will:

7.7.10.1(2)a. install all network switches, routers and connect harness cabling; and

7.7.10.1(2)b. complete all physical and logical network design and provide all structured cabling.

7.7.10.1(3) For all other networks required in the Facility, the Design-Builder will:

7.7.10.1(3)a. provide all required equipment;

7.7.10.1(3)b. in consultation with the Authority, complete the logical network design;

7.7.10.1(3)c. provide and be responsible for all management licensing; and

7.7.10.1(3)d. locate network equipment and other equipment, including but not limited to Lab equipment, in TRs.

7.7.10.1(4) For all of the networks described above, the Design-Builder will mount and connect all network switches, harness cables, cross connects and test all network equipment and cable infrastructure as per Section 2.6 Standards and in consultation with the Authority.

7.7.10.1(5) The Design-Builder will provide 15% spare harness cables.

7.7.10.1(6) The Design-Builder will provide fibre and copper patch cords for all network switches for all networks.

7.7.10.1(7) Install all network equipment in accordance with IEEE and as per Section 2.6 Standards, including the 802.1 and 802.3 Standards.

7.7.10.1(8) The Design-Builder will coordinate with the Authority for firewall, security and IDS/IPS systems requirements for connections to all networks in the Facility.

7.7.10.1(9) Retain a vendor certified network engineer trained on the Design-Builder's network equipment.

7.7.10.1(10) Redundancy and security will be incorporated in all network designs.

7.7.10.1(11) Not used.

7.7.11 Authority Servers

7.7.11.1 Basic Requirements

7.7.11.1(1) Servers will be installed in each MCCR and the BCCR by the Authority.

7.7.11.2 Performance Criteria

7.7.11.2(1) The Design-Builder will provide infrastructure and structured cabling to support each server with the required network and power redundancy by means of dual power supplies. Authority requires dual network interface cards installed in each server. Each power supply will be connected to separate redundant rack PDUs, and each network card would be connected to separate core routers in the MCCR and the BCCR.

7.7.12 Design-Builder Servers

7.7.12.1 Basic Requirements

7.7.12.1(1) All servers must be reviewed by the Authority. This includes aligning to the Authority's existing operating system, hardware patching processes, and threat mitigation, and consult with the Authority to confirm requirements prior to procurement.

7.7.12.1(2) Servers must meet minimum "lights out" requirements where all servers must have remote access cards and data outlets for remote management and support.

7.7.12.1(3) Servers will be the latest technology, as of the date of installation (Intel processor latest model or similar acceptable to the Authority) and will interface to the Ethernet network via a 1000Mb network interface card.

7.7.12.1(4) All servers deployed must align with the Authority's standards for procuring equipment including hardware models, operating systems, software licenses, maintenance, and contract agreements. All agreements must be maintained for the life cycle of the hardware and or application.

7.7.12.1(5) All Servers as well as the applications hosted on those servers must be entered into the Authority's change management database system as configuration items and dependencies identified and linked. All changes, incidents, and problems relating to said servers and applications must be managed, monitored, and tracked conveyed to the Authority.

7.7.12.1(6) All servers will adhere to the Authority's Server Best Practices Guideline.

7.7.12.2 Performance Criteria

7.7.12.2(1) Each server will require network and power redundancy by means of dual power supplies and dual NIC cards installed in each server. Each power supply will be connected to separate redundant rack PDU`S and each network card will be connected in consultation with the Authority.

7.7.12.2(2) All network attached Servers will include the installation and management of Antivirus software that aligns with the Authority's antivirus protocols and procedures. Coordinate with the Authority for antivirus requirements.

7.7.12.2(3) All network attached servers will include the installation and management of enterprise data backup and retention software that aligns with existing Authority equipment.

7.7.12.2(4) Hardware and software configuration of servers provided by the Design-Builder will be provided Authority for review. The Design-Builder will adjust as required by the Authority.

7.7.12.2(5) Servers for the Communications Systems will be Microsoft compliant (version acceptable to the Authority) and will be from a common manufacturer.

7.7.13 Telephony System

7.7.13.1 Basic Requirements

7.7.13.1(1) Active VoIP and analogue telephony equipment will be provided and installed by the Design-Builder in the MCCR and the BCCR. All cabling, pathways, and infrastructure required to support this system will be provided by the Design-Builder, including but not limited to racks, UPS back-up, power, cooling, and network connectivity.

7.7.13.1(2) The Design-Builder will coordinate with the service provider for connection requirements. The Design-Builder will provide all necessary equipment required for interfacing the service provider equipment with the telephony equipment.

7.7.13.1(3) All telephony equipment will reside in a Communications Room. The telephony head-end will reside in the MCCR and BCCR.

7.7.13.1(4) The Design-Builder will supply and install phones.

7.7.13.1(5) Not used.

7.7.13.1(6) The Design-Builder may at its cost use the phone system for its telecommunications needs. If the Design-Builder intends to use the phone system, the Design-Builder will provide and, in consultation with the Authority, install additional capacity and functionality as required.

7.7.13.1(7) Provide Cat6A data drops at each phone location including, but not limited to each:

7.7.13.1(7)a. reception and registration area (booths, desks, etc.);

7.7.13.1(7)b. interview room;

7.7.13.1(7)c. office;

7.7.13.1(7)d. workstation, work area and workroom;

7.7.13.1(7)e. charting area;

7.7.13.1(7)f. Holding Nursery;

7.7.13.1(7)g. Exam/Treatment room;

7.7.13.1(7)h. Interview room;

7.7.13.1(7)i. Staff Lounge;

7.7.13.1(7)j. Business Centre;

7.7.13.1(7)k. counselling and therapy room;

7.7.13.1(7)l. meeting room;

7.7.13.1(7)m. breakout room;

7.7.13.1(7)n. exercise room;

7.7.13.1(7)o. PFT room;

7.7.13.1(7)p. Inpatient / Patient bedroom;

7.7.13.1(7)q. Medication Room;

7.7.13.1(7)r. operating and procedure room;

7.7.13.1(7)s. lounge;

7.7.13.1(7)t. control desk;

7.7.13.1(7)u. Centralized nursing station;

7.7.13.1(7)v. Collaboration Station;

7.7.13.1(7)w. Triage;

7.7.13.1(7)x. Pharmacy;

7.7.13.1(7)y. locations identified in consultation with the Authority.

7.7.13.2 Performance Criteria

7.7.13.2(1) VoIP phones will be of the PoE type.

7.7.13.2(2) All phone data drops or outlets will utilize Cat6A cabling regardless of whether it is an analogue or VoIP phone. VoIP phone cabling will terminate on a patch panel and analogue phones will terminate on GigaBIX blocks.

7.7.13.2(3) The Design-Builder will provide and interface dialers to the systems that require them as per Appendix 1D(II) Technology Systems Integration Matrix. Coordinate with the Authority for “dial out” requirements.

7.7.13.2(4) Upon loss of power the telephony system will remain fully functional via Facility UPS as defined in 7.6.8.

7.7.14 Wireless Networks

7.7.14.1 Basic Requirements

7.7.14.1(1) In consultation with the Authority, design and install a complete 802.11ac/n wireless network solution for the Facility to support the extension of the Authority wireless network into the Facility. The Authority currently utilizes a single wireless network that extends across all its facilities.

7.7.14.1(2) Design-Builder will not install any other 802.11ac/n wireless network in the Facility.

7.7.14.1(3) The Authority will:

7.7.14.1(3)a. configure and install wireless LAN controllers (WLC) and mobility service engines (MSE) to support the wireless network within the Facility.

7.7.14.1(3)b. configure wireless access points provided by the Design-Builder for installation.

7.7.14.1(4) Design-Builder will:

7.7.14.1(4)a. test all aspects of the wireless network;

7.7.14.1(4)b. provide heat maps for the Facility indicating the channel coverage, signal strength, data rate, capacity, and noise floor for the 802.11ac/n wireless network for approval by the Authority;

7.7.14.1(4)c. install all structured cabling, wireless access points, wireless LAN controllers (WLC), mobility service engines (MSE), and test all cable infrastructure and wireless system devices for the wireless network in consultation with the Authority;

7.7.14.1(4)d. work with the Authority to create an operational plan for the wireless network complete with management strategy, alerts notification, and resource requirements for maintenance;

7.7.14.1(4)e. provide a complete structured cabling and pathway infrastructure that will allow the installation of the complete wireless network, including PoE wireless access points. The Design-Builder will install data outlets and access points in consultation with the Authority;

7.7.14.1(4)f. update the Authority's wireless management applications to include the Facility floor plans including wireless access point locations mapped to a floor plan with RF characteristics defined for structural composition which will include glass, concrete, wood, drywall, metal, and permanently mounted RF obstacles;

7.7.14.1(4)g. retain a RCDD certified wireless network engineer with expertise and experience in working with the Authority approved equipment to design the wireless network;

7.7.14.1(5) The Design-Builder will follow the wireless networks manufacturers installation recommendations and guidelines.

7.7.14.2 Performance Criteria

7.7.14.2(1) The wireless network will be designed and installed to provide 100% coverage (signal strength / power) and capacity (throughput / bandwidth) throughout the Facility in 2.4GHz and 5GHz frequencies to support all users and their wireless end-devices in the facility.

7.7.14.2(2) Elevator cabs, mechanical spaces, service areas, facility exterior (i.e. entrance and exit locations), stairwells, and secured exterior Patient and Staff spaces will be included in the 100% coverage and capacity requirements of the wireless network. The "Facility exterior" will include all space within a 10m radius from main entrance and exit locations, complete coverage of Ambulance Bays, and all areas where Staff, Patients and residents may gather outside of the Facility (e.g. break areas).

7.7.14.2(3) The wireless network will meet all requirements set out by the manufacturers of all equipment that will utilize the network (e.g. Vocera).

7.7.14.2(4) The wireless infrastructure will support wireless access points using the 802.11ax/ac/n standards for the wireless communications, data transfer and access by wireless devices to data/voice/video services within the Facility and across the Authority, via the Authority WAN.

7.7.14.2(5) Each wireless access point will have one (1) data drop terminated at a telecommunication outlet.

7.7.14.2(6) Design the wireless network away from high RF equipment locations (e.g. microwave ovens) as to mitigate interference beyond the noise floor and signal strength requirements (SNR) of the wireless network.

7.7.15 Staff Communication System

7.7.15.1 Basic Requirements

7.7.15.1(1) Design the wireless network system to support a complete and fully functional wireless Staff communication system which will meet or exceed the Staff communication system manufacturer's specifications and recommendations. System testing will be performed prior to and after substantial completion to ensure manufacturer's recommended parameters are met (e.g. signal to noise ratio).

7.7.15.1(2) The Staff communication system will be manufactured by Vocera.

7.7.15.1(3) The Staff communication system will allow Staff to initiate 2-way voice conversations from their wireless Staff communication system device to:

7.7.15.1(3)a. other Staff communication system devices (Authority scope);

7.7.15.1(3)b. VoIP telephones (Authority scope);

7.7.15.1(3)c. nurse call consoles (Design-Builder scope);

7.7.15.1(3)d. Patient stations (Design-Builder scope);

7.7.15.1(3)e. Staff/duty stations (Design-Builder scope); and

7.7.15.1(3)f. external/internal telephones (Authority scope).

7.7.15.1(4) Not used.

7.7.15.1(5) Not used.

7.7.15.1(6) Provide all Connexall integration, programming and licensing required for communication and alerting between the nurse call system and the Staff communications system to meet all requirements of Schedule 1. Staff communication to telephony system integration and programming will be by the Authority.

7.7.15.1(7) Not used.

7.7.15.2 Performance Requirements

7.7.15.2(1) The Staff communication system will function throughout 100% of the Facility such that all voice communication is clear and intelligible to all users and there is no loss of communication or information to and from all third-party integrated and/or interfaced equipment.

7.7.15.2(2) Elevator cabs, mechanical spaces, service areas, Facility exterior, stairwells, and Secured exterior courtyards and gardens will be included as part of the 100% Facility coverage.

7.7.15.2(3) Provide adequate space and vital power outlets for wireless device charging stations inside each department, taking into account that charging units with multiple devices may cause signal concentrations that impact active unit performance. Sufficient spread of units will be maintained for both charging and storage areas so as not to impact operational performance of active units.

7.7.15.2(4) Not used.

7.7.15.2(5) Not used.

7.7.16 Public Address System

7.7.16.1 Basic Requirements

7.7.16.1(1) Provide cable infrastructure and equipment for a public address system in the Facility. This public address system is intended to be used for general voice paging.

7.7.16.1(2) The public address system will be separate from and act independently of the fire alarm system. Provide interconnects between the systems as required by NFPA and the authority having jurisdiction (AHJ).

7.7.16.1(3) Provide, in consultation with the Authority an interface to the public address system from the telephone system. The public address system integration will facilitate single step dialling from a telephone handset directly to a paging zone. This will accommodate speed-dial functionality.

7.7.16.1(4) Provide a hard-wired backup microphone in a location to be advised by the Authority in the event the phone system fails. This backup microphone must be able to page the entire Facility.

7.7.16.1(5) Generally, voice paging will be on an 'all-page' basis. Provide physical zoning of the public address system by department to enable each department to page individually. Coordinate exact paging zone requirements with the Authority.

7.7.16.1(6) Provide all equipment necessary for a fully operational public address system, including, but not limited to:

7.7.16.1(6)a. paging amplifiers;

7.7.16.1(6)b. flush mount ceiling speakers in finished areas, with adjustable volume levels;

7.7.16.1(6)c. trumpet type speakers in mechanical and other high ambient locations;

7.7.16.1(6)d. microphone(s);

7.7.16.1(6)e. mixers;

7.7.16.1(6)f. telephone system interfaces; and

7.7.16.1(6)g. network system interfaces.

7.7.16.2 Performance Requirements

7.7.16.2(1) Provide complete public address speaker coverage throughout 100% of the Facility so that emergency voice pages can be heard everywhere in the Facility, including, but not limited to, specifically situated speakers within each meeting room, and on-call sleep areas, with high intelligibility (Sound Transmission Index (STI) of 0.6 or greater) and low loss of articulation of consonants (%ALCONS).

7.7.16.2(2) Provide sound levels as follows throughout the Facility:

7.7.16.2(2)a. Normal voice paging: 60 dB minimum.

7.7.16.2(2)b. Voice paging sound levels will be at least 10 dB above ambient noise levels in mechanical rooms and other areas expected to have ambient noise levels above 50 dB.

7.7.16.2(3) Provide telephone access to public address system with a maximum delay of 1 second between accessing system and ability to transmit page.

7.7.16.2(4) Size amplifiers to handle total load plus 20% spare capacity.

7.7.16.2(5) In the event of amplifier failure, redundant or additional amplifiers will be provided so that there will be no loss speaker paging coverage throughout the Facility.

7.7.16.2(6) Upon loss of power, the public address system will remain fully functional via Facility UPS as defined in 7.6.8.

7.7.16.2(7) The Design-Builder will follow the public address system manufacturer installation recommendations and guidelines.

7.7.17 Intercommunication (Intercom) System

7.7.17.1 Basic Requirements

7.7.17.1(1) Provide complete and fully functional video intercom system throughout the facility and locations in consultation with the Authority.

7.7.17.1(2) Standard of acceptance: Aiphone, Commend, TOA, or approved equal.

7.7.17.2 Quality Requirements

7.7.17.2(1) The intercom system standard of acceptance:

7.7.17.2(1)a. Aiphone;

7.7.17.2(1)b. Commend;

7.7.17.2(1)c. TOA; or

7.7.17.2(1)d. Approved equal.

7.7.17.2(2) The Design-Builder will follow the intercom system manufacturer installation recommendations and guidelines.

7.7.17.3 Performance Criteria

7.7.17.3(1) Provide a video intercom system at all Facility entrance locations, departmental entry doors, and High Observation rooms in consultation with the Authority.

7.7.17.3(2) Provide master intercom stations at each:

7.7.17.3(2)a. Centralized nursing station;

7.7.17.3(2)b. Collaboration Station;

7.7.17.3(2)c. Clinical workstations (grouped);

7.7.17.3(2)d. Triage;

7.7.17.3(2)e. Security Office; and

7.7.17.3(2)f. registration areas where entrances will be locked after-hours;

7.7.17.3(3) Coordinate the provision of video intercom systems for all other areas with the authority.

7.7.17.3(4) Master stations will be connected to the access control system to provide remote release to any door with a door station.

7.7.17.3(5) Door stations will be provided as follows:

7.7.17.3(5)a. full colour surveillance camera with ability to pan and tilt;

7.7.17.3(5)b. hands-free full duplex audio capability;

7.7.17.3(5)c. call buttons;

7.7.17.3(5)d. SIP enabled; and

7.7.17.3(5)e. vandal resistant and weatherproof where required.

7.7.17.3(6) Master stations will be provided as follows:

7.7.17.3(6)a. capable of being desk and wall mounted;

7.7.17.3(6)b. full colour display screen with ability to control pan and tilt of door station;

7.7.17.3(6)c. hands-free full duplex audio capability; and

7.7.17.3(6)d. capability to release secured entry doors.

7.7.17.3(7) Upon loss of power the intercom system will remain fully functional via Facility UPS as defined in 7.6.8.

7.7.18 Audio-Visual (AV)

7.7.18.1 Basic Requirements

7.7.18.1(1) All audio-visual (AV) systems will interface with Authority's telehealth and videoconferencing infrastructure and systems.

7.7.18.1(2) Meet all requirements as per Northern Health IMIT Communications Infrastructure Standards (1.7).

7.7.18.1(3) Provide all supporting pathways, cabling and infrastructure including, but not limited to, power, telecommunication outlets, audio-video wiring, HDMI to Cat6A convertors, raceways, outlet boxes, structural requirements (backboards) for a complete and fully functioning audio-visual system.

7.7.18.1(4) Retain audio visual professionals with expertise and experience in the application, use and integration of audio/videoconferencing systems for the design, configuration and integration of the required audio-visual systems.

7.7.18.1(5) Design-Builder will supply and install flat screen displays, (TVs) and flat screen display mounts in each:

7.7.18.1(5)a. Waiting Area;

7.7.18.1(5)b. Meeting Room;

7.7.18.1(5)c. Staff Lounge;

7.7.18.1(5)d. counselling room;

7.7.18.1(5)e. breakout room;

7.7.18.1(5)f. Exam / Treatment Room (Chemotherapy);

7.7.18.1(5)g. Interview room;

7.7.18.1(5)h. IV Therapy Exam / Treatment Area (open);

7.7.18.1(5)i. Inpatient and Patient bedroom;

7.7.18.1(5)j. Patient room (High Acuity Unit);

7.7.18.1(5)k. LDRP room;

7.7.18.1(5)l. Triage;

7.7.18.1(5)m. assessment room (Maternity and Newborn);

7.7.18.1(5)n. Post-Partum Room;

7.7.18.1(5)o. Holding Nursery;

7.7.18.1(5)p. lounge;

7.7.18.1(5)q. activity room;

7.7.18.1(5)r. exercise room;

7.7.18.1(5)s. consult and therapy room;

7.7.18.1(5)t. visiting room;

7.7.18.1(5)u. not used;

7.7.18.1(5)v. classroom;

7.7.18.1(5)w. Debriefing / Multipurpose VC Room;

7.7.18.1(5)x. not used;

7.7.18.1(5)y. rooms used for videoconferencing;

7.7.18.1(5)z. locations identified in consultation with the Authority; and

7.7.18.1(5)aa. Laboratory c/w BrightSign unit (Turn-around Time Monitor)

7.7.18.1(6) Provide videoconferencing system in consultation with the Authority in the following locations:

7.7.18.1(6)a. Resuscitation/Trauma Bay: The Design-Builder will coordinate with the Authority Clinical Lead to determine and provide appropriate equipment required for Resuscitation/Trauma Bay Rooms.

7.7.18.1(6)b. Locations identified in consultation with the Authority: The Design-Builder will coordinate with the Authority to provide a custom solution for rooms for more than 14 persons.

7.7.18.1(7) Provide appropriate flat screen displays for all videoconferencing/meeting rooms, based on room sizes and in consultation with the Authority. In meeting rooms and all rooms used for telehealth and/or videoconferencing, including but not limited to counselling rooms, interview rooms, consult rooms, therapy rooms, classrooms, debriefing rooms and multipurpose rooms, provide the following, dependent on number of persons:

7.7.18.1(7)a.1 For up to 4 persons, provide one (1) Logitech Meetup; separate external speakers and external microphones are not required;

7.7.18.1(7)a.2 For 5-7 persons, provide one (1) Neatbar-SE; separate external speakers and external microphones are not required;

7.7.18.1(7)a.3 For 8-14 persons, provide one (1) Neatbar-Pro; provide Cat 6A cable terminated to a RJ 45 connector, on an outlet at each of the speaker and microphone locations and connected to an outlet terminated with a RJ 45 connector, at the Codec location. Coordinate with the Authority to determine details and exact locations; and

7.7.18.1(7)a.4 For 14+ persons, provide flat screen displays in consultation with the Authority and one (1) Yealink MVC840.The Design-Builder will provide, in coordination with the Authority, a custom build-out of the videoconferencing system. Provide Cat 6A cable terminated to a RJ 45 connector, on an outlet at each of the speaker and microphone locations and connected to an outlet terminated with a RJ 45 connector, at the Codec location. Coordinate with the Authority to determine details and exact locations.

7.7.18.1(8) Provide separate external ceiling or wall speaker connection, for rooms over 34 square metres or with more than 7 persons. Provide Cat 6A cable terminated to a RJ 45 connector on an outlet at each of the speaker locations and connected to an outlet terminated with a RJ 45 connector at the Codec location. Coordinate with the Authority to determine details and exact locations.

7.7.18.1(9) Provide separate microphone connection in each room sized for 7-14 persons and 14+ persons used for teleconferencing and/or telehealth. Provide Cat 6A cable terminated to an RJ 45 connector on an outlet, at each of the microphone locations and connected to an outlet terminated with a RJ 45 connector, at the Codec location. Coordinate with the Authority to determine details and exact locations.

7.7.18.1(10) In rooms used for audio-visual and the floor is capable of being cored, provide floor boxes with one (1) HDMI cables, one (1) data (Cat6A), microphone cabling, and an additional one (1) Cat6A cable for VC control panel. All cables from the floor box will run to a codec mounted behind the flat screen display(s). Provide one floor box for every four seats.

7.7.18.1(11) In rooms used for audio-visual and the floor is not capable of being cored, provide table boxes with one (1) HDMI cables, one (1) data (Cat6A), microphone cabling and an additional one (1) Cat6A cable for VC control panel. All cables from the table box will run to a codec mounted behind the flat screen display(s). Provide one floor box for every four seats.

7.7.18.1(12) Provide two (2) Cat6A and duplex power receptacle in each exam/treatment room for telehealth cart connectivity.

7.7.18.2 Quality Requirements

7.7.18.2(1) Comply with ANSI/INFOCOMM 1M-2009, ANSI/INFOCOMM 2M-2010 and ANSI/INFOCOMM 3M-2011.

7.7.18.2(2) The Design-Builder will follow the audio and videoconferencing manufacturer installation recommendations and guidelines.

7.7.18.2(3) Not used.

7.7.18.2(4) Not used.

7.7.18.2(5) Not used;

7.7.18.2(6) Not used;

7.7.18.2(7) Not used;

7.7.18.2(8) Not used.

7.7.18.2(9) Not used.

7.7.18.2(9)a. Not used.

7.7.18.2(10) Not used.

7.7.18.2(11) Not used.

7.7.18.2(12) Not used.

7.7.18.2(13) Not used.

7.7.18.2(14) Not used.

7.7.18.2(15) Audio quality will be clear and intelligible. Video quality will be high definition (1080p) and synchronized with the audio content. Videoconference systems will allow for adjustments of compression and audio and video quality to accommodate for bandwidth management.

7.7.18.3 Performance Criteria

7.7.18.3(1) Design and construct audio-visual rooms and locate microphones, video cameras, video monitors, lighting systems and sound attenuation structures/materials to optimize the performance of the audio-visual systems.

7.7.18.3(2) Coordinate with the Authority for network access. audio-visual systems will be configured in consultation with the Authority as to not negatively impact the Authority's Network performance in any way.

7.7.18.3(3) The Design-Builder will follow the audio-visual manufacturer installation recommendations and guidelines and will refer to Appendix 1D(IV) for more information.

7.7.18.3(4) The Design-Builder will coordinate with the Authority and follow UBC videoconference standards to provide a solution for specialty rooms. The systems will comply with UBC Faculty of Medicine Design Guidelines and Functional Requirements for Learning Spaces which will take precedence over Northern Health IMIT Communications and Infrastructure Standards 1.7 for this application.

7.7.19 Patient Wandering

7.7.19.1 Basic Requirements

7.7.19.1(1) Provide a complete and fully functional Patient wandering system including, but not limited to:

7.7.19.1(1)a. patient tags;

7.7.19.1(1)b. wristband securing tool;

7.7.19.1(1)c. door controllers;

7.7.19.1(1)d. range extending antennas;

7.7.19.1(1)e. keypads;

7.7.19.1(1)f. hand-held tag detector for tag activation and diagnostics; and

7.7.19.1(1)g. management software with GUI.

7.7.19.1(2) Integrate and interface the Patient wandering system with Division 27, Division 28, and Division 8 as required for a complete and fully functioning system.

7.7.19.2 Performance Criteria

7.7.19.2(1) The Patient wandering system will not utilize the Authority's 802.11 wireless network.

7.7.19.2(2) The Patient wandering system will restrict Patients from exiting/entering restricted departments and areas including:

7.7.19.2(2)a. medical Inpatient.

7.7.19.2(3) Design-Builder will provide a PC based application with protected doors overlaid on the Facility floor plan and that will allow the Authority simple remote configuration of the Patient wandering system.

7.7.19.2(4) Provide a wireless Patient wandering tag test device that audibly and visually indicates on a pass / fail basis the functionality and battery life of the Patient wandering tag. The testing device will be a closed loop device/station that allows for full functional testing without activating the Facility's Patient wandering alarm system and will provide audit functions.

7.7.19.2(5) Interface the Patient wandering system to the access control system so that Patient wandering doors will lock when a Patient with a restricted wandering tag tries to pass through the door.

7.7.19.2(6) When a Patient wearing a Patient wandering tag attempts to exit through an unauthorized exit:

7.7.19.2(6)a. all local surveillance cameras associated with the door will be displayed on local monitors at each centralized nursing station, Collaboration Station, Clinical Workstation (grouped) and Security Office;

7.7.19.2(6)b. An audio-visual alert will be triggered at each centralized nursing station, Collaboration Station, Clinical Workstation (grouped) and Security Office;

7.7.19.2(6)c. The event will also be transmitted to the Staff communication system.

7.7.19.2(7) The Patient wandering system will interface with all elevators that are located within departments utilizing a Patient wandering system (e.g. Wanderguard) or areas easily accessible by Patients and/or residents utilizing Patient wandering bracelets such that these elevators will not operate when a tagged Patient is present in the elevator cab.

7.7.19.2(8) The Patient wandering system will be capable of

7.7.19.2(8)a. initiating a loitering alarm;

7.7.19.2(8)b. displaying the status of all doors;

7.7.19.2(8)c. configuring and saving door templates; and

7.7.19.2(8)d. scheduling door access to each controlled door by the time or day.

7.7.19.2(9) Interface Patient wandering system to fire alarm system so that all Patients will have free egress through emergency exit doors in the event of a fire.

7.7.19.2(10) Patient wandering system tags will have a barcode label affixed for the purpose of positive Patient identification and integration to the Authority's clinical systems.

7.7.19.2(11) Upon loss of power the Patient wandering system will remain fully functional via Facility UPS as defined in 7.6.8.

7.7.19.2(12) Future smart bed locations will include inpatient bed locations in the following departments: Medical and Surgical Inpatient, High Acuity Unit, Maternity and Newborn, Mental Health Services, and Clinical Decision Unit.

7.7.19.2(13) Provide a fully functioning Patient Wandering System of type Wanderguard, utilizing Sonitor RTLS.

7.7.20 Patient Entertainment System

7.7.20.1 Basic Requirements

7.7.20.1(1) The Patient entertainment system will provide Patients, visitors, and Staff television and limited additional content. The system will be administered after Substantial Completion by a third-party provider under the direction of the Authority.

7.7.20.1(2) The Authority is responsible for providing a complete Patient entertainment system.

7.7.20.1(3) The Design-Builder will procure, supply, and install the IP televisions including wall mount brackets. Backing inside the wall will be provided by the Design-Builder.

7.7.20.1(4) The Patient entertainment and education system will both utilize the same display and audio. User controls for these systems will not necessarily be the same.

7.7.20.1(5) Not used.

7.7.20.1(6) Not used.

7.7.20.1(7) The Design-Builder will provide all physical pathways, interconnections, and interfacing required to support control of the Patient entertainment/education system for future smart beds, and transmission of audio signals to the future smart bed speakers.

7.7.20.1(8) Patient entertainment outlets will be installed at:

7.7.20.1(8)a. each Inpatient and Patient room, except Mental Health Inpatient bedrooms.

7.7.20.1(9) Not used.

7.7.20.1(10) Not used.

7.7.20.1(11) At each Patient location in all clinical areas: provide a Patient entertainment outlet capable of providing television programming, Patient education resources, clinical applications, and internet access.

7.7.20.1(12) Future smart bed locations will include Inpatient bed locations in the following departments:

7.7.20.1(12)a. Medical and Surgical Inpatient;

7.7.20.1(12)b. High Acuity Unit;

7.7.20.1(12)c. Maternity and Newborn Inpatient Unit; and

7.7.20.1(12)d. Clinical Decision Unit.

7.7.20.2 Not used

7.7.20.3 Performance Criteria

7.7.20.3(1) A Patient entertainment outlet consists of a receptacle with two (2) Cat6A data drops. A Patient entertainment outlet will serve a Patient entertainment display (flat screen display), a Patient education display, or a combined Patient entertainment/education display. All cabling, servers and equipment will be connected in a telecommunications room.

7.7.20.3(2) At each Patient entertainment outlet location provide sufficient structural support and backing for a 55" flat screen display (TV).

7.7.21 Patient Education System

7.7.21.1 Basic Requirements

7.7.21.1(1) The Authority intends to provide the application services, programs and electronic educational material that will be displayed via the Authority's Network on televisions, Patient entertainment displays, videoconferencing equipment, information kiosks, tracking dashboards, and personal computers.

7.7.21.1(2) Provide outlets for Patient education displays (flat screen displays [TV]) in waiting areas and lounges.

7.7.21.1(3) Design-Builder will be responsible for design and provision of the complete infrastructure, system, cabling and interfaces necessary tosupport the education system.

7.7.21.1(4) Not used.

7.7.21.1(5) The Authority will procure the Patient education content (software).

7.7.21.1(6) Not used.

7.7.21.2 Performance Criteria

7.7.21.2(1) Not used.

7.7.21.2(2) At Inpatient bed locations Patients will control content and volume via pillow speakers connected to the nurse call system.

7.7.21.2(3) Not used.

7.7.22 Nurse Call Systems

7.7.22.1 Basic Requirements

7.7.22.1(1) The nurse call system will utilize the latest technology and be of the type: Rauland, Ascom, or Austco.

7.7.22.1(2) Provide a complete and fully functional nurse call system including, but not limited to, cabling, interfacing, pathways and servers.

7.7.22.1(3) Prior to designing and installing the nurse call system and as required by the Authority, coordinate the technical capabilities of the nurse call system, hardware interface and integration requirements, system layout, and functionality with the Authority and the Authority's clinical Staff.

7.7.22.1(4) Installation of the nurse call system will be to the satisfaction of the Authority including programming, configuration, interfacing, testing, and commissioning of the system.

7.7.22.1(5) Train Authority Staff on the nurse call system, training schedule to be determined in consultation with the Authority.

7.7.22.1(6) Provide a full feature audio and visual nurse call system with full duplex communications in all Patient use and Patient care areas/rooms/units of the Facility.

7.7.22.1(7) The nurse call system will be:

7.7.22.1(7)a. the primary communication device for Patients to contact Staff in each clinical use and Patient care area; and

7.7.22.1(7)b. the primary communication device for Authority Staff to alert other Staff that they need assistance in a clinical use or Patient care area.

7.7.22.1(8) Future smart bed locations will include inpatient bed locations in the following departments: Medical and Surgical Inpatient, High Acuity Unit, Maternity and Newborn Inpatient Unit, Mental Health Services, and Clinical Decision Unit.

7.7.22.2 Quality Requirements

7.7.22.2(1) Comply with UL1069, CSA C22.2 and CSA Z32.

7.7.22.2(2) The Design-Builder will follow the nurse call system manufacturer installation recommendations and guidelines.

7.7.22.3 Performance Criteria

7.7.22.3(1) Interface the nurse call system with other systems in a seamless manner to achieve the integrated functional requirements as determined in consultation with the Authority.

7.7.22.3(2) Fully interface with the nurse call system to the Connexall platform to enable bi-directional communications and transfer of all required data.

7.7.22.3(3) Integrate the nurse call system with the Authority Network and provide sufficient audio channels, in consultation with the Authority, for the requirements of the Facility.

7.7.22.3(4) The nurse call system will provide a full range of software applications as offered by the nurse call vendors most current systems intended for use in a similar care facility. The applications will include system administration and supervision, Staff assignment and messaging.

7.7.22.3(5) The nurse call system will reside on separate VLAN coordinate with the Authority for IP address assignments. Provide all equipment for the nurse call system and integrate the nurse call system, in consultation with the Authority, with other Facility networks.

7.7.22.3(6) Utilize the highest standard Category cabling and connecting hardware permissible for use by the nurse call manufacturer and as required for a complete and fully functional system.

7.7.22.3(7) Install nurse call terminal cabinets in Communication Rooms as approved by the Authority. All nurse call network horizontal runs to connect in a TR and will be terminated in accordance with Section 2.6 Standards.

7.7.22.3(8) The nurse call system will annunciate on the wireless Staff communication system (staff communication device, wireless phone devices, PDAs, or phones) for near instant alarm response as a secondary alerting system. The nurse call system will operate seamlessly with the wireless Staff communication devices and allow two-way VoIP communication into all Patient locations.

7.7.22.3(9) The nurse call system will utilize VoIP communications between all major components including Staff consoles, Patient stations, Staff stations and all telephones and Staff communication devices.

7.7.22.3(10) Provide a Staff console (master station) in each clinical nursing area including each:

7.7.22.3(10)a. Centralized nursing station;

7.7.22.3(10)b. Collaboration Station;

7.7.22.3(10)c. Clinical workstations (grouped);

7.7.22.3(10)d. Triage; and

7.7.22.3(10)e. registration areas

7.7.22.3(11) Staff consoles (master stations) will be colour, touch screen, user configurable, allow multiple screens, soft key enabled, hands-free full duplex capability with handset for private conversations.

7.7.22.3(12) Staff consoles (master stations) will have the capability to redirect all calls to other Staff consoles on a manual, automatically scheduled basis, call escalation, or console failure.

7.7.22.3(13) Provide enhanced Patient stations at each: Patient bed location, Resuscitation/ Trauma Bay, recovery rooms and Exam / Treatment Rooms.

7.7.22.3(14) Enhanced Patient stations will be individually programmable to allow multiple call classification and priority levels.

7.7.22.3(15) Enhanced Patient stations will include, but not limited to pillow speaker connection, auxiliary call cord connection, two (2) programmable call buttons (coordinate with the Authority), and call cancelation button.

7.7.22.3(16) Where future smart beds are planned the nurse call enhanced Patient station will fully interface.

7.7.22.3(17) The nurse call system will provide an interface such that the audio from the Patient entertainment/education system will be connected and audible through the future smart bed speakers.

7.7.22.3(18) The nurse call system will also provide an interface such that the future smart bed is capable of controlling Patient headwall lighting and up/down control of the Patient room electric blinds (only pathways and pull string required for future electric blinds).

7.7.22.3(19) Provide nurse call cords for each enhanced Patient station plus 10% spare. Rooms with flatscreen displays (TVs) will include call cords of the pillow speaker type, with the remainder being standard call cords. Call cords in the Mental Health Inpatient Unit rooms will be of the anti-ligature type.

7.7.22.3(20) Provide emergency pull cord stations at all Patient, public, and family washrooms; shower rooms and change room locations complete with audio and Staff emergency alarms. Two push buttons will be provided in Mental Health Inpatient Unit rooms in lieu of pull cords. One push button will be accessible while sitting or standing and the other from the floor.

7.7.22.3(21) Pull cords will be washable and compliant with the Authority's infection control policies.

7.7.22.3(22) Provide multi-call classification dome light (minimum 4 LEDs) to annunciate Staff presence or calls in all rooms with nurse call devices. Locate dome lights in a manner that allow Authority Staff the best possible view from the outside of the room where the nurse call device is located. Provide zone lights at all corridor intersections to direct and lead Staff from anywhere within or outside the unit to the origin of the call.

7.7.22.3(23) Provide a code blue system as part of the nurse call system with code blue buttons at locations determined in consultation with the Authority including, but not limited to each:

7.7.22.3(23)a. Registration and Reception area;

7.7.22.3(23)b. Centralized nursing station;

7.7.22.3(23)c. Collaboration Station;

7.7.22.3(23)d. Clinical Workstations (grouped);

7.7.22.3(23)e. Patient Care Area;

7.7.22.3(23)f. Clinical use area;

7.7.22.3(23)g. Patient bed location (integrated into enhanced Patient station);

7.7.22.3(23)h. Lounge;

7.7.22.3(23)i. Operating and procedure room;

7.7.22.3(23)j. Exam/Treatment Room;

7.7.22.3(23)k. Interview Room;

7.7.22.3(23)l. Counselling room;

7.7.22.3(23)m. Exercise and stress test room;

7.7.22.3(23)n. Therapy room;

7.7.22.3(23)o. Patient holding room;

7.7.22.3(23)p. Patient recovery areas;

7.7.22.3(23)q. Diagnostic Imaging room;

7.7.22.3(23)r. Physiotherapy Area; and

7.7.22.3(23)s. Locations identified in consultation with the Authority.

7.7.22.3(24) Provide a code pink system as part of the nurse call system with code pink buttons at locations determined in consultation with the Authority including, but not limited to each:

7.7.22.3(24)a. LDRP Patient room;

7.7.22.3(24)b. Holding Nursery;

7.7.22.3(24)c. Operating Room;

7.7.22.3(24)d. Room where newborn or neonatal babies may stay; and

7.7.22.3(24)e. Location identified in consultation with the Authority.

7.7.22.3(25) Provide a code blue system that is interfaced with the following systems: access control, Authority Network, Staff communication system, public address system.

7.7.22.3(26) All code blue code stations will include an additional push button for Staff assist and alarm cancel.

7.7.22.3(27) Provide a code blue system (integrated as part of the nurse call system) that achieves the following sequence of operation:

7.7.22.3(27)a. Upon a code blue button activation, a priority call signal will be announced at each Staff console, a pop-up message will also be displayed at each centralized nursing station, Collaboration Station, and Clinical Workstation (grouped) that will indicate the precise origin of the code blue call.

7.7.22.3(27)b. Provide dome/zone lights, including but not limited to, all corridor intersections, above the door of the code location (where applicable), and elevator lobbies to direct and lead the code blue team from anywhere within or outside the unit to the origin of the code blue call.

7.7.22.3(27)c. A text/alert message will be automatically sent to all unit-based Staff communication and paging devices indicating the location of the call. (Exact Staff communication devices will be coordinated with the Authority prior to system programming.)

7.7.22.3(27)d. A code blue signal comprised a coded message will announce on the public address system throughout the Facility. Coordinate exact paging zones with the Authority prior to programming.

7.7.22.3(27)e. Not used.

7.7.22.3(27)f. Each code blue team member will have the ability to recall any elevator from any elevator lobby by means of an elevator recall keyswitch, the code blue team will assume control of the elevator by means of a code pink/blue keyswitch located inside each elevator and outside each bank of elevators.

7.7.22.3(27)g. Upon cancellation of the code blue call at the Patient station all systems will reset and resume normal operation.

7.7.22.3(28) Provide a code pink system (integrated as part of the nurse call system) that achieves the following sequence of operation:

7.7.22.3(28)a. Upon a code pink button activation, a priority call signal will be announced at each Staff console, a pop-up message will also be displayed at each centralized nursing station, Collaboration Station, and Clinical Workstation (grouped) that will indicate the precise origin of the code pink call. Final display locations to be coordinated with the Authority.

7.7.22.3(28)b. Provide dome/zone lights, including but not limited to, all corridor intersections, above the door of the code location (where applicable), and elevator lobbies to direct and lead the code pink team from anywhere within or outside the unit (if the main response team location is located outside the unit) to the origin of the code pink call.

7.7.22.3(28)c. A text/alert message will be automatically sent to all unit-based Staff communication and paging devices indicating the location of the call. (exact Staff communication devices will be coordinated with the Authority prior to system programming).

7.7.22.3(28)d. A code pink signal comprised a coded message will announce on the public address system. Coordinate exact paging zones with the Authority prior to programming.

7.7.22.3(28)e. Not used.

7.7.22.3(28)f. Each pink team member will have the ability to recall any elevator from any elevator lobby by means of an elevator recall keyswitch, the code blue team will assume control of the elevator by means of a code pink/blue keyswitch located inside each elevator and outside each bank of elevators.

7.7.22.3(28)g. Upon cancellation of the code pink call at the Patient station all systems will reset and resume normal operation.

7.7.22.3(29) Provide a code white system (integrated as part of nurse call system) that achieves the following sequence of operation:

7.7.22.3(29)a. Upon a code white button activation, a priority call signal will be announced at each Staff console, a pop-up message will also be displayed at each centralized nursing station, Collaboration Station, and Clinical Workstation (grouped) that will indicate the precise origin of the code white call. Final display locations to be coordinated with the Authority.

7.7.22.3(29)b. Provide dome/zone lights, including but not limited to, all corridor intersections, above the door of the code location (where applicable), and elevator lobbies to direct and lead the code white team from anywhere within or outside the unit (if the main response team location is located outside the unit) to the origin of the code white call.

7.7.22.3(29)c. A text/alert message will be automatically sent to all unit-based Staff communication and paging devices indicating the location of the call. (exact Staff communication devices will be coordinated with the Authority prior to system programming).

7.7.22.3(29)d. A code white signal comprised a coded message will announce on the public address system. Coordinate exact paging zones with the Authority prior to programming.

7.7.22.3(29)e. Upon cancellation of the code white call at the Patient station all systems will reset and resume normal operation.

7.7.22.3(30) Provide code white buttons in locations determined in consultation with the Authority.

7.7.22.3(31) Provide twenty (20) code blue elevator keys to the Authority.

7.7.22.3(32) Provide Staff/duty stations as part of the nurse call system to ensure that tones are heard clearly throughout each department. Provide the capability to mute each Staff/duty station.

7.7.22.3(33) Upon loss of power the nurse call system will remain fully functional via Facility UPS as defined in 7.6.8.

7.7.23 Cellular DAS System

7.7.23.1 Basic Requirements

7.7.23.1(1) In consultation with the Authority, design and install a complete cellular DAS network solution for the Facility to support the extension of the Authority's service providers cellular wireless network into the Facility.

7.7.23.1(2) Coordinate with the Authority's cellular service provider and provide all cabling, pathways and infrastructure necessary to for a complete and fully functioning cellular DAS system.

7.7.23.1(3) Design-Builder will:

7.7.23.1(3)a. test all aspects of the cellular DAS system;

7.7.23.1(3)b. provide heat maps for the Facility indicating the cellular coverage and signal strength;

7.7.23.1(3)c. install all structured cabling, antennas, head-end units, distribution units, and remote units.

7.7.23.1(3)d. provide a complete structured cabling and pathway infrastructure that will allow the installation of the complete cellular DAS network.

7.7.23.1(4) The Design-Builder will follow the cellular DAS manufacturer's installation recommendations and guidelines.

7.7.23.2 Performance Criteria

7.7.23.2(1) The wireless network will be designed and installed to provide 100% cellular coverage (signal strength / power) and capacity (throughput / bandwidth) throughout the Facility to support all users and their wireless end-devices in the facility.

7.7.23.2(2) Elevator cabs, mechanical spaces, service areas, stairwells, and secured exterior Staff and Patient areas will be included in the 100% coverage and capacity requirements of the cellular DAS system.

7.7.23.2(3) Each remote antenna unit will receive a COAX cable sized as per manufacturers guidelines and computer simulation for attenuation loss.

7.7.24 Electronic Inventory Management System

7.7.24.1 Basic Requirements

7.7.24.1(1) Provide a compete and fully functioning RFID based electronic inventory management system of type Tecsys, including all required infrastructure, pathways, cabling, equipment and interfaces to ensure a complete and fully functioning system.

7.7.24.1(2) Not used.

7.7.24.1(3) Provide data drops for future use in soiled utility rooms and equipment storage rooms for future system expansion. Coordinate with vendor for requirements prior to rough-in.

7.7.24.1(4) Not used.

7.7.24.2 Performance Criteria

7.7.24.2(1) The electronic inventory management system will provide inventory tracking through the use of RFID enabled two-bin or two tote Kanban system.

7.7.24.2(2) Inventory supplies will be tracked via software application. The software application will be Tecsys.

7.7.24.2(2)a. Not used.

7.7.24.2(2)b. Not used.

7.7.24.2(2)c. Not used.

7.7.24.2(2)d. Not used.

7.7.24.2(3) All aspects of the electronic inventory management system will be sized to accommodate all inventory required plus an additional 20%.

7.7.24.2(4) Upon loss of power the electronic inventory management system will remain fully functional via Facility UPS as defined in 7.6.8.

7.7.24.2(5) Provide electronic inventory management systems in the following rooms:

7.7.24.2(5)a. Clean supply;

7.7.24.2(5)b. Clean Utility;

7.7.24.2(5)c. Bulk Storage Area (Warehouse);

7.7.24.2(5)d. General Storage Area (Warehouse);

7.7.24.2(5)e. Pandemic Planning Storage (Warehouse);

7.7.24.2(5)f. Vertical Lift Storage (Warehouse);

7.7.24.2(5)g. Pharmacy;

7.7.24.2(5)h. Laboratory; and

7.7.24.2(5)i. rooms used for storing or preparing medication.

7.7.24.2(6) Coordinate and install Authority provided barcode scanners in each:

7.7.24.2(6)a. Laboratory

7.7.24.2(6)a.1 Control Desk (two (2) scanners);

7.7.24.2(6)a.2 Confidential Garbage;

7.7.24.2(6)a.3 Data Entry;

7.7.24.2(6)a.4 Centrifugation and Specimen Pour Off;

7.7.24.2(6)a.5 Send Out / Off Site;

7.7.24.2(6)a.6 Storage Area, Supplies / Samples;

7.7.24.2(6)a.7 Receiving Bench;

7.7.24.2(6)a.8 Automated Hematology Analyzer;

7.7.24.2(6)a.9 Microscopy Workstation;

7.7.24.2(6)a.10 Manual Hematology & Fluids Workstation;

7.7.24.2(6)a.11 Coagulation Analyzers; and

7.7.24.2(6)a.12 Urinalysis Area.

7.7.24.2(6)b. Pharmacy

7.7.24.2(6)b.1 Receiving / Breakdown / Off-Site Send Out Area.

7.7.24.2(6)c. MDRD

7.7.24.2(6)c.1 Workstation: Receiving / Bar Code Scanner;

7.7.24.2(6)c.2 Workstation: Bar Code Workstation; and

7.7.24.2(6)c.3 Decontamination Sinks with Counter and Shelving.

7.7.24.2(6)d. Supply Chain Management

7.7.24.2(6)d.1 Workstation: Stores Attendant (RFID scanner) (two (2) scanners).

7.7.24.2(6)e. location identified in consultation with the Authority.

7.7.25 Infant Protection System

7.7.25.1 Basic Requirements

7.7.25.1(1) Provide a complete and fully functioning infant protection system of type Stanley Hugs / Kisses in the Maternal and Newborn Inpatient Unit.

7.7.25.1(2) Provide all required infrastructure, pathways, cabling, equipment and interfaces to ensure a complete and fully functioning infant protection system.

7.7.25.1(3) Provide wireless tag test device that audibly and visually indicates on a pass / fail basis the functionality and battery life of the pendant. The testing device will be a closed loop device that allows for full functional testing without activating the Facilities infant protection system and will provide audit functions as required.

7.7.25.1(4) Provide one (1) infant tag and one (1) parent tag for each Patient bed location in the Maternal and Newborn Inpatient Unit plus 20% spare.

7.7.25.2 Performance Requirements

7.7.25.2(1) The infant protection system will:

7.7.25.2(1)a. interface with all elevators so that they will not operate when a tagged infant is present in the elevator cab. The elevator inhibit feature will not operate when the infant tag is in transport mode;

7.7.25.2(1)b. have a minimum of 24-months of battery life;

7.7.25.2(1)c. include tags that operate in non-line of sight conditions or when covered with bed sheets or clothing;

7.7.25.2(1)d. push alerts to nearest centralized nursing station, Collaboration Station, or Clinical Workstation (grouped), and Security Office computer when an infant tag is in close proximity to a department entry/exit door, elevator, Holding Nursery door; when a tag is removed or tampered with (e.g. cut or removed; or when a tag has low battery or fails. Alerts will include tag ID and door ID as required; and

7.7.25.2(1)e. have an array at each department exit/entry and Holding Nursery location capable of determining direction of travel and will be interfaced with the corresponding access control so that the entry/exit door at the location will automatically lock based on infant protection tag credentials.

7.7.25.2(2) When an infant protection tag is in close proximity to departmental entry/exit door or elevator:

7.7.25.2(2)a. all local CCTV cameras associated with the door are displayed at each centralized nursing station, Collaboration Station, Clinical Workstation (grouped) and Security Office, and an audible/visual alarm is activated at each centralized nursing station, Collaboration Station, Clinical Workstation (grouped) and Security Office. The event will also be transmitted to the Staff communication system.

7.7.25.2(2)b. a local siren-strobe will be activated at the door or elevator door location.

7.7.25.2(3) Upon loss of power the infant protection system will remain fully functional via facility UPS as defined in 7.6.8.

7.7.26 Specialty Rooms

7.7.26.1(1) University of British Columbia (UBC).

7.7.26.1(1)a. Basic Requirements

7.7.26.1(1)a.1 Provide all Communications Systems and supporting infrastructure as per the current UBC technical guidelines for each room that will be utilized by UBC. Coordinate exact requirements with UBC. The systems will comply with UBC Faculty of Medicine Design Guidelines and Functional Requirements for Learning Spaces which will take precedence over Northern Health IMIT Communications Infrastructure Standards 1.7 for this application.

7.7.26.1(2) Observation Room (Mental Health Inpatient Unit)

7.7.26.1(2)a. Basic Requirements

7.7.26.1(2)a.1 Provide all Communications Systems required as per Provincial Quality, Health & Safety Standards and Guidelines for Secure Rooms in Designated Mental Health Facilities under the B.C. Mental Health Act.

7.8 Electronic Safety and Security (Division 28)

7.8.1 General

7.8.1.1 Design, provide, and install a complete and fully functional security system in consultation with the Authority for a healthcare facility environment.

7.8.1.2 Provide fully networked, integrated and interfaced security systems to protect Staff, Patients, visitors, and property. Security systems will include, but are not limited to, a closed-circuit television system to view and record events, an access control system to restrict access to Secure areas to authorized personnel only, an intrusion alarm detection system, a fixed panic system, and a Staff assist system (integrated into nurse call system).

7.8.1.3 Develop the security design in consultation with the Authority.

7.8.1.4 All equipment and devices installed in the Mental Health Inpatient Unit will be of the anti-ligature type.

7.8.1.5 The Design-Builder will be responsible for the initial programming of proximity cards.

7.8.1.6 The Design-Builder will locate all security devices and provide monitoring and alarm annunciation requirements to the satisfaction of the Authority. Clinical workstations will receive messages specific to their departments.

7.8.1.6(1) The Authority's security system monitoring will be capable of being monitored from each:

7.8.1.6(1)a. Centralized nursing station;

7.8.1.6(1)b. Reception and Registration area;

7.8.1.6(1)c. Collaboration Station;

7.8.1.6(1)d. Clinical Workstations (grouped); and

7.8.1.6(1)e. Security Office

7.8.1.6(1)f. Office: Supervisor (FM)

7.8.1.6(2) For monitoring from clinical spaces, the Design-Builder is to coordinate with the Authority to determine the needs of each department and set required views at the stations. The views are to be capable of being adjusted by Security or FM (Facilities Management) as requested.

7.8.1.6(3) Both Security services and the FM supervisor's office are to have full capabilities.

7.8.1.7 All electronic security systems will reside on a dedicated security systems VLAN and will allow the Authority the opportunity to review events and monitor the status of security systems from off-site locations. The system will be fully accessible through the Authority Network.

7.8.1.8 Electronic security systems will be scalable to allow for future additions and interconnections of devices and subsystems from different manufacturers.

7.8.1.9 The security system will incorporate commercial off-the-shelf equipment and proven designs from manufacturers regularly engaged in the production of models and types of equipment used in the security industry. Products will be quality control tested and verified for the intended operation prior to installation at site.

7.8.1.10 Electronic security systems will maintain dependability and reliability under all operational environmental conditions at the location they are installed and will be capable of 24 hours per day, seven days per week continuous operation.

7.8.1.11 Interconnect security systems to the fire alarm system and other systems as required by local building codes and NFPA standards.

7.8.1.12 Arrange and attend meetings with the Authority to coordinate system design, interconnections, and programming requirements to integrate and/or interface with the Authority's security systems.

7.8.1.13 Train Authority Staff on the use and operation of security systems and location of all security devices. Coordinate and schedule training with the Authority.

7.8.1.14 All electronic security systems will meet BC Freedom of Information and Protection of Privacy Act (FOIPPA) standards for storage and operation of devices. Provide all necessary documentation and completed privacy impact assessment (PIA) required to meet Authority privacy/confidentiality standards.

7.8.1.15 The Facility Maintenance supervisor's office will include all equipment and capabilities of the Security Office, including but not limited to, CCTV workstation.

7.8.2 Access Control

7.8.2.1 Basic Requirements

7.8.2.1(1) Not used.

7.8.2.1(2) The access control system will adhere to NFPA and BC Building Code (latest edition).

7.8.2.1(3) Provide an access control system compatible with the Authority's standard system: Kantech Global Enterprise System with LDAP application.

7.8.2.1(3)a. ACS will be integrated into an existing Kantech globalized system.

7.8.2.1(3)b. Provide required professional services and workstation licences.

7.8.2.1(4) The access control system will:

7.8.2.1(4)a. lock and unlock doors via time schedule, card readers, keypads and remote push buttons;

7.8.2.1(4)b. interface with the intercom system so that each master station will be able to unlock any door with an intercom door station;

7.8.2.1(4)c. utilize proximity field effect technology to grant or restrict access to employees via a programmable classification system with sufficient capacity to handle at minimum 25,000 regional employees down to the field panel level; and

7.8.2.1(4)d. operate over a standard TCP/IP Ethernet network.

7.8.2.1(5) All doors that require card access control will include, but are not limited to:

7.8.2.1(5)a. door position contacts;

7.8.2.1(5)b. request-to-exit sensors;

7.8.2.1(5)c. electrified mortise locksets;

7.8.2.1(5)d. ioSmart Kantech card readers;

7.8.2.1(5)e. Piezo sounders (may or may not be included in the request-to-exit device);

7.8.2.1(5)f. fire alarm interface/relays where required by British Columbia Building Code (latest edition) and at door locations utilizing magnetic locks;

7.8.2.1(5)g. Interfaces, relays, and all equipment required for integration to automatic door openers or panic hardware on doors where they are installed; and

7.8.2.1(5)h. power supplies (located in Communications Rooms, not above doors).

7.8.2.1(6) The Design-Builder may use maglocks on doors where an electrified mortise lock cannot accomplish the same door requirements (i.e. double doors with card reader access on either side)

7.8.2.1(7) Locking systems will be fail secure as required by the Authority and in compliance with BC Building Code (latest edition).

7.8.2.1(8) The access control system will interface with the fire alarm system.

7.8.2.1(9) The access control system will interface to an event recorder that provides graphic display of door position status and an operating interface for central locking/unlocking of doors.

7.8.2.1(10) The access control system will permit full control functionality from off-site and on-site workstations.

7.8.2.1(11) The access control system will interface with the CCTV system such that when an alarm is initiated at an access-controlled door all local CCTV cameras associated with the door increase their frame rate and are displayed each (appropriate clinical locations to be determined in consultation with the Authority):

7.8.2.1(11)a. Centralized nursing station;

7.8.2.1(11)b. Collaboration Station;

7.8.2.1(11)c. Clinical workstations (grouped); and

7.8.2.1(11)d. Security Office.

7.8.2.1(11)e. Office: Supervisor (FM)

7.8.2.1(12) Coordinate with Division 8 Openings contractor provided equipment for a complete and fully functioning access control system. See Section 6.8 Openings (Division 8)

7.8.2.1(13) The access control system will interface with the Patient wandering system to prevent unauthorized egress.

7.8.2.1(14) The Authority currently has standardized on an enterprise access control solution. Provide all interfacing and integration required between the new access control system and the Authority's existing enterprise level access control hardware and software application for a complete and fully functioning access control system. No local access control servers will be required.

7.8.2.1(15) Provide and coordinate all professional services and licensing required for a complete and fully functioning access control system. Professional services must include the access control system manufacturer.

7.8.2.1(16) In consultation with the Authority and the access control system manufacturer provide all professional services and licensing required for Microsoft Active Directory Integration Synchronization utilizing Lightweight Directory Access Protocol (LDAP) for the access control system.

7.8.2.2 Performance Criteria

7.8.2.2(1) The Authority has standardized on Kantech for its access control systems throughout each of its facilities.

7.8.2.2(1)a. The access control system's card readers for the new Facility will be dual frequency technology such as ioSmart Kantech card readers.

7.8.2.2(1)b. The access control cards for the new Facility will be dual frequency technology cards such as ioSmart 13.56 MHz MIFARE Plus 2K Smart Cards and ioProx 125 kHz card for dye sub.

7.8.2.2(1)c. Doors for emergency egress (with a panic bar) will have access control readers. The Design-Builder and the Authority will review and coordinate for individual doors.

7.8.2.2(1)d. The data transmission between the card reader and door controller will be both encrypted and supervised. Open Supervised Data Protocol (OSDP) is to be used.

7.8.2.2(2) Not used.

7.8.2.2(3) All electromagnetic lock-controlled doors will be able to be manually unsecured by means of a keyswitch which directly interrupts power to the magnetic locking hardware. A key override will be provided on each side of the door(s).

7.8.2.2(4) In the event of a fire alarm power to all magnetic locking hardware will be released providing free egress.

7.8.2.2(5) All interior stairwell doors leading back into the Facility interior will be equipped with card access control readers. Only exterior stairwell access doors requiring re-entry by the Authority's authorized personnel and the exterior stairwell door to fleet parking are to be equipped with card access control readers; otherwise, exterior stairwell doors leading outside the Facility are to have no outside door function and will be for egress only.

7.8.2.2(6) All access control panels / field controllers will reside in Communications Rooms.

7.8.2.2(7) Upon loss of power access control system and all access control doors will remain fully functional via Facility UPS as defined in 7.6.8.

7.8.2.2(8) Individual power supply units for access control doors will not serve more than 48 doors, more than 1 department, multiple floors of the building, or an area greater than 1000m^2.

7.8.2.2(9) Card access system will utilize a file server and allow multiple workstations to access this file server for control and alarm annunciation purposes. All alarms will annunciate locally and allow concurrent remote monitoring capability both on and off-site.

7.8.2.2(10) Design-Builder will provide a user interface at a local monitoring station located in the Security Office with the following functionality:

7.8.2.2(10)a. presentation of access control system alarm locations superimposed on a facility floor plan,

7.8.2.2(10)b. ability to configure and control each door, or monitored point,

7.8.2.2(10)c. alarm handling, and

7.8.2.2(10)d. real-time indication of door/device status.

7.8.2.2(11) The access control system will be integrated with code blue emergency response procedures to provide unrestricted access through designated code blue travel routes. Code blue carts within two metres of a Secure door will cause the Secure door to unlock and automatically open. Secure doors will then close and secure once the code blue team is two metres or more beyond the Secure door.

7.8.2.2(12) Each access-controlled door will have the capability to emit an audible tone/alarm signal to annunciate door held open and door forced open alarms. This tone will be adjustable in volume and will have a programmable option allowing the tone to be silenced or removed for door functionality as required on access or egress.

7.8.2.2(13) The access control system will function at the field controller level without connection to a PC Host, gateway, or network connection. All field controllers will be connected by TCP/IP using the structured cabling.

7.8.2.2(14) The access control system will have the capability to lock down departments or other areas identified by the Authority in the event of an emergency or per an established schedule on a door by door basis or global command. Determine and program final access control system configuration in consultation with the Authority.

7.8.2.2(15) The access control system will use dual frequency technology card readers. Card readers are not required to be backward compatible to all existing cards presently distributed across the Authority.

7.8.2.2(16) Volume level of the tones emitted by the card reader will be adjustable and will be suitable for quiet environments. Card readers will have silent operation capability.

7.8.2.2(17) The access control system is not required to be compatible with the Authority's existing systems. Existing Authority cards will not work on the new system. The new cards will be dual frequency technology cards. Provide base programming and coordination with the Authority.

7.8.2.2(18) Provide 500 blank dual frequency technology cards with Smart technology for Authority staff. Provide base programming and coordination with the Authority.

7.8.2.2(19) Provide delayed egress operation and alarms at emergency exit doors and doors identified as high-risk (e.g. Mental Health Inpatient Unit exit doors); alarms to annunciate audibly locally and at each:

7.8.2.2(19)a. Centralized nursing station;

7.8.2.2(19)b. Collaboration Station;

7.8.2.2(19)c. Clinical workstations (grouped); and

7.8.2.2(19)d. Security Office.

7.8.2.2(20) Interconnect and interface all electronically controlled doors for remote “lock & unlock” capability through the access control system on a door- by-door or global command basis.

7.8.2.2(21) Provide clear signage indicating entry procedures. Consult with the Authority for appropriate and acceptable wording.

7.8.2.2(22) All security alarms will be logged and archived. Logging system will be capable of external archiving/backup to extend the event info storage duration.

7.8.2.2(23) Access control system will provide canned reports and custom reporting capability as defined during consultation with the Authority.

7.8.2.2(24) Provide access to the control and reporting platform to security workstations located in the Security Office.

7.8.2.2(25) Provide a maintenance/administration workstation (MAW) PC complete with operating & application software, monitor, keyboard, mouse, and interconnection to the security system. Locate MAW in a TR, accessible to authorized personnel and Authority Staff.

7.8.2.2(26) Determine, in consultation with the Authority the location of access control doors and door alarms within the Facility.

7.8.2.2(27) Provide access control doors and door alarms for rooms, departments and areas including, but not limited to:

7.8.2.2(27)a. administration and registration areas (i.e. Registration Booth);

7.8.2.2(27)b. perimeter entry doors, (provide video intercom and remote release for main entry door and Emergency department entry locations);

7.8.2.2(27)c. all elevators (both hall call and inside the cab), with floor by floor control;

7.8.2.2(27)d. roof access doors;

7.8.2.2(27)e. areas and rooms where cash is handled;

7.8.2.2(27)f. rooms utilized for meetings, telehealth or videoconferencing;

7.8.2.2(27)g. support rooms and spaces;

7.8.2.2(27)h. building management rooms;

7.8.2.2(27)i. Staff locker rooms, Staff lounge and Staff washrooms;

7.8.2.2(27)j. service rooms (e.g. electrical and mechanical rooms);

7.8.2.2(27)k. Staff only corridors;

7.8.2.2(27)l. department entrances;

7.8.2.2(27)m. Staff washrooms;

7.8.2.2(27)n. Morgue;

7.8.2.2(27)o. not used;

7.8.2.2(27)p. observation rooms;

7.8.2.2(27)q. rooms where medication is stored or handled;

7.8.2.2(27)r. Mental Health Inpatient Unit rooms (in consultation with the Authority);

7.8.2.2(27)s. Pharmacy;

7.8.2.2(27)t. rooms housing technology and /or telecommunications equipment;

7.8.2.2(27)u. doors identified in Appendix 1J Door Operation Matrix; and

7.8.2.2(27)v. locations identified as high risk by the Authority;

7.8.2.2(27)w. areas and rooms used for storing of blood.

7.8.2.2(28) Following consultation with the Authority, provide combination pin code/proximity card readers at all access/egress locations to/from all strictly controlled areas identified by the Authority, including, but not limited to:

7.8.2.2(28)a. ambulance entrance(s);

7.8.2.2(28)b. rooms supplying or storing medicine; and

7.8.2.2(28)c. ambulance Patient transport locations.

7.8.2.2(29) combination pin code/proximity card readers will be fully integrated into the Facility's access control platform (stand-alone, non-integrated pin pads are not acceptable). Combination pin code/proximity card readers will facilitate access by the following methods:

7.8.2.2(29)a. pin code only;

7.8.2.2(29)b. card read only; and

7.8.2.2(29)c. pin code and card read.

7.8.2.2(30) Provide momentary remote pushbutton operation to Facility and departmental entry doors used for after-hours Patient entry. when activated by Staff from each:

7.8.2.2(30)a. registration area;

7.8.2.2(30)b. Triage;

7.8.2.2(30)c. Centralized nursing station;

7.8.2.2(30)d. Collaboration Station;

7.8.2.2(30)e. Clinical workstations (grouped); and

7.8.2.2(30)f. Security Office.

7.8.2.2(31) Interface the intercom system with the access control system.

7.8.2.2(32) All delayed-egress doors intended for emergency use only will be alarmed locally, include a 15 second delay, and send an alert to each centralized nursing station, Collaboration Station, Clinical Workstation (grouped), and Security Office via the access control system. Alarms will be silenced through use of a key-switch that will be integral to the panic hardware.

7.8.2.2(33) All non-emergency doors exiting the Mental Health Inpatient Unit will follow the requirements of 7.8.2.2(31) but will include a card reader so that Staff may exit with no delay or alarm.

7.8.3 Fixed Panic System

7.8.3.1 Basic Requirements

7.8.3.1(1) The fixed panic system will provide Staff with the ability to either discreetly or overtly initiate a call for assistance.

7.8.3.1(2) Exterior fixed panic stations will be manufactured by Code Blue Corporation or approved equal.

7.8.3.1(3) Interior wall mounted fixed panic stations will be manufactured by Safety Standard International or approved equal.

7.8.3.1(4) “Hold-up” style panic buttons will be manufactured by United Security or approved equal.

7.8.3.1(5) The Design-Builder will supply, program, and configure all necessary equipment to provide alerts from the fixed panic system to the local RCMP dispatch via dialer and the Staff communication devices via the Staff communication system,

7.8.3.1(6) The access control system will not be utilized for integrating the fixed panic system.

7.8.3.2 Performance Criteria

7.8.3.2(1) Provide fixed panic stations that are highly visible, illuminated, and accessible. Fixed panic stations upon activation will annunciate locally by means of a minimum 90 dBA siren, a xenon strobe, and will be integrated with the CCTV system.

7.8.3.2(2) Provide all areas of parking with fixed panic stations such that no location in the parking is further than 30m from a fixed panic station.

7.8.3.2(3) Fixed panic system buttons will be strategically located in high-risk areas, suitably sized, clearly identified, suitable for application, and require key to reset.

7.8.3.2(4) Provide “hold-up” style panic buttons in addition to wall mount panic buttons in each:

7.8.3.2(4)a. Centralized nursing station;

7.8.3.2(4)b. Collaboration Station;

7.8.3.2(4)c. Clinical Workstation (grouped);

7.8.3.2(4)d. Registration and Reception desks and areas;

7.8.3.2(4)e. Interview and counselling room;

7.8.3.2(4)f. High Observation Room Vestibule; and

7.8.3.2(4)g. high risk areas identified by the Authority in the Mental Health Inpatient Unit and other areas.

7.8.3.2(5) Provide fixed panic system buttons for Staff to initiate emergency assistance calls in areas of the Facility as determined in consultation with the Authority, including but not limited to each:

7.8.3.2(5)a. Centralized nursing station;

7.8.3.2(5)b. Collaboration Stations;

7.8.3.2(5)c. Clinical Workstations (grouped);

7.8.3.2(5)d. Triage areas;

7.8.3.2(5)e. registration and reception desk and area;

7.8.3.2(5)f. rooms where medication is stored, supplied or handled;

7.8.3.2(5)g. consultation rooms;

7.8.3.2(5)h. Diagnostic Imaging rooms;

7.8.3.2(5)i. Resuscitation / Trauma Rooms;

7.8.3.2(5)j. Ambulatory services areas;

7.8.3.2(5)k. locker rooms and change areas;

7.8.3.2(5)l. Physiotherapy Area;

7.8.3.2(5)m. Exercise Room;

7.8.3.2(5)n. rooms for handling or storing narcotics;

7.8.3.2(5)o. Exam - Secure Room;

7.8.3.2(5)p. group and individual therapy rooms;

7.8.3.2(5)q. Family Visiting Room;

7.8.3.2(5)r. rooms used for procedures or operations;

7.8.3.2(5)s. Activity Room;

7.8.3.2(5)t. exam rooms;

7.8.3.2(5)u. treatment rooms and areas;

7.8.3.2(5)v. interview rooms;

7.8.3.2(5)w. Emergency Department;

7.8.3.2(5)x. waiting areas;

7.8.3.2(5)y. Entrance / Lobby areas;

7.8.3.2(5)z. Morgue;

7.8.3.2(5)aa. Not used

7.8.3.2(5)bb. storage rooms;

7.8.3.2(5)cc. Biomedical Engineering rooms;

7.8.3.2(5)dd. workshops; and

7.8.3.2(5)ee. high risk locations in Mental Health Inpatient Unit and other areas identified in consultation with the Authority.

7.8.3.2(6) Provide a fixed panic system that achieves the following sequence of operation:

7.8.3.2(6)a. Upon a fixed panic button activation, a pop-up message will be displayed at each Clinical Workstations (nursing station), Security Office and FM supervisor's office and the precise origin of the fixed panic call will be displayed on a facility map provided via software application.

7.8.3.2(6)b. A local audible-visual alarm will alert Staff at the panic button initiation location (outside room door where applicable), department entry door and each nursing station. Coordinate exact locations and signalling (audio, visual or both) with the Authority prior to rough-in. All siren-strobes will include volume adjustment and muting option.

7.8.3.2(6)c. A fixed panic signal comprised of a coded message will announce on the public address system throughout the Facility or by department. Coordinate exact paging and zoning requirements with the Authority prior to rough-in.

7.8.3.2(6)d. If the fixed panic call is initiated after hours, the local RCMP will be contacted via communication dialer which meets or exceeds CAN/ULC-S304 (2018) and CAN/ULC-S302 (Current Edition). The dialer will include two (2) methods of communication (e.g. IP and GSM). Coordinate after hour time frames and exact dial out requirements with the Owner prior to programming.

7.8.3.2(6)e. If the fixed panic call is initiated after hours, in addition to the previous requirements, the local RCMP will be contacted via communication dialer which meets or exceeds CAN/ULC-S304 (2018) and CAN/ULC-S302 (Current Edition). The dialer will include two (2) methods of communication (e.g. IP and GSM). Coordinate after hour time frames with the Owner prior to programming.

7.8.3.2(6)f. Fixed panic calls will be cancelled by resetting the activation button and the system will return to normal operation.

7.8.3.2(7) The fixed panic system will be hard-wired and supervised such that a trouble/error message will reported to protection services.

7.8.3.2(8) The entire fixed panic system will be supervised for the following:

7.8.3.2(8)a. power loss;

7.8.3.2(8)b. system trouble;

7.8.3.2(8)c. communication loss; and

7.8.3.2(8)d. wiring and button (including short, ground fault, open circuit).

7.8.3.2(9) Upon loss of power the fixed panic system will remain fully functional via Facility UPS as defined in 7.6.8.

7.8.4 Staff Assist System

7.8.4.1 Basic Requirements

7.8.4.1(1) Provide a complete and fully functional Staff assist system as part of, and integral to, the nurse call system.

7.8.4.2 Performance Criteria

7.8.4.2(1) Provide a Staff assist system as part of the nurse call system with code buttons at locations determined in consultation with the Authority including, but not limited to each:

7.8.4.2(1)a. all clinical use area;

7.8.4.2(1)b. patient care area;

7.8.4.2(1)c. patient bed location (integrated into enhanced Patient station);

7.8.4.2(1)d. Centralized nursing station;

7.8.4.2(1)e. Collaboration Station;

7.8.4.2(1)f. Clinical Workstation (grouped);

7.8.4.2(1)g. registration and reception area;

7.8.4.2(1)h. interview room and area;

7.8.4.2(1)i. procedure room;

7.8.4.2(1)j. Operating Room;

7.8.4.2(1)k. patient holding area;

7.8.4.2(1)l. exercise and stress test room;

7.8.4.2(1)m. assessment room and area;

7.8.4.2(1)n. exam/treatment room;

7.8.4.2(1)o. patient recovery area;

7.8.4.2(1)p. diagnostic imaging room;

7.8.4.2(1)q. Newborn Holding Room;

7.8.4.2(1)r. physiotherapy area;

7.8.4.2(1)s. morgue; and

7.8.4.2(1)t. patient bed locations.

7.8.4.2(2) Provide, program and configure the Staff assist system to interface with the following systems: access control system, Authority Network, Staff communication system, elevator controls, public address system where required to meet the requirements of Schedule 1 – Statement of Requirements.

7.8.4.2(3) Provide a Staff assist system (integrated with the nurse call system) that achieves the following sequence of operation:

7.8.4.2(3)a. Upon a Staff assist button activation, a priority call signal will be announced at the Staff console, a pop-up message will also be displayed at the Clinical Workstation (Nursing Station) closest to or within the department where the call was activated during normal working hours and each centralized nursing station, Collaboration Station, and Clinical Workstation (grouped) during afterhours.

7.8.4.2(3)b. Provide dome/zone lights, including but not limited to, all corridor intersections, above the door of the Staff assist location and elevator lobbies (where applicable) to direct and lead the local departmental nursing team response Staff from anywhere within the department to the origin of the Staff assist call location. Coordinate dome/zone light flash rates, colour and tone with the Owner prior to programming.

7.8.4.2(3)c. A Staff assist signal comprised of a coded message will announce on the public address system in the department where the call was activated during normal working hours and throughout the entire facility during afterhours. Coordinate exact paging zones with the Authority prior to programming.

7.8.4.2(3)d. A text/alert message will be sent to all Staff communication devices (exact Staff communication devices to be coordinated with the Authority prior to system programming).

7.8.4.2(3)e. Annunciate on Staff/duty stations.

7.8.4.2(3)f. Upon cancellation of the Staff assist code call at the Staff assist button station all systems will reset and resume normal operations.

7.8.4.2(4) The Staff assist system will be capable of receiving and relaying alarm notification from Staff pendants anywhere in the Facility to each centralized nursing station, Collaboration Station, Clinical Workstation (grouped), and Security Office.

7.8.4.2(5) Upon loss of power the Staff assist system will remain fully functional via Facility UPS as defined in 7.6.8.

7.8.5 Intrusion Detection

7.8.5.1 Basic Requirements

7.8.5.1(1) Provide a complete and fully functional intrusion alarm system.

7.8.5.1(2) Standard of acceptance DSC or approved equal.

7.8.5.1(3) Intrusion detection systems will be installed in all areas where protection of physical assets is deemed critical and in consultation with the Authority.

7.8.5.1(4) Provide an intrusion detection system(s) including alarm controllers, local keypads, motion sensors, shock sensors, glass break sensors, door contacts, strobes, sirens, and other alarm initiating devices as needed for a complete and fully operational system.

7.8.5.1(5) The intrusion alarm system will utilize a dialer that will call to a UL-listed Central Station where the Central Station operator will follow a call-out list that may include the RCMP. The call will be primarily over IP, with provision for cellular back up, if there will be failure of IP.

7.8.5.2 Performance Criteria

7.8.5.2(1) The intrusion detection system(s) will utilize industry proven devices for intrusion alarm detection and reporting capable of 24 hours per day, seven days per week continuous operation.

7.8.5.2(2) Control each intrusion alarm sub-system with keypad(s) located inside the department or area being protected. Install intrusion detection systems in areas including, but not limited to:

7.8.5.2(2)a. All level 1 or lower exterior entrances and windows of the Facility;

7.8.5.2(2)b. medication room(s);

7.8.5.2(2)c. rooms where narcotics are handled or stored;

7.8.5.2(2)d. Pharmacy;

7.8.5.2(2)e. easily accessible areas located above level 1; and

7.8.5.2(2)f. areas and rooms designated as high risk by the Authority.

7.8.5.2(3) Locate intrusion alarm devices to minimize false alarms due to sunlight and/or shadows being cast through windows.

7.8.5.2(4) Intrusion alarm system and all associated alarm panels must be compatible and remotely programmable from existing Authority system equipment.

7.8.5.2(5) Upon loss of power the intrusion detection system will remain fully functional via Facility UPS as defined in 7.6.8.

7.8.6 Surveillance System (CCTV)

7.8.6.1 Basic Requirements

7.8.6.1(1) Provide a complete and fully function CCTV and clinical camera system for the Facility.

7.8.6.1(2) Standard of acceptance: Avigilon, Axis, Bosch, or approved equal.

7.8.6.1(3) Provide CCTV coverage throughout the Facility, and exterior areas for the purpose of viewing and recording video to enhance the level of security and to assist Authority Staff in providing a safe environment for Patients, Staff, visitors and the general public while protecting the physical assets.

7.8.6.1(4) Design-Builder will post signage at the main entrances to the Building. The signage will notify the public that this area is under video surveillance. Consult with the Authority for signage wording and requirements.

7.8.6.1(5) CCTV system will conform and be governed by the Public Surveillance System Privacy Guidelines for the Province of BC as well as the BC Freedom of Information and Protection of Privacy Act.

7.8.6.1(6) The CCTV system must be able to record clear images of individuals, which would allow distinction of gender, ethnicity, and age category. The CCTV system will provide recorded images of sufficient quality to be used as court evidence in Canada.

7.8.6.1(7) The CCTV system will allow remote access to all live recording video, recorded video, and all system programming from remote Authority sites and multiple local workstations.

7.8.6.2 Performance Criteria

7.8.6.2(1) CCTV system will be a dedicated software-based virtual matrix that integrates with other systems as identified in Appendix 1D(II) – Technology Systems Integration Matrix.

7.8.6.2(2) Parking and exterior areas of the Facility will be covered by outdoor cameras. Coverage will be to a level that will allow facial and/or license plate identification at key choke points as appropriate. The term “facial identification” means capturing a target’s face in recognizable format with CCTV cameras and providing images of 250 pixels per metre (ppm). At all Facility perimeter entry points, identification level of resolution of 250ppm is required. The design will be based on target recognition level of resolution (67.5 ppm to 125 ppm) in all other areas excluding entry points. Anything less than 125ppm to a minimum of 67.5ppm is to be reviewed and approved in writing by the Authority on a case-to-case basis. Less than 67.5ppm is not acceptable. Cameras with fisheye or panoramic views are not acceptable.

7.8.6.2(2)a. The term “key choke points” means (a) vehicles’ entrance and exit points to the site, (b) vehicles entrance and exit points to parking zones, (c) the emergency and main entrance drop-off areas, (d) the ambulance drop-off entrance and exit, (e) loading dock vehicle approach, and (f) stairwells will be covered by fixed cameras at discharge landing in view of exit door of the stairwell.

7.8.6.2(2)b. The Design-Builder is to provide a surveillance system field-of-view depiction to be reviewed and approved in writing by the Authority prior to implementation.

7.8.6.2(3) Provide the appropriate encoding/decoding capability to support 2-way (video and control) communications with all CCTV cameras, individually and/or in predetermined clusters via the Authority Network.

7.8.6.2(4) Provide video storage capacity for minimum of 30 days at 30 frames per second (FPS) at main entrance(s) and department entry doors, 30 days at 15 FPS in all other areas of the Facility, minimum HD (1920 x 1080p) resolution. The CCTV system will have the option of recording each camera at various resolution levels and FPS depending on use and location, as well as by schedule or event. Provide file servers, workstations, and optical storage devices and connect to the Authority Network. The system will have activity detection and incorporate smart search capabilities. Playback speed will be capable at 5x normal rate. During alarm conditions, allow for higher recording rates. Camera digital shutter speed will be adjusted to allow for still image captures at the point of interest without causing blurring while the subject is running or walking.

7.8.6.2(5) The CCTV system will integrate and interface with other systems as identified in the Appendix 1D(II) Technology Systems Integration Matrix.

7.8.6.2(6) CCTV display and review system will be network-based client application allowing for authorized users to remotely view, control and manage all aspects of the CCTV system across the network. System will have network and web access for remote monitoring, using predefined user authentication.

7.8.6.2(7) Display and review for all the cameras will be accessible through dual and single screen workstations located in each:

7.8.6.2(7)a. Centralized nursing station (one (1) 32”); Triage (one (1) 32”);

7.8.6.2(7)b. Collaboration Station (one (1) 32”);

7.8.6.2(7)c. Clinical Workstation (grouped) workstation (one (1) 32”);

7.8.6.2(7)d. registration area (one (1) 32”);

7.8.6.2(7)e. Security Office (two (2) 42”); and

7.8.6.2(7)f. Facility Maintenance supervisor's office (two (2) 42").

7.8.6.2(8) Provide CCTV workstations with all required operating and application software, monitors, keyboard, mouse, with interconnection to security system network.

7.8.6.2(9) Indoor cameras will be fixed type, capable of facial recognition, colour, high-resolution, high sensitivity (day/night), dome type with an auto iris and zoom capability. Mounting will be appropriate for the environment, unobtrusive, matching colour with hidden cabling. Fixed cameras will be vandal resistant, wall mounted and / or mounted at protective locations and heights.

7.8.6.2(10) Outdoor cameras will be multisensor c/w four adjustable camera sensors and include adaptive infrared, H.256 compression technology, and wide dynamic range capabilities. Outdoor cameras will mount on poles, parapets and walls located to provide optimum unobstructed viewing of the area under surveillance. Outdoor cameras will have the ability to mask portions of view through software and remote programming.

7.8.6.2(11) Outdoor cameras will be complete with weatherproof housing and internal heater as required for suitable operation under varying environmental conditions.

7.8.6.2(12) Cameras will not be set up in private areas such as Patient rooms, treatment rooms or clinical areas (unless specifically identified for use by clinical department Staff), locker rooms or washrooms.

7.8.6.2(13) CCTV clinical activity monitors will be located out of public view as required to protect privacy.

7.8.6.2(14) Provide virtual matrix controller to allow for full customization of views and view layouts at each monitor utilized for viewing CCTV cameras. Coordinate with the Authority during programming for required CCTV viewing monitor view layout and control.

7.8.6.2(15) Not used.

7.8.6.2(16) Provide workstations located at the Security Office with virtual matrix controller and 2x42" 1080p monitors.

7.8.6.2(17) All entry and exit points to departments and associated areas require recorded video surveillance. Where required by the Authority, provide video monitors for department Staff to monitor local CCTV cameras associated with the department.

7.8.6.2(18) Provide CCTV equipment to monitor and record the identity of all persons entering and exiting the Facility's main entrances, utilizing elevators, strictly controlled high risk departments and associated areas, and areas as identified in consultation with the Authority.

7.8.6.2(19) Provide recorded CCTV cameras at locations determined in consultation with the Authority, including, but not limited to each:

7.8.6.2(19)a. Facility entrance and exit door (interior and exterior);

7.8.6.2(19)b. perimeter door;

7.8.6.2(19)c. public corridor;

7.8.6.2(19)d. Mental Health Inpatient Unit corridor;

7.8.6.2(19)e. reception area;

7.8.6.2(19)f. Emergency;

7.8.6.2(19)g. Morgue;

7.8.6.2(19)h. registration area;

7.8.6.2(19)i. room where medication is stored or supplied;

7.8.6.2(19)j. room where narcotics are stored or handled;

7.8.6.2(19)k. centralized nursing station (front of station);

7.8.6.2(19)l. Collaboration Station (front of station);

7.8.6.2(19)m. Clinical Workstation (grouped) workstation (front of workstation);

7.8.6.2(19)n. Pharmacy;

7.8.6.2(19)o. entrance and exit door to all departments;

7.8.6.2(19)p. public lobbies and waiting area;

7.8.6.2(19)q. panic / fixed panic stations (interior and exterior);

7.8.6.2(19)r. Communications Room;

7.8.6.2(19)s. interior exit stairwell on grade;

7.8.6.2(19)t. area where cash is exchanged;

7.8.6.2(19)u. Crisis Interview Room;

7.8.6.2(19)v. Shipping and Receiving area;

7.8.6.2(19)w. Mental Health Inpatient Unit (100 % coverage outside of Patient rooms);

7.8.6.2(19)x. Adolescent Holding (MHS);

7.8.6.2(19)y. Holding Nursery;

7.8.6.2(19)z. elevator lobby;

7.8.6.2(19)aa. doors separating Staff-only areas from the remainder of the Building;

7.8.6.2(19)bb. parking lot and surrounding area (100% coverage);

7.8.6.2(19)cc. area identified through consultation process; and

7.8.6.2(19)dd. area designated as high risk by the Authority.

7.8.6.2(20) Provide non-recorded CCTV cameras at locations determined in consultation with the Authority;

7.8.6.2(20)a. Not used;

7.8.6.2(20)b. Not used;

7.8.6.2(21) Emergency Department will include recorded CCTV coverage. Areas in which CCTV is employed will have 100% coverage.

7.8.6.2(22) Upon loss of power the surveillance (CCTV) system will remain fully functional via Facility UPS as defined in 7.6.8.

7.8.6.2(23) Provide an interface between the CCTV system and the fire alarm system such that when a fire alert or fire alarm is activated, the CCTV cameras in the vicinity of the fire alarm will alert and automatically be displayed in the Security Office.

7.8.7 Asset Tracking System

7.8.7.1 Basic Requirements

7.8.7.1(1) Provide a complete and fully functioning asset tracking system used to log the location and type of all Communication Systems equipment installed by the Design-Builder and other assets in consultation with the Authority and that aligns with the asset tracking systems currently installed in other similar Authority facilities.

7.8.7.1(2) Provide and complete an application (software) based spreadsheet compatible with the Authority's current software used in other similar facilities. All Communications System equipment installed by the Design-Builder will be labelled.

7.8.7.1(3) All active electronics and IMIT equipment will be labelled with laminated barcodes. Coordinate with the Authority for complete list of equipment requiring barcode asset tracking labels.

7.8.7.2 Performance Criteria

7.8.7.2(1) Asset tracking system will utilize barcode scanners for automatic entry into the Authority's asset tracking data base.

7.8.7.2(2) Coordinate with the Authority and label all equipment requiring asset tracking barcode labels.

7.8.8 Specialty Rooms

7.8.8.1(1) University of British Columbia (UBC).

7.8.8.1(1)a. Basic Requirements

7.8.8.1(1)a.1 Provide all Communications Systems and supporting infrastructure as per the current UBC technical guidelines for each room that will be utilized by UBC. Coordinate exact requirements with UBC. The systems will comply with UBC Faculty of Medicine Design Guidelines and Functional Requirements for Learning Spaces which will take precedence over Northern Health IMIT Communications Infrastructure Standards 1.7 for this application.

7.8.8.1(2) High Observation Rooms (Mental Health Inpatient Unit)

7.8.8.1(2)a. Basic Requirements

7.8.8.1(2)a.1 Provide all communications systems required in accordance with Provincial Quality, Health & Safety Standards and Guidelines for Secure Room in Designated Mental Health Facilities under the B.C Mental Health Act.

7.8.9 Construction Cameras

7.8.9.1 Basic Requirements

7.8.9.1(1) The Design-Builder will provide a complete working system with construction cameras, including installation complete with networking devices, software, hardware and accessories as required at the construction site.

7.8.9.1(2) The Design-Builder will maintain cameras and web-based access in good working order in accordance with service provider's written instructions of the web-based construction photographic documentation.

7.8.9.1(2)a. Provide images and video from the start of installation until substantial completion.

7.8.9.1(3) The Design-Builder will provide service and maintenance of cameras and related networking devices and software.

7.8.9.1(4) The Design-Builder will train the Authority users for access and use of the system.

7.8.9.1(5) The Design-Builder will provide cameras at locations determined in consultation with the Authority.

7.8.9.2 Performance Criteria

7.8.9.2(1) There will be two cameras located at the site:

7.8.9.2(1)a. one (1) camera will be time lapse.

7.8.9.2(1)b. one (1) camera will be remote web-based, tilt, pan and zoom controllable.

7.8.9.2(2) The cameras will have minimum specifications:

7.8.9.2(2)a. 24 megapixels or greater; and

7.8.9.2(2)b. 60 months image web hosting and archiving.

7.8.9.2(3) The web-based client platform will provide image and video review and/or download.

7.8.9.2(4) The system will include all necessary hardware and software and installation accessories.

7.8.9.2(5) The time lapse production recording will be from the start to the end of the project.

7.8.9.2(6) The recording will be professionally edited, time-lapse production, set to music, showcasing the entire project from start to finish, as approved by the Authority.

7.8.9.2(7) The cameras and the system will be from the Authority approved vendor CeeCam (www.ceecam.net).

PART 8 Site, Infrastructure and Landscape Subgroup Specifications

8.1 Earthwork (Division 31)

8.1.1 General

8.1.1.1 All works will be designed and constructed in accordance with the latest version of the BC Building Code.

8.1.1.2 All works will be designed and constructed in accordance with the City of Dawson Creek Subdivision and Development Servicing Bylaw.

8.1.1.3 All works will be designed and constructed in accordance with the latest edition of the Master Municipal Construction Documents.

8.1.2 Embankment and Site Grading

8.1.2.1 Basic Requirements

8.1.2.1(1) Design site grading to meet accessibility/barrier-free standards.

8.1.2.1(2) Undertake site grading, which will consist of excavation, filing and grading as required to achieve the Facility design levels, grades and contours allowing for supporting structures and surface treatments as specified.

8.1.2.1(3) Site grading to meet with the proposed grades of the adjacent road network and surrounding areas.

8.1.2.1(4) Design parking and other paved areas to minimize the negative impacts on surface storm water runoff volume and quality.

8.1.2.1(5) All earthworks are to be constructed in accordance with the Design-Builder's geotechnical report.

8.1.2.1(6) The excavation, trenching and backfill will be constructed in accordance with the Design-Builder's Geotechnical report.

8.1.2.2 Performance Requirements

8.1.2.2(1) All earthworks to be compacted to the densities specified by the Design-Builder's Geotechnical engineer.

8.1.2.2(2) All utility trenches to be compacted to the densities specified by the Design-Builder's Geotechnical engineer.

8.2 Exterior Improvements (Division 32)

8.2.1 General

8.2.1.1 All works will be designed and constructed in accordance with the latest version of the BC Building Code.

8.2.1.2 All works will be designed and constructed in accordance with the City of Dawson Creek Subdivision and Development Servicing Bylaw.

8.2.1.3 All works will be designed and constructed in accordance with the latest edition of the Master Municipal Construction Documents.

8.2.2 Aggregate Base Courses

8.2.2.1 Basic Requirements

8.2.2.1(1) Utilize granular sub-base for the support and stability of surface treatment through freeze thaw cycles and for its ability to store moisture.

8.2.2.1(2) Place granular sub-base and base only on an underlying subgrade that has been properly compacted and approved by the Design-Builder's Geotechnical engineer.

8.2.2.1(3) The granular sub-base and base course will consist of crushed rock, gravel and sand consisting of hard, clean durable material, free from coatings of silt, clay or other deleterious materials and containing no organic matter. Refer to Design-Builder's Geotechnical report.

8.2.2.2 Performance Criteria

8.2.2.2(1) Design the depths of aggregate base courses to exceed limits defined by regional average freeze thaw cycles averaged over a twenty-year period.

8.2.2.2(2) Design aggregate base courses to meet or exceed the specifications of the pavement structure design for intended loads and climate conditions found on site.

8.2.3 Asphalt Paving

8.2.3.1 Basic Requirements

8.2.3.1(1) Utilize asphalt paving in areas where vehicle traffic and snow clearing equipment require a smooth surface for travel.

8.2.3.1(2) Place hot mix asphalt only on an underlying base course that has been compacted and approved by the Design-Builder's Geotechnical engineer.

8.2.3.1(3) Design asphalt mix for the intended load and climate conditions found on site.

8.2.3.2 Performance Criteria

8.2.3.2(1) Asphalt will meet or exceed the specifications of the pavement structure design and asphalt mix design. Pavement structure thicknesses will be as specified in the Design-Builder's Geotechnical report.

8.2.4 Concrete Curbs

8.2.4.1 Basic Requirements

8.2.4.1(1) Provide concrete curbs with gutter along the perimeter of asphalt surfaces, unless otherwise reviewed by the Authority.

8.2.4.1(2) All concrete works are to meet or exceed requirements for load and climate conditions found on site.

8.2.5 Concrete Sidewalks

8.2.5.1 Basic Requirements

8.2.5.1(1) Provide concrete sidewalk from the entrance to the Site to the entrance of the Facility complete with concrete let-downs as required.

8.2.6 Painted Pavement Markings

8.2.6.1 Basic Requirements

8.2.6.1(1) Provide temporary and permanent painted pavement markings.

8.2.6.1(2) All pavement markings to be in accordance with the latest edition of TAC Manual of Uniform Traffic Control Devices.

8.2.6.2 Performance Criteria

8.2.6.2(1) Taped, Painted and thermoplastic pavement markings to be selected for their suitability and durability or at the discretion of the Authority having jurisdiction.

8.2.7 Prevailing Winds

8.2.7.1 Basic Requirements

8.2.7.1(1) Protect pedestrians at Facility entrances and high activity pedestrian areas from the negative effects of the prevailing winds.

8.2.7.2 Performance Criteria

8.2.7.2(1) Design and install the landscape with trees, shrubs, hedges, fencing, walls, or other elements to protect pedestrians from the western winds in winter and other prevailing winds that would impede operation of doorways or create drafts into the Facility.

8.2.7.2(2) Undertake an environmental wind and snow study.

8.2.8 Landscape Retention and Protection

8.2.8.1 Basic Requirements

8.2.8.1(1) Conduct a predesign assessment of the existing vegetation to identify existing trees and mature plant communities to be retained.

8.2.8.1(2) Retain existing trees and mature vegetation where they do not conflict with Site development or Site grading. Protect trees and mature vegetation that will be retained during construction.

8.2.8.1(3) Not used.

8.2.8.1(4) Review the site for plants on the BC Weed Control Act and prepare a strategy to clear the site of problem plants. Notify the Authority prior to executing strategy to clear problem plants.

8.2.8.2 Performance Criteria

8.2.8.2(1) Protect trees and mature vegetation that will be retained during construction with fencing to the Critical Protection Zone as defined herein as the drip line of the canopy or foliage.

8.2.8.2(2) No excavation, storage of materials, parking, vehicular driving, preloading, or filling will occur within the critical protection zone of the landscapes being preserved.

8.2.9 Outdoor Art

8.2.9.1 Basic Requirements

8.2.9.1(1) The Master Site Plan will include areas for outdoor art/sculptures.

8.2.9.2 Performance Criteria

8.2.9.2(1) Provide areas for outdoor art.

8.2.10 Trees, Shrubs, and Groundcover

8.2.10.1 Basic Requirements

8.2.10.1(1) Plant material will be nursery grown, conforming to the Canadian Nursery Landscape Association Canadian Nursery Stock Standard (CNSS) and to the 'British Columbia Landscape Standard.'

8.2.10.1(2) Provide planting to support the landscape design by reinforcing spatial relationships and wayfinding. The plant selection and placement will address micro-climates surrounding the Facility and mitigation of heating and cooling loads. Planting will shade and screen parking lots and provide habitat for birds, pollinators, and other animals.

8.2.10.1(3) Provide landscape treatments for the complete Site that contribute to the creation of a liveable, healthy, and responsive community.

8.2.10.1(4) Provide landscape treatments that provide view corridors and means for engaging the surrounding built and natural landscape.

8.2.10.1(5) Provide planting that is responsive to views from habitable/staff/patient interior spaces. Planting will provide a positive benefit for individuals equally from the interior and the exterior of the building.

8.2.10.1(6) Use large calliper deciduous trees and evergreen trees that provide seasonal interest in association with ground covering shrub planting. Use a variety of plant material to reflect seasonal change.

8.2.10.1(7) Use similar plant species to the local eco-region to create a visual relationship with the surrounding natural character, create recognizable spaces, contribute to site orientation and create a strong sense of place, recognizing that a diversity of tree species may increase the survival ratio of new landscaping.

8.2.10.1(7)a. It is acceptable to draw from a greater selection of plants to achieve the maintenance objectives. Plants should be selected for longevity, hardiness, and maintenance requirements (minimal fruit, leaves, pruning).

8.2.10.1(8) Use of indigenous flora will a priority in terms of minimizing maintenance and expressing the local ecosystem and microclimates.

8.2.10.1(9) All manicured lawn areas, trees, and shrub bed plantings will be irrigated by a permanent, high efficiency, automatically timed and condition-controlled irrigation system. Naturalized/rough grass areas do not require an irrigation system.

8.2.10.2 Performance Criteria

8.2.10.2(1) All planting will be suitable for plant hardiness zone 3a or hardier and be grown in a nursery within the same hardiness zone.

8.2.10.2(2) All planting is to be per CNLA.

8.2.10.2(3) Imported plant material must be accompanied with necessary permits and import licenses. Transportation of elm trees must comply with Provincial DED regulations.

8.2.10.2(4) Source any roses from areas free of the pathogen *Phytophthora ramorum*. Roses must be on their own roots and not grafted.

8.2.10.2(5) Plants must be grown in the container for a minimum of three months or have a well-established root system reaching the sides of the container to maintain a firm ball.

8.2.10.2(6) Landscape treatment and circulation routes must be in accordance with Section 4.2.

8.2.10.2(7) For fire safe practices, fire safe trees will be utilized when placed within 10m of the exterior walls of the Facility.

8.2.10.2(8) 450mm deep or horizontal root barrier must be provided where trees are proposed within 2m of a sidewalk or other hardscape feature.

8.2.10.2(8)a. Root barrier will be commercially manufactured for the sole purpose of deflecting roots downward and must be installed per the manufacturer's instructions.

8.2.10.2(8)b. Root barrier will extend a minimum of 2.5m on each side of tree in a linear application.

8.2.10.2(9) Provide root barriers above the waterproofing membrane for all roof or deck assemblies or green roofs located over occupied or interior space.

8.2.10.2(10) Use vegetation with non-penetrating roots for all roof or deck assemblies or green roofs located over occupied or interior space.

8.2.10.2(11) To ensure safety and security, sightlines must be provided through any cluster of tall growing vegetation by keeping all understory plants to a maximum of 1.2m in height. All tree canopies are to be no lower than 1.5m in height at the time of installation unless otherwise agreed with the Authority.

8.2.10.2(12) Use some flowering and fruiting shrubs to promote natural avian habitat.

8.2.10.2(13) Group plants to minimize the use of water, chemicals, and fossil fuel use for routine maintenance and to promote a healthy local ecosystem using sustainable measures.

8.2.10.2(14) Do not install any plants listed as poisonous to humans by the Canadian Government's 'Canadian Poisonous Plants Information System.'

8.2.11 Quantity of Trees.

8.2.11.1 Provide a minimum of 24 Specimen Trees as part of the overall on-site landscape planting.

8.2.12 Quantity of Shrubs.

8.2.12.1 A minimum of 20% of all on-site soft landscape space will be low maintenance planting beds consisting of shrubs, ground covers and perennial plants.

8.2.12.1(1)a. Planting beds will be located at entrances and within the Landscape Expansion Zone and Landscape Area adjacent to Main Entrance.

8.2.12.2 Trees to be no smaller than 6cm calliper for deciduous shade trees, 2m in height or 3cm calliper for ornamental/specimen and understorey trees, and 2.5m in height for coniferous trees upon installation.

8.2.12.3 Shrubs will be no smaller than #2 pot size upon installation.

8.2.12.4 100% of the total number of plants on the Site are to be native to British Columbia or hardy to the region.

8.2.12.4(1) The intent of the landscape planting design is to be low maintenance and require minimal maintenance by the Authority after establishment maintenance is complete.

8.2.12.5 Use some flowering and fruiting trees and shrubs to promote natural avian and pollinator habitat.

8.2.12.6 Shrubbery within 2m of walkways will not exceed 50cm in height.

8.2.12.7 Shrubbery within 1m of walkways will not be comprised of woody or stiff stemmed plants.

8.2.12.8 Trees planted in narrow planting areas between hard surfaces (e.g. curbs, sidewalks, roads, buildings) will have a continuous volume growing medium available to their roots along the length of the planting area (i.e. no tree pits). Minimum widths of planting areas to be 1.5m, but wider planting areas are encouraged.

8.2.12.9 Trees will be planted in areas that will provide root zone access to a volume of growing medium sufficient to support proper growth. This may include linear tree trenches, structural soil beneath pavement, soil cells, or other means necessary to provide ample growing medium. Provide soil volume per tree as follows:

8.2.12.9(1) 5 cubic metres for small trees (3cm calliper);

8.2.12.9(2) 10 cubic metres for a medium-sized tree (5cm calliper); and

8.2.12.9(3) 20 cubic metres for a large tree (7cm calliper or 2.5m in height for coniferous).

8.2.13 Irrigation

8.2.13.1 Trees

8.2.13.1(1) Trees in lawn areas will be irrigated with a spray or micro-spray system. Drip systems will not be utilized in the irrigation system.

8.2.13.1(2) Tree and shrub bed irrigation systems will be zoned separately from irrigated grass areas to allow for irrigation under restricted watering conditions when lawn irrigation is not permitted.

8.2.13.2 Grass/Lawn and Shrub Beds

8.2.13.2(1) Lawn areas and shrub beds will have a high-efficiency irrigation system which includes but is not limited to the following features: pressure regulating sprinklers, check valve in sprinklers at low areas, matched precipitation rate nozzles, separate zones based on microclimate and wind resistant nozzles.

8.2.13.2(2) Lawn areas will be zoned separately from shrub beds.

8.2.14 Growing Medium

8.2.14.1 Basic Requirements

8.2.14.1(1) Supply and placement of all growing medium will conform to the BC Landscape Standard and the Canadian Landscape Standard, current editions.

8.2.14.1(2) All proposed topsoil to be reviewed and approved by the Project Landscape Architect and City of Dawson Creek where work occurs on City property.

8.2.14.1(3) Topsoil depth for all manicured and naturalized grass areas is to be a minimum of 300mm.

8.2.14.1(4) Topsoil depth for all tree planting, tree trenches, and shrub beds is to be a minimum of 450mm.

8.2.14.1(5) Coring adjacent to buildings, sidewalks, back of curb, and fence lines will be cut back at an angle of roughly 1 to 1 with a minimum depth of 100mm adjacent to the utility to the desired depth of 300mm for grass areas and 450mm for tree pits and trenches to prevent settling or weakening of the base structure of the utility.

8.2.14.1(6) All cored areas to be scarified a minimum depth of 150mm prior to installation of topsoil as per 6.3.3.2 of the Canadian Landscape Standard.

8.2.14.2 Performance Requirements

8.2.14.2(1) All growing medium placed over slabs or under cover will conform to Growing medium Type 1L in table T-6.3.5.2 Properties of Growing media for Level 1 'Well-Groomed' Areas, in the *Canadian Landscape Standard*.

8.2.14.2(2) All growing medium placed over native subgrade or fill at planting bed areas will conform to Growing Medium Type 1P in table T-6.3.5.2 Properties of Growing media for Level 1 'Well-Groomed' Areas, in the *Canadian Landscape Standard*.

8.2.14.2(3) Where a portion of a tree's required soil volume extends below a paved surface the Design-Builder will place structural soil or soil cells below the pavement.

8.2.14.2(4) Where a tree planting occurs in pavement the Design-Builder will install soil cells per the manufacturer's specifications, including approved growing medium.

8.2.14.2(4)a. Structural soil will consist of an approved blend of 60-75mm clear, clean crushed stone, growing medium, and soil stabilizer.

8.2.14.2(4)b. Soil Cells will be commercial grade and provided from a recognized soil cell manufacturer such as 'Silva Cell' or 'Strata Cell.'

8.2.14.2(5) Provide minimum depths of growing media per Table T-6.3.5.5 Minimum Depth of Growing Media, in the Canadian Landscape Standard.

8.2.15 Mulches

8.2.15.1 Basic Requirements

8.2.15.1(1) Provide mulch to planting beds and tree wells to increase moisture retention and to suppress weed growth.

8.2.15.2 Performance Criteria

8.2.15.2(1) Provide wood mulch that is untreated, locally sourced, composed, and free from deleterious materials and weed sources. Wood mulch must be applied to a depth to retain moisture and reduce weed growth without the use of landscape fabric. Use shredded coniferous tree mulch.

8.2.15.2(1)a. Wood mulches are to be partially composted to align with fire suppression. The use of wood mulch is under review by the provincial authority, and its use may be limited or restricted by the authority.

8.2.15.2(2) Rock mulch will be clean washed rock, installed over professional grade landscape fabric. Rock mulch will only be used in areas without perennials, shrubs, needle bearing plants and fruit bearing plants.

8.2.15.2(2)a. Rock mulch may be used in locations as required for fire suppression.

8.2.15.2(3) Mulch will be tapered to base of tree, shrub or perennial.

8.2.16 Establishment Maintenance

8.2.16.1 The date of Substantial Completion, or the completion of landscape planting (whichever occurs last) will constitute the beginning of the 24-month Establishment Maintenance period.

8.2.16.2 Maintenance during the 24-month period of Establishment Maintenance is essential to ensure the validity of the Design-Builder's guarantee for the same period.

8.2.16.3 Replace for a period of 24 months beginning from the completion of landscape planting, all unsatisfactory plant material and continue to replace such plant material until the replacement is acceptable, at no cost to the Authority.

8.2.16.4 Establishment maintenance procedures apply to all new plants and planting as well as cultivated turf grass, seeded areas, and all trees and shrubs.

8.2.16.5 A logbook will be kept in which maintenance activities are recorded. This will include a record of when and what operations are carried out as well as notations about site conditions which require attention. A copy of this information will be forwarded to the Authority each time a report is written. A minimum of three maintenance reports will be made during each growing season.

8.2.16.6 Work included:

8.2.16.6(1) Maintaining all newly planted areas in a weed-free condition;

8.2.16.6(2) Fertilizing the plating areas and lawn areas;

8.2.16.6(3) Pruning;

8.2.16.6(4) Replacement of dead or diseased plants;

8.2.16.6(5) Watering in sufficient quantities and frequency to maintain optimum soil moisture; and

8.2.16.6(6) Lawn mowing.

8.2.16.7 Protect all pre-existing and newly planted trees, shrubs and other plant materials, site services, curbs, asphalt, and structures against any damage throughout the establishment maintenance period.

8.2.16.8 Lawn mowing will be carried out at regular intervals to maintain grass at a maximum height of 60mm. Edges of sodded areas will be straight and neatly trimmed.

8.2.16.9 In March and June of the first growing season, fertilize all exterior planting areas with the fertilizer recommended by the Landscape Architect. Repeat the fertilizer application in March of the second growing season.

8.2.16.10 The Design-Builder is responsible for all losses due except those related to vandalism.

8.3 Utilities (Division 33)

8.3.1 Site Water Utility Distribution Piping

8.3.1.1 Basic Requirements

8.3.1.1(1) The watermain system will include pipes, valves, and all other required appurtenances to comply with current MMCD specifications, the BC Building Code, and the City of Dawson Creek Subdivision and Development Servicing Bylaw.

8.3.1.1(2) Provide a watermain system capable of providing domestic and firefighting capacity for the Facility.

8.3.1.1(3) Provide reduced pressure backflow preventer(s) to protect the municipal system and on-site facilities from contaminants.

8.3.1.1(4) Provide adequate fire hydrants around the site in accordance with NFPA-24 and the Dawson Creek Fire Department requirements.

8.3.2 Site Sanitary Sewer Piping

8.3.2.1 Basic Requirements

8.3.2.1(1) The sanitary sewer system will include the pipes, manholes, quality testing and all other required appurtenances to comply with the current MMCD specifications, the BC Building Code, and the City of Dawson Creek Subdivision and Development Servicing Bylaw.

8.3.3 Site Storm Sewer Piping

8.3.3.1 Basic Requirements

8.3.3.1(1) The storm sewer system will include the pipes, manholes, and all other required appurtenances to comply with the current MMCD specifications, the BC Building Code, and the City of Dawson Creek Subdivision and Development Servicing Bylaw.

8.3.3.2 Performance Criteria

8.3.3.2(1) Flooding/ponding are not permitted except in designated stormwater detention facilities.

8.3.3.2(2) Utilize best management practices for stormwater management.

8.3.4 Manholes and Catch Basins

8.3.4.1 Basic Requirements

8.3.4.1(1) Provide monolithic concrete manholes with transition to lid frame, covers, anchorage, and accessories.

8.3.4.1(2) Provide modular precast concrete manhole sections with tongue and groove joints with masonry transition to lid frame, covers, anchorage, and accessories.

8.3.4.2 Performance Criteria

8.3.4.2(1) Locate and size manholes and catch basins in accordance with MMCD and BC Building Code. Avoid situating catch basins in walking areas.

8.3.4.2(2) All joints will be watertight.

8.3.4.2(3) All manholes and catch basin lids, frames, and grates in vehicle traffic areas to be designed for H20 traffic loading.

8.4 Landscape

8.4.1 General Outdoor Open Space

8.4.1.1 Basic Requirements

8.4.1.1(1) Performance Criteria

8.4.1.1(2) Provide outdoor spaces in the Design of the Facility to accommodate activities, including:

8.4.1.1(2)a. Space and hard landscape elements conducive to healing and recovery that may be used as a component of physical and occupational therapy. If furnishings (benches, tables, chairs, waste receptacles) are included, these should be of appropriate design for those with physical challenges and be of appropriate materials conducive to a healthcare environment including vandal resistance and to be surface mounted;

8.4.1.1(2)b. Space which acts as the main entry of the Facility which will be fully accessible to the public with strong connections to the site and the neighbourhood;

8.4.1.1(2)c. Space to accommodate semi-public/private activities; and

8.4.1.1(2)d. Spaces for activities including Patient/family visiting, Staff breaks/retreats.

8.4.1.1(3) Provide access to the outdoor spaces from the public areas of the hospital.

8.4.1.1(4) All public pathways and sidewalks must be universally accessible and appropriate for those using wheelchairs, scooters, walkers and other mobility aids.

8.4.2 Main Entrance Plaza

8.4.2.1 Design the Main Entrance Plaza to include:

8.4.2.1(1) fixed seating for twelve (12) people, two (2) wheelchairs, and one (1) bench;

8.4.2.1(2) consistent hard surface, with a pattern distinguishable by those with visual impairments to find their own way to the primary entrance; and

8.4.2.1(3) partial cover from the elements for the seating. Provide low-maintenance planting.

8.4.3 Landscape Area Adjacent to the Main Entrance Plaza

8.4.3.1 Design the Landscape Area Adjacent to the Main Entrance Plaza to include:

8.4.3.1(1) could be developed as a landscape traffic island;

8.4.3.1(2) benches with seating for at least fourteen (14) people;

8.4.3.1(3) space designed to provide respite for Staff, visitors and Patients;

8.4.3.1(4) raised planters with native and adaptable plants;

8.4.3.1(5) one (1) specimen tree should be incorporated;

8.4.3.1(6) all pathways to be constructed of hard durable surfaces that are accessible to all users; and

8.4.3.1(7) the island planting area at entry drop-off can be changed to concrete/tree grates to avoid maintenance issues.

8.4.4 Landscape Expansion Zone

8.4.4.1 Landscape Expansion Zone:

8.4.4.1(1) provides Staff, visitors and Patients with outdoor resting areas and walking pathways in a natural park like setting;

8.4.4.1(2) pathways should be constructed of durable hard surface that is accessible to all users includes wheelchairs and mobility aids;

8.4.4.1(3) includes benches with seating for at least twenty (20) people;

8.4.4.1(4) benches are spaced not more than 50m apart from each other; and

8.4.4.1(5) is landscaped with plant material.

8.4.5 Courtyards and Gardens

8.4.5.1 Basic Requirements

8.4.5.1(1) In addition to general outdoor spaces, provide distinct, separate outdoor space to accommodate programmed and unprogrammed activities, as follows:

8.4.5.1(1)a. Staff Garden and Mental Health Inpatient Courtyard to be distinctly separate and include recognizable zones for the different uses they provide. Make a minimum 50.0 nsm portion of the Mental Health courtyard weather-protected to allow for Patient use in all seasons. Minimum width of protected area to be 3000mm. South orientation preferred, and to be sheltered.

8.4.5.1(1)b. The Authority reserves the right to reject proposed species at any time due to known adverse reactions to Patients and Staff as well as for maintenance concerns.

8.4.5.2 Performance Criteria

8.4.5.2(1) The general specifications in Section 8.2 will apply to all the gardens and courtyards:

8.4.5.2(2) Project Design-Builder will design the gardens and courtyards:

8.4.5.2(2)a. To provide a sense of control:

8.4.5.2(2)a.1 Provide a variety of spaces from which to choose;

8.4.5.2(2)a.2 Provide fixed furniture in all outdoor spaces; and

8.4.5.2(2)a.3 Promote a sense of security and safety.

8.4.5.2(2)b. To provide for social support:

8.4.5.2(2)b.1 Provide areas with seating to encourage conversation;

8.4.5.2(2)b.2 Provide areas of refuge from inclement weather, sun, and wind; and

8.4.5.2(2)b.3 Provide areas for independent meditation, contemplation, and reflection.

8.4.5.2(2)c. To provide for physical movement and exercise:

8.4.5.2(2)c.1 Provide a variety of different activities;

8.4.5.2(2)c.2 Provide easy wayfinding;

8.4.5.2(2)c.3 Provide a variety of longer and shorter pathway loops for strolling and exercise;

8.4.5.2(2)c.4 No pathway is to have dead ends;

8.4.5.2(2)c.5 Walkway edging is not required;

8.4.5.2(2)c.6 Walkways will be a minimum 2.0m in width and will have a surface that accommodates Patients with intravenous equipment, gurneys, wheelchairs or walkers, and physical support workers.

8.4.5.2(2)c.7 Provide a minimum of one handrail between the entrance to any garden (from the interior of the Facility) and a seat for Patients experiencing difficulties with strength or balance;

8.4.5.2(2)c.8 Provide one handrail along the length of the pathway walking loop;

8.4.5.2(2)c.9 Pavement expansion joints to be no more than 8 mm in width to prevent the wheels of IV poles and other aid devices from getting caught and stuck; and

8.4.5.2(2)c.10 Integrate varied tactile surfaces (e.g. river stone pebbles, unit pavers, wood like products, rubber, and concrete) to duplicate real-world surfaces in a safe, observed environment.

8.4.5.2(2)d. To minimize intrusive stimuli:

8.4.5.2(2)d.1 Gardens must have sheltered locations from the wind;

8.4.5.2(2)d.2 Provide some gathering/seating areas that are sheltered from the sun and rain;

8.4.5.2(2)d.3 Surfaces must reduce glare (e.g. integral coloured/stained/tinted concrete);

8.4.5.2(2)d.4 Seating which encourages interaction with the space.

8.4.5.2(2)d.5 Take measures to reduce or cover up loud or repetitive man-made sounds;

8.4.5.2(2)d.6 Locate gardens to avoid odours and smoke;

8.4.5.2(2)d.7 Avoid bright lights;

8.4.5.2(2)d.8 All selected plant material will not cause serious harm to humans if ingested (e.g. Red Baneberry, *Actaea rubra*);

8.4.5.2(2)d.9 All selected plant material will take into consideration the plant location in relation to potential issues of contact dermatitis, rash or skin inflammation if handled or brushed against (e.g. junipers, *Juniperus spp.*, roses, *Rosa spp.*);

8.4.5.2(2)d.10 Species that create high levels of pollen dust may not be used;

8.4.5.2(2)d.11 Any plant which is listed as hazardous on the Government of Canada's 'Canadian Poisonous Plants Information System' may not be used.

8.4.5.2(2)e. To minimize ambiguity:

8.4.5.2(2)e.1 Provide a well-defined and inviting garden entrance;

8.4.5.2(2)e.2 Provide a design that is easy to interpret by the majority of people.

8.4.5.2(3) To supplement the general specifications identified above, the clinical specifications set out specific requirements for each of the outdoor spaces of the Facility.

8.4.5.2(4) Provide at least one hose bibb in each outdoor space regardless of whether an automatic irrigation system is supplied as part of the design.

8.4.6 Staff Garden

8.4.6.1 Design the Staff Garden to be situated in a location accessible to the Staff Lounge shared by Administration, Ambulatory, Pharmacy and Registration. Each Staff Garden will:

8.4.6.1(1) provide Staff with outdoor resting areas in close proximity to the Building.

8.4.6.1(2) have movable furniture.

8.4.6.1(3) include low maintenance landscape.

8.4.6.1(4) include tables, chairs, and benches with seating for at least 10 people.

8.4.6.1(5) provide visual privacy from the public and Patient care areas so Staff does not have to mingle with Patients on their breaks.

8.4.7 Mental Health Inpatient Courtyard

8.4.7.1 Design the Mental Health Inpatient Courtyard to provide one access from General Circulation adjacent to centralized nursing station/Clinical Workstations and a minimum of one additional access from General Circulation and/or a Patient Lounge. Each access will:

8.4.7.1(1) be highly visible from a nursing station as well as well-populated areas of the Facility.

8.4.7.1(2) have glazing to provide daylight to spaces or circulation zones adjacent to the garden.

8.4.7.1(3) include low maintenance landscape.

8.4.7.1(4) include fixed tables and chairs (with backs and armrests) with seating for at least 12 people.

8.4.7.1(5) incorporate a walking loop and changes in texture to encourage outdoor physical rehabilitation.

8.4.7.1(6) provide at least one bench and/or one table with fixed seats in this area.

8.4.8 Site Slopes and Retaining Walls

8.4.8.1 Basic Requirements

8.4.8.1(1) Site grading is to provide positive drainage throughout the lands, except where required for storm water detention/retention.

8.4.8.1(2) Site grading is to avoid over-steepened slopes on the lands that cannot hold growing medium and plants.

8.4.8.1(3) Retaining walls in view of public areas are to be architecturally finished.

8.4.8.1(3)a. Architectural concrete finish is excluded from loading dock area.

8.4.8.1(3)b. Generator retaining walls where more than 20% of the total exposed concrete is visible to the public or from Patient areas will receive architectural concrete finish.

8.4.8.2 Performance Criteria

8.4.8.2(1) Slopes are to be no steeper than 4:1 where there is a requirement for pedestrian accessibility. Slopes exceeding 4:1 are to be finished with growing medium and plant material. Do not use riprap on slopes.

8.4.8.2(2) Structural architecturally finished retaining walls (cast-in-place concrete or precast concrete block) will be used where required to retain soil structure. Wall material is to be consistent throughout the project. Gabion basket systems are not permitted.

8.4.8.2(3) Retaining walls in view of public areas and greater than 1.5 m in height are to be architecturally finished with patterns or other elements to prevent long expanses of continuous bare concrete. Terracing with planting between segments, cast in patterns, or mounted features will be considered.

8.4.9 Outdoor Furniture

8.4.9.1 Basic Requirements

8.4.9.1(1) Unify the exterior ground plane treatment through the use of common paving materials, tree grates, lighting, and other landscape furniture items.

8.4.9.1(2) Provide and coordinate design for street furniture, including benches provided at regular intervals for ease of use particularly for the infirm.

8.4.9.1(3) Ensure accessibility to persons with disabilities at grade changes through sloped walkways and ramps and avoid the use of stairs.

8.4.9.1(4) Seating in public areas must be ergonomically designed for a variety of people. These areas are to be designed to allow a wheelchair to sit alongside fixed seating or, where tables are provided, to allow a wheelchair to pull up to each table. Seating provided will have a minimum 50% with backrests, a minimum 50% with armrests, and will shed rainwater.

8.4.9.1(5) Seating material will be:

8.4.9.1(5)a. constructed using a smooth, warm, comfortable to the touch material;

8.4.9.1(5)b. finished to repel bodily fluids, oils, water, bacterial growth, mould, and mildew;

8.4.9.1(5)c. constructed to prevent swelling and shrinking, rusting or corrosion and shed water;

8.4.9.1(5)d. constructed to prevent damage from freeze-thaw cycles;

8.4.9.1(5)e. constructed to prevent splintering, chipping, and cracking or disintegration;

8.4.9.1(5)f. resistant to vandalism; and

8.4.9.1(5)g. designed to accommodate the mobility challenged and include back and arm rests.

8.4.9.1(6) All outdoor lighting in accessible outdoor spaces will be decorative and low-level lighting features where gardens are visible from public indoor or private rooms.

8.4.9.2 Performance Criteria

8.4.9.2(1) Unify the ground plane treatment through the use of common paving materials, tree grates, lighting, and other landscape furniture items.

8.4.9.2(2) Seating areas with benches at Main Entry and feature garden areas will be located no more than 50m apart from each other. Select products on the basis of safety, comfort, design, and materials that relate to the Facility architecture and landscape design, durability, and related maintenance.

8.4.9.2(3) Provide exterior bear-proof trash receptacles at the Main Entrance area and all exterior landscape areas including near Building entrances, Landscaped Area Adjacent to Main Entrance and Landscape Expansion Zone.

8.4.9.2(4) Provide exterior, covered trash receptacles at the Staff Garden and Mental Health Courtyard. Ensure receptacle can be operated by those with limited mobility or strength.

8.4.9.2(5) Select products for their suitability and durability in the climatic conditions found at the Facility.

8.4.9.2(6) Utilize a variety of scales, locations and orientations of seating areas and site furnishings to cater to varied outdoor activities and varied experiences of the Staff and visitors.

END OF SCHEDULE 1

APPENDIX 1A

CLINICAL SPECIFICATIONS

1A.0 GENERAL BUILDING CLINICAL REQUIREMENTS

This specification outlines the functional, operational, and physical requirements for all areas and departments within the Facility.

1A.0.1 FUNCTIONAL DESCRIPTION

1A.0.1.1 Scope of Services

1A.0.1.1(1) Scope of Education Functions

1A.0.1.1(1)(a) Staff will receive cultural sensitivity training and other training as required within the Building.

1A.0.1.1(1)(b) Staff will participate in regular in-service training that will occur in the shared meeting rooms.

1A.0.1.1(1)(c) Students will receive practical skills training through internships and co-op programs. All teaching and supervision functions will be accommodated in the general work areas and will not require specialized or dedicated areas in the Building.

1A.0.1.1(1)(d) Staff and students will be engaged in research from time-to-time. The nature and extent of research functions will be accommodated in the general work areas and will not require specialized or dedicated areas in the Facility.

1A.0.1.2 Support Activities

1A.0.1.2(1) Allied Health Services

1A.0.1.2(1)(a) Access to allied health services (e.g. social work, Rehabilitation, etc.) will be provided in the Facility. Allied health Staff will require temporary access to the clinical Workstations, as required.

1A.0.1.2(1)(b) Allied health Patient and family consultations will occur either in-person or virtually via telehealth in the exam / treatment rooms, interview rooms, or Patient rooms.

1A.0.1.2(2) Biomedical Engineering

1A.0.1.2(2)(a) Biomedical equipment requiring service will be transported to the Biomedical Engineering department or transported off-site.

1A.0.1.2(3) Facilities Management (FM)

1A.0.1.2(3)(a) FM will provide scheduled and on-call maintenance services for all systems and equipment for all Building components.

1A.0.1.2(4) **Housekeeping**

1A.0.1.2(4)(a) Housekeeping will be responsible for the daily cleaning of all areas and removal of soiled supplies, recycling, biological and chemical waste for all Facility components.

1A.0.1.2(5) **Information Management and Information Technology (IMIT)**

1A.0.1.2(5)(a) Refer to Schedule 1 section 7.7 - Communications.

1A.0.1.2(6) **Laundry and Linen**

1A.0.1.2(6)(a) Laundry and linen (clean and soiled) will be executed through an exchange cart process. Carts will be exchanged by the laundry and linen Staff.

1A.0.1.2(6)(b) Hazardous linen management for carts/equipment will be required.

1A.0.1.2(7) **Medications / Pharmacy**

1A.0.1.2(7)(a) Medications will be received, stored, prepared, packaged in the Pharmacy, and distributed throughout the Facility by Pharmacy Staff.

1A.0.1.2(7)(b) Clinical pharmacy services will be provided in clinical areas as required.

1A.0.1.2(8) **Supply Chain Management**

1A.0.1.2(8)(a) All ordering, purchasing, receiving, checking, and delivering of supplies to a clean utility room will be managed through the supply management.

1A.0.1.2(8)(b) Clean utility rooms will have a standard configuration across the Facility.

1A.0.1.2(8)(b)(i) Use of a 2-bin system will enable Staff to draw from one bin while the other waits in reserve.

1A.0.1.2(8)(c) Some consumable supplies may be stored in treatment areas and will be organized and stored in a common order and configuration (to avoid long travel distances between supplies storage and point of use).

1A.0.1.2(8)(d) Inventories on top-up carts will be maintained according to defined delivery schedules by supply chain management.

1A.0.2 DESIGN CRITERIA

1A.0.2.1 Building Design Criteria

1A.0.2.1(1) Within the Schedule of Accommodation, references to the Canadian Standards Association (CSA) space planning standards are provided.

1A.0.2.1(2) Not used.

1A.0.2.1(3) **Acoustic Performance**

1A.0.2.1(3)(a) Provide design and construction features to ensure that sound, at a level equivalent to a typical conversation, does not transmit between adjoining offices or between offices, adjacent Workstations, corridors, and clinical spaces (e.g. treatment spaces, Patient care spaces, modality spaces, etc.).

1A.0.2.1(3)(b) Refer to Appendix 1C Acoustic and Noise Control Measures.

1A.0.2.1(4) **Building Façade**

1A.0.2.1(4)(a) Incorporate an architectural representation of the aurora borealis, similar to NLC and The Calvin Kruk Centre for the Arts, to reflect the City's landscape and geographical context.

1A.0.2.1(5) **Component Boundary Integrity**

1A.0.2.1(5)(a) Certain components require all component spaces to be accessed from internal component circulation within a Secure boundary; other components require certain spaces to be located outside their primary boundary and accessed by general circulation; while yet other components do not require a Secure boundary, allowing all spaces to be accessed by general Facility circulation. Components will have boundaries that vary, as per the following table:

Components	Boundary Integrity	Spaces to be outside Boundary
Clinical Services		
Emergency including Clinical Decision Unit	All spaces within boundary	-
Clinical Decision Unit	All spaces within boundary	-
Visiting Specialists	Incomplete boundary	3.1.02 Shared Ambulatory Care Waiting Area
Cancer Clinic	All spaces within boundary	4.1.01 Sub-Waiting
IV Therapy	All spaces within boundary	3.1.02 Shared Ambulatory Care Waiting Area
Respiratory Services	All spaces within boundary	3.1.02 Shared Ambulatory Care Waiting Area
Medical and Surgical Inpatient	All spaces within boundary	-
High Acuity Unit	All spaces within boundary	-
Maternal and Newborn Inpatient Unit	All spaces within boundary	9.1.01 Public Waiting Area
Mental Health Services	Incomplete boundary	10.6.01 Waiting Alcove
Surgical Services	All spaces within boundary	-
Clinical Support Services		
Diagnostic Imaging	All spaces within boundary	-
Laboratory	-	-

Components	Boundary Integrity	Spaces to be outside Boundary
Pharmacy	Incomplete boundary	14.4.12 Staff Lounge – Co-located with Registration, Ambulatory Care and Administration Staff Lounges
Rehabilitation	-	-
Non-Clinical Support Services		
Biomedical Engineering	Incomplete boundary	1.6.06 Biomed Workroom
Registration / Admitting	Incomplete boundary	17.1.01 Waiting Area, 17.1.03 Registration Kiosk
Staffing Office / Administration	All spaces within boundary	-
Medical Records	All spaces within boundary	-
Information Technology	All spaces within boundary	-
Medical Device Reprocessing	All spaces within boundary	-
Housekeeping	Incomplete boundary	Multiple accesses from controlled circulation
Food Services	All spaces within boundary	Shared Meeting Rooms Basement Locker and Change Area
Laundry Services	All spaces within boundary	-
Facility Maintenance	All spaces within boundary	Multiple accesses from controlled circulation
Supply Chain Management	Incomplete boundary	Multiple accesses from controlled circulation
Concierge Spaces	Incomplete boundary	Spaces distributed
Academic Space	All spaces within boundary	Boundary shared with Staff Support Lounge and Meeting Rooms
Morgue	All spaces within boundary	Separate access to 29.1.01 Viewing Room
Staff Support - Lockers and Change Area	Incomplete boundary	Separate accesses from controlled circulation for male and female Staff
Staff Support - Staff Lounge and Meeting Rooms	All spaces within boundary	Boundary shared with Academic and Teaching Space

1A.0.2.1(6) **Corridor Minimum Widths**

1A.0.2.1(6)(a) Corridor widths will vary within and between components as per the following table:

Components	Corridor Type	Minimum Width (mm)
Clinical Services		
Emergency	• Care space access corridors • Service corridors for Patient transfer • Staff corridors without Patient transfer	• 2400 • 2000 • 1800
Clinical Decision Unit	• Care space access corridors • Service corridors for Patient transfer • Staff corridors without Patient transfer	• 2400 • 2000 • 1800
Visiting Specialists	• Care space access corridors • Staff only corridors	• 2000 • 1800
Cancer Clinic	• Care space access corridors • Staff corridors without Patient transfer	• 2400 • 1800
IV Therapy	• Care space access corridors • Staff corridors without Patient transfer	• 2400 • 1800
Respiratory Services	• Care space access corridors • Staff only corridors	• 2000 • 1800
Medical and Surgical Inpatient	• Care space access corridors • Service corridors for Patient transfer • Staff corridors without Patient transfer	• 2400 • 2000 • 1800
High Acuity Unit	• Ambulance Bay Width	• 7000
Maternal and Newborn	• Care space access corridors • Service corridors for Patient transfer • Staff corridors without Patient transfer	• 2400 • 2400 • 1800
Mental Health Services	• Care space access corridors • Service corridors for Patient transfer • Staff corridors without Patient transfer	• 2400 • 2400 • 1800
Surgical Services	• Care space access corridors • Service corridors for Patient transfer • Staff corridors without Patient transfer	• 2400 • 2400 • 1800
Clinical Support Services		
Diagnostic Imaging	• Patient circulation corridors • Circulation between Workstations • Circulation between a Workstation and counter end • Circulation between counter ends	• 2400 • 1520 • 910 • 1500

Components	Corridor Type	Minimum Width (mm)
Laboratory	• Patient circulation corridors • Circulation between Workstations • Circulation between a Workstation and counter end • Circulation between counter ends	• 2000 • 1520 • 910 • 1500
Pharmacy	• Circulation between Workstations • Circulation between a Workstation and counter end • Circulation between counter ends	• 2100 • 1800 • 1500
Rehabilitation	• General corridors	• 1650
• **Non-Clinical Support Services**		
Biomedical Engineering	• See general circulation requirements	• 1500
Registration / Admitting	• See general circulation requirements	• 1500
Staffing Office / Administration	• See general circulation requirements	• 1500
Medical Records	• See general circulation requirements	• 1500
Information Technology	• See general circulation requirements	• 1500
Medical Device Reprocessing	• See general circulation requirements	• 1500
Housekeeping	• Corridor accessing Cart Washer	• 2400
Food Services	• Corridor accessing Food Prep area • Other corridors	• 2000 • 1650
Laundry	• See general circulation requirements	• 1500
Facility Maintenance	• See general circulation requirements	• 1500
Supply Chain Management	• See general circulation requirements	• 1500
Concierge Spaces	• See general circulation requirements	• 1500
Academic Space	• See general circulation requirements	• 1500
Morgue	• Corridor accessing Stretcher Entrance • Corridor accessing Family Entrance	• 2400 • 2000
Staff Support - Lockers and Change Area	• See general circulation requirements	• 1500
Staff Support - Staff Lounge and Meeting Rooms	• See general circulation requirements	• 1500

1A.0.2.1(7) **Creating an Environment of Healing**

1A.0.2.1(7)(a) Provide an environment conducive to Patient healing and comfort that will take precedence in the design, configuration, and operation of this component.

1A.0.2.1(7)(b) Provide furniture, features, and finishes that will be comfortable and non-technical.

1A.0.2.1(7)(c) Provide exposure to natural light and high ceilings, and access to fresh air to support Patient and Staff well-being and orientation.

1A.0.2.1(7)(d) Provide rooms and/or alcoves that will be distributed throughout the departments to keep equipment and supplies out of the direct view of Patients and visitors.

1A.0.2.1(7)(e) Direct views into washrooms and toilets from waiting room seating areas will not be permitted.

1A.0.2.1(8) **Daylighting**

1A.0.2.1(8)(a) Not used.

1A.0.2.1(8)(b) All occupiable spaces on the perimeter wall, excluding washrooms and services or support spaces, will have windows to the outside.

1A.0.2.1(8)(c) The fenestration pattern will support the functions of internal spaces and flexibility in the interior layout.

1A.0.2.1(8)(d) Individual windows will have a minimum width of glazing of 915 mm.

1A.0.2.1(8)(e) All operable windows will be key-lockable by Staff. Locked windows will be identified as locked.

1A.0.2.1(8)(f) All operable windows will open to the inside limited to 100 mm and will be provided with insect screens.

1A.0.2.1(8)(g) Daylight will be provided to spaces as noted on the following table:

Space Type	Daylighting Requirement	Daylighting Type	Minimum percentage of perimeter wall fenestrated between 900 mm above finished floor and finished ceiling	Operability
Patient Care Rooms				
Inpatient Rooms, LDRP Rooms	All rooms	Direct	35	No
Inpatient Washroom if on Perimeter Wall	All such rooms	Direct	20	No
Holding Nursery	Required	Direct	35	No
ED Exam/Treatment Rooms	Optional	Borrowed OK	-	No
ED Resuscitation / Trauma Area	Optional	Borrowed OK	-	No
Other Exam/Treatment Rooms	Optional	Borrowed OK	40	No
Group Consultation Rooms	Optional	Borrowed OK	-	No
Cancer Care and IV Therapy Treatment Bays	Required	Borrowed OK	-	No
Workrooms				
Private Office if on Perimeter Wall	All such rooms	Direct	35	No
Shared Clinician & Staff Workrooms if on Perimeter Wall	All such rooms	Direct	40	No

Space Type	Daylighting Requirement	Daylighting Type	Minimum percentage of perimeter wall fenestrated between 900 mm above finished floor and finished ceiling	Operability
Meeting Rooms if on Perimeter Wall	All such rooms	Direct	40	No
Laboratory Space if on Perimeter Wall	All such rooms	Direct	40	No
Staff Support				
Staff Lounge	Required	-	70	No
Patient and Family Support				
Patient Waiting Areas				
Visiting Specialists Waiting	Required	Borrowed OK	70	No
Cancer Sub-waiting	Required	Borrowed OK	70	No
Diagnostic Imaging General Waiting	Required	Borrowed OK	70	No
Diagnostic Imaging Ultrasound Sub-wait	Required	Borrowed OK	70	No
Diagnostic Imaging CT Sub-wait	Optional	Borrowed OK	70	No
Diagnostic Imaging Radiology Sub-wait	Optional	Borrowed OK	70	No
Laboratory Waiting	Required	Borrowed OK	70	No
ED Public Waiting	Required	Direct	70	No
ED Streaming Waiting	Required	Direct	70	No
Maternal and Newborn Waiting	Required	Borrowed OK	70	No
Maternal and Newborn Quiet / Bereavement Room	Required	Direct	70	Yes
Rehabilitation Waiting	Optional	Borrowed OK	70	No
Surgical Services Waiting	Required	Direct	70	No
Operating Room if on Perimeter Wall	Required	Direct	40	No
Patient Lounges				
Mental Health Inpatient	Required	Direct	70	No
IPU Family Lounge	Required	Direct	70	No
IPU Family Dining	Required	Direct	70	No
Convalescent Care Patient Lounge	Required	Direct	71	No
Convalescent Care Patient Dining	Required	Borrowed OK	71	No
Other				
Non-Denominational Spiritual Room	Required	-	70	Yes

1A.0.2.2 Education

1A.0.2.2(1) Not used

1A.0.2.2(1)(a) Provide adequate teaching spaces, including in clinical areas, for learners, Patients, and Staff as part of the academic relationships and ongoing educational needs for Staff.

1A.0.2.2(1)(b) Provide technological capabilities in learning spaces, including eSimulation.

1A.0.2.2(2) **Entrances and Access**

1A.0.2.2(2)(a) Building entrances will include and be limited to:

1A.0.2.2(2)(a)(i) Main Entrance vestibule on entry level.

1A.0.2.2(2)(a)(ii) Emergency Entrance vestibule on entry level.

1A.0.2.2(2)(a)(iii) Staff entrance(s) on entry level in view of Staff parking area(s).

1A.0.2.2(2)(a)(iv) Staff entrance adjacent to loading dock.

1A.0.2.2(2)(a)(v) Drive-through ambulance bay entrance on the main clinical level with direct entrance to the Emergency Department and the decontamination room.

1A.0.2.2(2)(b) Proximal relationships between services will be of the following types:

1A.0.2.2(2)(b)(i) Direct / integrated.

1A.0.2.2(2)(b)(ii) Adjacent by controlled Facility circulation.

1A.0.2.2(2)(b)(iii) Adjacent by general Facility circulation.

1A.0.2.2(2)(c) Relationship types between services are identified on the following table:

Components	Location Requirements	Direct / Integrated	Adjacencies - Controlled Circulation	Access - General Circulation
Components				
Clinical Services				
Emergency including Clinical Decision Unit	Facility Entry Level	High Acuity Unit, Clinical Decision Unit	Diagnostic Imaging, Mental Health Inpatient Unit, Patient transfer elevators	Emergency Entrance Vestibule, Lobby / Entrance Area
Clinical Decision Unit	Facility Entry Level	Emergency	-	Lobby / Entrance Area
Ambulatory Care				
Visiting Specialists	Facility Entry Level	Respiratory	All Ambulatory Services Service Elevator	Lobby / Entrance Area, Registration, Clinical Laboratory, Diagnostic Imaging
Cancer Clinic	Facility Entry Level	IV Therapy	Pharmacy, all Ambulatory Services Service Elevator	
IV Therapy	Facility Entry Level	Cancer Clinic	All Ambulatory Services Service Elevator	
Respiratory Services	Facility Entry Level	Visiting Specialists	All Ambulatory Services Service Elevator	

Components	Location Requirements	Direct / Integrated	Adjacencies - Controlled Circulation	Access - General Circulation
Medical and Surgical Inpatient	-	Maternal and Newborn	Patient Transfer Elevators	Public Elevators if not on entry level
High Acuity Unit	-	Emergency	Medical and Surgical Inpatient, Patient Transfer Elevators	-
Maternal and Newborn	-	Medical and Surgical Inpatient	Surgical Services, Patient Transfer Elevators, Emergency	Public Elevators if not on entry level
Mental Health Services	-	-	Emergency	-
Surgical Services	-	Medical Device Reprocessing	Maternal and Newborn, Patient Transfer Elevators, Emergency, Diagnostic Imaging	Public Elevators if not on entry level
Clinical Support Services				
Diagnostic Imaging	Facility Entry Level	-	Clinical Laboratory	-
Laboratory	Facility Entry Level	-	Clinical Laboratory, Diagnostic Imaging, Service Elevator	-
Pharmacy	Facility Entry Level	-	Service Elevator	-
Rehabilitation	-	Convalescent Care	Public Elevators	-
Non-Clinical Support Services				
Biomedical Engineering	-	-	-	-
Registration / Admitting	Facility Entry Level	-	-	Lobby / Entrance Area, Ambulatory Care, Diagnostic Imaging, Laboratory
Staffing Office / Administration	-	-	-	-
Medical Records	-	-	-	-
Information Technology	-	-	-	-
Medical Device Reprocessing	-	Surgical Services	Patient Transfer Elevators	-
Housekeeping	Facility Entry Level	-	Loading Dock, Patient Transfer Elevators	-
Food Services	-	-	Loading Dock, Patient Transfer Elevators	-

Components	Location Requirements	Direct / Integrated	Adjacencies - Controlled Circulation	Access - General Circulation
Laundry	-	-	Loading Dock, Patient Transfer Elevators	-
Facility Maintenance	-	-	Loading Dock, Patient Transfer Elevators	-
Supply Chain Management	-	-	Loading Dock, Patient Transfer Elevators	-
Concierge Spaces	Facility Entry Level		-	Lobby / Entrance Area
Academic Space	-	-	Public Elevators if not on entry level	-
Morgue	-	-	Patient Transfer Elevators	Public Elevators if not on entry level
Staff Support - Lockers and Change Area	-	-	Patient Transfer Elevators	Public Elevators if not on entry level
Staff Support - Staff Lounge and Meeting Rooms	-	-	Patient Transfer Elevators	Public Elevators if not on entry level

1A.0.2.2(3) **Furniture and Finishes**

1A.0.2.2(3)(a) Walls in circulation corridors will be supplied with guards that will double as handrails. Door frames will be supplied with guards to prevent chipping and denting caused by mobility aids, delivery carts, stretchers, and cleaning machines.

1A.0.2.2(3)(b) Flooring will consist of smooth, non-porous, anti-skid, and anti-static material that is resilient to high traffic, dropped objects, repeated exposure to cleaning chemicals, and will use coved base throughout.

1A.0.2.2(3)(c) All furniture will be comfortable and easy to clean (i.e. wipeable, no fabric).

1A.0.2.2(4) **Infection Prevention and Control**

1A.0.2.2(4)(a) The design will meet or exceed applicable CSA guidelines including:

1A.0.2.2(4)(a)(i) Availability and appropriate placement of ceramic hand hygiene sinks and chemical hand sanitizers, which will be located within the applicable departmental area by the architects during the design phase.

1A.0.2.2(4)(a)(i)A Provide touchless sinks in the Facility.

1A.0.2.2(4)(a)(ii) All touchless fixtures will be hardwired. Battery operated fixtures are not permitted.

1A.0.2.2(4)(a)(iii) Provide appropriate provisions for the spatial separation of Patients and visitors based on transmission of organisms.

1A.0.2.2(4)(a)(iv) Provide sufficient waste handling space for all waste streams.

1A.0.2.2(4)(a)(v) Provide macerators in soiled utility rooms unless otherwise noted.

1A.0.2.2(4)(a)(vi) Provide and/or fabricate all furniture, fixtures and equipment using smooth, non-porous materials that are capable of being decontaminated with hospital grade disinfectants. Their shapes will allow for easy cleaning around all sides and will be free of inaccessible spaces. Furniture selection will conform with the Authority's IP&C requirements.

1A.0.2.2(5) **Information Management Information Technology**

1A.0.2.2(5)(a) Refer to Schedule 1 section 7.7 – Communications.

1A.0.2.2(6) **Interior Fenestration**

1A.0.2.2(6)(a) Interior fenestration will be required to spaces as noted on the following table.

Clinical Specification Space Number	Space / Space Types Requiring Interior Glazing	Views To:	Clinical Specification Space Number
Emergency			
1.1.01	Triage / Interview Station	Public Waiting Public Circulation	1.1.07
1.3.11	Workstation: Unit Clerk	Public Waiting	1.1.07
Mental Health			
10.2.06 10.5.03 10.5.04	Collaboration Station Clinical Workstations Physician Work Area	All Patient circulation spaces Patient Lounge Dining Room	10.3.01 10.3.02
10.3.04	Activity Room	Patient Lounge Adjacent circulation spaces	10.3.01
10.3.09	Patient Laundry Room	Adjacent circulation spaces	-
10.2.10	Adolescent Holding Lounge	Adjacent circulation spaces	-
Medical / Surgical Inpatient			
7.1.3.01	Medication Rooms (all)	Adjacent circulation spaces	-
7.2.4.02	Business Centre	Adjacent circulation spaces	-
7.2.3.04	Medication Room	Adjacent circulation spaces	-
Maternal and Newborn Inpatient			
None identified.			

Clinical Specification Space Number	Space / Space Types Requiring Interior Glazing	Views To:	Clinical Specification Space Number
Surgical Services			
11.5.01	Medication / Clean Utility	Adjacent Recovery Bays	multiple
11.4.05	Medication Room	Adjacent Recovery Bays	multiple

1A.0.2.2(6)(b) Workstations in Patient care areas will be optimally located to provide views to Patients in care within glass-fronted Patient care spaces and to Patient care space access corridors for non-glass-fronted Patient care spaces.

1A.0.2.2(6)(c) Workstation glazing required in Patient care areas will eliminate the obstruction of view by segments of opaque wall and minimize the obstruction of view by mullions, including at glazing corners.

1A.0.2.2(6)(d) Doors accessing Workstations requiring interior fenestration will be maximally glazed.

1A.0.2.2(6)(e) Glazing sills at Workstations will be at 1050 mm above the floor.

1A.0.2.2(6)(f) Glazed Workstations will appear as a wall with glazing rather than as a millwork Workstation with glazing added.

1A.0.2.2(6)(g) Collaboration stations in Inpatient Mental Health and Rehabilitation will have glazing (i.e. enclosed).

1A.0.2.2(7) **Lighting**

1A.0.2.2(7)(a) Provide lighting that is combination of natural and task lighting.

1A.0.2.2(7)(b) Not used.

1A.0.2.2(7)(c) Artificial lighting throughout the component will follow a general standard of providing a layered lighting approach to minimize shadowing and glare for all users.

1A.0.2.2(7)(d) Provide individual Workstations with task lighting.

1A.0.2.2(7)(e) Finish colours will be compatible with lighting specifications.

1A.0.2.2(7)(f) Provide variable lighting (i.e. dimmable) in all Inpatient rooms, Maternal and Newborn Inpatient spaces (i.e. Triage / Assessment Bays, Triage / Assessment rooms, LDRPs, Ante/Postpartum rooms, Holding Nursery, Quiet / Bereavement Room), modality rooms, meeting rooms, and the Non-Denominational Spiritual Room.

1A.0.2.2(8) **Patient Privacy, Confidentiality and Noise Control**

1A.0.2.2(8)(a) Provide design features that ensure noise transference is kept to a minimum throughout the areas where sensitive information is discussed and that ensure adjacent spaces are sound attenuated to achieve the required degree of privacy.

1A.0.2.2(8)(b) Provide design features that provide visual screening and configurations to achieve the required degree of privacy.

1A.0.2.2(9) **Room Shape and Proportion**

1A.0.2.2(9)(a) All room shapes and proportions will accommodate their function and will be reviewed by the Authority. Acute corners and curved walls are not allowed within rooms.

1A.0.2.3 Safer Care Initiative

1A.0.2.3(1) The safer care initiative is in development at the time this document is being written. While the details will be further evolved as design progresses, the following will be provided:

1A.0.2.3(1)(a) data and electrical requirements for digital screens located at the entrance of the Patient rooms and at the bedside.

1A.0.2.3(1)(b) data and electrical requirements for RFID capability (data and electrical requirements) within each Patient room.

1A.0.2.3(1)(c) mitigation strategies for light pollution created by electronic devices, especially in the Patient rooms and at night.

1A.0.2.3(1)(d) data and electrical requirements for information screen (potentially Patient tracking and/or interactive white board) located at collaboration and/or clinical Workstation clusters.

1A.0.2.3(2) **Safety**

1A.0.2.3(2)(a) The design of all areas will support occupational health and safety (OH&S) regulations and WorkSafe BC standards.

1A.0.2.3(2)(b) Provide Patient safety and the prevention of harm in a manner that is unobtrusive and respectful.

1A.0.2.3(2)(c) Provide features to control hazards and minimize risk, consistent with current legislation, guidelines, and best practices (i.e. chemical, ergonomic, biological, physical, and safety glazing) and by use of “panic alarms” in Workstations/desks where interactions with the public take place (e.g. triage areas, treatment areas, mental health areas, etc.) including simple egress and/or escape capability for Staff safety.

1A.0.2.3(2)(d) In rooms that are considered to be a safety risk (e.g. all Exam/Treatment rooms, crisis interview rooms, Remote Registration rooms, Interview / Consultation rooms, Group Counselling rooms and/or Group Therapy rooms, individual

consult / therapy spaces, Interview rooms, Medication rooms, Quiet / Bereavement rooms, and any other rooms with public or Patient interactions), all solid doors will have an inset security window with impact resistant glass, so Staff can see whether someone who may create a security concern is on the other side of the door. Users to confirm which rooms are deemed to be a safety risk.

1A.0.2.3(2)(e) Provide Patient-Staff and Staff-Staff visibility in clinical areas.

1A.0.2.3(2)(f) Provide physical and/or virtual surveillance of Patients by Staff as or where required in the clinical specification.

1A.0.2.3(2)(g) For special populations, depending on need, provide restricted visibility for the safety of clinicians, Staff, Patients, and visitors.

1A.0.2.3(2)(h) Design Patient, Staff, and visitor use areas to allow easy access by those persons with physical or cognitive disabilities.

1A.0.2.3(2)(i) Design all Patient occupied spaces to ensure disabled access and assistance by clinical Staff.

1A.0.2.3(2)(j) Provide handrails and grab bars in toilets, washrooms and washing facilities that may be used by Patients (i.e. Inpatients and Outpatients).

1A.0.2.3(2)(k) Provide handrails in all corridors that may be used by Patients (i.e. Inpatients and Outpatients).

1A.0.2.3(3) **Technology**

1A.0.2.3(3)(a) A fully functional electronic medical record (EMR) system will be in place at opening. Charting stations will be distributed to provide for both charting at point of care as well as in more central locations to facilitate collaboration between clinicians.

1A.0.2.3(3)(b) Provide wireless communication tools for keeping team members connected, informed, and safe.

1A.0.2.3(3)(c) Each nursing station will include televisions for displaying patient tracking information; power and data will be provided at each location to support each television. Additionally, it is anticipated that a future RFID system will be installed to support Patient tracking in each Patient room; power receptacles and data outlets will be provided in each Patient room to support this system.

1A.0.2.3(3)(d) Areas in this component where Staff and students conduct professional work will be serviced with data ports and electrical capacity for computer connectivity.

1A.0.2.3(3)(e) Provide cellular coverage and wireless internet access capacity for visitors, clinicians, and Staff. This will include Workstations near Patient care areas while ensuring access to technology improvements such as virtual care, telehealth, and other remote treatment modalities.

1A.0.2.3(3)(e)(i) Provide strong cellular and wireless internet access for visitors, clinicians, and Staff throughout the Facility and without any dead zones.

1A.0.2.3(3)(f) Provide automated door openers and hold opens to enable Patient transport and movement between departments and for those who may have accessibility and/or mobility issues.

1A.0.2.4 External Design Criteria

1A.0.2.4(1) Required Exterior Spaces

1A.0.2.4(1)(a) Provide wheelchair accessibility to all required exterior spaces from all Building entrances to each required exterior space.

1A.0.2.4(1)(b) Provide the required exterior spaces with multiple points of access, including access from general Facility circulation, controlled Facility circulation, and/or general circulation, as required by each department.

1A.0.2.4(1)(c) Provide exterior spaces that will have a minimum area and may have a minimum area of wheelchair navigable surface, and a minimum area of covered wheelchair navigable surface.

1A.0.2.4(1)(d) Provide direct access from all entrances to the required exterior spaces to be directly accessible into the required area of covered wheelchair navigable surface.

1A.0.2.4(1)(e) Provide all entrances to the required exterior spaces to have door sills that are flush, or very nearly flush, with the interior finished floor and the exterior wheelchair navigable surface.

1A.0.2.4(1)(f) Provide accessible exterior muster station that are easily accessible in all seasons (i.e. must have access that has snow removal).

1A.0.2.4(1)(g) Provide the following minimum requirements for required exterior spaces:

Outdoor Space	Accessible From	Minimum Area	Minimum Area of Wheelchair accessible surface	Minimum Area of Covered Wheelchair accessible surface
Staff Garden	Staff Lounge shared by Administration, Ambulatory, Pharmacy and Registration.	60 m^2	20 m^2	12 m^2
Mental Health Inpatient Courtyard	Provide one access from the Courtyard Vestibule and a minimum of one additional access from general circulation and/or a Patient Lounge.	98 m^2	50 m^2	18 m^2

1A.0.2.5 Pressurization Requirements

1A.0.2.5(1) All pressurization requirements will adhere to the CSA Z317.2 requirements.

1A.0.3 GENERAL FACILITY SPACES

The following general Facility spaces are located throughout the Building. Unless otherwise stated in the clinical specifications, the following parameters must be provided:

1A.0.3.1 Cart Storage Rooms and Alcoves

1A.0.3.1(1) Alcove spaces will be provided as described in the clinical specifications.

1A.0.3.1(2) Provide electrical and/or data outlets as required.

1A.0.3.1(3) Electrical panels, alarms panels, and/or any other items will not be located in the Alcoves.

1A.0.3.2 Business Centres

1A.0.3.2(1) Throughout the Building, Business Centres are planned.

1A.0.3.2(2) Unless otherwise noted, each Business Centre will:

1A.0.3.2(2)(a) have the option of being an enclosed space or an open area within a department. This will be dependent on the location and potential access by the public, Patients, and/or non-departmental Staff.

1A.0.3.2(2)(a)(i) if it is an enclosed space, provide HVAC requirements that ensure a consistent temperature for Staff.

1A.0.3.2(2)(b) accommodate a workspace / countertop / table (minimum 1.2 m) for staging items and compiling documentation.

1A.0.3.2(2)(c) accommodate wire rack shelving for clerical supplies, paper supplies, and other miscellaneous items.

1A.0.3.2(2)(d) accommodate bins for confidential shredding, paper recycling, and garbage.

1A.0.3.2(2)(e) be provided with electrical, data, and phone requirements for all devices and pieces of equipment located in the space.

1A.0.3.2(2)(f) be provided with mail slots.

1A.0.3.3 Facility Clocks

1A.0.3.3(1) Provide a hardwire powered, synchronized clock system in areas as referenced in the SOR Section 7.6.21. Provide clock types as referenced, in analogue, digital, and elapsed time formats as specified.

1A.0.3.3(2) Not used.

1A.0.3.4 Kitchenettes

1A.0.3.4(1) Provide kitchenettes for Staff and Patients, as described in the clinical specifications.

1A.0.3.4(2) Unless noted otherwise, each of the kitchenettes will:

1A.0.3.4(2)(a) be provided with and accommodate a refrigerator, microwave, dishwasher, coffee machine, one (1) set of sinks, counter space, cabinets, drawers, garbage bins, and recycling bins.

1A.0.3.4(2)(b) be provided with electrical, plumbing, and data requirements for all devices and pieces of equipment in the space.

1A.0.3.5 Locker Rooms in Clinical Areas

1A.0.3.5(1) Lockers are identified in clinical department. These spaces include the lockers, wall hooks, coat rack, and benches, and boot rack for winter wear.

1A.0.3.5(2) Provide linen hampers to the OR locker rooms and include milled shelving to accommodate 10-12 sets each (organized separately) of scrubs tops and pants in sizes XS, SM, MED, LG, XLG, XXLG, and XXXLG, booties, and bonnets.

1A.0.3.5(3) Lockers themselves can be located in a Staff only corridor.

1A.0.3.6 Meeting Rooms / Education Rooms / Conference Rooms

1A.0.3.6(1) Meeting rooms / education rooms / conference rooms will be provided for Staff, Patients, and visitors, as described in the clinical specifications.

1A.0.3.6(2) Unless noted otherwise, each of the meeting rooms / education rooms / conference rooms will:

1A.0.3.6(2)(a) be provided with a screen and with full multi-media capable services (e.g. equipment, dimmable lighting, sound, etc.).

1A.0.3.6(2)(b) be provided with a small computer, wireless keyboard and mouse that can be accessed to present materials and/or with connections from the table where users can easily connect to the screen and present materials.

1A.0.3.6(2)(c) be provided with the shared ability for persons sitting at a table to plug-in/charge devices and connect to wireless and/or hardwired internet access. This capability will be shared by every two (2) people in the space.

1A.0.3.6(2)(d) provide variable lighting (i.e. dimmable).

1A.0.3.6(2)(e) be provided with electrical and data requirements for all devices and pieces of equipment located in the space.

1A.0.3.6(2)(f) accommodate furniture that is modular with the ability to be mobile (with lockable wheels).

1A.0.3.6(2)(g) accommodate furniture that is comfortable and easy to clean.

1A.0.3.7 Offices and Workstations

1A.0.3.7(1) Offices

1A.0.3.7(1)(a) Throughout the Building, offices are planned for those who have roles or responsibilities that dictate this requirement.

1A.0.3.7(1)(b) Unless otherwise noted, enclosed offices will be located away from exterior windows so that natural light will enter the department.

1A.0.3.7(1)(c) Unless otherwise noted, each office will:

1A.0.3.7(1)(c)(i) be a Secured and enclosed space.

1A.0.3.7(1)(c)(ii) be provided with a glazed door and wall (the wall facing the circulation corridors). This wall and door will have a permanent, frosted area across the middle 2/3rds of the door and wall to provide privacy for the occupant while allowing natural light to enter the space. Offices on the interior should have the same glazing so that natural light (direct or borrowed) is provided.

1A.0.3.7(1)(c)(iii) accommodate a sit / stand desk that is developed using modular furniture, with a desk chair on one (1) side and two (2) guest chairs opposite the desk chair.

1A.0.3.7(1)(c)(iii)A Accommodate lockable drawers.

1A.0.3.7(1)(c)(iii)B Accommodate furniture that is comfortable and easy to clean.

1A.0.3.7(1)(c)(iv) accommodate shelving away from any windows and the glazed wall and door.

1A.0.3.7(1)(c)(v) be provided with electrical, data, and phone requirements for all devices and pieces of equipment.

1A.0.3.7(2) Workstations

1A.0.3.7(2)(a) Throughout the Facility, Workstations are planned. Unless otherwise noted, each Workstation will:

1A.0.3.7(2)(a)(i) accommodate a sit / stand desk or typical desk (as defined in the equipment list) that is developed using modular furniture with a desk chair.

1A.0.3.7(2)(a)(i)A Provide task lighting.

1A.0.3.7(2)(a)(i)B Accommodate lockable drawers.

1A.0.3.7(2)(a)(i)C Accommodate furniture that is comfortable and easy to clean.

1A.0.3.7(2)(a)(ii) be provided with shelving incorporated above the workspace in the Workstations as described in the equipment list.

1A.0.3.7(2)(a)(iii) be provided with electrical, data, and phone requirements for all devices and pieces of equipment.

1A.0.3.7(2)(b) Accommodate furniture that is comfortable easy to clean (i.e. wipeable, not fabric, etc.).

1A.0.3.8 Staff Lounges

1A.0.3.8(1) Staff Lounges will be provided for Staff as described in the clinical specifications.

1A.0.3.8(2) Unless noted otherwise, each of the Staff Lounges will:

1A.0.3.8(2)(a) be provided with electrical and data requirements for all devices and pieces of equipment located in the space.

1A.0.3.8(2)(b) be provided with the ability for Staff to charge personal devices.

1A.0.3.9 Staff-To-Staff Communication

1A.0.3.9(1) The Facility will be provided and will accommodate a Staff-to-Staff communication system.

1A.0.3.9(2) The vendor and system that will be used is to be determined during detailed design, however, the system:

1A.0.3.9(2)(a) will not have dead zones anywhere in the Facility where the communication system cannot be used.

1A.0.3.9(2)(b) will incorporate handsfree communication.

1A.0.3.10 Soiled Utility Rooms

1A.0.3.10(1) Throughout the Facility, Soiled Utility Rooms are planned. Unless otherwise noted, each room will:

1A.0.3.10(1)(a) accommodate temporary storage of waste, supplies, and equipment.

1A.0.3.10(1)(b) accommodate storage of carts, general waste, medical/hazardous waste, and recycling.

1A.0.3.10(1)(c) be provided with seamless, non-slip flooring.

1A.0.3.10(1)(d) be provided with stainless-steel, seamless or have welded seams, non-porous countertops. The utility sink will be stainless-steel.

1A.0.3.10(1)(e) not used.

1A.0.3.10(1)(f) be provided with a macerator, hand hygiene sink, and utility sink.

1A.0.3.11 Storage Rooms

1A.0.3.11(1) Storage, general storage, and equipment storage spaces will be provided as described in the clinical specifications.

1A.0.3.11(2) Unless otherwise noted, each storage room will:

1A.0.3.11(2)(a) be provided with wire rack shelving.

1A.0.3.11(2)(b) be enclosed with a lockable door.

1A.0.3.11(2)(c) be provided with electrical, plumbing, technological, and data requirements for all devices and pieces of equipment located in the space and inventory management systems (e.g. RFID) for inventory in the space.

1A.0.3.12 Waiting Areas

1A.0.3.12(1) Unless otherwise noted, each Waiting Area in the Facility will:

1A.0.3.12(1)(a) be provided with comfortable seating.

1A.0.3.12(1)(b) be provided with access to wireless internet.

1A.0.3.12(1)(c) be provided with large screen displays for clinical and health information. Screens to be installed by the Design-Builder.

1A.0.3.12(1)(d) be provided with a hand hygiene sink per infection prevention and control guidelines (i.e. one hand hygiene sink for every 15 seats).

1A.0.3.13 Washrooms

1A.0.3.13(1) Unless otherwise noted, each Washroom in the Facility will:

1A.0.3.13(1)(a) be non-gender specific and fully accessible.

1A.0.3.13(1)(b) be provided with disposal for feminine care consumables, hand towel dispenser, and receptacles container.

1A.0.3.14 Housekeeping Closet

1A.0.3.14(1) Unless otherwise noted, each Housekeeping Closet in the Facility will:

1A.0.3.14(1)(a) be provided with electrical requirements, cart storage, floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board.

1A.0.4 SPACE SUMMARY (NSM ONLY)

DCDH Area Requirements	
Component	**NSM**
Clinical Services	
Emergency	590.1
Clinical Decision Unit	50.0
Ambulatory Care	641.8
Visiting Specialists	*348.7*
Cancer Clinic	*146.4*
IV Therapy	*91.0*
Respiratory Services	*64.7*
Medical and Surgical Inpatient	1,764.0
High Acuity Unit	143.7
Maternal and Newborn Inpatient Unit	605.5
Mental Health Inpatient Unit	866.2
Surgical Services	716.5
Area Requirements - Clinical Services	**5,386.8**
Clinical Support Services	
Diagnostic Imaging	814.7
Laboratory	434.2
Pharmacy	488.9
Rehabilitation Services	233.2
Area Requirements - Clinical Support Services	**1,971.0**
Non-Clinical Support Services	
Biomedical Engineering	81.8
Registration / Admitting	71.7
Administration / Staffing Office	169.8
HIMS	99.1
Information Technology	37.9
Medical Device Reprocessing	386.4
Housekeeping	133.0
Nutrition and Food Services	320.0
Laundry Services	257.0
Facility Maintenance	188.1
Supply Chain Management	629.2
Concierge	322.9
Academic and Teaching	136.6
Morgue	67.6
Staff Support - Lockers and Change Areas	105.7
Staff Support - Staff Lounge and Meeting Rooms	196.3
Area Requirements - Non-Clinical Support Services	**3,203.1**
Total DCDH Area Requirements	**10,560.9**
Ambulance Garage	
Ambulance Garage	111.0

1A.0 GENERAL BUILDING CLINICAL REQUIREMENTS

DCDH Area Requirements	
Component	**NSM**
Area Requirements - Ambulance Garage	**111.0**

1A.1 EMERGENCY DEPARTMENT

This specification outlines the functional, operational, and physical requirements for the Emergency Department (ED).

1A.1.1 FUNCTIONAL DESCRIPTION

1A.1.1.1 Statement of Purpose

1A.1.1.1(1) The ED will accommodate the unscheduled arrival of Patients presenting with suspected or confirmed illnesses or injuries and will serve as the emergency services access point for residents of the South Peace LHA, surrounding northeast regions, and visitors to the area.

1A.1.1.2 Scope of Services

1A.1.1.2(1) **Functional Content**

1A.1.1.2(1)(a) Zoning of Patient types; resuscitation/trauma, urgent/emergent, streaming (i.e. fast track), and mental health.

1A.1.1.2(1)(a)(i) Zoning of the four (4) of the Emergency department Exam / Treatment rooms will have the capability to be isolated/contained from the rest of the department to prevent spread of infectious diseases and/or pandemic related situations.

1A.1.1.2(1)(b) Universal and multi-purpose Exam / Treatment rooms will be provided.

1A.1.1.2(1)(c) A dedicated Mental Health area will be provided.

1A.1.1.2(1)(d) A decontamination area prior to entering the ED within an attached Ambulance Garage will be provided.

1A.1.1.2(1)(e) Strong adjacency to Diagnostic Imaging and High Acuity Unit will be maintained.

1A.1.1.2(1)(f) A Clinical Decision Unit (CDU) will be provided adjacent to the ED and will share ED Staffing.

1A.1.1.2(2) **Planning Assumptions**

1A.1.1.2(2)(a) While the current state analysis identified multiple scheduled services, off-service work, and Inpatient services performed in the ED, planning has assumed that those services will be redistributed to a more appropriate location (i.e. IV infusions are planned to be accommodated in the IV Therapy area). Therefore, non-emergency workload has not been considered in this section.

1A.1.1.2(2)(a)(i) There may be some situations where IV therapy Patients will have their treatment either begin or last into the evening, beyond the operating hours of Ambulatory Care. In these cases, IV therapies will be managed in the exam/treatment spaces within the ED.

1A.1.1.2(2)(b) ED Staff will support the CDU.

1A.1.1.2(2)(c) The Facility will open with a paper medical record system and will require associated infrastructure, such as storage. An electronic medical record (EMR) system will eventually replace the paper system and will significantly change the process and spatial requirements. The spaces currently dedicated to paper record storage will be considered for redevelopment once they are no longer required.

1A.1.1.2(3) **Excluded**

1A.1.1.2(3)(a) Scheduled Patient visits will be accommodated in ambulatory services.

1A.1.1.2(3)(b) Diagnostic imaging of body structures beyond those that can be captured using a portable x-ray.

1A.1.1.2(3)(c) Dedicated pediatric services and dedicated pediatric spaces.

1A.1.1.2(3)(d) Dedicated IV therapy spaces.

1A.1.2 OPERATIONAL DESCRIPTION

1A.1.2.1 Hours of Operation

1A.1.2.1(1) The ED will operate 24 hours per day, 7 days per week.

1A.1.2.2 Organization & Management

1A.1.2.2(1) The ED will be managed by the ED manager.

1A.1.2.3 Workflow

1A.1.2.3(1) **Arrival and Intake**

1A.1.2.3(1)(a) Patients will arrive by ambulance or as walk-ins.

1A.1.2.3(1)(a)(i) The ambulance entrance will be removed from public areas.

1A.1.2.3(1)(a)(ii) The walk-in entrance will be adjacent to a vehicle drop-off/short-term parking area and will automatically direct Patients and visitors to a reception or triage service.

1A.1.2.3(1)(b) After daytime hours, the ED will accommodate entrances for Emergency Patients, Staff, and visitors to other 24/7 care areas including the High Acuity Unit (HAU), Clinical Decision Unit (CDU), Inpatient units, and Maternal and Newborn Inpatient Unit.

1A.1.2.3(2) **Triage / Check In**

1A.1.2.3(2)(a) The Triage area will be adjacent to the walk-in entrances and have a clear view of the Waiting Area and be accessible from the clinical Workstations.

1A.1.2.3(2)(b) The Triage area will be designed with security and safety in mind and ensure that the registration clerks and registered nurses have access to egress if presented with a security issue.

1A.1.2.3(2)(b)(i) Provide a movable hard surface partition between triage nurse and Patients for pandemic considerations.

1A.1.2.3(2)(c) The Triage area will be designed to facilitate confidential conversations between the Patient and the nurse with consideration given to the need for pandemic response, code orange response, and surge capacity.

1A.1.2.3(2)(c)(i) Provide emergency call buttons at the Triage station and the ability to communicate a lockdown situation.

1A.1.2.3(2)(d) If someone presents with a potential infectious disease (i.e. Patient is symptomatic), personal protective equipment and other necessary supplies will be stored in cabinetry within the Triage area.

1A.1.2.3(2)(d)(i) Triage area, counters, and cabinets will be clearly organized and labelled, have relatively empty surfaces, and be easy cleaning.

1A.1.2.3(2)(e) Provide clear sightlines from the clinical Workstations to Triage.

1A.1.2.3(3) **Registration**

1A.1.2.3(3)(a) Registration will occur concurrently with triage by providing a dedicated registration Workstation (staffed by a registration clerk) at the triage desk.

1A.1.2.3(3)(b) For High Acuity Patients, bedside registration will be implemented.

1A.1.2.3(3)(c) After-hours Remote Registration will be accommodated with a Registration Booth.

1A.1.2.3(4) **Patient Streams**

1A.1.2.3(4)(a) The component will accommodate four major streams of care aimed at providing the highest quality of care in the timeliest manner and organized into discrete zones. Each zone will be equipped to expedite the disposition of Patients and to maintain capacity for new arrivals.

1A.1.2.3(4)(a)(i) Resuscitation / Trauma (CTAS 1) – This Patient category will typically arrive by ambulance and will require direct and immediate attention. The majority of these cases will be non-traumatic arrest or critical medical pre-arrest Patients.

1A.1.2.3(4)(a)(ii) Urgent and Emergent (CTAS 2 and 3) - This area will be used for acute care cases in which Patients will typically arrive by ambulance. These cases will require direct and immediate attention but will be second in priority to any CTAS 1 Patient. Processing tasks such as registration and admitting will be secondary to diagnosis and stabilization.

1A.1.2.3(4)(a)(iii) Streaming (CTAS 4 and 5) –Patients processed through this stream will typically arrive by private vehicle or on foot. Upon arrival, and assuming available space in the designated area, Patients will be assessed and sent to either the streaming Waiting Area, a streaming Exam/Treatment room, or active waiting recliner to await further assessment by the emergency physician.

1A.1.2.3(4)(a)(iv) Mental Health – This area will be dedicated to Patients presenting with mental health symptoms, challenges, and/or characteristics. Patients will be assessed in Triage and accompanied by ED Staff to the ED Mental Health area for further assessment. These Patients could be transferred to the Mental Health Inpatient Unit.

1A.1.2.3(4)(a)(v) Infectious disease / pandemic stream – During times requiring a dedicated response to an influx of infectious diseases, a four (4) Exam / Treatment room area will be dedicated to managing and treating Patients who are potentially or have been confirmed as carrying an infectious airborne illness. These four (4) Exam / Treatment Rooms will have the capability to be isolated and separated from the rest of the ED.

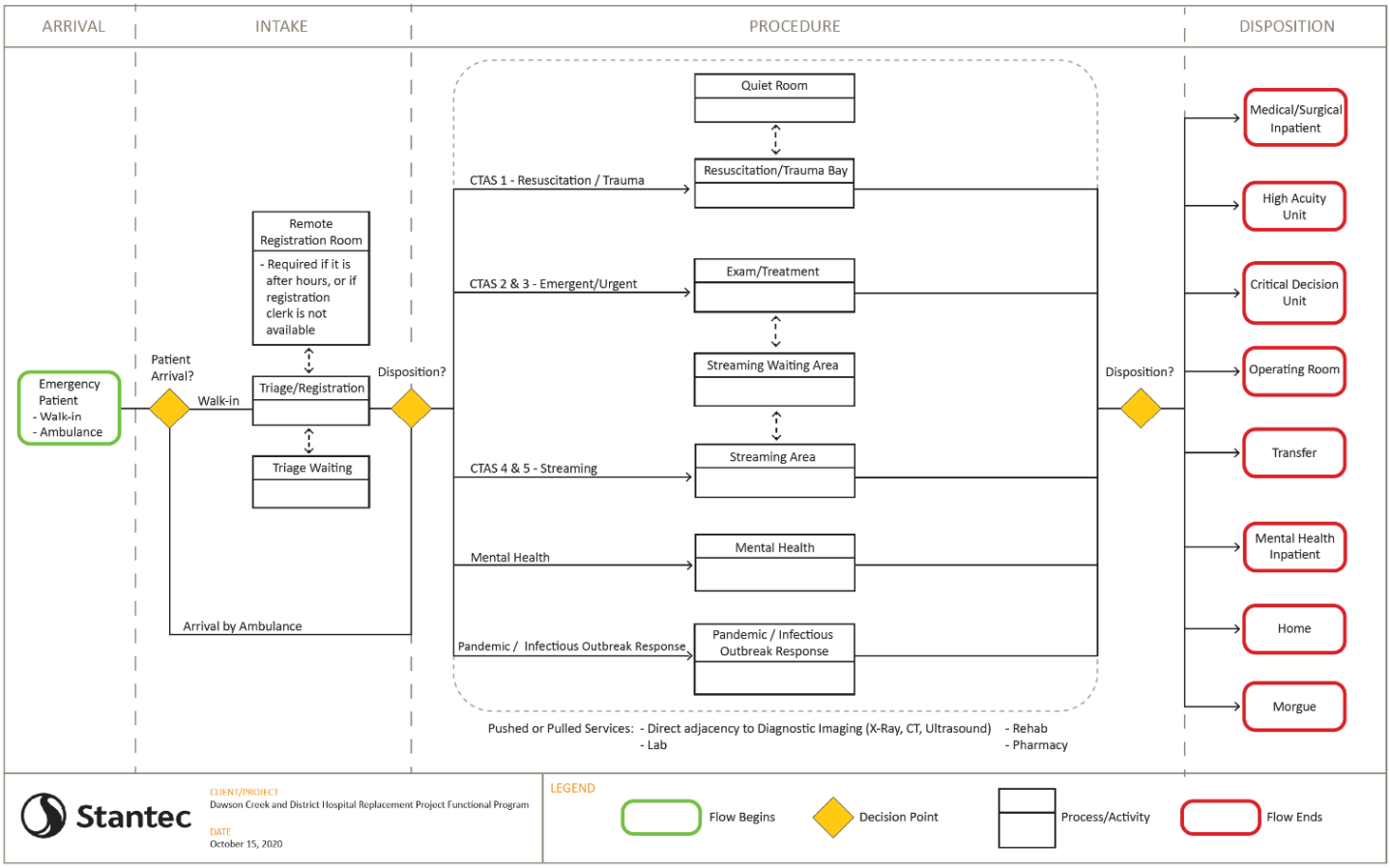
1A.1.2.3(4)(a)(v)A This four (4) Exam/Treatment room area will be located close to the main entry to the ED with access to logistics.

1A.1.2.3(4)(a)(v)B During times when no pandemic or infectious disease requires additional considerations, these Exam/Treatment rooms will operate normally.

1A.1.2.3(5) **Future State Flow**

1A.1.2.3(5)(a) The future state flow map below describes the key flows for the future model of care for the Emergency Department.

Dawson Creek and District Hospital Replacement Project - Functional Program - EMERGENCY - Future State Flow Map



1A.1.2.4 Support Activities

1A.1.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.1.2.4(2) **Allied Health Services**

1A.1.2.4(2)(a) Unassigned touchdown spaces for allied health practitioners will be provided (e.g. social work, transition planning, etc.) to provide services in the ED.

1A.1.2.4(3) **Laboratory**

1A.1.2.4(3)(a) Specimens will be collected either in the department or in the specimen collection area of the Lab.

1A.1.2.4(3)(a)(i) STAT and non-urgent specimens will be collected in the Exam/Treatment rooms by lab technicians and transported by Lab Staff to the Lab for processing.

1A.1.2.4(3)(a)(ii) In some cases, such as IV therapy or trauma Patients, a nurse may draw the specimen if a lab technician is not readily available.

1A.1.2.4(3)(b) Afterhours Laboratory support will be available through call-back.

1A.1.2.4(3)(c) Limited point-of-care testing (urine and glucose) will be administered by nursing Staff.

1A.1.2.4(4) **Diagnostic Imaging**

1A.1.2.4(4)(a) Portable x-rays and ultrasounds will be located in alcoves in the ED for use by the diagnostic imaging technologists (i.e. holding alcove in the Resuscitation / Trauma Room).

1A.1.2.4(5) **ECGs**

1A.1.2.4(5)(a) If the Patient is registered in the ED, ECGs will be done at the bedside.

1A.1.2.4(5)(a)(i) Outpatients will go to the Lab for ECGs.

1A.1.2.4(6) **Medications / Pharmacy**

1A.1.2.4(6)(a) Medication will be dispensed utilizing an automated medication distribution system (AMDS).

1A.1.2.4(6)(b) Pharmacy will provide services to Patients in the ED utilizing the Patient treatment areas and clinical Workstations.

1A.1.2.4(7) **Respiratory Therapy**

1A.1.2.4(7)(a) Arterial blood gases will be performed in the department by nurses or respiratory therapist (venous blood gases sent to Lab).

1A.1.3 STAFFING

1A.1.3.1 Estimated future Staffing for the emergency department is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Emergency Department: Projected Staffing	
Staff / Position	**Projected FTE**
DC1 Nurse	10.0
Clerk IV (A)	2.0
Nursing Unit Assistant	4.0
DC3 Clinical Practice Lead	1.0

Emergency Department: Projected Staffing	
Staff / Position	**Projected FTE**
Nurse Manager	1.0
Total Emergency Department Staffing	**18.0**

1A.1.4 DESIGN CRITERIA

1A.1.4.1 External Relationships

1A.1.4.1(1) Walk-in Patients will access the ED directly through the ED entrance.

1A.1.4.1(2) Critically ill Patients arriving at the Ambulance Bay will access the Resuscitation/Trauma room through controlled departmental access.

1A.1.4.1(3) ED Patients will be transported / escorted by nursing Staff to the Clinical Decision Unit (CDU) and High Acuity Unit (HAU) through controlled departmental circulation.

1A.1.4.1(3)(a) Provide fire doors that do not prohibit clear sightlines throughout the department. Provide door hold opens.

1A.1.4.1(3)(b) Visitors to the CDU and HAU will access these areas through a controlled back-of-house entrance.

1A.1.4.1(4) ED Patients will access Diagnostic Imaging through controlled Facility access (consider direct doorway access into the CT suite).

1A.1.4.1(4)(a) Provide automated door openers into all doors along the entire pathway from CT to the Emergency Department.

1A.1.4.1(5) ED Patients will be transported / escorted by nursing Staff to other Facility services, such as Mental Health Inpatient, Surgical Services, Maternal and Newborn Inpatient, and other Inpatient units, through controlled Facility access.

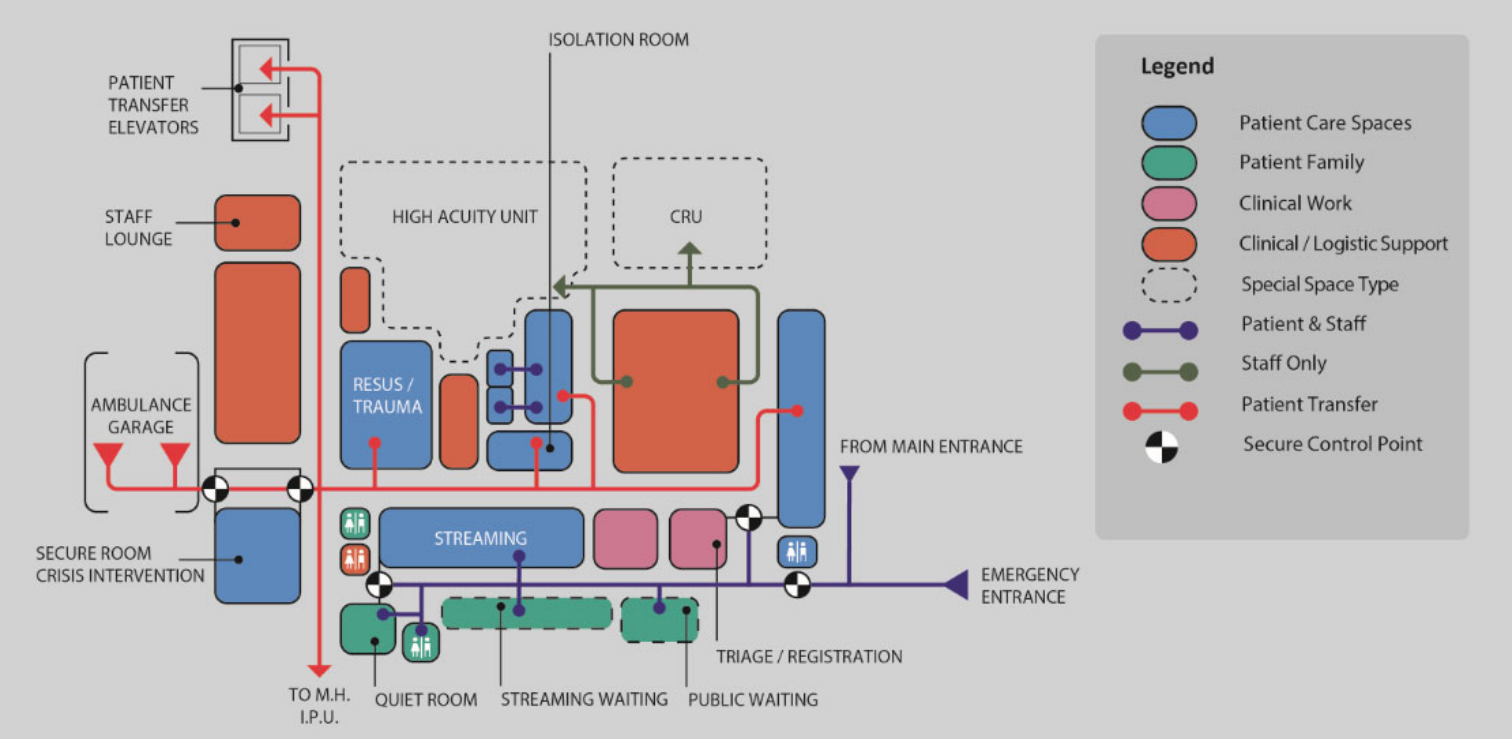
1A.1.4.1(6) Lab specimens will be transported to the Lab through controlled Facility access.

1A.1.4.1(7) Supplies, equipment, and other medications will access the ED through general Facility circulation.

1A.1.4.1(7)(a) However, as much as possible, services such as laundry (soiled/clean) and supplies/equipment will access the ED through controlled Facility circulation (e.g. could be a back-of-house access).

1A.1.4.2 Functional Relationship Diagram

1A.1.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. The diagram is not to scale, not all spaces may be illustrated, and lines and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.1.4.3 Internal Design Criteria

1A.1.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.1.4.3(2) **ED Layout and Flow**

1A.1.4.3(2)(a) Configuration

1A.1.4.3(2)(a)(i) ED configuration will support flexibility and enable Staff to expand and contract rooms and zones throughout the day as volumes ebb and flow. For example, offset, interlocking pods and orientation facilitates coordination of bed assignment.

1A.1.4.3(2)(a)(ii) Patient monitoring across pods allows movement of beds between pods which enables isolation of outbreak cases and flexible specialized sub-units when necessary.

1A.1.4.3(3) **Triage and Waiting Area**

1A.1.4.3(3)(a) Visibility

1A.1.4.3(3)(a)(i) Provide direct visibility from the Triage station to the walk-in entrance.

1A.1.4.3(3)(a)(ii) Provide visibility from the Triage and Registration areas, and the clinical Workstations, to the entire Waiting Area.

1A.1.4.3(3)(a)(ii)A Provide clear sightlines from the clinical Workstations to the Triage area.

1A.1.4.3(3)(a)(ii)B Provide two-way glazing to facilitate privacy of the Patient within the Triage space but enabling the triage nurse with sightlines into the Waiting Area and entrance.

1A.1.4.3(3)(a)(iii) Provide communication and CCTV visibility to the ambulance entrance. These monitors and communication tools will be located at the clinical Workstations in a highly visible area. The Triage and Registration areas will be in the same integrated work area.

1A.1.4.3(3)(a)(iv) The Triage area will be adjacent to the walk-in entrance.

1A.1.4.3(3)(a)(v) The Triage area will be designed to facilitate confidential conversations between the Patient and the nurse with consideration given to the need for pandemic response, code orange response, and surge capacity.

1A.1.4.3(3)(a)(vi) Provide emergency call buttons (including code blue) at the Triage station and provide the ability to communicate a lockdown situation.

1A.1.4.3(3)(a)(vii) The Triage area will be designed with security and safety in mind and ensure that the registration clerks and registered nurses have access to egress if presented with a security issue.

1A.1.4.3(3)(a)(viii) Provide a built-in movable hard surface partition between triage nurse and Patients for pandemic considerations.

1A.1.4.3(3)(a)(ix) Provide a built-in seat that folds up when not in use to enable wheelchair and Bariatric accessibility.

1A.1.4.3(3)(a)(x) If someone presents with a potential infectious disease (i.e. Patient is symptomatic), personal protective equipment and other necessary supplies will be stored in cabinetry within the Triage area.

1A.1.4.3(3)(a)(x)A Triage area, counters, and cabinets will be clearly organized and labelled, have relatively empty surfaces, and be easy to clean.

1A.1.4.3(3)(b) Registration Area

1A.1.4.3(3)(b)(i) Provide a movable screen (i.e. divider) that can separate the Patient and registration clerk, when required.

1A.1.4.3(3)(b)(ii) Accommodate counter space, height, and area for a Patient in a wheelchair or with mobility issues.

1A.1.4.3(3)(c) Remote Registration Booth

1A.1.4.3(3)(c)(i) The Remote Registration Booth will be located adjacent to the Triage station.

1A.1.4.3(3)(c)(ii) Provide an enclosed room with video phone, counter space, wheelchair accessible counter height, and space for two (2).

1A.1.4.3(3)(c)(iii) Provide a built-in seat that is built into the wall and folds up when not in use to enable wheelchair and Bariatric accessibility.

1A.1.4.3(3)(d) Waiting Area

1A.1.4.3(3)(d)(i) The Waiting Area is an opportunity for Patients to learn more about how to manage their health and the issue for which they are receiving treatment.

1A.1.4.3(3)(d)(i)A Provide large screen displays for clinic and health information.

1A.1.4.3(3)(d)(ii) Provide comfortable seating.

1A.1.4.3(3)(d)(iii) Provide ability to charge personal devices.

1A.1.4.3(3)(d)(iv) Provide access to wireless internet.

1A.1.4.3(4) **Resuscitation / Trauma Room**

1A.1.4.3(4)(a) The Resuscitation / Trauma room consists of two (2) Resuscitation / Trauma Bays in the room.

1A.1.4.3(4)(b) Provide doors from the corridor into each of the Resuscitation / Trauma Bay areas. They will be large three panel ICU-type glazed sliding doors, providing an opening that will accommodate movement of Patients, team members, and required equipment into and out of the Resuscitation / Trauma Bay. The doors will include a breakaway function and ligature-resistant curtain track system for privacy.

1A.1.4.3(4)(b)(i) Both Resuscitation / Trauma Bays will be able to be accessed independently through individual door openings large enough to accommodate movement of equipment such as portable x-ray and mobile emergency equipment.

1A.1.4.3(4)(c) Separation of the Resuscitation / Trauma Bays will be provided by using storage, equipment, and other impediments but creating the ability for care providers to easily move between the stretcher bays.

1A.1.4.3(4)(d) In each Resuscitation / Trauma Bay, provide all monitors, headwalls, and gases, IV pumps, and other devices on booms mounted to the ceiling to reduce tripping hazards and open floor space.

1A.1.4.3(4)(e) A mobile work / charting station will be provided for each Resuscitation / Trauma Bay and will be on a workstation on wheels.

1A.1.4.3(4)(e)(i) Orient the charting station at the foot of the Patient.

1A.1.4.3(4)(f) Provide a minimum depth of 6 m in each of the Resuscitation / Trauma Bays.

1A.1.4.3(4)(g) Not used.

1A.1.4.3(4)(g)(i) Not used.

1A.1.4.3(4)(h) Quiet / Bereavement Room

1A.1.4.3(4)(h)(i) This Quiet / Bereavement Room will be in close proximity to the Resuscitation / Trauma room and the High Acuity Unit to provide a temporary refuge for distressed family/friends. It will be acoustically and visually private with adjustable lighting.

1A.1.4.3(5) **Exam / Treatment Rooms**

1A.1.4.3(5)(a) Exam / Treatment Rooms will:

1A.1.4.3(5)(a)(i) be 3-walled rooms with a glazed sliding door with a ligature-resistant curtain track system, except as follows:

1A.1.4.3(5)(a)(i)A Emergency Exam / Treatment Isolation Room will be a 3-walled room with ICU type glass sliding door with a ligature resistant curtain track system.

1A.1.4.3(5)(a)(ii) be provided with a headwall with all medical gases (per Appendix 1M).

1A.1.4.3(5)(a)(iii) be provided with a ceiling mounted exam light.

1A.1.4.3(5)(a)(iv) be provided with call and emergency buttons (including code blue buttons).

1A.1.4.3(5)(a)(v) be provided with a small Workstation with PACS capability and a work surface.

1A.1.4.3(5)(a)(vi) be provided data and electrical requirements to facilitate cardiac monitoring and bedside EMR access.

1A.1.4.3(5)(a)(vii) be provided supply storage for point-of-use supplies to facilitate treatment.

1A.1.4.3(5)(a)(viii) not used.

1A.1.4.3(5)(a)(ix) be provided with a hand hygiene sink.

1A.1.4.3(6) **Exam / Treatment Room - Gyne**

1A.1.4.3(6)(a) Provide all requirements described for the Exam / Treatment Rooms.

1A.1.4.3(6)(b) Diagnostic procedures conducted in this room may employ ultraviolet (UV) light sources.

1A.1.4.3(6)(b)(i) Provide the ability to accommodate blackout conditions as required.

1A.1.4.3(6)(c) Not used.

1A.1.4.3(6)(d) There will be a Washroom with shower immediately adjacent to this room accessed by an internal door.

1A.1.4.3(7) **Isolation Requirements**

1A.1.4.3(7)(a) Provide all requirements described for the Exam / Treatment Rooms.

1A.1.4.3(7)(b) The isolation capable Exam / Treatment Rooms will be located as close as possible to Triage and Registration.

1A.1.4.3(7)(b)(i) Not used.

1A.1.4.3(7)(c) Those requiring airborne isolation will be accommodated in an airborne isolation room (AIR).

1A.1.4.3(7)(d) Provide the isolation-capable room with two (2) separate points of access/exit; one from the main circulation corridor which could be locked down when isolation is required, and a second access/egress point directly to/from the Anteroom.

1A.1.4.3(7)(e) The Anteroom will be to the side of the Exam/Treatment room and not in front of the Exam/Treatment room. The Anteroom will not form a vestibule in front of the Exam/Treatment room.

1A.1.4.3(7)(f) The Patient entrance to the Exam/Treatment Isolation room will be directly onto the corridor. There will be a window from the Anteroom into the Exam/Treatment Isolation Room.

1A.1.4.3(8) **Streaming – Active Waiting Recliners**

1A.1.4.3(8)(a) The active waiting recliners will be located in a shared space within the ED streaming area in view of clinical Workstations.

1A.1.4.3(8)(a)(i) In cases where afterhours IV therapy is required and cannot be accommodated in the IV Therapy department, the afterhours IV therapy services will be managed in the active waiting recliner spaces.

1A.1.4.3(8)(b) The recliners will be separated by full walled partitions that extend slightly past the recliner for Patient privacy (e.g. not fully enclosed spaces).

1A.1.4.3(8)(c) The streaming Waiting Area will be located outside of the ED boundary and will allow controlled Patients of Patients from the Waiting Area into the streaming zone.

1A.1.4.3(9) **Exam - Secure Room**

1A.1.4.3(9)(a) The Exam - Secure room will be designed to support best practice delivery of service and ensure the safety of Staff, Patients, and others in the department.

The room will be designed to mitigate the risk of self-harm and harm to others and conform to requirements for health and hygiene.

1A.1.4.3(9)(b) The Secure room will comply with all Mental Health Act prescribed requirements.

1A.1.4.3(9)(c) Not used.

1A.1.4.3(9)(d) It will be free from protuberances or projections that might allow climbing, hanging as well as weak points, corners, edges, and other features that impose risk.

1A.1.4.3(9)(e) All surfaces will be easy to clean.

1A.1.4.3(9)(f) It will be placed as closely as possible to the nursing station to enable close observation.

1A.1.4.3(9)(g) A translucent exterior window will be provided with impact resistant material that will provide natural light and views.

1A.1.4.3(9)(h) A toilet and washing area will be provided within the Secure room,

1A.1.4.3(9)(i) A sealed floor drain will be provided.

1A.1.4.3(9)(j) Unbreakable, shatterproof observation panel (window) in the door will be provided.

1A.1.4.3(9)(k) Video surveillance and door alarm capacity in both the Secure room and the Anteroom.

1A.1.4.3(9)(k)(i) Provide the ability to control the volume of the alarm and the door hold open feature.

1A.1.4.3(9)(l) A CCTV one-way camera will be provided in the Secure room with monitoring capability at the nursing Workstations and from the CDU.

1A.1.4.3(9)(l)(i) Provide adequate counter space at the nursing Workstations to accommodate the separate surveillance monitor and associated audio/video access to respond to the Secure room.

1A.1.4.3(9)(m) A door alarm will be provided.

1A.1.4.3(9)(n) The Anteroom will be associated with the Exam - Secure room (1A.1.5 Schedule of Accommodation section 1.5.01). It will include all Anteroom requirements as described in 1A.1.4.3(7).

1A.1.4.3(10) **Crisis Interview Room**

1A.1.4.3(10)(a) The Crisis Interview room will be designed with a second egress door for Staff safety.

1A.1.4.3(11) **Clinical Decision Unit**

1A.1.4.3(11)(a) Provide all requirements described for the Exam / Treatment Rooms.

1A.1.4.3(12) **Clinical and Physician Workstations (Nursing Station)**

1A.1.4.3(12)(a) Provide Workstations in a cluster for use by clinical Staff, allied health Staff, and physicians while providing on-unit services.

1A.1.4.3(12)(b) Accommodate all technical requirements for Workstations, paper chart storage, and desk space.

1A.1.4.3(12)(c) Provide acoustic buffering for some Workstations for physician dictation, reviewing test results, and conducting private conversations.

1A.1.4.3(13) **Decontamination Room**

1A.1.4.3(13)(a) The Decontamination Room will accommodate full isolation when containment protocols are in effect with mechanical requirements met.

1A.1.4.3(13)(b) Containment receptables will be provided for Secure storage of contaminated items.

1A.1.4.3(13)(b)(i) Provide dual shower head that includes the required volume per minute and alignment with the drain capacity to the decontamination tank.

1A.1.4.3(13)(b)(ii) Provide monitoring of the capacity and draining of the holding tank.

1A.1.4.3(13)(b)(iii) Provide a hose bib and volume control on the decontamination station.

1A.1.4.3(13)(b)(iv) Provide an ‘in use’ alarm/siren.

1A.1.4.3(13)(b)(v) As Staff could be escorted through the ED to the Decontamination area, a small vestibule will be provided for Staff to put on decontamination PPE.

1A.1.4.3(13)(b)(vi) A shower room will be designed to open off the Anteroom.

1A.1.4.3(13)(c) The Decontamination Room will be designed to be lined with a disposable polythene liner.

1A.1.4.3(13)(d) The Decontamination Room will be designed to accommodate a straight stretcher path with no turns entering or exiting the room.

1A.1.4.3(13)(e) The Decontamination Room will be designed to accommodate “hot” and “cold” zones to allow for separation between contaminated and clean areas.

1A.1.4.3(14) **Entrances and Drop-Off**

1A.1.4.3(14)(a) A public corridor that connects the ED walk-in entrance to the main lobby of the Hospital will be provided.

1A.1.4.3(14)(b) Ambulance Access

1A.1.4.3(14)(b)(i) Unloading of ambulance vehicles and some private vehicles will occur within an enclosed Ambulance Garage. This separation will ensure that critically ill Patients can be transferred directly to the Resuscitation / Trauma Room.

1A.1.4.3(14)(b)(ii) The space behind the ambulance (the Patient unloading or loading area) will be directly adjacent to the ambulance entrance vestibule. The unloading of ambulance Patients will not be visible from other Building entrances if the ambulance doors are left open.

1A.1.4.3(14)(b)(iii) Ambulance Garage doors will automatically open and close.

1A.1.4.3(14)(b)(iii)A EHS will be provided with remote control openers for the bays.

1A.1.4.3(14)(b)(iii)B Provide translucent glazing in the Ambulance Bay to ensure Patient privacy.

1A.1.4.3(14)(b)(iv) Entrance into the department from the Ambulance Garage will be through automated doors with open holds and swipe card access.

1A.1.4.3(14)(b)(iv)A Provide adequate ventilation controls for idling vehicles.

1A.1.4.3(14)(b)(v) The ambulance drive-though bays will be designed to accommodate two (2) ambulances side-by-side (not end-to-end) each with its own entry and exit door.

1A.1.4.3(14)(c) The ambulance entrance and Decontamination area will be isolated from the remainder of the ED.

1A.1.4.3(14)(d) The ambulance entrance will provide direct access into the Decontamination area. Patients accessing these spaces will do so prior to triage. Acoustical strategies that will limit sound from transferring into the department will be developed.

1A.1.4.3(14)(e) Traffic flow from the ambulance and walk-in entrances will not cross one another.

1A.1.4.3(14)(f) Walk-In Entrance

1A.1.4.3(14)(f)(i) The walk-in entrance will have short-term parking for vehicles nearby. A designated “emergency parking only” area will be located in close proximity to the drop-off bay.

1A.1.4.3(14)(f)(ii) Provide a covered drop-off for two (2) vehicles, suitable to provide weather protection for the entire drop off vehicle and Patient entry process.

1A.1.4.3(14)(g) Draft and Exhaust-Free Entrances

1A.1.4.3(14)(g)(i) Waiting and triage areas located close to the walk-in entrance will not be exposed to drafts and transient temperature changes with the opening and closing of doors.

1A.1.4.3(14)(g)(ii) Prevent exhaust fumes from ambulances and private vehicles from entering the Building.

1A.1.4.3(15) **After Hours Facility Entrance**

1A.1.4.3(15)(a) After hours, the Main Entrance to the Facility will be locked and the ED entrance vestibule will provide general access without entering the ED.

1A.1.4.3(15)(b) The layout of circulation corridors will allow ambulance deliveries, other than those destined for the ED, to discreetly bypass interior portions of the ED.

1A.1.4.3(15)(c) Triage and reception functions in the ED will not provide general information services (i.e. maternity Patients accessing the Maternal / Newborn department).

1A.1.5 SCHEDULE OF ACCOMMODATION

1A.1.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

1A.1.5.1(1) **Emergency Department**

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.1.0	**Triage and Waiting Area**					
1.1.01	Triage / Interview Station	1	8.0	8.0	- Glass enclosed on three sides; privacy curtain on south side; chair, Workstation (phone, clerical storage, PC, Data); printer; Patient chair; consider mobility requirements; PPE storage; vital signs monitor; scale; neonate scale; violence prevention egress; emergency bell	- Adjacent to walk-in
1.1.02	Registration Station	1	4.6	4.6	- Millwork Workstation; accessible for Patient in wheelchair or with mobility issues; enclosed space; label printer	- Adjacent to triage; Staffed by registration person, could be combined with 1.1.01
1.1.03	Remote Registration Room	1	5.6	5.6	- Accessible counter with video remote phone; data; consider lighting and acoustical requirements; accommodates 2 people with a wheelchair (Bariatric accessible)	- Adjacent to triage
1.1.04	Hand Hygiene Sink	1	1.0	1.0	- Non-porous material; splash free	- Adjacent to 1.1.01 Triage/Interview Station
1.1.05	Wheelchair Alcove	3	0.6	1.8	- Storage for clean wheelchairs	- Adjacent to triage
1.1.06	Stretcher Alcove	1	2.0	2.0	- Storage for clean stretchers	- Adjacent to triage

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.1.07	Public Waiting	1	32.2	32.2	- Accommodates 15 people (sub-waiting available for triage); screen; accommodate various Patient types (typical, Bariatric, wheelchair); ability to create zones to separate infectious persons; hand hygiene sink	- Visually accessible from the triage / reception stations, Clerk Workstation, Clinical Workstation, and Physician Workstation
1.1.08	Public Washroom	2	4.6	9.2	- Accessible 2-piece washroom (toilet, sink); baby change area	- adjacent to waiting area; used by Streaming Patients as well - one (1) washroom to have direct sightline from nursing area - one (1) washroom to be adjacent to 1.4.05 Streaming Area and visible from the nursing station
Emergency: Triage and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				64.4	**1.35**	**86.9**
1.2.0	**Resuscitation / Trauma Area**					
1.2.01	Resuscitation / Trauma Bay	1	50.0	50.0	- Sized to accommodate double stations separated by a curtain (must provide access to both stations for Staff without leaving the room); both stations include medical gases (per Appendix 1M), call and emergency buttons; stretcher, warming cab, counter, exam light (ceiling mounted), ceiling mounted Bariatric Patient lift; ability to accommodate telehealth; accommodate mobile radiology; will share supplies between the 2 stations; warming cabinet shared between the 2 stations; cardiac monitor; IV poles; 3-4 IV pumps; full size blanket warmer; ceiling mounted booms (gases, electrical); limited fixed items in the rooms; transport ventilator; blood warmer; forced air warming unit (Bair Hugger); cart storage for all point-of-use supplies (nothing fixed to the floor); PACS viewing; hand hygiene sink (x2)	- located near Quiet / Bereavement Room - Direct access to CT
1.2.02	Scrub Sink	1	0.8	0.8	- Scrub sink & scrub supplies (foot controlled)	-

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.2.03	Charting Area	1	1.8	1.8	- Chair, shelving, counter space	- located in the middle of the trauma room and/or flexible and movable
1.2.04	Crash Cart Alcove	1	1.5	1.5	- Charging requirements; unimpeded access for Staff	- stored in the Resuscitation / Trauma Bay
1.2.05	Storage Alcove	2	2.0	4.0	- Maternity and pediatric cart; consider shelving and charging requirements	- location to be determined (in or out of the trauma room)
1.2.06	Quiet / Bereavement Room	1	11.0	11.0	- Soft chair (4-6); table; soft lighting	- located near Resuscitation / Trauma Bays; shared with HAU
Emergency: Resuscitation / Trauma Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				69.1	**1.50**	**103.7**
1.3.0	**Exam / Treatment Area**					
1.3.01	Exam/Treatment Room	6	13.0	78.0	- 3-walled room with glazed sliding door with ligature-resistant curtain track system; headwall with medical gases (per Appendix 1M); call and emergency buttons; small Workstation; data; electrical considerations; PACS viewing; stretchers; cardiac monitor; ceiling-mounted Patient lift; guest chair (1); IV pole and pump; otoscope; ophthalmoscope; hand hygiene sink; ceiling mounted exam light; procedure cart	- 8 Exam/Treatment: 6 typical, 1 GYNE, and 1 with isolation capability
1.3.02	Patient Washroom	3	4.6	13.8	- Accessible 2-piece washroom (toilet, sink)	- Shared by E/T Rooms
1.3.03	Not used					
1.3.04	Exam/Treatment Room - Gyne	1	13.0	13.0	- 3-walled room with glazed sliding door with ligature-resistant curtain track system; headwall with medical gases (per Appendix 1M); call and emergency buttons; small Workstation; data; electrical considerations; PACS viewing; IV pole and pump; hand hygiene sink; cardiac monitor; ceiling mounted exam light; procedure cart	-
1.3.05	Gyne - Patient Washroom	1	6.0	6.0	- Accessible 3-piece washroom (toilet, sink, shower); baby change area	- adjacent to Gyne E/T Room

1A.1 EMERGENCY DEPARTMENT

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.3.06	Exam/Treatment - Isolation Room	1	13.0	13.0	- 3-walled room with ICU type glass sliding doors with ligature-resistant curtain track system; headwall with medical gases (per Appendix 1M); call and emergency buttons; small Workstation; data; electrical considerations; PACS viewing; IV pole and pump; hand hygiene sink; cardiac monitor; ceiling mounted exam light; procedure cart	-
1.3.07	Isolation Anteroom	1	5.0	5.0	- Hand hygiene sink, shelving for gowns, gloves, masks, biohazard collection, soiled linen hamper - Millwork shelf (458mm x 610mm) above the linen hamper	-
1.3.08	Isolation Room Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	- dedicated & within isolation room
1.3.09	Crash Cart Alcove	1	0.8	0.8	- Charging requirements; unimpeded access for Staff	
1.3.10	Hand Hygiene Sink	1	1.0	1.0	- hands free; splash proof; non-porous	-
1.3.11	Workstation: Unit Clerk	1	4.6	4.6	- Chair, millwork counter workspace, data, phone, cabinet, label printer	- grouped together with clinical Workstations - sightline required to Public Waiting
1.3.12	Clinical Workstation	5	3.0	15.0	- Chair, millwork counter workspace for 2x Workstations (combined with 1.3.11 Wkst: Unit Clerk and 1.8.04 Bus Centre), data, phone, cabinet, video surveillance, PACS, call bell hub	- grouped together with Wkst: Unit Clerk and Business Centre - grouped together with Physician Workstations to create the nursing station - sightline required to Public Waiting
1.3.13	Physician Workstation	2	4.6	9.2	- Chair, workspace, data connection, phone, cabinets, and wire rack shelving for storage; consider door to create privacy for dictation	- grouped together with clinical Workstations to create the nursing station - sightline required to Public Waiting
1.3.14	Patient Nutrition Station	1	4.0	4.0	- Sink, refrigerator, counter space, cabinets, ice / water machine, microwave	-
1.3.15	Linen Alcove	2	2.0	4.0	- Storage area for clean linen carts only; cannot be located underneath an electrical panel	-
1.3.16	Blanket Warmer	1	1.2	1.2	- Consider charging requirements	

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.3.17	Cart Alcove	9	0.8	7.2	- Gyne cart; suture; chest tube & central line; maternity cart; pediatric; 2x ECG machine; shelving; charging requirements	- Could be centralized
1.3.18	Imaging / Ultrasound Machine Alcove	1	0.7	0.7	- Portable x-ray, ultrasound, etc.	- Could be centralized
1.3.19	Staff Washroom	2	4.6	9.2	- Accessible 2-piece washroom (sink, toilet)	-
Emergency: Exam / Treatment Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				190.3	**1.50**	**285.5**
1.4.0	**Streaming Area**					
1.4.01	Exam/Treatment Room	2	13.0	26.0	- 3-walled room and glazed sliding door with ligature-resistant curtain track system; headwall with medical gases (per Appendix 1M); call and emergency buttons; small Workstation; data; electrical considerations; CCTV; PACS viewing; stretchers; vital signs monitor; guest chair (1); IV pole and pump; otoscope; ophthalmoscope; hand hygiene sink; ceiling mounted exam light; cardiac monitor	-
1.4.02	Storage Alcove: ENT	1	2.0	2.0	- ENT supplies; slit lamp, etc.	- Consider locating within the Exam/Treatment rooms
1.4.03	Imaging Equipment Alcove	1	1.2	1.2	- charging, data, shelving requirements	-
1.4.04	Active Waiting Recliner	2	5.5	11.0	- Shared/open area separated by partitions for visual privacy	-
1.4.05	Streaming Waiting Area	1	22.5	22.5	- Accommodates 15 people; hand hygiene sink	- directly accessible from the streaming area; outside of the department boundary as Patients will return to/from the waiting area to the exam/treatment rooms
1.4.06	Charting Area	1	1.8	1.8	- Chair, shelving, counter space, PACS viewing	-
Emergency: Streaming Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				64.5	**1.50**	**96.8**
1.5.0	**Mental Health Area**					

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.5.01	Exam - Secure Room	1	13.0	13.0	- Secure room; CCTV; meets anti-ligature requirements; duress system; provide a floor mattress appropriate for mental/behavioural health secure rooms; integrated sink and toilet; needs to meet all current Provincial guidelines; call bell	-
1.5.02	Crisis Interview Room	1	11.0	11.0	- Interview chairs; Workstation; table; requires double egress; similar features to the Quiet / Bereavement Room	- locate near the secure room
1.5.03	Isolation Anteroom	1	5.0	5.0	- Hand hygiene sink, shelving for gowns, gloves, masks, biohazard collection, soiled linen hamper - millwork shelf (458mm x 610mm) above the linen hamper	-
Emergency: Mental Health Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				29.0	**1.50**	**43.5**
1.6.0	**Clinical Support**					
Medication						
1.6.01	Medication Room	1	16.4	16.4	- Refrigerator/freezer; multi-cart storage; secured; hand hygiene sink; computer; automated medication dispensing; emergency eye wash station; millwork storage cabinet; wall mounted Workstation	- Shared HAU and CDU; if not able to be shared, additional AMDS in HAU
Equipment and Supply Storage						
1.6.02	Equipment Storage	1	18.0	18.0	- Consider shelving and charging requirements; portable light; IV poles (~5); pressure cuff; mobile lift; 2 BiPAP machine; bladder machine; doppler; elevated outlets	- Shared with CDU; could be co-located/consolidated with Clean Utility
1.6.03	Clean Utility	1	18.0	18.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	- Shared HAU and CDU; if not able to be shared, additional AMDS in HAU - could be co-located/consolidated with Equipment Storage

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Environmental Services						
1.6.04	Soiled Utility	1	12.0	12.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and countertops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste; medical/hazardous waste; recycling; two (2) macerators (one redundant macerator; hand hygiene sink; utility sink; rimmed sinks	- Shared HAU and CDU; if not able to be shared, additional AMDS in HAU
1.6.05	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor’s floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board, floor vacuum	- Shared HAU and CDU
Bio-Medical Engineering						
1.6.06	Biomed Workroom	1	10.0	10.0	- Includes medical gases (per Appendix 1M), water, electrical outlets	-
Emergency: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				81.4	**1.35**	**109.9**
1.7.0	**Decontamination and RCMP / EMS Workroom and Security**					
1.7.01	Decontamination Room	1	11.0	11.0	- Cleanable surface, hose bib floor drain, shower; venting; configuration to accommodate a stretcher	- Quick access from Triage - Adjacent to Ambulance Bay - Directly accessible from 1.7.04 Anteroom
1.7.02	EMS Workstation	1	4.6	4.6	- Chair, workspace, data connection, phone, cabinet	- Adjacent to Ambulance Bay

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.7.03	Security Office	1	10.0	10.0	- Secure, enclosed space; workspace with monitors/screens for security cameras; accommodate shelving for miscellaneous items; secure personal storage;	- Locate near the ED or within the entrance of the ED
1.7.04	Anteroom	1	5.4	5.4	- Small vestibule from ED for staff PPE; Secure, hooks, HHS, 3x lockers	-Directly accessible from 1.7.01 Decontamination Room
1.7.04.01	Shower Room	1	2.2	2.2	- Hooks	- Directly accessible from 1.7.04 Anteroom
Emergency: Decontamination and RCMP / EMS Workroom and Security				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				33.2	**1.35**	**44.8**
1.8.0	**Staff Support**					
Work Space						
1.8.01	Office: Manager	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data, 2 visitor chairs	-
1.8.02	Workstation: Clinical Pharmacist	1	4.6	4.6	- Chair, computer, data, phone, cabinet; millwork counter	- adjacent to and shared with 1.8.03 Wkst: IPAC Advisor
1.8.03	Workstation: Infection, Prevention, and Control Advisor	1	4.6	4.6	- Chair, computer, data, phone, cabinet; millwork counter	- adjacent to and shared with 1.8.02 Wkst: Clinical Pharm
1.8.04	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots; consider 2 walled room; millwork counter	- grouped together with clinical workstations - Shared with CDU; near triage and unit clerk
1.8.05	Staff Lounge	1	20.0	20.0	- Soft seating for 8 Staff; kitchenette with refrigerator, microwave, dishwasher, cabinets, counter space, tables, chairs, double sink; PC station, TV	- Shared HAU and CDU; Assumed to accommodate Staff meetings as required
Locker and Change Area						
1.8.06	Locker Room with Change Areas	1	12.0	12.0	- 15 half lockers; shared lockers; coat and boot storage; 1 change cubicle with hooks on the wall and a small millwork bench for seating	- Could be combined with HAU and CDU Staff
1.8.07	Staff Shower	1	3.5	3.5	- hooks, bench	
-	Staff Washroom	- located throughout the care areas				
Emergency: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				58.2	**1.35**	**78.6**
Total Emergency Area				**590.1**		**849.7**

1.0 Emergency: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
1.9.0	**Ambulance Bay**					
1.9.01	Ambulance Bay	1	100.0	100.0	- Enclosed; heated; 1-way drive through; wall storage; shelving; straight access into the bay (ensure turning radius is met); provide direct access from the bay to the ED; automated door openers (from exterior and into the ED)	-
1.9.02	Ambulance Entrance	1	11.0	11.0	- Easy visible connection to triage, bypass to trauma/resuscitation	-
Emergency: Ambulance Bay				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				111.0	**1.1**	**122.1**

1A.1.5.1(2) **Clinical Decision Unit**

2.0 Clinical Decision Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
2.1.0	**Patient Area**					
2.1.01	Clinical Decision Patient Area	4	11.0	44.0	- 3-walled room with glazed sliding door with ligature resistant curtain track system; headwall with medical gases (per Appendix 1M); call and emergency buttons; CCTV; small Workstation; data; electrical considerations; PACS viewing; stretchers; cardiac monitor; ceiling lift; guest chair (1); IV pole & pump; otoscope; ophthalmoscope; hand hygiene sink; ceiling mounted exam light	- Same as Monitored E/T; - critically trained Staff
2.1.02	Patient Washroom	1	6.0	6.0	- Accessible 3-piece washroom (toilet, sink, shower)	- close to CDU
-	Charting Area	Shared with Emergency Department				
-	Linen Alcove	Shared with Emergency Department				
-	Touchdown Workstation	Shared with Emergency Department				
-	Staff Washroom	Shared with Emergency Department				
Clinical Decision Unit: Patient Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				50.0	**-**	**50.0**

2.0 Clinical Decision Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
2.2.0	**Clinical and Staff Support**					
Medication						
-	Medication Room	Shared with Emergency Department				
Equipment and Supply Storage						
-	Equipment Storage	Shared with Emergency Department				
-	Clean Utility	Shared with Emergency Department				
Environmental Services						
-	Soiled Utility	Shared with Emergency Department				
-	Housekeeping Closet	Shared with Emergency Department				
Work Space						
-	Clinical Workstations	Shared with Emergency Department				
-	Physician Work Area	Shared with Emergency Department				
-	Business Centre	Shared with Emergency Department				
-	Breakout Room	Shared with Emergency Department				
-	Meeting / Education Room	Shared with Emergency Department				
-	Staff Lounge	Shared with Emergency Department				
Lockers and Washroom						
-	Locker Room with Change Areas	Shared with Emergency Department				
-	Staff Washroom	Shared with Emergency Department				
Clinical Decision Unit: Clinical and Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				-	**-**	**-**
Total Clinical Decision Unit Area				**50.0**	-	**50.0**

1A.2 AMBULATORY CARE SERVICES

This specification outlines the functional, operational, and physical requirements for the visiting specialists, cancer clinic, IV therapy, and respiratory services, known as ambulatory care services (AS).

1A.2.1 FUNCTIONAL DESCRIPTION

1A.2.1.1 Statement of Purpose

1A.2.1.1(1) The Authority has a vision to create an effective and efficient healthcare network by developing an integrated approach that co-locates the visiting specialists, cancer clinic, IV therapy, and respiratory services in proximity to acute care, emergency department (ED), diagnostic imaging (DI), and the clinical laboratory (lab).

1A.2.1.1(2) As a result of the growth documented at the Facility and the need to expand align ambulatory clinics and therapy services at various locations, services will be brought together to provide increased Patient convenience, better care through increased collaboration among care providers and improved operational efficiencies.

1A.2.1.1(3) The Facility will provide ambulatory services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.2.1.2 Scope of Services

1A.2.1.2(1) **Functional Content**

1A.2.1.2(1)(a) Accommodate scheduled visits by Patients which can be vary in terms of the nature and scope of each visit.

1A.2.1.2(1)(b) Consolidate ambulatory care services into a purpose designed area that allows for optimizing resources and maximizes flexibility in a shared area.

1A.2.1.2(1)(c) Optimize the utilization of clinic space by allowing for exam and procedure rooms to be used for the broadest possible range of treatments.

1A.2.1.2(1)(d) Share space and Staff roles, such as Patient check-in and waiting, to improve Patient waits and improve the utilization of nursing, support Staff, and space by ensuring flexibility and throughput in the clinics.

1A.2.1.2(2) The following services are included within the AS component:

1A.2.1.2(2)(a) Visiting Specialists

1A.2.1.2(2)(a)(i) Visiting specialist clinics will be relocated to AS and will include dermatology, pediatrics, rheumatology, and urology. The anticipated services provided here include but are not limited to, 1-on-1 consultations, group counselling, follow-up, telehealth, minor procedures (those that require only local anesthetic), chronic disease management, multi-disciplinary consultations with nutritionists, pharmacist, and rehabilitation therapists.

1A.2.1.2(2)(b) Cancer Clinic

1A.2.1.2(2)(b)(i) Chemotherapy will provide care for oncology Patients who are potentially immunosuppressed which cannot be provided outside of the hospital environment. Chemotherapy Patients are a unique group of ambulatory Patients. Providing comfort and support for Patients in all stages of chemotherapy treatment, from the newly diagnosed with cancer, to the Patient going through the final Outpatient treatment must be a priority.

1A.2.1.2(2)(b)(ii) Cancer Clinic will also provide telehealth, tele-consult, and video-conferencing space for Patients and families to connect with specialists and other healthcare providers.

1A.2.1.2(2)(b)(iii) IV therapies and non-cancer related infusion therapy will not occur in this area.

1A.2.1.2(2)(c) IV Therapy

1A.2.1.2(2)(c)(i) Dedicated IV therapy and non-cancer related infusion therapy services and space will be consolidated in one location within AS.

1A.2.1.2(2)(c)(ii) After hours IV therapy will take place in the Emergency Department due to Staff availability.

1A.2.1.2(2)(d) Respiratory Services

1A.2.1.2(2)(d)(i) The Respiratory Services will provide clinic visits, pulmonary function testing (PFT), and stress testing.

1A.2.1.2(3) **Planning Assumptions**

1A.2.1.2(3)(a) An electronic medical record (EMR) system will be implemented prior to moving into the Facility.

1A.2.1.2(3)(a)(i) The EMR will be a secure, integrated collection of a person's encounters with the health care system and provide a comprehensive digital view of a Patient's health history that links clinics, hospitals, pharmacies, and other points of care.

1A.2.1.2(3)(b) Planning assumes that Facility operations will continue to utilize the integrated booking/scheduling system where each department schedules their own appointments (e.g. visiting specialists clerk books their own appointments).

1A.2.1.2(4) **Excluded**

1A.2.1.2(4)(a) Minor procedures and scope-based procedures (e.g. minor plastic surgery, cataract removal, bronchoscopy, cystoscopy, and colposcopy).

1A.2.2 OPERATIONAL DESCRIPTION

1A.2.2.1 Hours of Operation

1A.2.2.1(1) AS will be available Monday to Friday, from 0800-1600.

1A.2.2.2 Organization & Management

1A.2.2.2(1) Visiting Specialists is managed by the health information management coordinator.

1A.2.2.2(2) Cancer Clinic is managed by the manager of Patient services.

1A.2.2.2(3) IV Therapy is managed by the manager of Patient services.

1A.2.2.2(4) Respiratory Services are managed by the director of care.

1A.2.2.3 Workflow

1A.2.2.3(1) **Arrival and Intake**

1A.2.2.3(1)(a) Patients will arrive for a scheduled appointment and proceed to central registration (either through a kiosk or registration booth) near the Building Main Entrance.

1A.2.2.3(1)(a)(i) Patients with recurring cancer and IV therapy appointments are not required to register for each appointment. After proceeding through the registration process for the first appointment, they are not required to repeat the registration process for subsequent appointments and will proceed directly to the AS reception area.

1A.2.2.3(1)(a)(ii) Cancer Clinic Patients arriving for telehealth appointments are not required to register. They will proceed directly to the AS reception area.

1A.2.2.3(1)(a)(ii)A Minimize cancer care Patient travel paths to bypass AS and more direct to cancer care to alleviate exposure to the public.

1A.2.2.3(1)(a)(iii) Visiting Specialist and respiratory Patients must register for each appointment.

1A.2.2.3(1)(b) Patients may need specimen collection and/or diagnostic imaging prior to their appointment.

1A.2.2.3(1)(b)(i) Patients will visit the specimen collection area in the lab and/or receive their diagnostic procedure prior to arrival at AS.

1A.2.2.3(1)(b)(ii) In some cases, Patients in visiting specialists may require specimen collection and/or diagnostic imaging during the appointment. In these cases, Patients would walk themselves to the approach area for collection and/or testing.

1A.2.2.3(1)(c) Following registration, Patients will check-in at the AS at the reception desk.

1A.2.2.3(1)(d) Visiting Specialist Patients, IV Therapy Patients, and Respiratory Patients will wait in the shared waiting area for their schedule visit.

1A.2.2.3(1)(e) Cancer Clinic Patients will be directed to the Cancer Clinic waiting area for their visit.

1A.2.2.3(1)(e)(i) Depending on the design, the shared waiting area could be sub-divided so that each of the services has its own, dedicated waiting room adjacent to the program spaces.

1A.2.2.3(2) **Process**

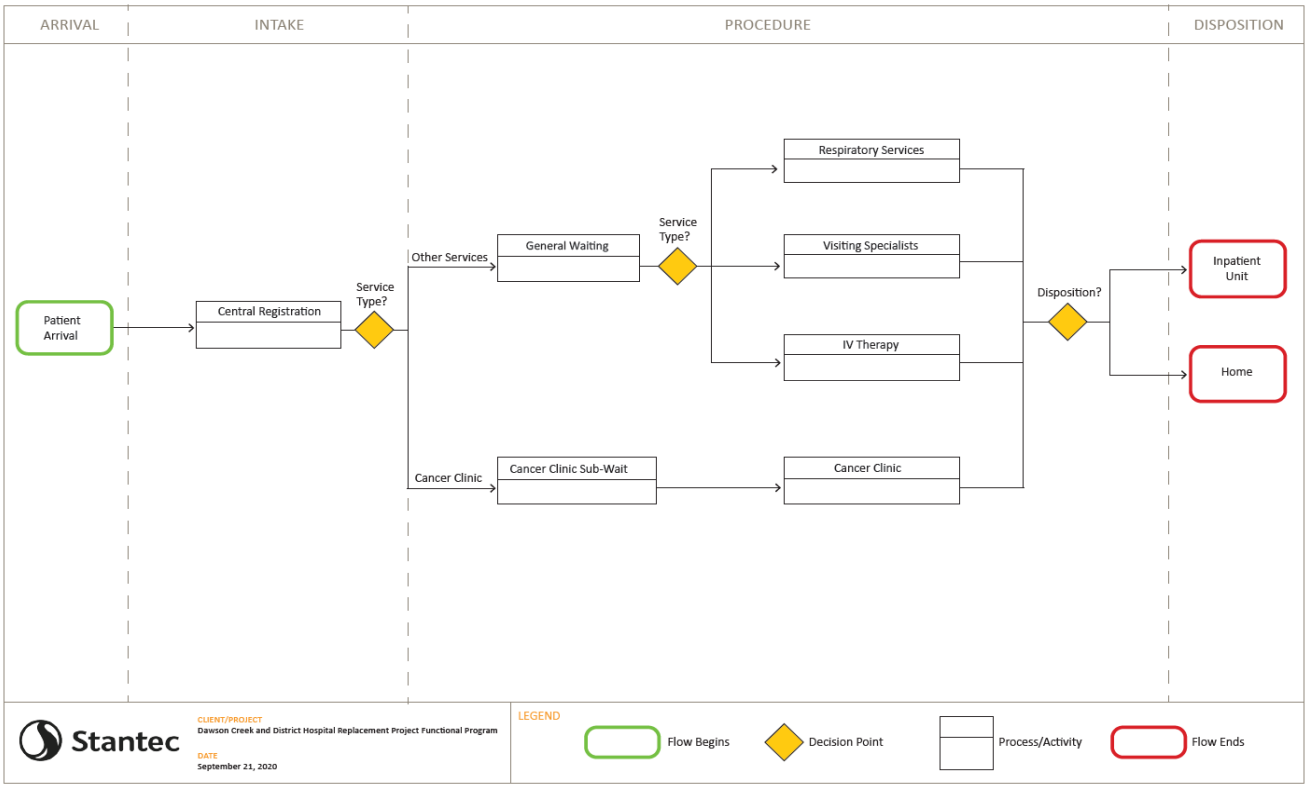
1A.2.2.3(2)(a) Patients will be called to their service location; Cancer Clinic, IV Therapy, Visiting Specialists, or Respiratory services for their appointment.

1A.2.2.3(2)(a)(i) The services provided here include multi-disciplinary team members including Pharmacy, Rehabilitation, telehealth consultations, etc.

1A.2.2.3(3) **Future State Flow**

1A.2.2.3(3)(a) The future state flow maps below describe the key flows for the future model of care for ambulatory care services.

Dawson Creek and District Hospital Replacement Project - Functional Program - AMBULATORY CARE SERVICES - Future State Flow Map



1A.2.2.4 Support Activities

1A.2.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.2.2.4(2) **Clinical Laboratory**

1A.2.2.4(2)(a) If STAT specimens are required, they will be collected by lab technicians in all AS areas.

1A.2.2.4(2)(b) Non-urgent specimens will be collected in the specimen collection area in the lab.

1A.2.2.4(3) **Diagnostic Imaging**

1A.2.2.4(3)(a) AS Patients will be accessing the Facility Diagnostic Imaging as required.

1A.2.3 STAFFING

1A.2.3.1 Estimated future Staffing for ambulatory care services is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Ambulatory Services: Projected Staffing	
Staff / Position	**Projected FTE**
Visiting Specialists	
DC1 Nurse	1.0
Clerk IV (A)	1.0
Social Services Assistant (Aboriginal Liaison work)	1.0
Cancer Clinic (need to add clerk, 1 FTE)	
DC1 nurse	4.0
Nursing Unit Assistant	1.0
IV Therapy	
DC1 nurse	1.0
Respiratory Services	
Respiratory Therapist II	1.5
Total Ambulatory Services Staffing	**10.5**

1A.2.4 DESIGN CRITERIA

1A.2.4.1 External Relationships

1A.2.4.1(1) AS Patients arriving from the Building Main Entrance will access AS services through general Facility circulation.

1A.2.4.1(2) AS Patients arriving from registration will access AS services through general Facility circulation (public corridors).

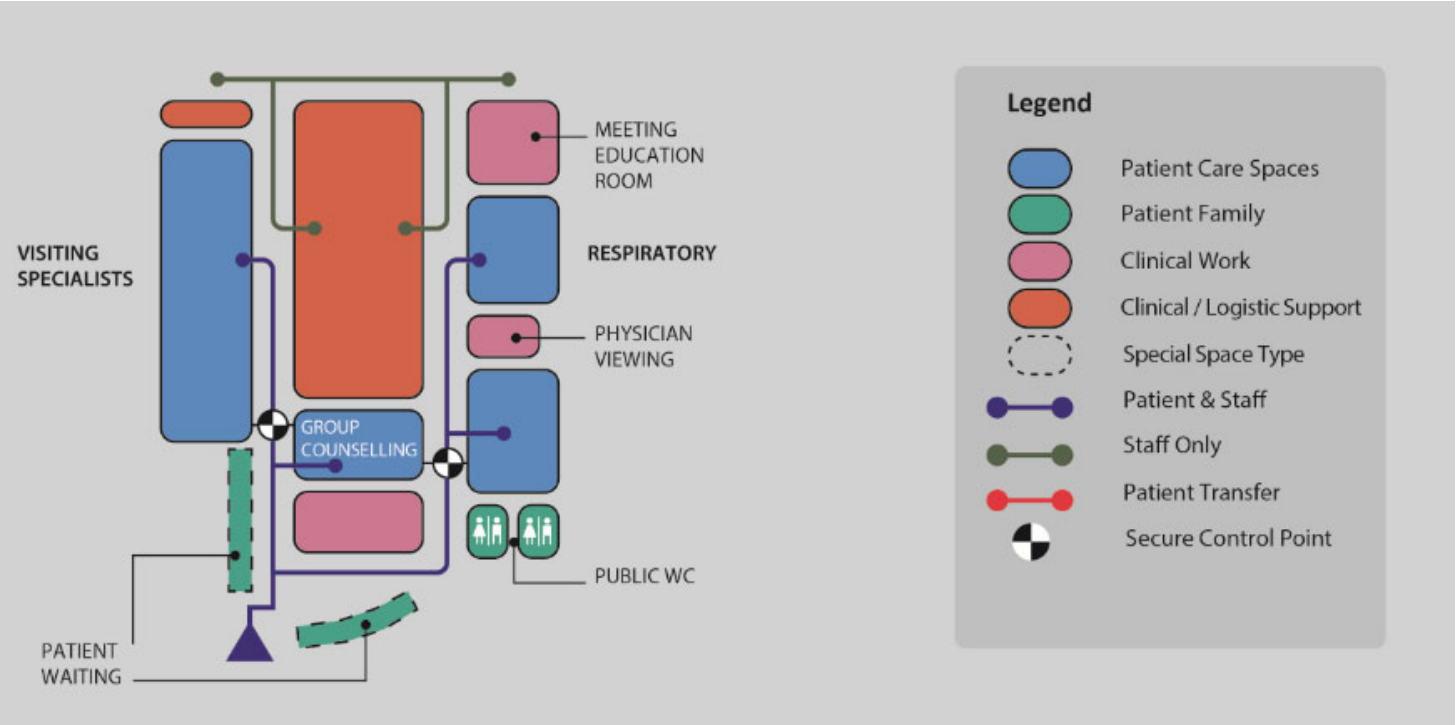
1A.2.4.1(3) **Cancer Clinic**

1A.2.4.1(3)(a) Hazardous sterile chemotherapy product arriving from pharmacy will access AS services through controlled Facility circulation. Supplies, equipment, and other medications may access AS services through general Facility circulation.

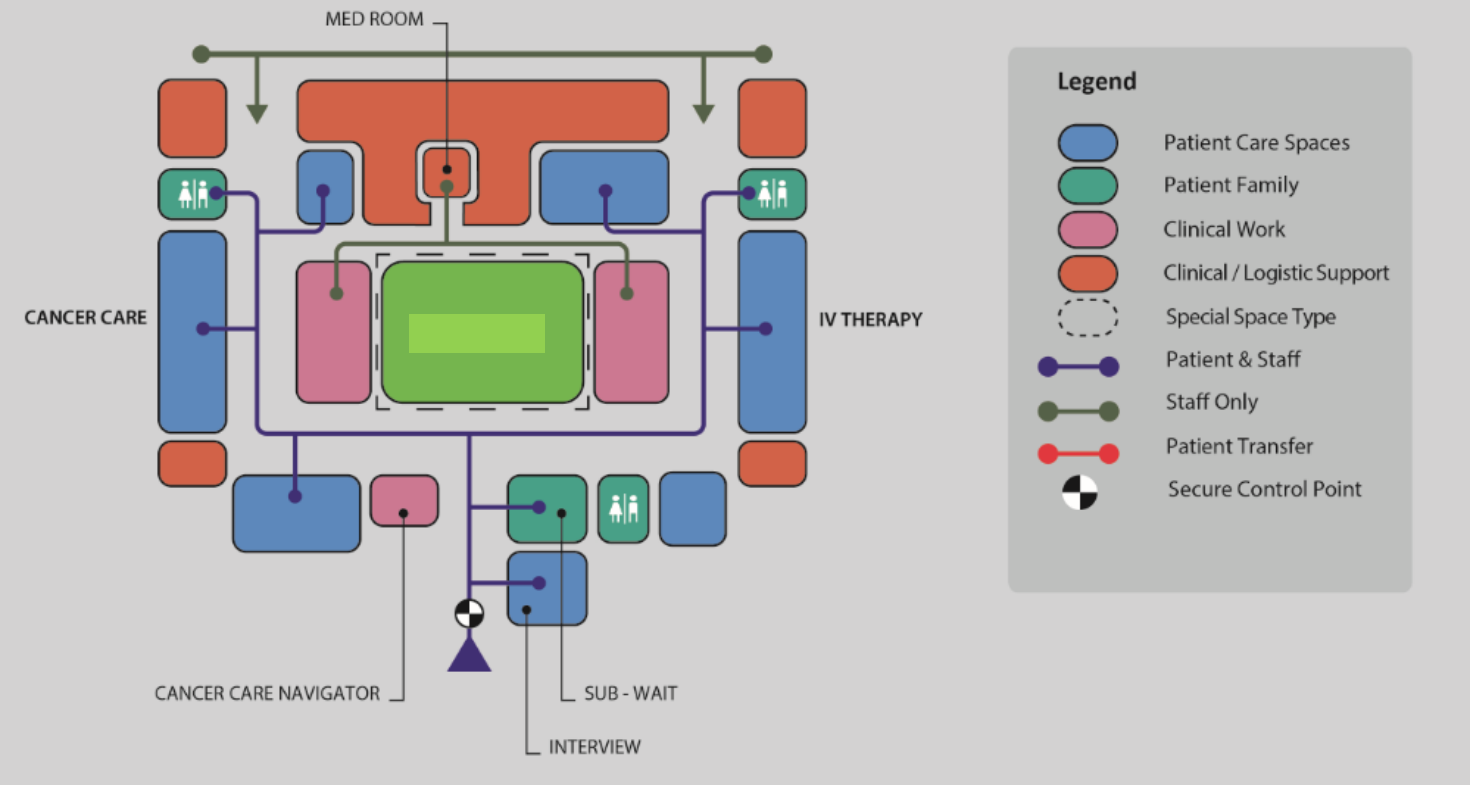
1A.2.4.1(4) To the extent possible, the delivery of supplies, equipment, laundry, and medications to AS may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.2.4.2 Functional Relationship Diagram

1A.2.4.2(1) Functional relationships between key areas will be generally as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.2.4.2(2) **Cancer Clinic**



1A.2.4.3 Internal Design Criteria

1A.2.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.2.4.3(2) Due to the size of the AS services, many support spaces are shared between services (medication room, soiled utility, clean utility, housekeeping, Staff support spaces). The design must provide adequate access for all services to the support spaces, as defined.

1A.2.4.3(3) **Reception / Check-In**

1A.2.4.3(3)(a) The entrance to AS will be visible from and adjacent to the Building Main Entrance.

1A.2.4.3(3)(b) Patients will register at the central registration, then be directed verbally by the registration clerk (if applicable) and by visual cues to the AS reception area where they will check in for their appointment.

1A.2.4.3(3)(c) AS Reception Area

1A.2.4.3(3)(c)(i) Accommodate a clear view from the entrance to the AS area to the AS reception area.

1A.2.4.3(3)(c)(ii) Provide security and safety for Staff by accommodating egress if presented with a security issue.

1A.2.4.3(3)(c)(iii) Accommodate a configuration that facilitates confidential conversations between the Patient and the Staff member.

1A.2.4.3(3)(c)(iv) Provide file cabinet(s) in a secure, non-public area.

1A.2.4.3(4) **Waiting Areas**

1A.2.4.3(4)(a) Provide a minimum of two (2) waiting areas in AS.

1A.2.4.3(4)(a)(i) A dedicated cancer clinic waiting area so that immunocompromised Patients can be separated from the other Patients.

1A.2.4.3(4)(a)(ii) A shared waiting area for visiting specialists, IV therapy, and respiratory services.

1A.2.4.3(4)(a)(ii)A Depending on design, the waiting space designated for visiting specialists, IV therapy, and respiratory services can be sub-divided into dedicated waiting areas for each service.

1A.2.4.3(4)(b) Each waiting area will:

1A.2.4.3(4)(b)(i) be adjacent to the service area.

1A.2.4.3(4)(b)(ii) be provided with comfortable seating.

1A.2.4.3(4)(b)(iii) be provided with access to wireless internet.

1A.2.4.3(4)(b)(iv) be provided with large screen displays for clinic and health information.

1A.2.4.3(5) **Ambulatory Services Environment**

1A.2.4.3(5)(a) Provide visual and auditory privacy throughout all areas.

1A.2.4.3(5)(b) Reduce noise and traffic through the treatment spaces as much as possible.

1A.2.4.3(5)(c) Provide wireless communication tools will be provided for keeping team members, Patients, and family/visitors connected, informed, and safe.

1A.2.4.3(5)(d) Provide strategically located hand hygiene sinks throughout the department.

1A.2.4.3(6) **Cancer Clinic and IV Therapy**

1A.2.4.3(6)(a) The following will be provided in each of the chemotherapy and IV therapy treatment spaces:

1A.2.4.3(6)(a)(i) Provide natural lighting and views to the outdoors.

1A.2.4.3(6)(a)(ii) Fully reclinable chair or stretcher.

1A.2.4.3(6)(a)(iii) Oxygen and suction capabilities (per Appendix 1M).

1A.2.4.3(6)(a)(iv) Call and emergency bells.

1A.2.4.3(6)(a)(v) IV pole.

1A.2.4.3(6)(a)(vi) Acid resistant drains.

1A.2.4.3(6)(a)(vii) Cytotoxic bins (chemotherapy only).

1A.2.4.3(6)(a)(viii) Ability to charge personal devices.

1A.2.4.3(6)(a)(ix) Accommodate a comfortable guest chair with back (not a recliner).

1A.2.4.3(6)(b) The chemotherapy and IV therapy areas will have the following requirements:

1A.2.4.3(6)(b)(i) Accommodate an open care environment without the use of any partitions or curtains to separate Patient areas. Provide mobile screens for Patient privacy.

1A.2.4.3(6)(b)(i)A In cases where some visual privacy is required, mobile screens will be provided and will be stored in adjacent equipment storage room.

1A.2.4.3(6)(b)(i)B Not used.

1A.2.4.3(6)(b)(ii) Provide direct observation of all chemotherapy treatment spaces and interview room from the clinical Workstation, charting areas, and medication room.

1A.2.4.3(6)(b)(iii) Provide direct observation of all IV therapy treatment spaces from the clinical Workstations and charting areas.

1A.2.4.3(6)(b)(iv) Provide low sills in IV Therapy treatment spaces so Patients are able to enjoy the view sitting or lying down, and sills will not exceed 900mm AFF for windows that are immediately adjacent to Patients. For both IV Therapy and Chemotherapy treatment spaces the following will also apply:

1A.2.4.3(6)(b)(iv)A If these windows are located on the ground floor and in an area on the site where the public can see into the department, provide privacy considerations such as reflective finishes on the exterior windows and/or window coverings.

1A.2.4.3(6)(b)(iv)B Provide glare control from any windows other than those that are north facing.

1A.2.4.3(6)(b)(v) To create future flexibility for IV therapy and chemotherapy areas, the open treatment spaces have been described with identical sizes and with similar requirements. Should the growth of either service exceed

the capacity, there will be flexibility to utilize additional bays. This requires an adjacency between the services.

1A.2.4.3(6)(c) Enclosed Chemotherapy Room with Isolation Capability

1A.2.4.3(6)(c)(i) Provide all requirements described for the chemotherapy treatment spaces.

1A.2.4.3(6)(c)(ii) The isolation capable chemotherapy exam / treatment room will be located as close as possible to the entrance of the area.

1A.2.4.3(6)(c)(iii) Those requiring airborne isolation will be accommodated in an airborne isolation room (AIR).

1A.2.4.3(6)(c)(iv) Provide the isolation-capable room with 2 separate points of access/exit; 1 from the main circulation corridor which could be locked down when isolation is required, and a second access/egress point directly to/from the Anteroom.

1A.2.4.3(6)(c)(v) The Anteroom will be to the side of the chemotherapy exam / treatment room and not in front of the exam/treatment room. The Anteroom will not form a vestibule in front of the chemotherapy exam / treatment room.

1A.2.4.3(6)(c)(vi) The Patient entrance to the isolation room will be directly onto the corridor. There will be a window from the Anteroom into the chemotherapy exam / treatment room.

1A.2.4.3(6)(d) Interview Room

1A.2.4.3(6)(d)(i) The Interview Room will be located as close as possible to the entrance of the area.

1A.2.4.3(6)(d)(ii) Provide full multi-media capable services and built-in telehealth requirements (i.e. equipment, lighting, sound, etc.).

1A.2.4.3(6)(e) Staff

1A.2.4.3(6)(e)(i) Charting areas will be provided adjacent to chemotherapy treatment spaces.

1A.2.4.3(6)(e)(ii) Clinical and Physician Workstations will be clustered (collaboration station) with direct observation (full frontal view) of all chemotherapy treatment spaces and be in close proximity to Staff support areas (e.g. meeting/education room, washroom, etc.).

1A.2.4.3(7) **Visiting Specialists**

1A.2.4.3(7)(a) Each Exam / Treatment Room will:

1A.2.4.3(7)(a)(i) be a 4-walled room with door.

1A.2.4.3(7)(a)(i)A Glazed sliding doors with ligature resistant curtain track system are required for Exam / Treatment Rooms including 4.2.02 Chemotherapy Exam/Treatment - Enclosed Room.

1A.2.4.3(7)(a)(i)B Provide security and safety for Staff by accommodating a second egress point if presented with a security issue.

1A.2.4.3(7)(a)(ii) accommodate an exam table and be provided with a ceiling mounted exam light.

1A.2.4.3(7)(a)(iii) be provided with call and emergency buttons.

1A.2.4.3(7)(a)(iv) be provided with a small clinical Workstation, built-in cabinetry for point-of-use supplies, monitor, and accommodate PACS viewing (a clinical viewing unit), two (2) guest chairs, and a care provider chair.

1A.2.4.3(7)(a)(v) be provided with built-in telehealth capability (i.e. equipment, lighting, sound, etc.).

1A.2.4.3(7)(a)(vi) accommodate an IV pole & pump.

1A.2.4.3(7)(a)(vii) accommodate otoscope and ophthalmoscope.

1A.2.4.3(7)(a)(viii) be provided with a hand hygiene sink.

1A.2.4.3(7)(a)(ix) be provided with a cannister for dermatologist requirements in one (1) of the Exam / Treatment Rooms.

1A.2.4.3(7)(b) Telehealth

1A.2.4.3(7)(b)(i) Accommodate up to 4 - 6 people for with a lightweight and movable table and chairs.

1A.2.4.3(7)(b)(ii) Not used.

1A.2.4.3(7)(b)(iii) Provide full multi-media capable services and built-in telehealth requirements (i.e. equipment, lighting, sound, etc.).

1A.2.4.3(7)(c) Phototherapy Booth

1A.2.4.3(7)(c)(i) The phototherapy booth is used by the visiting dermatologist and will be provided with all electrical, ventilation, and lighting requirements.

1A.2.4.3(8) **Respiratory Services**

1A.2.4.3(8)(a) Exercise / Stress Testing Room will

1A.2.4.3(8)(a)(i) Accommodate one (1) treadmill with access on both sides.

1A.2.4.3(8)(a)(ii) Accommodate a stress metabolic test system.

1A.2.4.3(8)(a)(iii) Accommodate the ability for physician viewing in the room.

1A.2.4.3(8)(a)(iv) Accommodate a vital signs monitor and blood pressure monitor.

1A.2.4.3(8)(a)(v) Be provided with oxygen.

1A.2.4.3(8)(a)(vi) Accommodate a crash cart with unimpeded access and charging and data requirements.

1A.2.4.3(8)(a)(vii) Be provided with a small Workstation, built-in cabinetry for point-of-use supplies, monitor, and accommodate two (2) guest chairs and a care provider chair.

1A.2.4.3(8)(a)(viii) Accommodate the ability to accommodate PFT testing equipment to manage surges in PFT procedure demand.

1A.2.4.3(8)(a)(ix) Accommodate a blood gas analyzer.

1A.2.4.3(8)(b) Pulmonary function testing (PFT) room will

1A.2.4.3(8)(b)(i) Accommodate an equipment spirometer and over chair table.

1A.2.4.3(8)(b)(ii) Accommodate a floor scale, vital signs monitor, and blood pressure monitor.

1A.2.4.3(8)(b)(iii) Be provided with a small Workstation, built-in cabinetry for point-of-use supplies, monitor, and accommodate two (2) guest chairs and a care provider chair.

1A.2.4.3(8)(b)(iv) Provide mechanical and HVAC requirements per standards for this space.

1A.2.4.3(8)(c) Staff

1A.2.4.3(8)(c)(i) Clinical and physician Workstations will be clustered (collaboration station) with direct observation to the exercise / stress testing room and PFT room and be in close proximity to Staff support areas (e.g. meeting/education room, washroom, etc.).

1A.2.5 SCHEDULE OF ACCOMMODATION

1A.2.5.1 Space requirements for this component are identified in the tables below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

1A.2.5.1(1) **Visiting Specialists**

3.0 Visiting Specialists: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
3.1.0	**Reception and Waiting Area**					

3.0 Visiting Specialists: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
3.1.01	Reception Desk	1	4.6	4.6	- Accessible millwork counter; chair, computer, phone, data	- Shared with IV Therapy, Cancer Clinic, and Respiratory Therapy
3.1.02	Waiting Area	1	35.0	35.0	- Accommodates 20 people; ability to create zones to separate infectious persons	- may be divided into 2-3 smaller waiting areas
3.1.03	Public Washroom	1	7.0	7.0	- Accessible 2-piece washroom (toilet, sink); baby change area	
3.1.04	Storage Alcove: Wheelchairs	4	0.6	2.4	- Open area	
Visiting Specialists: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				49.0	**1.35**	**66.2**
3.2.0	**Visiting Specialists - Patient Care Area**					
3.2.01	Exam/Treatment Room	5	13.0	65.0	- Fully enclosed space; accommodate telehealth; exam table; ceiling mounted light; Workstation; PACS viewing; hand hygiene sink; 2 guest chairs; emergency call button; data; ensure acoustical and lighting facilitates telehealth	-
3.2.02	Exam/Treatment Room	1	13.0	13.0	- Assume cast cutter and specialized sink; ceiling mounted light	-
3.2.03	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	- shared by the Exam / Treatment Rooms
3.2.04	Exam/Treatment Room - Bariatric	1	17.0	17.0	- Fully enclosed space; accommodate telehealth; Bariatric exam table; ceiling mounted light; Workstation; PACS viewing; hand hygiene sink; 2 guest chairs; emergency call button; data; ensure acoustical and lighting facilitates telehealth	-
3.2.05	Patient Washroom - Bariatric	1	6.0	6.0	- Accessible 2-piece washroom (toilet, sink)	-
3.2.06	Charting Area	2	1.8	3.6	- Chair, computer station, counter space, PACS	-
3.2.07	Telehealth	1	11.0	11.0	- Telehealth and multimedia capable; light weight table and chairs	- Shared space for Ambulatory Services
3.2.08	Phototherapy Booth	1	10.0	10.0	- Provide data, electrical, and lighting requirements	-
3.2.09	Alcove: Vital Signs and Blood Pressure Monitor	2	0.6	1.2	- Storage with data and charging capability	-

3.0 Visiting Specialists: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
3.2.10	Procedure Cart Storage Alcove	1	10.5	10.5	- Storage 6-7 carts including suture, ENT, Ortho (casting), Gyne, pediatrics, etc.; provide data and charging requirements.	- could be centralized
3.2.11	Alcove: Floor Scale	1	1.0	1.0		-
3.2.12	Telehealth	1	9.0	9.0	- Telehealth and multimedia capable; light weight table and chairs	- Shared space for Ambulatory Services
-	Interview Room	Shared IV Therapy, Cancer Clinic, and Respiratory				
-	Minor Procedures Room	Not required as Exam / Treatment Rooms accommodate overhead light and cart storage is provided				
-	Rehabilitation Services	Provided in the Rehabilitation Area				
Visiting Specialists: Patient Care Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				151.9	**1.40**	**212.7**
3.3.0	**Clinical Support**					
Medication						
-	Medication Room	- Shared IV Therapy, Cancer Clinic, and Respiratory				
Equipment and Supply Storage						
3.3.01	Equipment Storage	1	15.0	15.0	- Provide shelving and charging requirements; portable lift	
3.3.02	Clean Utility	1	11.0	11.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	- Shared IV Therapy, Cancer Clinic, and Respiratory
Environmental Services						
3.3.03	Soiled Utility	1	12.0	12.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and counter tops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste; medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink; eye wash station	- Shared IV Therapy, Cancer Clinic, and Respiratory

3.0 Visiting Specialists: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
3.3.05	Housekeeping Room	1	11.0	11.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board, floor cleaner; eye wash station	- Shared IV Therapy, Cancer Clinic, and Respiratory
Visiting Specialists: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				49.0	**1.35**	**66.2**
3.4.0	**Staff Support**					
Work Space						
3.4.01	Clinical Workstation	2	3.0	6.0	- Chair, accessible millwork counter; computer, phone, data, shared label printer, PACS, cabinets, secured chart storage cabinet; and wire rack shelving for storage	-
3.4.02	Physician Work Area	2	4.6	9.2	- Chair, accessible millwork counter/workspace, data, phone); open or closed touchdown space for physicians (dictation); provide acoustic and privacy requirements	- Shared IV Therapy, Cancer Clinic, and Respiratory
3.4.03	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots	- Shared IV Therapy, Cancer Clinic, and Respiratory
3.4.04	Breakout Room	1	10.0	10.0	- Small, unbookable room to facilitate open Workstation environment; 4 chairs; table; multimedia capable	- Shared IV Therapy, Cancer Clinic, and Respiratory
3.4.05	Meeting / Education Room	1	28.0	28.0	- Accommodates 15-18 people; lightweight and movable tables & chairs; multi-media capable	- Shared IV Therapy, Cancer Clinic, and Respiratory
3.4.06	Staff Lounge	1	20.0	20.0	- Soft seating for 8-10 Staff; - Kitchenette with refrigerator, microwave, cabinets, counter space, tables, chairs, double sink; - PC station, TV	- Shared IV Therapy, Cancer Clinic, and Respiratory

3.0 Visiting Specialists: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Lockers and Washroom						
3.4.07	Locker Room with Change Areas	1	14.0	14.0	- 12 half lockers; boot and coat storage; 1 change cubicle with hooks on the wall and a small millwork bench for seating	- Shared IV Therapy, Cancer Clinic, and Respiratory
3.4.08	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	-
Visiting Specialists: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				98.8	**1.35**	**133.4**
Total Visiting Specialists Area				**348.7**		**478.3**

1A.2.5.1(2) **Cancer Clinic**

4.0 Cancer Clinic: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
4.1.0	**Reception and Waiting Area**					
4.1.01	Sub-Waiting	1	9.0	9.0	- Accommodates 6 people	- After check-in at reception
4.1.02	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink); baby change area	- adjacent to sub-waiting area
-	Reception Desk	Shared with Visiting Specialists, IV Therapy, and Respiratory Therapy				
Cancer Clinic: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				13.6	**1.35**	**18.4**
4.2.0	**Treatment Area**					
4.2.01	Chemotherapy Exam/Treatment - Open	5	7.5	37.5	- Open area; acid resistant drains; Patient monitor; digital viewing - media capability; Staff stool; overbed table; guest chair; high-intensity light (integrated); medical gases (per Appendix 1M); IV pole; call bells; cytotoxic bins	-
4.2.02	Chemotherapy Exam/Treatment - Enclosed Room	1	13.0	13.0	- Acid resistant drains; Patient monitor; digital viewing - media capability; Staff stool; overbed table; guest chair; high-intensity light (integrated);medical gases (per Appendix 1M); IV pole; call bells; cytotoxic bins	-
4.2.03	Isolation Anteroom	1	5.0	5.0	- Hand hygiene sink, shelving for gowns, gloves, masks, biohazard collection, soiled linen hamper; millwork shelf (458mm x 610mm) above the linen hamper	-

4.0 Cancer Clinic: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
4.2.04	Isolation Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	- Dedicated to Cancer Clinic
4.2.05	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	- Dedicated to Cancer Clinic
4.2.06	Eye Wash Emergency Shower	1	2.0	2.0	- Floor drain, drench hose	- Readily accessible from Patient area
4.2.07	Hand Hygiene Sink	1	1.0	1.0	- Hands free	- Adjacent to entrance/exit
4.2.08	Charting Area	3	1.8	5.4	- Mobile charting	- 1 per 2 exam/treatment spaces
4.2.09	Nourishment Alcove	1	3.0	3.0	- Double sink, refrigerator, microwave, counter space, cabinets; ice machine; freezer for ice packs;	- Shared with IV Therapy
4.2.10	Interview Room	1	11.2	11.2	- Telemedicine consult; videoconference space	- Shared with AS
-	Telehealth Room	Shared with Ambulatory Care (in Visiting Specialists Exam/Treatment Rooms space list)				
Cancer Clinic: Treatment Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				87.3	**1.45**	**126.6**
4.3.0	**Clinical Support**					
Medication						
-	Medication Room	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Respiratory Services)				
-	IV Admixture Suite for Chemotherapy	Included in Pharmacy				
Equipment and Supply Storage						
4.3.01	Equipment Storage	1	10.0	10.0	- Provide shelving and charging requirements	-
4.3.02	Alcove: Floor Scale	1	1.0	1.0		-
4.3.03	Alcove: Vital Signs and Blood Pressure Monitor	2	0.6	1.2	- Storage with data and charging capability	-
-	Clean Utility	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Respiratory Services)				
-	Crash Cart Alcove	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Respiratory Services)				
4.3.04	Cart / Storage Alcove	2	1.5	3.0	- supply carts; shelving, data, and charging requirements; IV pumps	-
4.3.05	Linen Alcove	1	2.0	2.0	-large mobile carts of clean linen; cannot be located underneath an electrical panel	-
4.3.06	Warming Cupboard	1	1.5	1.5	- power and data requirements	-
Environmental Services						
-	Soiled Utility	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Respiratory Services)				
-	Housekeeping Closet	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Respiratory Services)				

4.0 Cancer Clinic: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Cancer Clinic: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				18.7	**1.35**	**25.2**
4.4.0	**Staff Support**					
Work Space						
4.4.01	Workstation: Cancer Care Navigator	1	4.6	4.6	- Chair, workspace, accessible millwork counter, data connection, phone, cabinet	-
4.4.02	Clinical Workstation	1	3.0	3.0	- Chair, workspace, accessible millwork counter; data connection, phone, cabinet, and wire rack shelving for storage; electronic signage with auditory signal and a digital display message from 5.0 IV Therapy 5.3.01 Medication Room	-
4.4.03	Physician Work Area	1	4.6	4.6	- Chair, workspace, data, phone; open or closed touchdown space for physicians (dictation); provide acoustic and privacy requirements	- Shared IV Therapy, Cancer Clinic, and Respiratory
4.4.04	Office: Pharmacist	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data	
-	Business Centre	Shared with Ambulatory Care (in Visiting Specialists space list)				
-	Meeting / Education Room	Shared with Ambulatory Care (in Visiting Specialists space list)				
-	Staff Lounge	Shared with Ambulatory Care (in Visiting Specialists space list)				
Lockers and Washroom						
-	Locker Room with Change Areas	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
4.4.05	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	Shared with IV Therapy
Cancer Clinic: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				26.8	**1.35**	**36.2**
Total Cancer Clinic Area				**146.4**		**206.4**

1A.2.5.1(3) **IV Therapy**

5.0 IV Therapy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
5.1.0	**Reception and Waiting Area**					
-	Waiting Area	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Public Washroom	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Reception Desk	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				

5.0 IV Therapy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
IV Therapy: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
5.2.0	**Treatment Area**					
5.2.01	IV Therapy Exam/Treatment Area - Open	6	7.5	45.0	- open area; acid resistant drains; digital viewing - media capability; monitor, family space; Staff stool; overbed table; guest chair; high-intensity light (integrated);medical gases (per Appendix 1M); call bells; 5x recliner chairs, 1x stretcher	
5.2.02	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	- Dedicated to IV Therapy
5.2.03	Hand Hygiene Sink	1	1.0	1.0	- Hands free	- Adjacent to entrance/exit
5.2.04	Charting Area	3	1.8	5.4	- Chair, shelving, counter space	- 1 per 2 exam/treatment spaces
-	Nourishment Alcove	Shared with Cancer Clinic				
-	Interview Room	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Telehealth Room	Shared with Ambulatory Care (in Visiting Specialists Exam/Treatment Rooms space list)				
IV Therapy: Treatment Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				56.0	**1.40**	**78.4**
5.3.0	**Clinical Support**					
Medication						
5.3.01	Medication Room	1	16.4	16.4	- Refrigerator/freezer; multi-cart storage; secured; hand hygiene sink; computer; automated medication dispensing; emergency eye wash station; Secure pass-through connecting Medication Room w/ adjoining 14.3.10 Checking Area; electronic signage with auditory signal and a digital display message in 4.4.02 Clinical Workstation; millwork storage cabinet; wall mounted Workstation	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)
Equipment and Supply Storage						
5.3.02	Equipment Storage	1	8.0	8.0	- Provide shelving and charging requirements; vein finder	-
-	Clean Utility	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
5.3.03	Cart / Storage Alcoves	2	1.5	3.0	- Provide shelving, data, and charging requirements	-

5.0 IV Therapy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Environmental Services						
-	Soiled Utility	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Housekeeping Closet	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
IV Therapy: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				27.4	**1.35**	**37.0**
5.4.0	**Staff Support**					
Work Space						
5.4.01	Clinical Workstation	1	3.0	3.0	- Chair, workspace, data connection, phone, cabinet, label printer, call bell hub, hand hygiene sink	-
5.4.02	Physician Work Area	1	4.6	4.6	- Chair, workspace, data, phone, cabinet, and wire rack shelving for storage; open or closed touchdown space for physicians (dictation); provide acoustic and privacy requirements	- Shared IV Therapy, Cancer Clinic, and Respiratory
-	Business Centre	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Meeting / Education Room	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Staff Lounge	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
Lockers and Washroom						
-	Locker Room with Change Areas	Shared with Ambulatory Care (Visiting Specialist, Cancer Clinic, Respiratory Services)				
-	Staff Washroom	Shared with Cancer Clinic				
IV Therapy: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				7.6	**1.35**	**10.3**
Total IV Therapy Area				**91.0**		**125.7**

1A.2.5.1(4) **Respiratory Services**

6.0 Respiratory Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
6.1.0	**Reception and Waiting Area**					
-	Waiting Area	Shared with Ambulatory Care (in Visiting Specialists space list)				
-	Public Washroom	Shared with Ambulatory Care (in Visiting Specialists space list)				
-	Reception Desk	Shared with Ambulatory Care (in Visiting Specialists space list)				

6.0 Respiratory Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Respiratory Services: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
6.2.0	**Treatment Area**					
6.2.01	Exercise / Stress Testing Room	1	23.0	23.0	- 1 treadmill with access on both sides, stress metabolic test system, computer station; stretcher; oxygen (per Appendix 1M); visiting chair, Staff stool; physician viewing in the room	- 1 test at a time
6.2.02	Crash Cart Alcove	1	0.8	0.8	- Charging requirements; unimpeded access for Staff;	- In the Exercise Stress Testing Room
6.2.03	PFT Room	1	14.0	14.0	- Accommodates equipment, spirometer, computer; charting area; oxygen (per Appendix 1M); visiting chair, Staff stool; chair; over chair table; floor scale; vital signs monitor; blood pressure monitor	-
6.2.04	Not used					
-	Interview Room	Shared with Visiting Specialists, IV Therapy, Cancer Clinic				
-	Exam/Treatment Room	Shared with Visiting Specialists				
Respiratory Services: Treatment Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				37.8	**1.40**	**52.9**
6.3.0	**Clinical Support**					
Medication						
-	Medication Room	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
Equipment and Supply Storage						
6.3.01	Respiratory Therapy Storage / Workroom	1	12.0	12.0	-Medical gases (per Appendix 1M); open floor space; charging; 4 ventilators (potentially); supplies (tubing, etc.)	
-	Clean Utility	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
6.3.02	Cart / Storage Alcove	1	0.8	0.8	- Provide shelving, data, and charging requirements	-
6.3.03	Linen Storage	1	3.0	3.0	- for clean linen; shelving; cannot be located underneath an electrical panel	-
Environmental Services						
-	Soiled Utility	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
-	Housekeeping Closet	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
Respiratory Services: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				15.8	**1.35**	**21.3**

6.0 Respiratory Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
6.4.0	**Staff Support**					
Work Space						
6.4.01	Clinical Workstation	1	6.5	6.5	- Chair, workspace, data connection, phone, cabinet, and wire rack shelving for storage	- Could be located within the PFT room
6.4.02	Physician Work Area	1	4.6	4.6	- Chair, workspace, data, phone; open or closed touchdown space for physicians (dictation); provide acoustic and privacy requirements	-
-	Business Centre	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
-	Meeting / Education Room	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
-	Staff Lounge	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
Lockers and Washroom						
-	Locker Room with Change Areas	Shared with Ambulatory Care (Visiting Specialist, IV Therapy, Cancer Clinic)				
-	Staff Washroom	Shared with Visiting Specialist				
Respiratory Services: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				11.1	**1.35**	**15.0**
Total Respiratory Services Area				**64.7**		**89.2**

1A.3 INPATIENT SERVICES

This specification outlines the functional, operational, and physical requirements for Inpatient services (medical, surgical, pediatrics, and convalescent).

1A.3.1 FUNCTIONAL DESCRIPTION

1A.3.1.1 Statement of Purpose

1A.3.1.1(1) The Facility will provide medical, surgical, pediatric, and convalescent rehabilitation Inpatient services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person- and family-centered model of care.

1A.3.1.2 Scope of Services

1A.3.1.2(1) **Functional Content**

1A.3.1.2(1)(a) Surgical Inpatients

1A.3.1.2(1)(a)(i) Post-surgical Patients will be admitted to the Inpatient Unit after recovering being recovered in the level 1 recovery area adjacent to the surgical suites.

1A.3.1.2(1)(a)(ii) The expected length of stay is relatively short with the goal of Patients ambulating as soon as possible and being discharged to continue recovery at home.

1A.3.1.2(1)(b) Medical Inpatients

1A.3.1.2(1)(b)(i) Medical Inpatients will present with a broad range of illnesses including but not limited to stroke, heart disease, and pulmonary disease.

1A.3.1.2(1)(b)(ii) Treatment will be provided primarily at bedside although Patients requiring diagnostic imaging or minor procedures will be transported to and from those areas.

1A.3.1.2(1)(b)(iii) Some diagnostic procedures may be performed in the Inpatient room using portable imaging equipment located in the unit.

1A.3.1.2(1)(b)(iv) Pediatric Patients, while not planned to be accommodated with specific infrastructure requirements, will inevitably require Inpatient services at the Facility. These Patients will be located in the Inpatient area.

1A.3.1.2(1)(c) Convalescent Inpatients

1A.3.1.2(1)(c)(i) Medical and surgical Inpatients who are at risk of deteriorating to the point where they may require long term care or who could with the provision of active rehabilitation return to their current home will be transferred to the convalescent area upon completion.

1A.3.1.2(1)(c)(ii) The space will support a more home-like environment including dining while sitting in a chair or wheelchair, socializing with other Patients one-on-one or in small groups, and therapy to support development of activities of daily living to enable self-sufficiency.

1A.3.1.2(1)(c)(ii)A This includes a co-location with Rehabilitation services to better support Inpatient services.

1A.3.1.2(2) **Planning Assumptions**

1A.3.1.2(2)(a) The following planning principles will drive the design and operations of the Inpatient services component:

1A.3.1.2(2)(a)(i) All Inpatient rooms will be single-bed rooms with private washrooms and be similarly equipped and designed.

1A.3.1.2(2)(a)(ii) Headwall design will be standardized.

1A.3.1.2(2)(a)(iii) Accommodations for Bariatric Patients and those suspected of requiring an airborne isolation will be provided.

1A.3.1.2(2)(a)(iv) Convenient access connection to Rehabilitation services, particularly from the Convalescent Care area will be provided to encourage activation and minimize deterioration while on the unit. The movement of convalescent Patients should have the option of moving through the main Inpatient entrance or a controlled access point shared with rehabilitation,

1A.3.1.2(3) **Excluded**

1A.3.1.2(3)(a) No noted exclusions.

1A.3.2 OPERATIONAL DESCRIPTION

1A.3.2.1 Hours of Operation

1A.3.2.1(1) Medical / surgical Inpatient services will operate 24 hours a day, 7 days per week.

1A.3.2.1(2) Visiting hours will be 0800-2300, 7 days per week.

1A.3.2.2 Organization & Management

1A.3.2.2(1) Inpatient services will be managed by the Inpatient Unit manager.

1A.3.2.3 Workflow

1A.3.2.3(1) **Arrival and Intake**

1A.3.2.3(1)(a) Patients arrive from either the Emergency Department, a direct admission from a physician office, or through surgical services.

1A.3.2.3(1)(a)(i) Patients will be registered in the Emergency Department, at central registration, or in the surgical services area prior to arrival on the Inpatient area.

1A.3.2.3(1)(a)(ii) In some cases, Patients will be admitted and placed in a room prior to their surgical procedure.

1A.3.2.3(2) **Inpatient Area and Treatment**

1A.3.2.3(2)(a) Patients will be located in either the medical / surgical Inpatient area or in the convalescent area.

1A.3.2.3(2)(a)(i) Accommodations for Bariatric Patients and isolation requirements will be provided.

1A.3.2.3(2)(a)(i)A Not used.

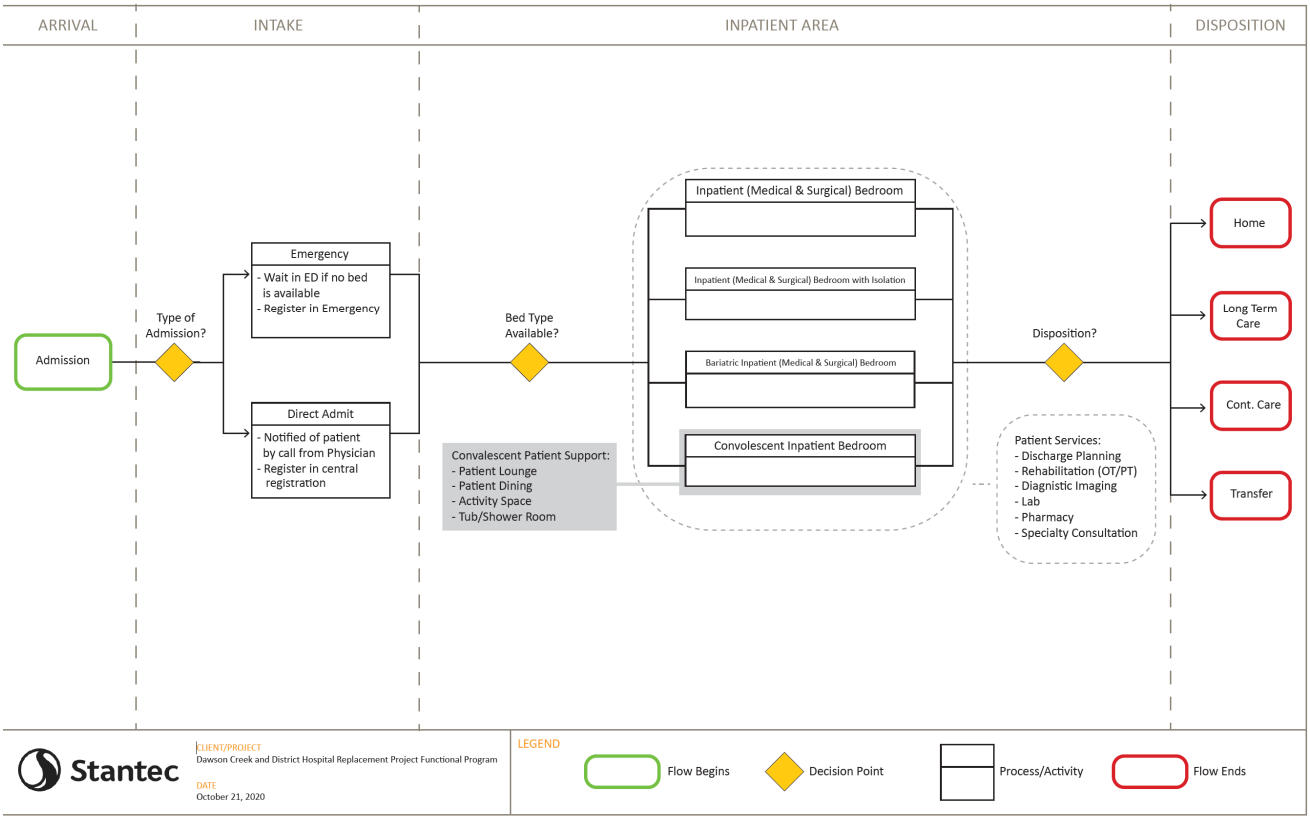
1A.3.2.3(2)(b) Convalescent Patients will have accommodations that facilitate movement and activation including, but not limited to, Patient lounge, Patient dining, and activity space.

1A.3.2.3(2)(c) Patients with rehabilitation as part of their care process will access the rehabilitation area through the Main Entrance of the rehabilitation department or through a controlled access between the convalescent care area and the rehabilitation department.

1A.3.2.3(3) **Future State Flow**

1A.3.2.3(3)(a) The future state flow map below describes the key flows for the future service delivery model for Inpatient services.

Dawson Creek and District Hospital Replacement Project - Functional Program - INPATIENT SERVICES (MEDICAL, SURGICAL, PEDIATRICS, CONVALESCENTS) - Future State Flow Map



1A.3.2.4 Support Activities

1A.3.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.3.2.4(2) **Laboratory**

1A.3.2.4(2)(a) STAT and non-urgent specimens will be collected by laboratory technicians and transported to the lab for processing.

1A.3.2.4(2)(b) Limited point-of-care testing performed by nurses will be available (urine and glucose).

1A.3.2.4(3) **Medications / Pharmacy**

1A.3.2.4(3)(a) Medication will be dispensed using an automated medication distribution system (AMDS).

1A.3.2.4(3)(b) Clinical pharmacy services will be provided on the units.

1A.3.2.4(4) **Diagnostic Imaging**

1A.3.2.4(4)(a) Portable x-rays and ultrasounds will be performed by the diagnostic imaging technologist, as appropriate. Storage alcoves for portable diagnostic imaging equipment will be provided on the unit.

1A.3.2.4(5) **Cardiology**

1A.3.2.4(5)(a) ECGs will be done at the bedside. Storage alcoves for equipment will be provided on the unit.

1A.3.2.4(6) **Food Services**

1A.3.2.4(6)(a) Meals will be assembled from the central kitchen and will be distributed using insulated tray covers to each Patient room by food services Staff.

1A.3.2.4(6)(b) Following each meal service, all carts, trays, and service ware will be returned to the central kitchen for ware washing and sanitation by food services Staff.

1A.3.2.4(6)(c) Convalescent Inpatients will be encouraged to eat in a dining room with bulk food delivered by food services Staff on a mobile steam table (i.e. Suzie Q cart).

1A.3.3 STAFFING

1A.3.3.1 Estimated future Staffing for Inpatient services is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Inpatient Services: Projected Staffing	
Position	**Projected FTE 2040/41**
DC1 Nurse	14.0
DC2 Nurse	0.0
Licensed Practical Nurse	14.0
Nursing Unit Clerk	3.0
Care Aides (Nursing Assistant I)	4.0
Total Inpatient Staffing	**35.0**

1A.3.4 DESIGN CRITERIA

1A.3.4.1 External Relationships

1A.3.4.1(1) Inpatients will be transported from the Emergency Department, High Acuity Unit, and/or Surgical Services to the Inpatient area via controlled Facility circulation.

1A.3.4.1(1)(a) Patient transport elevator will be in adjacent to these services if located on different floors.

1A.3.4.1(2) Inpatients will be transported to Diagnostic Imaging via controlled Facility circulation.

1A.3.4.1(3) Inpatient services and the Maternal and Newborn Inpatient Unit will be adjacent to each other with the ability to control movement between these departments.

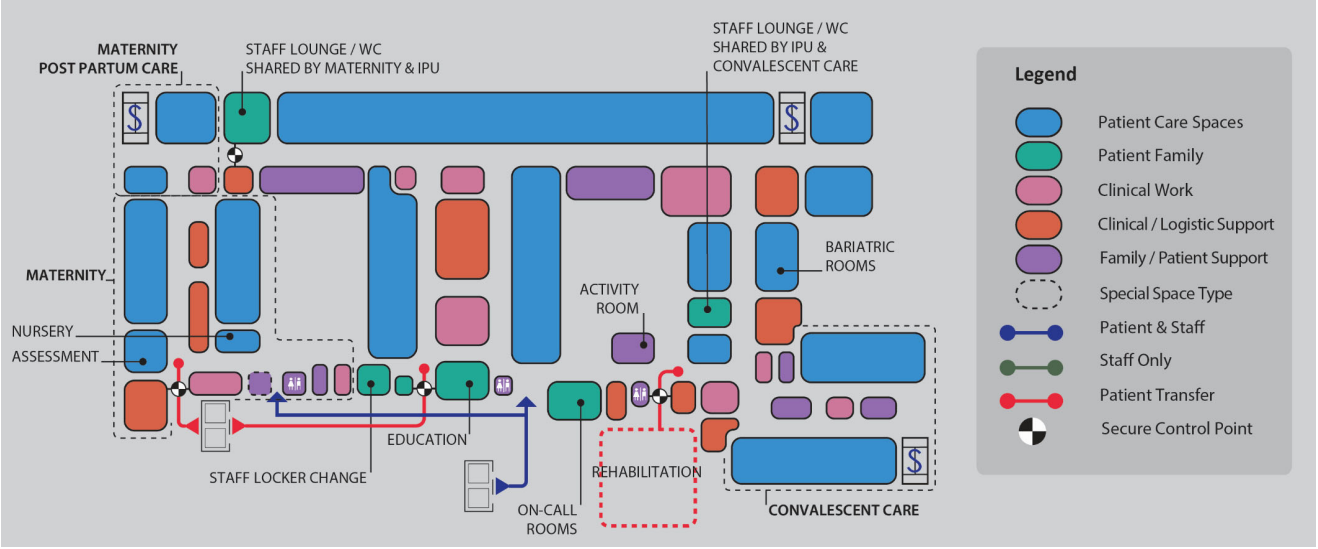
1A.3.4.1(4) Inpatients services will access rehabilitation via general Facility circulation (the front door of the rehabilitation area) and via controlled Facility circulation (internal access between the convalescent area and rehabilitation area).

1A.3.4.1(5) To the extent possible, the delivery of supplies, equipment, laundry, food services, lab collection, and medications to the Inpatient area may occur via controlled Facility circulation (e.g. this could be a back-of-house access), however, general Facility circulation may also be used, if necessary.

1A.3.4.1(5)(a) The delivery of supplies, equipment, laundry, food services, lab services, and medications will not pass by the Main Entrance of the Inpatient unit.

1A.3.4.2 Functional Relationship Diagram

1A.3.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.3.4.3 Internal Design Criteria

1A.3.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.3.4.3(1)(a) Inpatient Unit Organization:

1A.3.4.3(1)(a)(i) One 32-bed medical surgical unit and an interconnected 10-bed convalescent care unit will be provided.

1A.3.4.3(1)(a)(i)A The 32-bed unit will be sub-dividable into two (2) 16 bed sub-units each with dedicated clinical support areas (e.g. medication, clean supply, and soiled utility rooms, etc.).

1A.3.4.3(1)(a)(i)A1 Provide adherence to travel distances from medication room to Inpatient rooms based on selection of automated medication dispensing system.

1A.3.4.3(1)(a)(i)B Staff support areas including locker space and lounge will be shared by all 42 beds.

1A.3.4.3(1)(a)(i)C The 10-bed convalescent unit will be located adjacent to the rehabilitation area with controlled access between the departments.

1A.3.4.3(1)(a)(ii) Provide an efficient layout that minimizes Staff travel distances, maximizing peer line of site observation of Patients, and accommodates reduced Staffing levels during nighttime shifts.

1A.3.4.3(1)(a)(ii)A Each of the three (3) medication rooms will provide support for patients (include regular and convalescent care patients).

1A.3.4.3(1)(a)(ii)A1 Each medication room must not be further than 25 metres from the farthest patient room door it services.

1A.3.4.3(1)(a)(ii)B Each of the three (3) clean utility rooms will provide support for patients (include regular and convalescent care patients).

1A.3.4.3(1)(a)(ii)B1 Each clean utility room must not be further than 30 metres from the farthest patient room door it services.

1A.3.4.3(1)(a)(iii) Entry / Access Points

1A.3.4.3(1)(a)(iii)A Provide separate points of access/egress: one will be provided for Patients being transported to/from other destinations in the Facility, and a second will be for family / visitors (the “public” entry), and some Patients.

1A.3.4.3(1)(a)(iii)B Provide wayfinding from the Main Entrance to the Inpatient public entry.

1A.3.4.3(1)(a)(iii)C Provide a unit clerk Workstation at the public entry point to the of the Inpatient unit. This person will receive and check-in visitors, as required. If the unit clerk is not available, the Inpatient Staff will manage the check-in.

1A.3.4.3(1)(a)(iii)D Provide the ability to control the front door access to the unit at all times. Access (e.g. a buzzer) will be controlled from at the unit clerk Workstation and clinical Workstation cluster most closely located to the front door.

1A.3.4.3(1)(a)(iii)E Provide clearly defined wayfinding signage that identifies the "public" point of access/egress and the preferred route for visitors to access the Inpatient bedrooms.

1A.3.4.3(1)(b) Medical / Surgical Inpatient Rooms:

1A.3.4.3(1)(b)(i) Room Design

1A.3.4.3(1)(b)(ii) Inpatient rooms will be mirrored to create paired room entries and will have:

1A.3.4.3(1)(b)(ii)A In-board washrooms on the headwall side of the room

1A.3.4.3(1)(b)(ii)B Recessed entries and washroom layouts to provide Patient bed-head view from the Patient room access corridor.

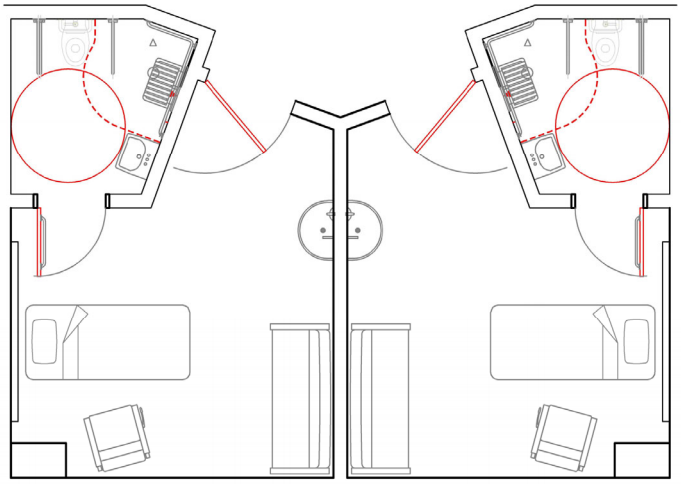
1A.3.4.3(1)(b)(ii)C Patient room entry doors that provide privacy for the Patient when left in the 1/3 open position to avoid the need for a curtain at the room entry.

1A.3.4.3(1)(b)(ii)D The clinician hand-wash sink close to the room entry.

1A.3.4.3(1)(b)(ii)E The washroom entry door swinging in to the Patient room to avoid inadvertent barricading of the washroom door.

1A.3.4.3(1)(b)(ii)F Not used

1A.3.4.3(1)(b)(ii)G European style showers in the washroom.



1A.3.4.3(1)(b)(iii) The medical / surgical Inpatient room design will accommodate four (4) zones or areas (nursing zone, Patient zone, family zone, and include a washroom).

1A.3.4.3(1)(b)(iv) Provide a nursing zone located next to the Patient bedside along the headwall. This zone will be provided with cabinetry and space to support the nursing functions, including monitors, a charting Workstation, space to accommodate electronic documentation, and immediately accessible supplies.

1A.3.4.3(1)(b)(v) Provide a Patient zone with a headwall, medical gases (per Appendix 1M), monitors, equipment, and Staff access on both sides of the Patient bed.

1A.3.4.3(1)(b)(v)A Headwalls in all Inpatient rooms will be symmetrical and like-designed.

1A.3.4.3(1)(b)(vi) Provide a family zone large enough for a sleeper sofa or recliner chair on the far side of the bed from the room entry.

1A.3.4.3(1)(b)(vi)A The family zone will be located and designed to avoid interference in the provision of care to the Patient but not located at the foot of the bed.

1A.3.4.3(1)(b)(vi)B Provide a full height storage cabinet with shelves and drawers in the family zone for Patient and family belongings and provide a smaller lockable hotel-style safe for the storage of valuables.

1A.3.4.3(1)(b)(vi)C Provide a Patient reading light with controls accessible from the bed.

1A.3.4.3(1)(b)(vi)D Provide the ability for a family/visitor to charge a personal device from the piece of furniture.

1A.3.4.3(1)(b)(vii) Provide a 3-piece accessible washroom (toilet, sink, shower).

1A.3.4.3(1)(b)(vii)A Washroom will be provided with a shower fold down seat and wand.

1A.3.4.3(1)(b)(vii)B Provide appropriate flooring and drainage requirements.

1A.3.4.3(1)(b)(vii)C Provide accessibility to a call bell from the toilet, sink, and shower.

1A.3.4.3(1)(b)(vii)D Accommodate sufficient space for two Staff to assist a Patient for toileting and washing.

1A.3.4.3(1)(b)(viii) Inpatient rooms will be mirrored with room doors recessed to ease bed access into the room and improve the view from the Patient room access corridor to the head of the bed for caregivers.

1A.3.4.3(1)(b)(ix) Provide a line of sight from the hallway to the head of the Patient for observation of the Patient without disturbing the Patient (e.g. not fully opening the door while the Patient is sleeping).

1A.3.4.3(1)(b)(x) Provide emergency and call bells in all Inpatient rooms.

1A.3.4.3(1)(b)(x)A Provide a call pull for Patients and separate button for Staff.

1A.3.4.3(1)(b)(xi) Provide emergency and call bells in all Inpatient washrooms that are reachable from the sink, toilet, and shower, and precluding a cord length that presents a risk of ligation.

1A.3.4.3(1)(b)(xii) Provide a ceiling mounted Patient lift system in all Inpatient rooms and washrooms. The gantry lift system will allow for Patient pickup from most areas of the bedroom and will extend into the washroom with a monorail.

1A.3.4.3(1)(b)(xiii) Provide a ceiling mounted integrated light with remote control above the Patient bed enhanced lighting to assist with intravenous insertions, wound care, etc.

1A.3.4.3(1)(b)(xiv) Provide natural light and a non-operable window for exterior views.

1A.3.4.3(1)(b)(xv) Accommodate a mounted Patient screen with multimedia capability in each Inpatient room such that it aligns with the Patient bed for comfortable viewing by the Patient.

1A.3.4.3(1)(b)(xvi) Provide adjustable lighting in each Inpatient room with the controls accessible from the Patient bed (e.g. ability to read in bed at nighttime, dim the lights for comfort, etc.).

1A.3.4.3(1)(b)(xvi)A Provide lighting in the Patient bedroom to accommodate Staff's ability to monitor the Patient during the night without affecting the Patient's ability to sleep.

1A.3.4.3(1)(b)(xvi)B Provide night lighting that guides the Patient to the washroom.

1A.3.4.3(1)(b)(xvii) Provide a hand hygiene sink in the room and on the path to the Patient bed.

1A.3.4.3(1)(b)(xviii) Handrails will be provided around the perimeter of each Inpatient room and within the washroom, providing grab support during movement within the room and to the toilet. A single handrail will guide the Patient from the bedside to the washroom. Corridors typically accessed by Inpatients will have handrails installed on both sides.

1A.3.4.3(1)(c) Patient Charting

1A.3.4.3(1)(c)(i) Provide the ability to chart at the bedside, outside of the room, and at the clinical Workstations (collaboration station) located in close proximity to the Inpatient rooms.

1A.3.4.3(1)(d) Isolation Rooms

1A.3.4.3(1)(d)(i) Provide isolation Inpatient rooms with the identical requirements and design of the medical / surgical Inpatient rooms and washrooms.

1A.3.4.3(1)(d)(ii) Those requiring airborne isolation will be accommodated in an airborne isolation room (AIR).

1A.3.4.3(1)(d)(iii) The isolation rooms will be pressurized per CSA Z317.2.

1A.3.4.3(1)(d)(iii)A Provide the isolation-capable rooms with two (2) separate points of access/exit: one (1) from the main circulation corridor in the Patient care area which could be locked down when isolation is required, and a second access/egress point directly to/from the Anteroom.

1A.3.4.3(1)(d)(iii)B All Anterooms will be to the side of each Patient bedroom and not in front of the Patient bedroom. Anterooms will not form a vestibule in front of the Patient bedroom.

1A.3.4.3(1)(d)(iii)C The Patient entrance to each isolation room will be directly onto the corridor. There will be a window from the Anteroom into the isolation Inpatient room.

1A.3.4.3(1)(d)(iii)C1 Provide Patient privacy from views in the corridor with glazing on the Anteroom.

1A.3.4.3(1)(d)(iii)D Provide access (doors and corridors) in the Anteroom that allows access for mobile equipment (i.e. portable x-ray).

1A.3.4.3(1)(e) Bariatric Rooms

1A.3.4.3(1)(e)(i) Provide two (2) Bariatric Inpatient rooms with the requirements of the medical / surgical Inpatient rooms and washrooms.

1A.3.4.3(1)(e)(i)A Accommodate a design that meets the functional requirements and furnishings for Bariatric Patients.

1A.3.4.3(1)(e)(i)B Provide circulation spaces must be sufficiently wide to accommodate large people, many of whom will be relying on mobility assistance including motorized chairs and scooters.

1A.3.4.3(1)(e)(i)C Provide doorways and doors into the bariatric room and washroom will be a minimum of 1525 mm.

1A.3.4.3(1)(e)(ii) Provide two (2) sets of headwalls, including nurse call, to provide surge capacity.

1A.3.4.3(1)(e)(iii) Locate the two (2) bariatric rooms next to each other or across from each other and locate them between the medical / surgical Inpatient area and the convalescent area.

1A.3.4.3(1)(f) Collaboration Stations

1A.3.4.3(1)(f)(i) Provide clinical Workstations (collaboration stations) as clusters of Workstations for use by clinical Staff, allied health Staff, and physicians while providing on-unit services. Cluster sizes will depend on design and need to provide views to Inpatient room access corridors.

1A.3.4.3(1)(f)(ii) Accommodate all technical requirements for Workstations, paper chart storage, PACS viewing, and desk space.

1A.3.4.3(1)(f)(iii) Provide acoustic buffering for some Workstations for physician dictation, reviewing test results, and conducting private conversations.

1A.3.4.3(1)(g) Convalescent Area:

1A.3.4.3(1)(g)(i) Provide convalescent Inpatient rooms with the identical requirements and design of the medical / surgical Inpatient rooms and washrooms.

1A.3.4.3(1)(g)(ii) Support services for the convalescent area include group activity room, Patient lounge, Patient dining, and tub room to support activation and, potentially, reduce the need for lengthy Inpatient stays.

1A.3.4.3(1)(g)(iii) Provide a design that is “elderly friendly” by incorporating features for Patients with compromised mobility and/or cognitive functioning. The convalescent area should look and feel different than the medical / surgical Inpatient area. These features will include but are not limited to a more home-like environment using natural lighting over the dining room, lounge area could have residential-style lighting, walking loop feature, and provide the environment of a transition unit. Create comfort for Patient to access spaces (activity room, lounge, etc.) on their own.

1A.3.4.3(1)(h) Patient Lounge

1A.3.4.3(1)(h)(i) Locate the Patient lounge within the convalescent unit area.

1A.3.4.3(1)(h)(ii) Locate Patient Lounge areas as open areas along Patient room access corridors within the unit (not an enclosed space).

1A.3.4.3(1)(h)(iii) Accommodate comfortable seating that allows for the maneuverability of wheelchairs within the space.

1A.3.4.3(1)(h)(iv) Provide the ability to charge personal devices.

1A.3.4.3(1)(h)(v) Provide a view to the outdoors.

1A.3.4.3(1)(i) Patient Dining

1A.3.4.3(1)(i)(i) Locate the Patient dining within the convalescent unit area.

1A.3.4.3(1)(i)(ii) Locate dining areas as open areas along Patient room access corridors within the unit.

1A.3.4.3(1)(i)(iii) Provide design that accommodates a flexible arrangement for 10 Patients dining at the same time using a mix of dining chairs, tables, geriatric chairs, and accommodation for those who have mobility aids (e.g. wheelchairs, walkers, etc.).

1A.3.4.3(1)(i)(iv) Provide a lockable cupboards and cabinets for storage of supplies.

1A.3.4.3(1)(i)(v) Provide a hand hygiene sink.

1A.3.4.3(1)(j) Activity Room

1A.3.4.3(1)(j)(i) Locate the activity room within the convalescent unit area.

1A.3.4.3(1)(j)(ii) Provide a design that accommodates a flexible arrangement for 8 Patients doing activities at the same time using a mix of chairs, tables, geriatric chairs, and accommodation for those who have mobility aids (e.g. wheelchairs, walkers, etc.).

1A.3.4.3(1)(j)(iii) The activity room can be an open, common use space or an enclosed room.

1A.3.4.3(1)(j)(iv) Provide secure (lockable) built-in storage cabinets and cupboards for the storage of activity and recreation supplies.

1A.3.4.3(1)(j)(v) Provide the ability to charge personal devices.

1A.3.4.3(1)(k) Tub / Shower Room

1A.3.4.3(1)(k)(i) Locate the tub room within the convalescent unit.

1A.3.4.3(1)(k)(ii) Provide accommodations for an accessible bathtub with appropriate clearances, electrical, and plumbing requirements.

1A.3.4.3(1)(k)(ii)A Tub will use sonic waves to create a water current as there are no openings in the tub except for the drain and no water is idly sitting in jets that could grow bacteria which reduces the infection prevention and control risks.

1A.3.4.3(1)(k)(iii) Provide an integrated cleaning system for the tub.

1A.3.4.3(1)(k)(iv) Provide ceiling mounted Patient gantry lift that allows for Patient pickup from all areas of the room.

1A.3.4.3(1)(k)(v) Provide non-slip flooring.

1A.3.4.3(1)(k)(vi) Provide a hand hygiene sink.

1A.3.5 SCHEDULE OF ACCOMMODATION

1A.3.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.1.0	**32-Bed Medical/Surgical Area**					
7.1.1.0	**Reception Area**					
7.1.1.01	Workstation: Reception/Unit Clerk	1	4.6	4.6	- Chair, accessible millwork counter, computer, phone, data	-
32-Bed Medical/Surgical Area: Reception Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				4.6	**1.35**	**6.2**
7.1.2.0	**Bedroom Area**					
7.1.2.01	Inpatient Bedroom	30	21.4	642.0	- Includes bed area, vestibule, family zone, Staff zone, supply alcove; single Patient room; bed, headwall, Patient ceiling lift, Patient wardrobe, whiteboard, vital signs monitor; bedside table; Patient chair; IV poles; otoscope; ophthalmoscope; thermometer, manual blood pressure cuffs; millwork shelf; hand hygiene sink	- There are 32 Inpatient beds in this area (30 regular and 2 Bariatric)
7.1.2.02	Inpatient Washroom	30	6.0	180.0	- Accessible 3-piece washroom (toilet, sink, shower); single-assist toilet; Patient ceiling lift track connected to Inpatient Bedroom track; call bell	- Private washroom with each Inpatient room
7.1.2.03	Isolation Anteroom	2	7.5	15.0	- Sink, gowning, soiled linen hamper, garbage; millwork shelf (458mm x 610mm) above the linen hamper	-
7.1.2.04	Inpatient Bedroom (Bariatric)	2	31.4	62.8	- Includes bed area, vestibule, family zone, Staff zone, supply alcove; single Patient room; bed, headwall, Bariatric Patient ceiling lift, Patient wardrobe, whiteboard, vital signs monitor, bedside table; Patient chair; IV poles; otoscope, ophthalmoscope, thermometer, manual blood pressure cuffs; Bariatric furnishings; millwork shelf; hand hygiene sink	-
7.1.2.05	Inpatient Washroom (Bariatric)	2	7.0	14.0	- Accessible 3-piece washroom (toilet, sink, shower); double-assist toilet, Patient ceiling lift track connected to Inpatient Bedroom track; call bell	-

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.1.2.06	Charting Area	16	1.8	28.8	- Chairs for half of the Charting areas only; shelving, counter space, data, 1x shared label printer to be paired with collaboration stations	- 1 per 2 rooms
7.1.2.07	Collaboration Station	16	3.0	48.0	- Chairs for half of the Collaboration Stations, shelving, accessible millwork counter (except 7.1.2.07.05 and 7.1.2.07.08), data, cabinets, and wire rack shelving for storage; ability to create sliding doors for privacy; call bell station; 1x shared label printer	- Clustered in groups of 4; includes physician dictation
-	Physician Work Area	Included in Collaboration Station				
7.1.2.08	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots, accessible millwork counter; label printer	- 1 per 16 beds
7.1.2.09	Family Lounge / Dining Area	2	22.0	44.0	- Accommodates 11 people; visitor and Patient; hand hygiene sink	- may be distributed / clustered space throughout the unit; shared with convalescent
7.1.2.10	Family Washroom	1	6.0	6.0	- Accessible 2-piece washroom (toilet, sink), baby change area	- adjacent to waiting area
7.1.2.11	Patient Nourishment Alcove	2	4.0	8.0	- Double sink, refrigerator, microwave, counter space, cabinets, water, hot water dispenser; ice machine	- 1 per 16 beds
32-Bed Medical/Surgical Area: Bedroom Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				1,055.6	**1.50**	**1,583.4**
7.1.3.0	**Clinical and Program Support**					
7.1.3.01	Medication Room	2	16.4	32.8	- Refrigerator/freezer; multi-cart storage; Secured; hand hygiene sink; computer; automated medication dispensing; IV supplies; emergency eye wash station; millwork storage cabinet; wall mounted Workstation	- 1 per 16 rooms
7.1.3.02	Equipment Storage	2	18.0	36.0	- Provide shelving and charging requirements; includes bariatric bed, regular bed, 2 cribs; bariatric commode, wheelchair; IV pumps (32); portable lift; bladder scan; vein viewer; wound vac (2); feeding pumps (2); sequential compression devices; Hoyer lift; Sevina lift; Patient scale; portable light; Bair hugger	- 1 per 16 rooms

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.1.3.03	Clean Utility	2	11.0	22.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	- 1 per 16 rooms
7.1.3.04	Blanket Warmer	2	2.0	4.0	-	-
7.1.3.05	Crash Cart Alcove	3	0.8	2.4	- Unimpeded access; data; charging requirements (2 adult, 1 pediatric)	-
7.1.3.06	Cart / Storage Alcoves	4	1.5	6.0	- For pediatric and others; provide shelving, data, and charging requirements	-
7.1.3.07	Linen Alcove	2	2.0	4.0	- Storage area for clean linen carts only; cannot be located underneath an electrical panel	-
7.1.3.08	Facility Maintenance Closets	1	1.0	1.0	- Open area for Facilities storage	-
7.1.3.09	Soiled Utility	2	12.0	24.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and counter tops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste; medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink	- 1 per 16 rooms
7.1.3.10	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor’s floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	-

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.1.3.11	Housekeeping Room	1	11.0	11.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board, floor cleaner	- 1 per 32 rooms
32-Bed Medical/Surgical Area: Clinical and Program Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				150.2	**1.35**	**202.8**
7.1.4.0	**Staff Support**					
7.1.4.01	Office: Manager	1	10.0	10.0	- Private office with desk, chair, cabinets, phone, computer, data, 2 visitor chairs	-
7.1.4.02	Office: Clinical Pharmacist	1	10.0	10.0	- Private office with desk, chair, cabinets, phone, computer, data, 2 visitor chairs	-
7.1.4.03	Workstation: Clinical Practice Lead	1	4.6	4.6	- Chair, accessible millwork counter, computer, phone, data	-
7.1.4.04	Touchdown Workstation	3	3.0	9.0	- Chair, accessible millwork counter, computer, phone, data	- To accommodate Aboriginal Liaison and UBC students
7.1.4.05	Meeting / Education Room	1	25.0	25.0	- Accommodates 12-14 people; lightweight and movable tables & chairs; multi-media capable; provide lighting and acoustical requirements to be designed in accordance with UBC Design Guidelines	- Shared by 42 beds; shared by UBC
7.1.4.06	Staff Lounge	1	17.0	17.0	- Soft seating for 6-8 Staff; kitchenette with refrigerator, microwave, dishwasher, cabinets, counter space, tables, chairs, double sink; PC station, TV	- Shared by 42 beds; Could be co-located with Maternity if adjacency is appropriate

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.1.4.07	Locker Room with Change Areas	1	16.0	16.0	- 30 half lockers; boot and coat storage; 1 change cubicle with hooks on the wall and a small millwork bench for seating	- could be located in a Staff only corridor; Could be co-located with Maternity if adjacency is appropriate
7.1.4.08	Staff Washroom	2	4.6	9.2	- Accessible 2-piece washroom (sink, toilet)	- 1 per 16 beds
32-Bed Medical/Surgical Area: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				100.8	**1.35**	**136.1**
32-Bed Med/Surg Area Requirements				**1,311.2**	-	**1,928.5**
7.2.0	**10-Bed Convalescent Area**					
7.2.1.0	**Reception and Waiting Area**					
-	Workstation: Reception	- Shared with 32-bed Med/Surg Area				
10-Bed Convalescent: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
7.2.2.0	**Bedroom Area**					
7.2.2.01	Inpatient Bedroom	10	21.4	214.0	- Includes bed area, vestibule, family zone, Staff zone, supply alcove; single Patient room; bed, headwall, Patient ceiling lift; Patient wardrobe, whiteboard, Patient screen; vital signs monitor; bedside table; Patient chair; IV poles; otoscope; ophthalmoscope; thermometer, manual blood pressure cuffs; millwork shelf; hand hygiene sink	- There are 10 Inpatient beds in the area (9 regular and 1 Bariatric)
7.2.2.02	Inpatient Washroom	10	6.0	60.0	- Accessible 3-piece washroom (toilet, sink, shower); single-assist toilet; Patient ceiling lift track connected to Inpatient Bedroom track; call bell	- Private washroom with each Inpatient room
7.2.2.03	Not used					
7.2.2.04	Not used					
-	Family Lounge / Dining Area	Accounted for in 32-bed med/surg area				
7.2.2.05	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink); baby change area	- adjacent to waiting area
7.2.2.06	Charting Area	4	1.8	7.2	- Chair, shelving, accessible millwork counter, data	- 1 per 2 rooms
10-Bed Convalescent: Bedroom Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				285.8	**1.50**	**428.7**

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.2.3.0	**Clinical and Program Support**					
-	Nourishment Alcove	Note required as Patients are encouraged to walk (if Inpatient is separated on 2 floors, add a nutrition station)				
7.2.3.01	Patient Lounge	1	17.0	17.0	- Accommodates 10 people; view of outdoors, separate areas to isolate quiet and noisy activities	- 1 per 10 rooms
7.2.3.02	Patient Dining	1	30.0	30.0	- Accommodates 10 people; dining chairs, tables, unit kitchen, lockable cupboard for food and supplies	- 1 per 10 rooms
7.2.3.03	Activity Room	1	16.0	16.0	- Accommodates 8 people; view of outdoors, storage in the space; table; chair	- 1 per 10 rooms
7.2.3.04	Medication Room	1	16.4	16.4	- Refrigerator/freezer; multi-cart storage; secured; hand hygiene sink; computer; automated medication dispensing; emergency eye wash station; millwork storage cabinet; wall mounted Workstation	- 1 per 10 beds
7.2.3.05	Tub / Shower Room	1	16.0	16.0	- Century tub (hydro); include stretcher shower capability, Bariatric Patient ceiling lift	- Shared with all 42
7.2.3.06	Equipment Storage	1	12.0	12.0	- Provide wire rack shelving and charging requirements; includes bariatric or regular bed, bariatric commode, wheelchair	- 1 per 10 beds
7.2.3.07	Clean Utility	1	11.0	11.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	- 1 per 10 beds
7.2.3.08	Cart / Storage Alcoves	4	1.5	6.0	- for supply carts; provide shelving, data, and charging requirements	- 4 per 10 rooms
7.2.3.09	Linen Alcove	2	3.0	6.0	- Storage area for clean linen carts only; cannot be located underneath an electrical panel	-
7.2.3.10	Soiled Utility	1	12.0	12.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and counter tops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste; medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink; macerator supplies	- 1 per 10 beds

7.0 Inpatient: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
7.2.3.11	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	- 1 per 10 beds
10-Bed Convalescent: Clinical and Program Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				149.4	**1.35**	**201.7**
7.2.4.0	**Staff Support**					
7.2.4.01	Clinical Workstation	2	3.0	6.0	- Chair, accessible millwork counter, computer, phone, data, cabinet, and wire rack shelving for storage	- 2 per 10 beds
7.2.4.02	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots	- 1 per 10 beds
-	Meeting / Education Room	- Shared with 32 bed area				
-	Staff Lounge	- Shared with 32 bed area				
-	Staff Lockers and Change Rooms	- Shared with 32 bed area				
7.2.4.03	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	- 1 per 10 beds
10-Bed Convalescent: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				17.6	**1.35**	**23.8**
10-Bed Convalescent Area Requirements				**452.8**	**-**	**654.2**
		Total Inpatient Area		**1,764.0**		**2,582.7**

1A.4 HIGH ACUITY UNIT

This specification outlines the functional, operational, and physical requirements for the High Acuity Unit (HAU).

1A.4.1 FUNCTIONAL DESCRIPTION

1A.4.1.1 Statement of Purpose

1A.4.1.1(1) The HAU will provide a range of services for the most acutely ill or injured Patients that require more intensive nursing services due to illness or injury.

1A.4.1.1(2) The HAU will support residents of the Peace River South LHA and surrounding northeast region based on a person and family-centered model of care.

1A.4.1.2 Scope of Services

1A.4.1.2(1) **Functional Content**

1A.4.1.2(1)(a) Three (3) HAU private Inpatient rooms are planned, one (1) with isolation capacity.

1A.4.1.2(2) **Planning Assumptions**

1A.4.1.2(2)(a) HAU will have a strong connection to the ED as they will share many services including the Workstation: Unit Clerk, Waiting Area, Quiet / Bereavement Room, Medication Room, Soiled Utility room, and Staff Support spaces.

1A.4.1.2(2)(b) HAU will have typical Inpatient rooms rather than ICU style rooms.

1A.4.1.2(2)(c) All HAU Inpatient rooms will be similarly equipped with medical gases (per Appendix 1M) in the same position relative to the head of the Patient.

1A.4.1.2(3) **Excluded**

1A.4.1.2(3)(a) No noted exclusions.

1A.4.2 OPERATIONAL DESCRIPTION

1A.4.2.1 Hours of Operation

1A.4.2.1(1) The HAU will operate 24 hours per day, 7 days per week.

1A.4.2.1(2) Visiting hours will be 0800-2300, 7 days per week.

1A.4.2.2 Organization & Management

1A.4.2.2(1) The HAU will be managed by the Emergency Department manager.

1A.4.2.3 Workflow

1A.4.2.3(1) **Arrival and Intake**

1A.4.2.3(1)(a) Most Patients who require a higher level of care and monitoring will be admitted to the HAU through either the ED, the Medical / Surgical Inpatient area, the Maternal and Newborn Inpatient Unit, or Surgical Services.

1A.4.2.3(1)(a)(i) Patients admitted from the ED will be registered and admitted while in the ED and transported directly to their assigned room.

1A.4.2.3(1)(a)(ii) Patients arriving from the Medical / Surgical Inpatient area, Maternal and Newborn Inpatient Unit, and Surgical Services will be registered prior to arriving to the HAU and transported directly to their assigned room.

1A.4.2.3(1)(b) While maternity Patients will be admitted to the HAU, usually following their delivery, neonates will remain in the Maternal and Newborn Inpatient Unit in the Holding Nursery while awaiting transfer.

1A.4.2.3(1)(b)(i) Staff will accommodate bringing the baby to the mother while awaiting transport, as appropriate (e.g. for skin-to-skin contact, breastfeeding, etc.).

1A.4.2.3(2) **Discharge**

1A.4.2.3(2)(a) In most cases, Patients will be discharged to the medical / surgical Inpatient unit or transferred to another Facility.

1A.4.2.4 Support Activities

1A.4.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.4.2.4(2) **Laboratory**

1A.4.2.4(2)(a) The majority of the time, STAT and non-urgent specimens will be collected by laboratory technicians and transported by the laboratory technicians to the lab for processing.

1A.4.2.4(2)(a)(i) In some cases, HAU nurses will collect a specimen if the laboratory technician is not readily available or delayed.

1A.4.2.4(2)(b) Limited point-of-care testing will be performed by HAU Staff, including urine and glucose testing.

1A.4.2.4(3) **Medications / Pharmacy**

1A.4.2.4(3)(a) Medication will be dispensed utilizing an automated medication distribution system (AMDS).

1A.4.2.4(3)(b) Clinical pharmacy services will be provided on the unit.

1A.4.2.4(4) **Diagnostic Imaging**

1A.4.2.4(4)(a) Portable x-rays will be available for HAU Patients and performed by a diagnostic imaging technologist.

1A.4.2.4(4)(b) Portable ultrasounds will be available for HAU Patients and performed by a diagnostic imaging technologist or physician.

1A.4.2.4(5) **Cardiology**

1A.4.2.4(5)(a) ECGs will be done at the bedside.

1A.4.2.4(6) **Food Services**

1A.4.2.4(6)(a) Meals will be assembled from the central kitchen and will be distributed using insulated tray covers to each Patient room by Food Services Staff.

1A.4.2.4(6)(b) Following each meal service, all carts, trays, and service ware will be returned to the central kitchen for ware washing and sanitation.

1A.4.3 STAFFING

1A.4.3.1 Estimated future Staffing for the HAU is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

High Acuity Unit: Current & Projected Staffing	
Position	**Projected FTE 2040/41**
DC1 Nurse	5.0
Total High Acuity Unit Staffing	**5.0**

1A.4.4 DESIGN CRITERIA

1A.4.4.1 External Relationships

1A.4.4.1(1) The HAU will be co-located with the ED as these services share Staff and support spaces.

1A.4.4.1(2) HAU Patients will be transported to/from the ED to the HAU via controlled Facility circulation.

1A.4.4.1(3) HAU Patients will be transported to/from Diagnostic Imaging to the HAU via controlled Facility circulation.

1A.4.4.1(4) HAU Patients will be transported to/from the surgical area via controlled Facility circulation.

1A.4.4.1(5) HAU Patients will be transported to/from the Inpatient units and Maternal and Newborn Inpatient Unit via controlled Facility circulation.

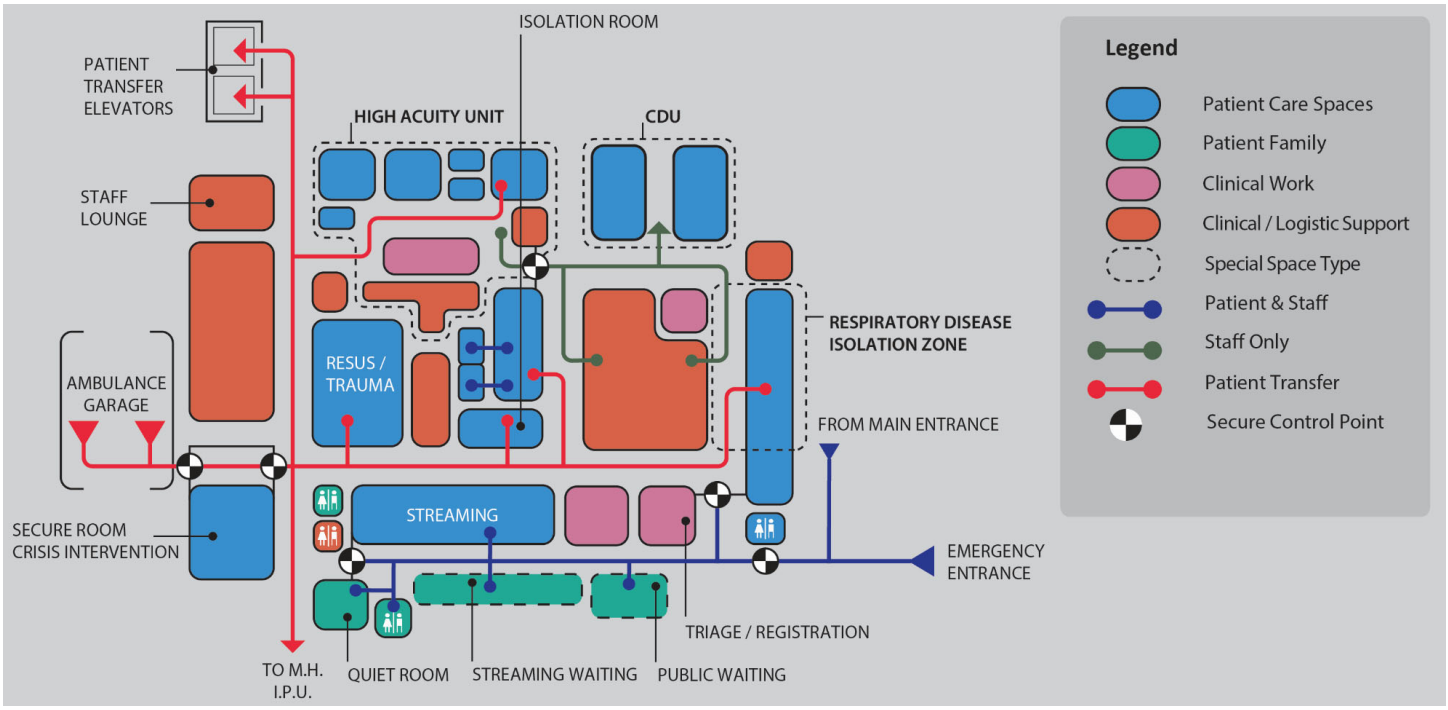
1A.4.4.1(6) To the extent possible, the delivery of supplies, equipment, laundry, food services, lab collection, and medications to the HAU may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.4.4.1(7) Families / visitors of HAU Patients will access the HAU via a back of house entrance. This access is available via general Facility circulation but will have a secure door where family/visitors will request access to enter the unit (e.g. using a buzzer to contact HAU Staff).

1A.4.4.1(7)(a) Families / visitors of HAU Patients will not access the HAU through the Emergency Department unless directed by Staff.

1A.4.4.2 Functional Relationship Diagram

1A.0.1.1(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.4.4.3 Internal Design Criteria

1A.4.4.3(1) For a description of general design criteria applicable to the HAU, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.4.4.3(2) **HAU Organization**

1A.4.4.3(2)(a) The unit will be comprised of three (3) single beds located adjacent to the ED with internal access for nursing Staff who may also have responsibilities for caring for ED Patients.

1A.4.4.3(2)(b) The care of HAU Patients frequently involves many types and quantities of medical equipment, and the design must minimize obstruction of movement of personnel within these rooms by equipment.

1A.4.4.3(2)(c) Provide direct sightlines and views to the Patient from the touchdown station (Collaboration Station) into each HAU room.

1A.4.4.3(2)(d) Provide the ability to separately secure the following with push plates and automatic openers. These doors may be open or closed, with the control determined by HAU Staff:

1A.4.4.3(2)(d)(i) Clinical Decision Unit and

1A.4.4.3(2)(d)(ii) HAU.

1A.4.4.3(2)(d)(iii) In cases where a lockdown of the ED is required, the HAU will not be included.

1A.4.4.3(3) **HAU Inpatient Bedrooms**

1A.4.4.3(3)(a) The HAU design will accommodate four (4) zones or areas (Staff zone, Patient zone, family zone, and an attached, dedicated but separate washroom). In each HAU Inpatient room

1A.4.4.3(3)(a)(i) Provide a Staff zone located next to the Patient bedside along the headwall. This zone will be provided with cabinetry and space to support the Staff functions, including monitors, a charting Workstation, space to accommodate electronic documentation, and immediately accessible supplies.

1A.4.4.3(3)(a)(ii) Provide a Patient zone with a headwall, medical gases (per Appendix 1M), monitors, equipment, and Staff access on both sides of the Patient bed.

1A.4.4.3(3)(a)(ii)A Headwalls in all HAU and Inpatient rooms will be symmetrical and like-designed.

1A.4.4.3(3)(a)(iii) Provide a family zone large enough for a sleeper sofa or recliner chair.

1A.4.4.3(3)(a)(iii)A The family zone will be located and designed to avoid interference in the provision of care to the Patient but not located at the foot of the bed.

1A.4.4.3(3)(a)(iii)B Provide a full height storage cabinet with shelves and drawers in the family zone for Patient and family belongings. Provide secure storage for Patients (i.e. locker, secure drawer with keypad, etc.) for the storage of valuables.

1A.4.4.3(3)(a)(iii)C Provide a Patient reading light with controls accessible from the bed.

1A.4.4.3(3)(a)(iii)D Provide the ability for a family/visitor to charge a personal device from the piece of furniture.

1A.4.4.3(3)(a)(iv) Provide a 3-piece accessible washroom (toilet, sink, shower), with shower fold down seat and wand, which is accessible from within each HAU room.

1A.4.4.3(3)(a)(iv)A Washroom will be provided with a shower fold down seat and wand.

1A.4.4.3(3)(a)(iv)B Accommodate sufficient space for two Staff to assist a Patient for toileting and washing.

1A.4.4.3(3)(a)(iv)C Provide appropriate flooring and drainage requirements.

1A.4.4.3(3)(a)(iv)D Provide accessibility to a call bell from the toilet, sink, and shower.

1A.4.4.3(3)(a)(iv)E Located on same side of the room as the nursing zone.

1A.4.4.3(3)(a)(iv)F Provide the ability for a Patient to walk from the bed to the washroom with rail assistance.

1A.4.4.3(3)(a)(v) Provide entry doors that are large, three panel glass doors.

1A.4.4.3(3)(a)(v)A On all walls and the entry door where the Patient can be observed, glass walls and doors with ligature-resistant curtain track system will be provided.

1A.4.4.3(3)(a)(v)A1 Not used.

1A.4.4.3(3)(a)(v)B To protect Patient privacy, room design that limits obtrusive sightlines during care or procedures is required. Provide privacy for the Patient who cannot be mobilized to use the toilet.

1A.4.4.3(3)(a)(vi) Provide a swinging door that includes a breakaway function.

1A.4.4.3(3)(a)(vii) Provide emergency and call bells in all HAU rooms.

1A.4.4.3(3)(a)(vii)A Provide a call pull for Patients and separate button for Staff.

1A.4.4.3(3)(a)(viii) Provide emergency and call bells in all HAU washrooms (include code blue in washrooms) that are reachable from the sink, toilet, and shower, and precluding a cord length that presents a risk of ligation.

1A.4.4.3(3)(a)(ix) Provide a ceiling mounted Patient lift system in all HAU rooms and washrooms. The gantry lift system will allow for Patient pickup from most areas of the bedroom and will extend into the washroom with a monorail.

1A.4.4.3(3)(a)(x) Provide an integrated ceiling light with remote control above the Patient bed enhanced lighting to assist with intravenous insertions, wound care, etc.

1A.4.4.3(3)(a)(xi) Provide natural light and a non-operable window for exterior views.

1A.4.4.3(3)(a)(xii) Accommodate a mounted Patient screen with multimedia capability that aligns with the Patient bed for comfortable viewing by the Patient.

1A.4.4.3(3)(a)(xiii) Not used.

1A.4.4.3(3)(a)(xiv) Provide adjustable lighting with the controls accessible by the nursing Staff and Patient (e.g. ability to read in bed at nighttime, dim the lights for comfort, etc.).

1A.4.4.3(3)(a)(xiv)A Provide lighting in the Patient bedroom to accommodate Staff's ability to monitor the Patient during the night without affecting the Patient's ability to sleep.

1A.4.4.3(3)(a)(xiv)B Provide night lighting that guides the Patient to the washroom with assistance from the hand railings.

1A.4.4.3(3)(a)(xv) Provide the ability to dim and turn lights off if required, in HAU circulation.

1A.4.4.3(3)(a)(xv)A Provide lighting in the HAU to accommodate Staff's ability to monitor the Patient during the night without affecting the Patient's ability to sleep.

1A.4.4.3(3)(a)(xvi) Provide a hand hygiene sink inside each HAU room.

1A.4.4.3(3)(a)(xvii) Handrails will be provided around the perimeter of each HAU room and within the washroom, providing grab support during movement within the room and to the toilet. A single handrail will guide the Patient from the bedside to the washroom. Corridors typically accessed by HAU Patients will have handrails installed on both sides.

1A.4.4.3(4) **Patient Charting**

1A.4.4.3(4)(a) Provide the ability to chart at the bedside and at the touchdown Workstations located in close proximity to the Patient rooms.

1A.4.4.3(5) **Isolation Room**

1A.4.4.3(5)(a) Those requiring airborne isolation will be accommodated in an airborne isolation room (AIR).

1A.4.4.3(5)(b) All pressurization requirements will adhere to the CSA Z317.2 requirements.

1A.4.4.3(5)(b)(i) Provide the isolation-capable HAU room with the identical requirements and design of the medical / surgical Inpatient rooms and washrooms.

1A.4.4.3(5)(c) Provide the isolation-capable HAU room with two (2) separate points of access/exit; one from the main circulation corridor in the Patient care area which could be locked down when isolation is required, and a second access/egress point directly to/from the Anteroom.

1A.4.4.3(5)(d) The Anteroom will be to the side of the Patient bedroom and not in front of the Patient bedroom. Anterooms will not form a vestibule in front of the isolation-capable HAU room.

1A.4.4.3(5)(e) The Patient entrance to the isolation-capable HAU room will be directly from the corridor. There will be a window from the Anteroom into the isolation-capable HAU room.

1A.4.4.3(5)(e)(i) Provide Patient privacy from views in the corridor with glazing on the Anteroom.

1A.4.4.3(5)(f) Provide access (doors and corridors) in the Anteroom that allows access for mobile equipment (i.e. portable x-ray).

1A.4.5 SCHEDULE OF ACCOMMODATION

1A.4.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

8.0 High Acuity Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
8.1.0	**Waiting Area**					
-	Workstation: Unit Clerk	Shared with Emergency Department				
-	Waiting Area	Shared with Emergency Department				
-	Public Washroom	Shared with Emergency Department				
High Acuity Unit: Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
8.2.0	**Patient Area**					
8.2.01	Patient Room	3	21.4	64.2	- Private Inpatient room with family zone, Staff zone, and supply alcove; - ICU type glass sliding doors with ligature resistant curtain track system; ICU Bed, Patient monitoring; headwalls; medical gases (per Appendix 1M), Patient closet, family sleeping area, Bariatric Patient ceiling lift; whiteboard; Staff work area; Patient screen; hand hygiene sink; vital signs monitor, thermometer, otoscope; ophthalmoscope; overbed table; bedside table; movable ceiling light; millwork shelf	- 1 Patient Room to be designated an isolation room
8.2.02	Isolation Anteroom	1	7.5	7.5	- Hand hygiene sink, gowning, soiled linen hamper, garbage - millwork shelf (458mm x 610mm) above the linen hamper	-
8.2.03	Patient Washroom	3	6.0	18.0	- Accessible 3-piece washroom (toilet, sink, shower); single-assist toilet; Bariatric Patient ceiling lift included in washroom	- Private washroom with each Inpatient room
8.2.04	Touchdown Workstation	2	3.0	6.0	- Chair, accessible millwork counter; computer, phone, data; for allied and nursing Staff; consolidated area	- One will be a dictation Workstation
8.2.05	Patient Nutrition Station	1	4.0	4.0	- Sink, undercounter refrigerator, microwave, ice/water machine, etc.	- Located near the Staff area - Shared with ED
-	Quiet / Bereavement Room	Shared with Emergency Department				

8.0 High Acuity Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
8.2.06	Crash Cart Alcove	1	0.8	0.8	- Provide charging requirements; unimpeded access for Staff	- Dedicated to HAU
8.2.07	Imaging Equipment Alcove	1	1.0	1.0	- shelving; charging requirements; data requirements; 1 ECG	-
8.2.08	Linen Alcove	2	3.0	6.0	- Storage area for clean linen carts only; cannot be located underneath an electrical panel.	-
8.2.09	Cart / Storage Alcove	2	2.0	4.0	- Provide shelving, data, and charging requirements; central line / arterial line / pacemaker cart	-
8.2.10	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	-
8.2.11	Blanket Warmer	1	1.2	1.2	- Consider charging requirements	-
High Acuity Unit: Patient Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				117.3	**1.50**	**176.0**
8.3.0	**Clinical Support**					
Medication						
8.3.03	Medication Room	1	12.4	12.4	- Refrigerator/freezer; 2-bin system; secured; hand hygiene sink; computer; whiteboard, counter; automated medication dispensing (Pyxis); emergency eye wash station; millwork storage cabinet; wall mounted Workstation	- requires direct line of sight to the HAU Patient rooms
Equipment and Supply Storage						
8.3.01	Equipment Storage	1	8.0	8.0	- Provide shelving and charging requirements; feeding pump; ventilator; 1 ECG; scales; 6 IV poles and pumps; pneumatic stockings	- Locate close to High Acuity Unit rooms, for easy access to equipment.
8.3.02	Clean Utility (satellite)	1	6.0	6.0	- IV fluid, IV lines, secondary bags, tubing, TPN infusions – Satellite; 2-bin system; RFID (data/electrical requirements)	-
Environmental Services						
-	Soiled Utility	Shared with Emergency Department				
-	Housekeeping Closet	Shared with Emergency Department				
High Acuity Unit: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				26.4	**1.35**	**35.6**

8.0 High Acuity Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
8.4.0	**Staff Support**					
Work Space						
-	Clinical Workstations	Shared with Emergency Department				
-	Physician Work Area	Shared with Emergency Department				
-	Business Centre	Shared with Emergency Department				
-	Breakout Room	Shared with Emergency Department				
-	Meeting / Education Room	Shared with Emergency Department				
-	Staff Lounge	Shared with Emergency Department				
Lockers and Washroom						
-	Locker Room with Change Areas	Shared with Emergency Department				
-	Staff Washroom	Shared with Emergency Department				
High Acuity Unit: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
Total High Acuity Unit Area Requirements				**143.7**		**211.6**

1A.5 MATERNAL AND NEWBORN INPATIENT UNIT

This specification outlines the functional, operational, and physical requirements for the Maternal and Newborn Inpatient Unit.

1A.5.1 FUNCTIONAL DESCRIPTION

1A.5.1.1 Statement of Purpose

1A.5.1.1(1) The Maternal and Newborn Inpatient Unit will provide antepartum, intrapartum, and postpartum, newborn care, and post-operative recovery Inpatient services for residents of the Peace River South LHA and surrounding northeast region based on a person- and family-centred model of care.

1A.5.1.2 Scope of Services

1A.5.1.2(1) **Functional Content**

1A.5.1.2(1)(a) Create a safe and family-centred labour, delivery, recovery, and postpartum environment for families and newborns.

1A.5.1.2(1)(b) Prenatal Services

1A.5.1.2(1)(b)(i) Prenatal clinics will not be provided within the Maternal and Newborn Inpatient Unit.

1A.5.1.2(1)(b)(ii) The unit will be able to accommodate Patients who may require antepartum care through the use of ante/postpartum spaces. This will also provide additional flexibility for peak periods when demand increases for labour delivery recovery postpartum care.

1A.5.1.2(1)(c) Triage and Assessment

1A.5.1.2(1)(c)(i) Triage and assessment will occur on the unit in dedicated spaces, including testing (e.g. non-stress tests) and induction of labour.

1A.5.1.2(1)(d) Birthing and Postpartum

1A.5.1.2(1)(d)(i) Patients will access the unit directly from the Building Main Entrance between 07:30 and 17:00, Monday to Friday, or through the Emergency Entrance at any other time. Upon arriving on the unit, they will be assessed by nursing Staff and either admitted to a LDRP or Ante/Postpartum Room, moved to Surgical Services for a c-section, monitored in the assessment area, or sent back home to wait. Access to ultrasound diagnostic equipment will be provided.

1A.5.1.2(1)(d)(ii) If induction is required, it will occur in the Triage / Assessment Room or in the LDRP.

1A.5.1.2(1)(d)(iii) Patients requiring emergent c-sections will go directly to surgical services when required. Scheduled c-section Patients will go to the Maternal and Newborn Inpatient Unit first for assessment.

1A.5.1.2(1)(e) Neonatal Care Services

1A.5.1.2(1)(e)(i) A level 1A nursery will be provided capable of holding up to two neo-nates who may require transfer to a neo-natal intensive care unit (NICU). While this is a space for short-term holding of neo-nates requiring transfer, it must be planned and designed to meet all best practices and guidelines related to special care nursery requirements.

1A.5.1.2(2) **Planning Assumptions**

1A.5.1.2(2)(a) The following planning principles will drive the design and operations of the Maternal and Newborn Inpatient Unit:

1A.5.1.2(2)(a)(i) Development of all single bedded maternal rooms (LDRPs and ante/postpartum rooms) with an ensuite 3-piece bathroom.

1A.5.1.2(2)(a)(ii) All Patient rooms will be similarly equipped and with medical gases (per Appendix 1M with appropriate filtration and venting) in the same position relative to the head of the Patient.

1A.5.1.2(2)(a)(iii) A midwife program has been established and will be integrated with the maternity services. However, no dedicated spaces will be developed for the midwifery program.

1A.5.1.2(3) **Excluded**

1A.5.1.2(3)(a) No dedicated security Staff will be located on the unit.

1A.5.1.2(3)(a)(i) However, baby alarm band alarm system (e.g. Hugs) will be accommodated.

1A.5.2 OPERATIONAL DESCRIPTION

1A.5.2.1 Hours of Operation

1A.5.2.1(1) The Maternal and Newborn Inpatient Unit will operate 24 hours a day, 7 days a week.

1A.5.2.1(2) Patients and visitors will access the department through the Maternal and Newborn Inpatient Unit entrance, which has controlled access at all times.

1A.5.2.1(3) Patients will present to the Maternal and Newborn Inpatient Unit at varying times from either the Main Entrance, from the Emergency Department after being assessed, or, if arriving after hours, Patients and visitors will enter the Building through the Emergency Entrance, bypass the Emergency Department and go directly to the Maternal and Newborn Inpatient Unit.

1A.5.2.2 Organization & Management

1A.5.2.2(1) The Maternal and Newborn Inpatient Unit will be managed by the manager of Patient services.

1A.5.2.3 Workflow

1A.5.2.3(1) **Arrival and Intake**

1A.5.2.3(1)(a) Patients will either enter the Building through the Main Entrance, through the Emergency Department, or, after hours, through the Emergency Entrance and proceed directly to the Maternal and Newborn Inpatient Unit (without having to enter the Emergency Department).

1A.5.2.3(1)(a)(i) Patients entering the Building through the Main Entrance will proceed directly to the Maternal and Newborn Inpatient Unit and will enter the department to begin their care process.

1A.5.2.3(1)(a)(ii) Maternity Patients who present to the Emergency Department and are deemed to be a Maternal and Newborn Inpatient Unit will be admitted through the Emergency Department.

1A.5.2.3(1)(a)(ii)A These Patients will be assessed, potentially be registered, and either transported by Staff to the Maternal and Newborn Inpatient Unit or directed by Staff to the Maternal and Newborn Inpatient Unit through controlled Facility circulation. Patients who are directed by Staff could proceed through controlled circulation but will arrive at the public entrance of the Maternal and Newborn Inpatient Unit.

1A.5.2.3(1)(a)(iii) After hours, Patients will enter the Building through the Emergency Entrance and proceed to the Maternal and Newborn Inpatient Unit without having to enter the Emergency Department.

1A.5.2.3(2) **Process**

1A.5.2.3(2)(a) Patients will be registered, triaged, and assessed, if required, once they arrive to the Maternal and Newborn Inpatient Unit.

1A.5.2.3(2)(b) Patients will be placed in the most appropriate service location; assessment space, Ante/Postpartum Room, or LDRP.

1A.5.2.3(2)(c) Patients with a scheduled c-section will be admitted to a LDRP, prepped for the c-section in the LDRP, and transported to the operating suite for the procedure.

1A.5.2.3(2)(d) Patients requiring an emergency c-section will be transported to the adjacent operating suite for the procedure.

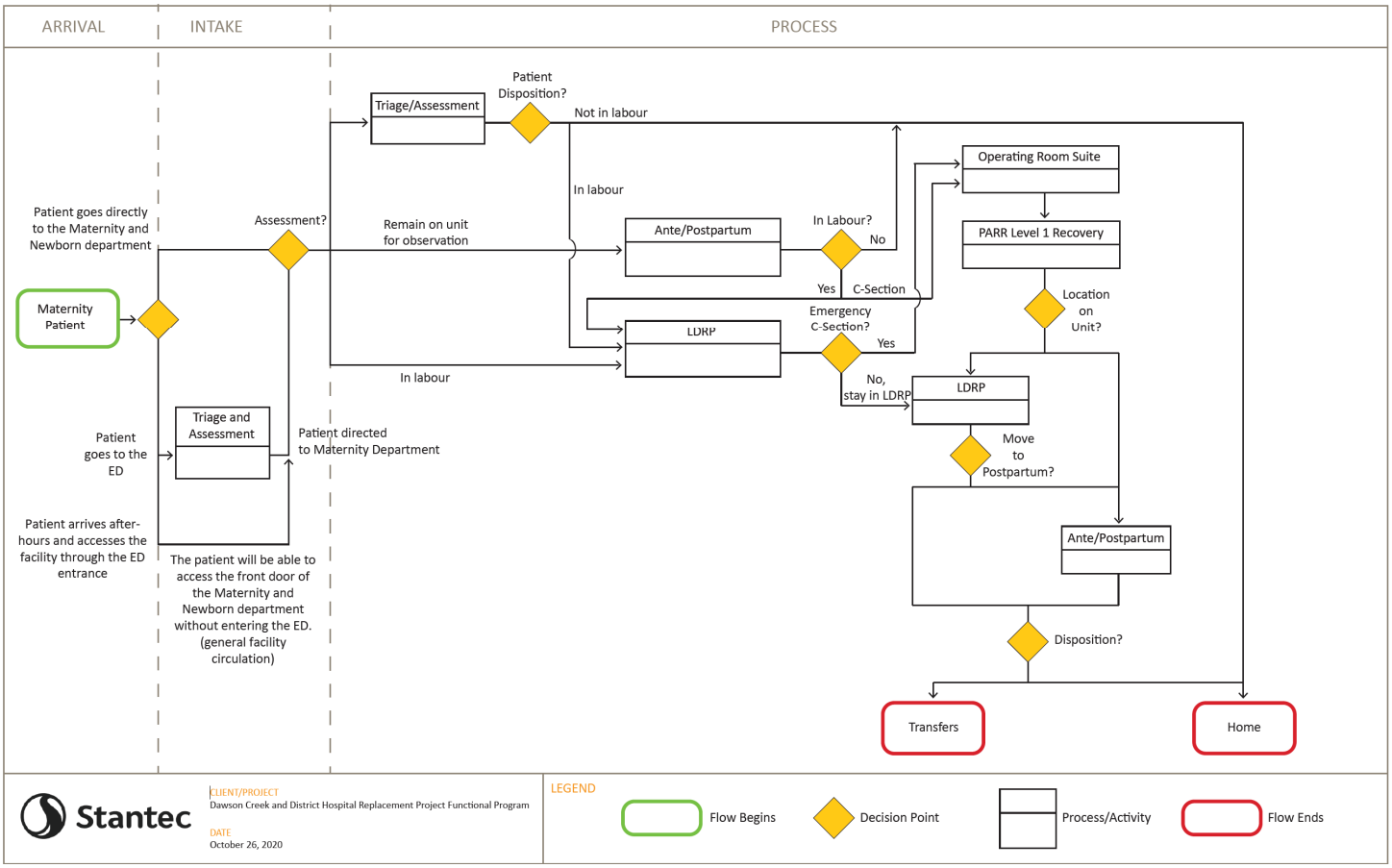
1A.5.2.3(2)(d)(i) If necessary, C-section Patients will recover in level 1 (PARR) recovery before returning to the Maternal and Newborn Inpatient Unit for the rest of their recovery.

1A.5.2.3(2)(e) If a newborn requires holding for any reason, this will occur in the Holding Nursery.

1A.5.2.3(3) **Future State Flow**

1A.5.2.3(3)(a) The future state flow map below describes the key flows for the future service delivery model for the Maternal and Newborn Inpatient Unit.

Dawson Creek and District Hospital Replacement Project - Functional Program - MATERNAL AND NEWBORN INPATIENT UNIT - Future State Flow Map



1A.5.2.4 Support Activities

1A.5.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.5.2.4(2) **Laboratory**

1A.5.2.4(2)(a) STAT specimens will be collected by laboratory technicians and transported by Staff to the Lab for further processing.

1A.5.2.4(2)(b) Non-urgent specimens

1A.5.2.4(2)(b)(i) Admitted Patients will have all specimens collected by laboratory technicians on the Maternal and Newborn Inpatient Unit.

1A.5.2.4(2)(b)(ii) Patients who are not admitted will have specimens collected on the Maternal and Newborn Inpatient Unit by Laboratory Staff or, at times, may go to the Outpatient specimen collection area.

1A.5.2.4(2)(c) Limited point-of-care testing will be provided by nursing Staff such as glucose and urinalysis.

1A.5.2.4(2)(d) After-hours Laboratory support will be available through call-back as required.

1A.5.2.4(3) **Cardiology**

1A.5.2.4(3)(a) ECGs will be done at the bedside.

1A.5.2.4(4) **Food Services**

1A.5.2.4(4)(a) Meals will be assembled from the central kitchen and will be distributed using insulated tray covers to each Patient room.

1A.5.2.4(4)(b) Following each meal service, all carts, trays, and service ware will be returned to the central kitchen for ware washing and sanitation.

1A.5.2.4(4)(c) Provision for after hour meals is required on the unit. Select items will be stored in a nourishment station and will be provided to Patients following delivery or upon request.

1A.5.3 STAFFING

1A.5.3.1 Estimated future Staffing for the Maternal and Newborn Inpatient Unit is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Maternal and Newborn Inpatient Unit: Projected Staffing	
Position	**Projected FTE 2040/41**
DC1 Nurse	12.0
Total Maternal and Newborn Inpatient Unit Staffing	**12.0**

1A.5.4 DESIGN CRITERIA

1A.5.4.1 External Relationships

1A.5.4.1(1) Maternity and newborn Patients arriving during regular hours will enter the Building through the Main Entrance and self-direct to the Maternal and Newborn Inpatient Unit public entrance via general Facility circulation. Wayfinding and signage will be required.

1A.5.4.1(2) Maternity and newborn Patients arriving from the Emergency Department will access the Maternal and Newborn Inpatient Unit via controlled Facility circulation. These Patients will either be transported to or directed by Staff to the Maternal and Newborn Inpatient Unit through controlled Facility circulation. Patients who are directed by Staff could proceed through controlled circulation but will arrive at the public entrance of the Maternal and Newborn Inpatient Unit.

1A.5.4.1(3) Maternity and newborn Patients arriving after hours will enter the Building through the Emergency Entrance and self-direct to the Maternal and Newborn Inpatient Unit public entrance via general Facility circulation. These Patients will not be required to enter the Emergency Department.

1A.5.4.1(4) Maternity and newborn Patients requiring a c-section will access Surgical Services via controlled Facility circulation. This access will be provided through as few doors and turns as possible to transfer the Patient.

1A.5.4.1(4)(a) If the Maternal and Newborn Inpatient Unit and Surgical Services are not on the same floor, controlled elevator access between these two (2) departments is required.

1A.5.4.1(5) Maternal and Newborn Inpatient Unit Staff will access the Morgue via controlled Facility circulation for the transfer of cadavers (e.g. stillborn) to the Morgue.

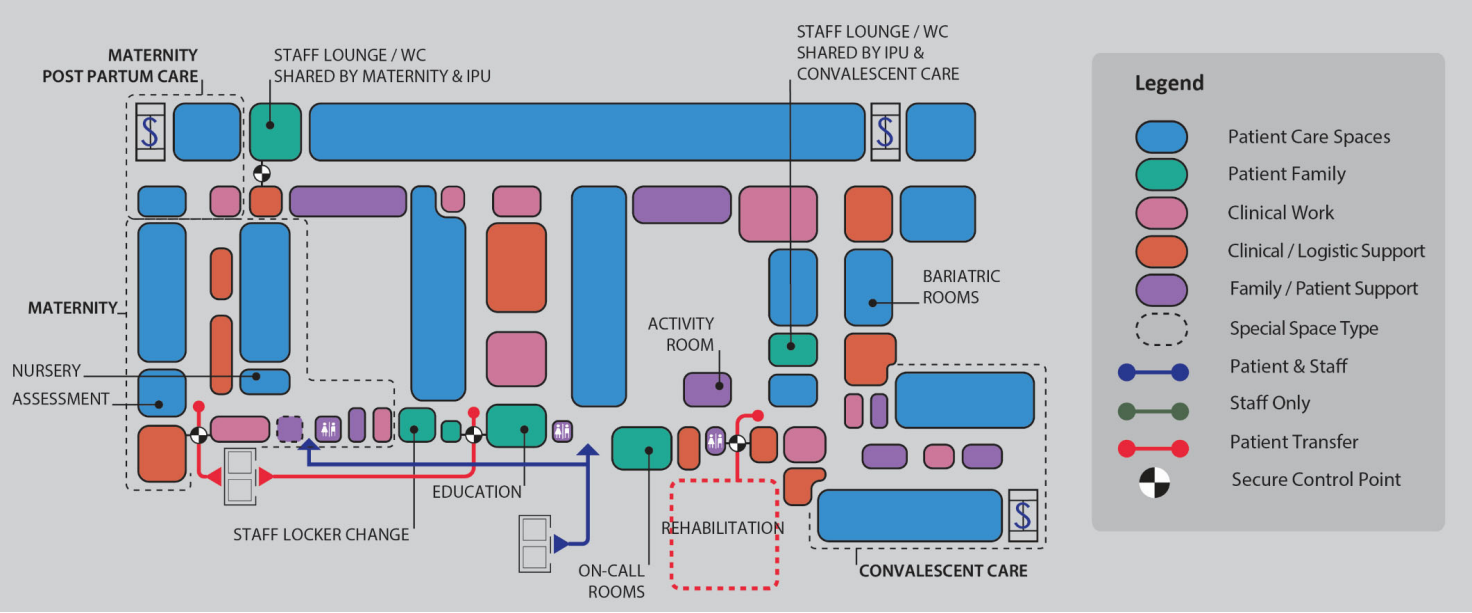
1A.5.4.1(6) Families and visitors to the Maternal and Newborn Inpatient Unit will access the public entrance of the unit via general Facility circulation.

1A.5.4.1(7) To the extent possible, the delivery of supplies, equipment, laundry, food services, lab collection, and medications to the Maternal and Newborn Inpatient Unit may occur via controlled Facility circulation (e.g. this could be a back-of-house access), however, general Facility circulation may also be used, if necessary.

1A.5.4.1(7)(a) The delivery of supplies, equipment, laundry, food services, and medications will not pass through the Main Entrance of the Maternal and Newborn Inpatient Unit.

1A.5.4.2 Functional Relationship Diagram

1A.5.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram that includes the Inpatient Unit. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.5.4.3 Internal Design Criteria

1A.5.4.3(1) For a description of general design criteria applicable to this Component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.5.4.3(2) The entrances to the Maternal and Newborn Inpatient Unit must have the ability to be controlled at all times by the Maternal and Newborn Inpatient Unit Staff.

1A.5.4.3(3) **Maternal and Newborn Inpatient Unit Organization**

1A.5.4.3(3)(a) The unit will be organized into three (3) zones:

1A.5.4.3(3)(a)(i) Triage and assessment.

1A.5.4.3(3)(a)(ii) Antepartum, labour, delivery, recovery, and postpartum.

1A.5.4.3(3)(a)(iii) Holding Nursery (level 1A holding).

1A.5.4.3(3)(b) Two (2) entry points in the Maternal and Newborn Inpatient Unit will be provided.

1A.5.4.3(3)(b)(i) A common entry/reception point for Patients and visitors will be readily accessible by general Facility circulation from the Main Entrance using the public elevators if not located on the ground level.

1A.5.4.3(3)(b)(ii) A second access point that is controlled by Staff for Patient transfers.

1A.5.4.3(3)(b)(iii) Access to the unit will be managed and controlled by the Maternal and Newborn Inpatient Unit nursing Staff. The access controls will be located at the Clinical Workstations.

1A.5.4.3(3)(c) Provide a design that creates an efficient layout to minimize Staff travel distances.

1A.5.4.3(3)(d) Separate points of access / egress will be provided for Patients being transported to/from other destinations in the Facility, such Surgical Services, Emergency Department, and Inpatient Units, and for visitors.

1A.5.4.3(3)(e) Wayfinding signage will clearly identify the “public” point of access / egress and the preferred route for visitors to access the Maternal and Newborn Inpatient Unit. Signage from Emergency is also required, and in elevators if the department is not located on the ground level.

1A.5.4.3(4) **Triage and Assessment Area**

1A.5.4.3(4)(a) Provide access to a Patient Washroom in the Triage and Assessment area.

1A.5.4.3(4)(b) Provide two (2) enclosed Triage and Assessment Bays that accommodate a recliner and one (1) enclosed Triage and Assessment Room that accommodates a stretcher.

1A.5.4.3(4)(c) Provide a shared hand hygiene sink located outside the Triage and Assessment rooms.

1A.5.4.3(4)(d) Each of the Triage and Assessment spaces will

1A.5.4.3(4)(d)(i) be a three (3) walled room with glazed double door with integral blinds.

1A.5.4.3(4)(d)(ii) accommodate a Patient assessment recliner.

1A.5.4.3(4)(d)(ii)A be provided with the ability to charge personal devices from the Patient assessment recliner.

1A.5.4.3(4)(d)(iii) accommodate both soft and firm seating for Patients. The soft seating must meet infection prevention and control requirements.

1A.5.4.3(4)(d)(iv) accommodate a companion chair (waiting room style chair).

1A.5.4.3(4)(d)(v) be provided with a Charting Station.

1A.5.4.3(4)(d)(vi) be provided with a supply storage cabinet with counter.

1A.5.4.3(4)(d)(vii) be provided an overhead exam light.

1A.5.4.3(4)(e) Provide one (1) enclosed room that accommodates one (1) stretcher. It will

1A.5.4.3(4)(e)(i) accommodate all items included in the Triage and Assessment spaces.

1A.5.4.3(4)(e)(ii) be provided with integrated lighting.

1A.5.4.3(4)(e)(iii) be provided with a ceiling-mounted Patient gantry lift system.

1A.5.4.3(5) **LDRP Patient Bedrooms**

1A.5.4.3(5)(a) The LDRP design will accommodate the following zones:

1A.5.4.3(5)(a)(i) A nursing zone will be provided next to the Patient bedside along the headwall.

1A.5.4.3(5)(a)(i)A Provide cabinetry and space to support the nursing functions, including monitors, a charting Workstation, and immediately accessible supplies.

1A.5.4.3(5)(a)(ii) A Patient zone will be provided with built in cabinetry that can conceal the headwall, medical gases (per Appendix 1M), monitors, and equipment on both sides of the Patient bed with foldaway doors.

1A.5.4.3(5)(a)(ii)A Provide a headwall that will have two (2) sets of medical gases and suction (per Appendix 1M).

1A.5.4.3(5)(a)(ii)B Provide ceiling-recessed birthing light with remote control at bedhead.

1A.5.4.3(5)(a)(ii)C Provide a mounted Patient screen with multimedia capability and align it with the Patient bed for comfortable viewing by the Patient.

1A.5.4.3(5)(a)(ii)D Provide the ability for a Patient to charge a personal device at the bedside.

1A.5.4.3(5)(a)(iii) An infant zone will be provided with an infant isolette and warmer into cabinetry located at the footwall of the LDRP.

1A.5.4.3(5)(a)(iii)A Provide medical gases (per Appendix 1M) in proximity of the isolette and radiant warmer.

1A.5.4.3(5)(a)(iii)A1 Include nitrous oxide with appropriate filtration and venting requirements.

1A.5.4.3(5)(a)(iii)B Provide no less than 1900mm between the foot of the Patient bed and the footwall.

1A.5.4.3(5)(a)(iii)C Provide space to allow a Patient bed to pass by the infant bassinet and warmer when it is folded down.

1A.5.4.3(5)(a)(iv) Provide a family zone large enough for a sleeper sofa or recliner chair.

1A.5.4.3(5)(a)(iv)A The family zone will be located in the room where it is unlikely to interfere in the provision of care to the Patient.

1A.5.4.3(5)(a)(iv)B Provide a reading light with controls accessible from the sleeping area.

1A.5.4.3(5)(a)(iv)C Provide a full height storage cabinet with shelves and drawers for Patient and family belongings and provide a smaller lockable hotel-style safe for the storage of valuables.

1A.5.4.3(5)(a)(iv)D Provide the ability for a family/visitor to charge a personal device from the piece of furniture.

1A.5.4.3(5)(a)(v) The door to the LDRP will open towards the headwall and provide the ability to have the door closed 2/3rds of the way for privacy and limit the need to close the door fully while maintaining visual and acoustical privacy. No curtains will be provided.

1A.5.4.3(5)(a)(v)A Provide a line of sight from the hallway to the head of the Patient for observation of the Patient without disturbing the Patient (e.g. not fully opening the door while the Patient is sleeping).

1A.5.4.3(5)(a)(v)B When the door is opened to 90 degrees, the toe of the bed will be visible. When the door is opened to 135 degrees, the head of the Patient will be visible.

1A.5.4.3(5)(a)(vi) Provide emergency and call bells in all LDRP rooms.

1A.5.4.3(5)(a)(vi)A Provide a call pull for Patients and separate button for Staff.

1A.5.4.3(5)(a)(vii) Provide emergency and call bells in all LDRP washrooms (include code blue in washrooms) that are reachable from the sink, toilet, and shower/tub, and precluding a cord length that presents a risk of ligation.

1A.5.4.3(5)(a)(viii) Not used.

1A.5.4.3(5)(a)(ix) Provide integrated obstetric light located above each Patient bed with remote control (docked at the head of the bed).

1A.5.4.3(5)(a)(ix)A These lights must be adjustable/articulated, of variable intensity, and located towards the foot end of the bed.

1A.5.4.3(5)(a)(x) Provide natural light and views to the outside for each LDRP. The windows will not be operable. Provide automated blackout blinds for high-risk Patients (e.g. pregnancy induced hypertension with light sensitivity and headache). Ensure maintenance access for blackout blinds.

1A.5.4.3(5)(a)(xi) Provide adjustable lighting in each LDRP with the controls accessible from the Patient bed (e.g. ability to read in bed at nighttime, dim the lights for comfort, etc.).

1A.5.4.3(5)(a)(xi)A Provide lighting in the LDRP to accommodate Staff's ability to monitor the Patient during the night without affecting the Patient's ability to sleep.

1A.5.4.3(5)(a)(xii) Provide a hand hygiene sink within the room on the path from the entrance of the room to the Patient bed.

1A.5.4.3(5)(a)(xiii) Corridors typically accessed by Inpatients will have handrails installed on both sides.

1A.5.4.3(5)(a)(xiv) LDRP Washrooms

1A.5.4.3(5)(a)(xiv)A Provide a 3-piece accessible washroom (toilet, sink, shower), with shower fold down seat and wand, which is accessible from within each Inpatient room.

1A.5.4.3(5)(a)(xiv)B Accommodate sufficient space for two Staff to assist a Patient for toileting and washing.

1A.5.4.3(5)(a)(xiv)C Two (2) of the four (4) LDRP Washrooms will have a birthing tub with handheld shower.

1A.5.4.3(5)(a)(xiv)C1 Provide a tub that is open on three sides and that meets the clinical requirements for water births including depths for water births and the ability to accommodate a second person in the tub.

1A.5.4.3(5)(a)(xiv)C2 Tubs will have no openings except for the drain.

1A.5.4.3(5)(a)(xiv)D Not used.

1A.5.4.3(5)(a)(xiv)E Provide surface for Patients to lay down birthing supplies.

1A.5.4.3(5)(a)(xiv)F Provide a sink mounted to a countertop, edge-to-edge mirror, task lighting for all countertops, and floor drain.

1A.5.4.3(6) **Bariatric Rooms**

1A.5.4.3(6)(a) Provide one (1) Bariatric LDRP and washroom with the requirements of the LDRP rooms and washrooms. This room may also be used to accommodate vaginal twin deliveries.

1A.5.4.3(6)(a)(i) Accommodate a design that meets the functional requirements and furnishings for Bariatric Patients.

1A.5.4.3(6)(a)(ii) Provide circulation spaces that are sufficiently wide to accommodate large people, many of whom will be relying on mobility assistance including motorized chairs and scooters.

1A.5.4.3(6)(a)(iii) Provide doorways and doors into the Bariatric room and washroom that are a minimum of 1525 mm.

1A.5.4.3(6)(a)(iv) Accommodations for twins

1A.5.4.3(6)(a)(iv)A Provide medical gases and suction (per Appendix 1M) for two (2) babies.

1A.5.4.3(6)(a)(iv)B Accommodate two (2) warmers at foot wall.

1A.5.4.3(6)(a)(v) Provide a ceiling-mounted Patient lift in the LDRP (Bariatric) and LDRP (Bariatric) Washroom. The gantry lift system will allow for Patient pickup from most areas of the bedroom and will extend into the washroom with a monorail.

1A.5.4.3(7) **Holding Nursery**

1A.5.4.3(7)(a) Provide two (2) isolette bays for sick babies awaiting transport or a baby waiting for their mother to return from the surgical area (and no other family member is available). Each bay will

1A.5.4.3(7)(a)(i) be provided with medical gases (per Appendix 1M) and headwall.

1A.5.4.3(7)(a)(ii) be provided with space to accommodate a blanket warmer, crash cart, and/or nursery cart for emergency neonatal equipment and supplies.

1A.5.4.3(7)(a)(iii) be provided with a curtain that surrounds the bay area for privacy.

1A.5.4.3(7)(a)(iv) accommodate a family area adjacent to the isolette bay that includes a rocker chair, side table, and ability for a family member to overnight.

1A.5.4.3(7)(a)(v) be provided with adequate privacy to facilitate breastfeeding at the bedside.

1A.5.4.3(7)(a)(vi) be provided with the ability to charge personal devices.

1A.5.4.3(7)(a)(vii) be provided with independent light controls for each isolette bay including the ability to dim.

1A.5.4.3(7)(a)(viii) be provided with counters and cabinets with wall mount equipment and accessories storage for each isolette bay.

1A.5.4.3(7)(b) Accommodate a large stabilization cart (wheeled) in the area that will be shared by the isolette bays.

1A.5.4.3(7)(c) Provide a Charting Area within the Holding Nursery area.

1A.5.4.3(7)(d) Provide a hand hygiene sink.

1A.5.4.3(7)(e) Provide a large viewing window from outside the Holding Nursery for family and visitors.

1A.5.4.3(7)(e)(i) Provide privacy for the Holding Nursery using curtains / blinds.

1A.5.4.3(7)(e)(ii) Locate the Holding Nursery adjacent to a Collaboration Station to accommodate strong sightlines.

1A.5.4.3(8) **Ante / Postpartum Rooms**

1A.5.4.3(8)(a) Will be designed to meet all requirements identified for a medical / surgical Inpatient room as described in the Inpatient services area, including standardized placement of medical gases (per Appendix 1M) on the headwall consistent with all departments.

1A.5.4.3(8)(b) In addition to those requirements, a firm upright chair will be accommodated with access on both sides. The chair will have the ability to rise up for ergonomic requirements. The chair will have arms to assist a post-operative Patient to sit down and sit up from the chair.

1A.5.4.3(9) **Quiet / Bereavement Room**

1A.5.4.3(9)(a) The Quiet / Bereavement Room will provide a temporary refuge for distressed family/friends. It will be acoustically and visually private with adjustable lighting.

1A.5.4.3(9)(b) Room will be located on an exterior wall.

1A.5.4.3(9)(c) Provide an operable window for family relief and religious/cultural purposes. Window must open inwards and must include a screen and be child-proof.

1A.5.4.3(10) **Clinical Workstations and Physician Work Area (Collaboration Stations)**

1A.5.4.3(10)(a) Provide groupings of Workstations for use by clinical Staff, allied health Staff, and physicians while providing on-unit services.

1A.5.4.3(10)(b) Accommodate all technical requirements for Workstations, clerical storage, and desk space.

1A.5.4.3(10)(c) Provide Patient monitoring screens, technology, data, and electrical requirements at the Clinical Workstations.

1A.5.4.3(10)(d) Provide views to all Patient room access corridors.

1A.5.4.3(10)(e) Provide acoustic buffering for some Workstations for physician dictation, reviewing test results, and conducting private conversations.

1A.5.4.3(10)(f) Accommodate a central breast milk refrigerator located adjacent to the Clinical Workstations.

1A.5.4.3(10)(g) Provide a Patient nourishment station that is centrally located so that Patients have access, and it is easy to locate from the Maternal and Newborn Inpatient Unit spaces.

1A.5.4.3(11) **Infant Security**

1A.5.4.3(11)(a) Access to the Maternal and Newborn Inpatient Unit must be accessible 24 hours per day, 7 day per week while remaining controlled at all times.

1A.5.4.3(11)(b) Provide the implementation of an infant monitoring system.

1A.5.4.3(12) **On Call Sleep Rooms**

1A.5.4.3(12)(a) Two (2) on-call sleep rooms are to be provided.

1A.5.5 SCHEDULE OF ACCOMMODATION

1A.5.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
9.1.0	**Waiting Area**					
9.1.01	Waiting Area	1	12.0	12.0	- Accommodates 8 people (family members, Patients waiting for NST, etc.)	-
9.1.02	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet), baby change area	-
Maternal and Newborn Inpatient Unit: Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				16.6	**1.35**	**22.4**
9.2.0	**Triage and Assessment**					
9.2.01	Triage / Assessment Bays	2	7.5	15.0	- 3 walled bays with glazed double door with integral blinds; soft and firm seating; fetal health monitor per space; Patient screen; overbed tray; point-of-use storage; if it has windows, windows need to have ability to be darkened; workspace; mobile overhead light, companion chair, over chair table	-
9.2.02	Triage / Assessment Room	1	11.0	11.0	- 3 walled bays with glazed double door with integral blinds; accommodates 1 stretcher; soft and firm seating; fetal health monitor; Patient screen; ceiling-mounted Patient lift; manual blood pressure cuff (in equipment); point-of-use storage; workspace; integrated lighting; companion chair	-

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
9.2.03	Cart / Storage Alcove	1	0.8	0.8	- Provide wire rack shelving; provide charging and data requirements	-
9.2.04	Delivery Cart Alcove	1	0.8	0.8	- Delivery cart storage	-
9.2.05	Hand Hygiene Sink	1	1.0	1.0	- Hands free; splash proof; non-porous	-
9.2.06	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	-
Maternal / Newborn Inpatient Unit: Triage and Assessment				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				33.2	**1.50**	**49.8**
9.3.0	**Patient Care Areas**					
9.3.01	LDRP	3	32.0	96.0	- Bed area, Staff zone, family zone, supply storage, and infant area; includes: bed, recliner/sleeper, delivery cart, baby warmer with scale, hand hygiene sink, hampers, bedside table, overbed table, clothing storage, Patient screen, headwall, bar refrigerator (in closet area), whiteboard; supply alcove; isolette; medical gases (per Appendix 1M); step stool; millwork shelf; blackout blinds; supply cart (1 per 2 rooms); rocker chair for mother; personal storage with hangers and 2 shelves); bassinette; Patient control of lighting (dimmers) and temperature	-
9.3.02	LDRP Washroom (shower)	1	6.0	6.0	- 3-piece accessible private washroom (toilet, sink, shower); seating for mother and support person; accessible from all 3 sides	-
9.3.03	LDRP Washroom (tub)	2	11.0	22.0	- 3-pc accessible private washroom (toilet, sink, birthing tub (soaker tub) with handheld shower); needs space for seating for Patient, family, and providers	-

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
9.3.04	LDRP (Bariatric)	1	32.0	32.0	- Bed area, Staff zone, family zone, supply storage, and infant area; includes: Bariatric bed, recliner/sleeper, delivery cart, baby warmer with scale, hand hygiene sink, hampers, bedside table, overbed table, clothing storage, Patient screen, bar refrigerator (in closet area), whiteboard; supply alcove; isolette; medical gases (per Appendix 1M); step stool; millwork shelf; blackout blinds; supply cart (1 per 2 rooms); rocker chair for mother; personal storage with hangers and 2 shelves); bassinette; Patient control of lighting (dimmers) and temperature ; Bariatric Patient ceiling lift; double headwalls for twins	-
9.3.05	LDRP Bariatric Washroom (shower)	1	7.0	7.0	- Accessible 3-piece washroom (toilet, sink, shower); double-assist toilet, Bariatric Patient ceiling lift track connected to LDRP (Bariatric) room track	-
9.3.06	Ice Machine	1	1.0	1.0	- Provide electrical and plumbing requirements	-
9.3.07	Crash Cart Alcove	3	0.8	2.4	- Adult and 2x neonatal; provide shelving requirements; charging requirements; data requirements	- 1 cart needs to be in the Holding Nursery
9.3.08	Alcove: Clean Linen	2	3.0	6.0	- Clean linen storage; provide charging and data requirements; cannot be located underneath an electrical panel	- consider an enclosed space rather than opening into hallway
9.3.09	Emergency Cart Alcoves	3	1.5	4.5	- PIH, shock kit, rapid infusion kit	-
9.3.10	Ante/Postpartum Room	3	21.4	64.2	- Includes bed area, vestibule, family zone, Staff zone, supply alcove; single Patient room; bed, headwall, ceiling-mounted Patient lift, Patient wardrobe, whiteboard, Patient screen; undercounter refrigerator; vital signs monitor; bedside table; Patient chair; IV poles; otoscope; ophthalmoscope; millwork shelf	-

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
9.3.11	Ante/Postpartum Washroom	3	6.0	18.0	- Accessible 3-piece washroom (toilet, sink w/ tall gooseneck, shower); single-assist toilet; Patient ceiling lift track connected to Ante/Postpartum Room track	-
9.3.13	Holding Nursery	1	36.0	36.0	- Bassinette, medical gases (per Appendix 1M), light with dimmers; hand hygiene sink; Patient locker; family sleeping area; whiteboard; media capability (TV, telehealth, education); breast milk refrigerator; incubator; baby warmer; guest chair; mobile baby monitor; ventilator; privacy curtain for dividing the Holding Nursery	- For babies receiving tertiary care while awaiting transfer
9.3.14	Holding Nursery Charting	1	1.8	1.8	- Touchdown computer station (chair, computer, millwork counter)	- To be located within the Holding Nursery
9.3.15	Alcove: Transport Incubator	1	2.0	2.0	- Stretcher with incubator, ventilator, monitoring	-
9.3.16	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet), baby change area	-
9.3.17	Staff Washroom	2	4.6	9.2	- Accessible 2-piece washroom (sink, toilet)	-
Maternal / Newborn Inpatient Unit: Patient Care Areas				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				312.7	**1.50**	**469.1**
9.4.0	**Clinical Support**					
Family Consultation & Support						
9.4.01	Quiet / Bereavement Room	1	11.0	11.0	- Soft seating, adjustable lighting, table, shelving; child-proof operable window with small opening	-
9.4.02	Patient Nourishment Alcove	1	3.0	3.0	- Double sink, refrigerator, microwave, counter space, cabinets, toaster, ice machine, hot water dispenser	-

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Medication						
9.4.03	Medication Room	1	16.4	16.4	- Refrigerator/freezer; multi-cart storage; secured; hand hygiene sink; computer; automated medication dispensing; IV supplies and bags; emergency eye wash station; millwork storage cabinet; wall mounted Workstation	-
Equipment and Supply Storage						
9.4.04	Equipment Storage	1	18.0	18.0	- Provide shelving and charging requirements; regular bed; cuddle cot; baby warmers x2; transport incubator (requires charging); bili lights x2	-
9.4.05	C-Section Stretcher Alcove	1	2.0	2.0	- Provide wire rack shelving; provide charging and data requirements	- decentralized throughout the area
9.4.06	Clean Utility Room	1	11.0	11.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	-
9.4.07	Cart / Storage Alcoves	3	0.8	2.4	- Provide wire rack shelving; provide charging and data requirements	- decentralized throughout the area
9.4.08	Imaging / Equipment Alcove	3	1.0	3.0	- Ultrasound; fetal monitor when not in use; provide charging and data requirements	-
9.4.09	Blanket Warmer	2	1.0	2.0	- Provide electrical and plumbing requirements	-
Environmental Services						
9.4.10	Soiled Utility Room	1	12.0	12.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and counter tops (non-porous); storage of carts including one (1) standard size Ebco cart (63" long x 24" wide x 67.5" high) for storage of soiled linen bags; general waste; medical/hazardous waste, recycling; two (2) macerators (one redundant macerator); hand hygiene sink; utility sink	-

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
9.4.11	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	-
9.4.13	Probe Storage	1	0.5	0.5	- HEPA filter; vented; 6 probes	-
9.4.14	Isolette Cleaning	1	7.5	7.5		- For Holding Nursery
Maternal / Newborn Inpatient Unit: Patient Support Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				95.8	**1.35**	**129.3**
9.5.0	**Staff Support**					
Work Space						
9.5.01	Office: Nurse Manager	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, 2 visitor chairs	-
9.5.02	Clinical Workstation	3	4.6	13.8	- Chair, accessible millwork counter, computer, phone, data, PACS, 1x shared label printer, cabinets, and wire rack shelving for storage	-
9.5.03	Physician Work Area	2	4.6	9.2	- Chair, millwork counter/workspace, data, phone); open or closed touchdown space for physicians (dictation); provide acoustic and privacy requirements; PACS viewing	-
9.5.04	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots	-

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
9.5.05	Meeting / Education Room	1	20.0	20.0	- Accommodates 8-10 people; lightweight and movable tables & chairs; multi-media capable; lighting requirements (dimmers)	- Could be shared with IPU
9.5.06	Staff Lounge	1	14.0	14.0	- Soft seating for 6 Staff - Kitchenette with refrigerator, dishwasher, microwave, cabinets, counter space, tables, chairs, double sink - PC station, TV; sink	-
9.5.08	Charting Area	4	1.8	7.2	- Touchdown computer station (chair, computer, millwork counter)	- Adjacent to or with clinical workstations
31.3.01	Physician Lounge	1	30.0	30.0	- Soft seating for 8 ppl with recliners/couches, tv, coffee table, bookshelves; kitchenette (refrigerator, dishwasher, microwave, double sink, counter space, cabinets); small meeting space for 4-6 people	- Locate near to Maternal and Newborn
Lockers and Washroom						
9.5.07	Locker Room with Change Area	1	10.8	10.8	- 12 half lockers to be dedicated to and/or shared by Staff; coat and boot storage; 1 change cubicle with hooks on the wall and a small millwork bench for seating	- Could be combined with Inpatient Staff; could be in a Staff dedicated corridor
-	Staff Washroom	- located in the care areas				
Maternal / Newborn Inpatient Unit: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				122.0	**1.35**	**164.7**
9.6.0	**On Call Room**					
9.6.01	On Call Sleep Rooms	1	7.0	7.0	- Bed, night table, reading lamp; closet space; secured	- to be located close to the connecting elevators
9.6.02	On Call Washroom	1	5.6	5.6	- Accessible; 3-piece washroom (toilet, sink, shower)	- to be located close to the connecting elevators
9.6.03	On Call (UBC)	1	7.0	7.0	- Bed, night table, reading lamp; locker; secured; to be designed in accordance with UBC Design Guidelines	- Locate near to Maternal and Newborn
9.6.04	On Call (UBC) Washroom	1	5.6	5.6	- Accessible; 3-piece washroom (toilet, sink, shower); to be designed in accordance with UBC Design Guidelines	- Locate near to Maternal and Newborn

9.0 Maternal and Newborn Inpatient Unit: Schedule of Accommodation (Detailed Space List)						
Ref #	Room Type	Quantity	NSM/ Space	Total NSM	Room Description	Ratio and Distribution
Maternal / Newborn Inpatient Unit: On Call Room				Total NSM	Planning Factor (CGSM)	Total CGSM
				25.2	1.35	34.0
Total Maternal / Newborn Inpatient Unit Area				605.5		869.3

1A.6 MENTAL HEALTH INPATIENT SERVICES

This specification outlines the functional, operational, and physical requirements for the Mental Health Inpatient Services (Mental Health).

1A.6.1 FUNCTIONAL DESCRIPTION

1A.6.1.1 Statement of Purpose

1A.6.1.1(1) Mental Health Services will provide intensive, fast-tracked, and inter-disciplinary services for both Inpatients.

1A.6.1.1(2) Mental Health Services will support residents of the Peace River South Local Health Authority and surrounding northeast region and their families, based on a person- and family-centred model of care.

1A.6.1.2 Scope of Services

1A.6.1.2(1) **Functional Content**

1A.6.1.2(1)(a) Mental Health Inpatient Services

1A.6.1.2(1)(a)(i) An 18-bed Inpatient unit will be planned with two (2) additional high-observation rooms. The unit will be zoned to enable some separation of Patients.

1A.6.1.2(1)(b) Not used

1A.6.1.2(1)(b)(i) Not used.

1A.6.1.2(2) **Planning Assumptions**

1A.6.1.2(2)(a) Provide an environment that is therapeutic and respects the dignity of everyone.

1A.6.1.2(2)(b) Provide flexible spaces that allow for a wide range of activities.

1A.6.1.2(2)(c) Understand that the care environment has a critical role in therapy and healing.

1A.6.1.2(2)(d) The operational model for Mental Health Inpatient will assume the following:

1A.6.1.2(2)(d)(i) An airborne isolation room (AIR) is required.

1A.6.1.2(2)(d)(ii) Standardized, single Inpatient rooms are required.

1A.6.1.2(2)(d)(iii) A combination of private and communal spaces is required.

1A.6.1.2(2)(d)(iv) Indoor and secured outdoor spaces for movement and connecting to nature are required.

1A.6.1.2(3) **Exclusions**

1A.6.1.2(3)(a) No dedicated tertiary beds will be provided. It is inevitable that some tertiary clients will be housed in this Facility for a certain amount of time before transfer; however, the unit is not planned to accommodate this Patient type.

1A.6.1.2(3)(b) No dedicated adolescent unit is planned. Adolescent Patients will be accommodated in regular Inpatient rooms but in a controlled access corridor separate from the adult Patients.

1A.6.1.2(3)(b)(i) An adolescent lounge is planned to provide adolescent accommodations when required.

1A.6.1.2(3)(c) No mental health clinic space will be provided at the Facility.

1A.6.2 OPERATIONAL DESCRIPTION

1A.6.2.1 Hours of Operation

1A.6.2.1(1) Mental Health Inpatient Services will be available 24 hours per day, 7 days per week.

1A.6.2.1(2) Not used.

1A.6.2.2 Organization & Management

1A.6.2.2(1) Mental Health Services will be managed by the director of specialized services.

1A.6.2.3 Workflow

1A.6.2.3(1) **Inpatients Arriving through the Emergency Department**

1A.6.2.3(1)(a) Arrival and Intake

1A.6.2.3(1)(b) Mental Health Inpatients arrive from either the Emergency Department or a direct admission from a physician office.

1A.6.2.3(1)(b)(i) Patients arriving from the Emergency Department will be registered in the Emergency Department prior to transfer to the Inpatient area. This will occur following triage and a medical assessment in the Emergency Department.

1A.6.2.3(1)(b)(ii) Patients arriving from a physician office will be directed to proceed through the Emergency Department and to follow the general admission protocols.

1A.6.2.3(1)(c) Inpatient Area and Treatment

1A.6.2.3(1)(d) Patients will be located in the Mental Health Inpatient area with accommodations for Bariatric and isolation Patients.

1A.6.2.3(1)(d)(i) If the Patient disposition requires it, some Patients will be held in the high observation area.

1A.6.2.3(1)(e) Patients will have access to the Patient Lounge, Patient Dining room, Patient Kitchen, and the Activity, Exercise, Group Therapy, and Individual Therapy rooms.

1A.6.2.3(2) **Not used**

1A.6.2.3(2)(a) Not used

1A.6.2.3(2)(a)(i) Not used.

1A.6.2.3(2)(a)(ii) Not used.

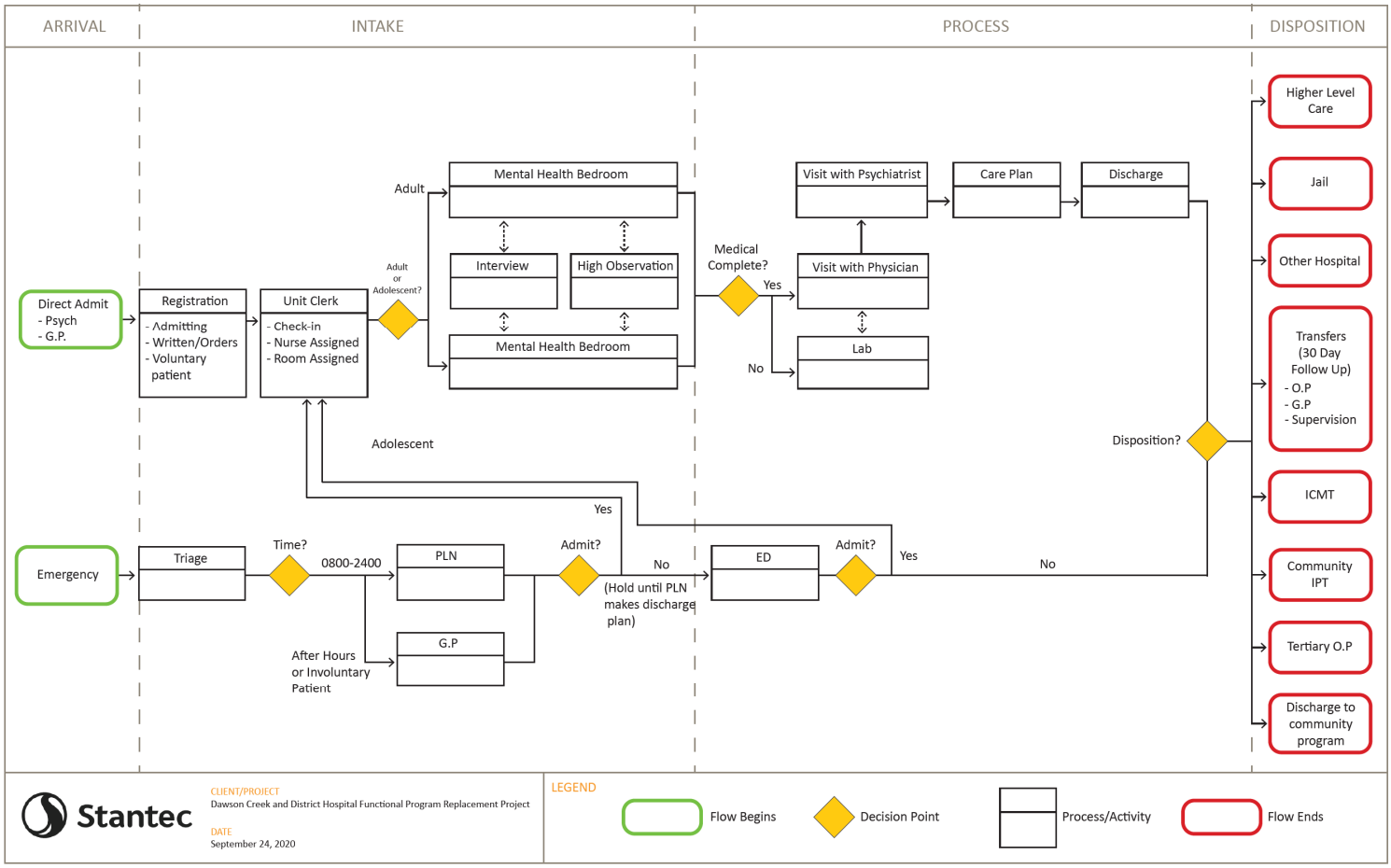
1A.6.2.3(2)(b) Not used.

1A.6.2.3(2)(b)(i) Not used.

1A.6.2.3(3) **Future State Flow Map**

1A.6.2.3(3)(a) The future state flow map below describes the key flows for the future service delivery model for Mental Health Services.

Dawson Creek and District Hospital Replacement Project - Functional Program - MENTAL HEALTH INPATIENT AND OUTPATIENT SERVICES - Future State Flow Map



1A.6.2.4 Support Activities

1A.6.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.6.2.4(2) **Laboratory**

1A.6.2.4(2)(a) Mental Health Inpatient

1A.6.2.4(2)(a)(i) STAT and non-urgent specimens will be collected by laboratory technicians and transported to the Laboratory (Lab) for processing.

1A.6.2.4(2)(a)(ii) Limited PoC testing will be available (urine and glucose) and executed by the nursing Staff.

1A.6.2.4(2)(b) Not used

1A.6.2.4(2)(b)(i) Not used.

1A.6.2.4(3) **Medications / Pharmacy**

1A.6.2.4(3)(a) Mental Health Inpatient

1A.6.2.4(3)(a)(i) Medication will be dispensed utilizing an automated medication distribution system (AMDS).

1A.6.2.4(3)(a)(ii) Pharmacy services will be provided in the Mental Health area.

1A.6.2.4(3)(b) Not used

1A.6.2.4(3)(b)(i) Not used.

1A.6.2.4(4) **Food Services**

1A.6.2.4(4)(a) Mental Health Inpatient

1A.6.2.4(4)(a)(i) Meals will be assembled from the central kitchen and will be distributed using insulated tray covers to the Patient dining area by food services Staff. Patients can eat in the dining room or in their room.

1A.6.2.4(4)(a)(ii) Following each meal service, all carts, trays, and service ware will be returned to the central kitchen for ware washing and sanitation by food services Staff.

1A.6.2.4(4)(b) Not used

1A.6.2.4(4)(b)(i) Not used.

1A.6.3 STAFFING

1A.6.3.1 Estimated future Staffing for Mental Health is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Mental Health Inpatient: Projected Staffing	
Position	**Projected FTE**
DC1 Nurse	11.0
Nursing Unit Assistant	2.0
DC3 Nurse	1.0
Social Worker II	1.0
Total Mental Health Inpatient Staffing	**15.0**

1A.6.4 DESIGN CRITERIA

1A.6.4.1 External Relationships

1A.6.4.1(1) Mental Health Inpatients will arrive from the ED via controlled Facility circulation.

1A.6.4.1(2) Not used.

1A.6.4.1(3) Mental Health Inpatients will access Diagnostic Imaging, High Acuity Unit, and/or the Surgical Services area via controlled Facility circulation.

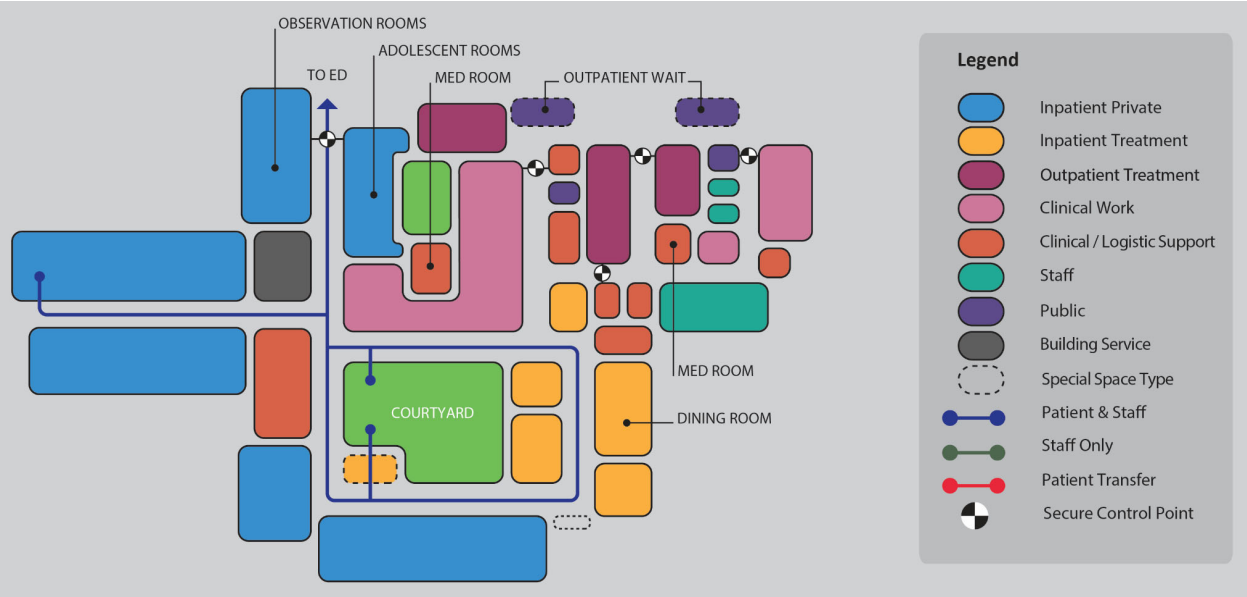
1A.6.4.1(4) Not used.

1A.6.4.1(5) Supplies, equipment, and medications may access Mental Health Inpatient services through general Facility circulation.

1A.6.4.1(5)(a) However, as much as possible, services such as laundry (soiled/clean), supplies, medication, and equipment will access these services through controlled Facility circulation (e.g. could be a back-of-house access).

1A.6.4.2 Functional Relationship Diagram

1A.6.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. The diagram is not to scale, not all spaces may be illustrated, and lines and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.6.4.3 Internal Design Criteria

1A.6.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.6.4.3(2) **Unit Organization**

1A.6.4.3(2)(a) All mental health spaces will be designed to recognize the environmental risk factors for the Patient population.

1A.6.4.3(2)(b) While no dedicated child/adolescent mental health Inpatient rooms are planned, the accommodations planned for child/adolescent (Adolescent Holding Lounge) require the ability to be segregated from the adult population.

1A.6.4.3(2)(b)(i) Inpatient rooms that would be used for adolescent Inpatients will be accessed via a segment of internal general circulation not generally used to access other Patient rooms.

1A.6.4.3(2)(c) Design and configuration of this area will allow for two high observation rooms to function independently from the others allowing for segregation from the general Mental Health Inpatient population.

1A.6.4.3(2)(d) Not used.

1A.6.4.3(3) **Environmental Design Requirements**

1A.6.4.3(3)(a) Provide the following design features that reduce stress and aggression and enhance Patient care throughout the department:

1A.6.4.3(3)(a)(i) Provide a welcoming, day lit, and non-institutional environment.

1A.6.4.3(3)(a)(i)A Provide a peaceful residential character throughout using materials with appropriate institutional performance in terms of safety, cleanability, and durability.

1A.6.4.3(3)(a)(i)B Provide daylighting throughout the department.

1A.6.4.3(3)(a)(ii) Provide nature and art in the design and finishes.

1A.6.4.3(3)(a)(iii) Provide views to the exterior and to nature.

1A.6.4.3(3)(a)(iv) Provide access to a Secure garden / outdoor / Courtyard space.

1A.6.4.3(3)(a)(v) Provide design features that assist with Patient orientation by developing direct and obvious travel paths, with spaces that are easy to identify and find without asking for help.

1A.6.4.3(3)(a)(vi) Provide visibility from the collaboration station to all Patient room access corridors.

1A.6.4.3(3)(a)(vii) Locate Patient Lounge and activity areas in day lit corridors that are visible from the collaboration station and that provides access to all spaces from two directions and without dead ends.

1A.6.4.3(3)(a)(viii) Provide noise reduction for noise generated from other Patients, washrooms, and mechanical systems.

1A.6.4.3(4) **Department Security and Safety Requirements**

1A.6.4.3(4)(a) Provide the following design features that enhance departmental security and safety throughout the department.

1A.6.4.3(4)(a)(i) The design of this Component will meet or exceed the Province of British Columbia's Ministry of Health standards for mental health facilities.

1A.6.4.3(4)(a)(ii) Provide Patient safety measures in all locations (e.g. by providing anti-ligature breakaway design features and avoidance of ligature attachment points).

1A.6.4.3(4)(a)(iii) Provide continuous controllable access to this department. Door activation technology will be in accordance with existing health legislation and will be integrated with Facility-wide security systems. The doors must have manual backup in case the Facility-wide system fails.

1A.6.4.3(4)(a)(iv) Provide tamper resistant fasteners in all Patient areas.

1A.6.4.3(4)(a)(v) Drop ceilings are permitted except in the following spaces:

1A.6.4.3(4)(a)(v)A Mental Health Inpatient Room

1A.6.4.3(4)(a)(v)B Mental Health Inpatient Washroom

1A.6.4.3(4)(a)(v)C Mental Health Isolation Anteroom

1A.6.4.3(4)(a)(v)D Mental Health Inpatient Room – Bariatric

1A.6.4.3(4)(a)(v)E Mental Health Inpatient – Bariatric Washroom

1A.6.4.3(4)(a)(v)F Adolescent Holding Lounge (if it does not have a camera)

1A.6.4.3(4)(a)(v)G High Observation (HO) Rooms

1A.6.4.3(4)(a)(v)H (HO) Patient Shower

1A.6.4.3(4)(a)(v)I (HO) Patient Lounge / Anteroom

1A.6.4.3(4)(a)(v)J (HO) Vestibules

1A.6.4.3(4)(a)(v)K Patient Lounges

1A.6.4.3(4)(a)(v)L Patient Kitchen

1A.6.4.3(4)(a)(v)M Activity Room

1A.6.4.3(4)(a)(v)N Exercise Room

1A.6.4.3(4)(a)(v)O Group Therapy Room

1A.6.4.3(4)(a)(v)P Family Visiting Room

1A.6.4.3(4)(a)(v)Q Patient Laundry Room

1A.6.4.3(4)(a)(v)R Courtyard Vestibule

1A.6.4.3(4)(a)(vi) Accommodate and provide furniture, fittings, and equipment that reduce the risk of Patient self-harm, harm to other Patients and Staff, and property damage.

1A.6.4.3(4)(a)(vii) Recesses, alcoves, or places where Patients can hide are not permitted.

1A.6.4.3(4)(a)(viii) Protuberances or projections that might allow climbing or hanging as well as weak points, corners, edges, and other features that impose risk are not permitted.

1A.6.4.3(4)(a)(ix) Provide anti-barricade measures to all rooms regularly occupied by Patients.

1A.6.4.3(4)(a)(x) Provide doors to all spaces (including Patient bedrooms) that can be locked by Staff but not by the Patient.

1A.6.4.3(4)(a)(xi) Provide Patient Washrooms with doors that can be locked by Patients, but these locks will be easily disengaged by Staff should the need arise.

1A.6.4.3(4)(a)(xii) Provide Patient containment strategies, such as “fail secure” design (e.g. maglocked doors remain locked in the event of a power failure).

1A.6.4.3(4)(a)(xii)A Monitoring stations will be located at the collaboration station.

1A.6.4.3(4)(a)(xiii) Staff Safety Requirements

1A.6.4.3(4)(a)(xiii)A Support Staff safety (e.g. by providing a clear path to the door or two doors and by providing a Staff alarm system); provide good visibility of Patient activity areas (e.g. good sightlines) and avoid blind corners.

1A.6.4.3(4)(a)(xiii)A1 Provide ceiling mounted convex mirrors at intersections.

1A.6.4.3(4)(a)(xiii)B In rooms that are considered to be a safety risk (e.g. Medication Room, rooms with public or Patient interactions), all

solid doors must have an inset security window with impact resistant glass, so Staff can see if someone is on the other side of door who may create a security concern.

1A.6.4.3(5) **Reception and Waiting Area – Inpatient Area**

1A.6.4.3(5)(a) Provide a unit clerk Workstation, located at the collaboration station. The ability to monitor and control (i.e. a buzzer) admitting persons into the Mental Health Inpatient area will be provided in the collaboration station and accessible by all Mental Health Inpatient Unit Staff.

1A.6.4.3(5)(b) The Waiting Area will be located outside of the Mental Health Inpatient area and access into the unit will be controlled by Staff.

1A.6.4.3(5)(c) Provide each Waiting Area with a screen showing health information; ensure screens are tamper proof and secure. Provide the ability to charge devices.

1A.6.4.3(6) **Mental Health Inpatient Room**

1A.6.4.3(6)(a) Typical Mental Health Inpatient Room

1A.6.4.3(6)(a)(i) Provide all Mental Health Inpatient rooms as single Patient rooms, each with a private three (3) piece washroom (shower, sink, toilet).

1A.6.4.3(6)(a)(ii) Each of the Mental Health Inpatient rooms will:

1A.6.4.3(6)(a)(ii)A be provided with an outboard or inboard washroom to improve visibility into the room from the corridor.

1A.6.4.3(6)(a)(ii)B accommodate a bed, nightstand, millwork desk, guest chair, and Patient wardrobe. Provide the ability for Patients to charge personal devices in their room. Provide Secure storage for personal items (i.e. an in-room Secure drawer with a keypad lock).

1A.6.4.3(6)(a)(ii)C provide all Mental Health Inpatient rooms and washrooms with anti-ligature requirements.

1A.6.4.3(6)(a)(ii)D have no vestibule into the room.

1A.6.4.3(6)(a)(ii)E have an exterior e-glass window with impact resistant material that provides natural light and is controlled from the Collaboration Station.

1A.6.4.3(6)(b) Mental Health Isolation Room

1A.6.4.3(6)(b)(i) Patients requiring airborne isolation will be accommodated in an airborne isolation room (AIR).

1A.6.4.3(6)(b)(i)A Not used.

1A.6.4.3(6)(b)(ii) Provide one (1) isolation Mental Health Inpatient room with the identical requirements and design of the typical Mental Health Inpatient rooms and washrooms.

1A.6.4.3(6)(b)(iii) Provide a headwall with medical gases and suction (per Appendix 1M) in this room. The headwall will be Secure and seamless in the wall. It will be covered and hidden when not required. The room should be located near the nursing station and Collaboration Station.

1A.6.4.3(6)(b)(iv) Provide the isolation-capable room with two (2) separate points of access/exit: one from the main circulation corridor in the Patient Care area which could be locked down when isolation is required and a second access/egress point directly to/from the Anteroom.

1A.6.4.3(6)(b)(v) All Anterooms will be to the side of each Patient bedroom and not in front of the Patient bedroom. Anterooms will not form a vestibule in front of the Patient bedroom.

1A.6.4.3(6)(b)(vi) The Patient entrance to each isolation room will be directly onto the corridor. There will be a window from the Anteroom into the isolation Patient bedroom.

1A.6.4.3(6)(c) Bariatric

1A.6.4.3(6)(c)(i) Provide Bariatric Mental Health Inpatient room with the requirements of the typical Mental Health Inpatient rooms and washrooms.

1A.6.4.3(6)(c)(i)A Provide a design that meets the functional requirements and furnishings for Bariatric Patients such as a bariatric bed, washroom, and wheelchair.

1A.6.4.3(6)(c)(i)B Circulation spaces will be sufficiently wide to accommodate large people, many of whom will be relying on mobility assistance including motorized chairs and scooters.

1A.6.4.3(6)(c)(i)C Doorways and doors into the Bariatric room and washroom will be a minimum of 1525 mm.

1A.6.4.3(6)(d) Adolescent Patients

1A.6.4.3(6)(d)(i) Adolescent Patients will be accommodated in a typical Mental Health Inpatient room with a dedicated Adolescent Holding Lounge for lounging and dining.

1A.6.4.3(6)(d)(i)A The design will allow for separation of the Adolescent Holding Room from the general Mental Health Inpatient population.

1A.6.4.3(6)(d)(i)B The Inpatient room may not be isolated from the general complement of Mental Health Inpatient beds, but there will be a dedicated Adolescent Holding Lounge that is not accessible to the rest of the Mental Health Inpatient area.

1A.6.4.3(6)(d)(i)C The Adolescent Holding Lounge will have seating for three (3) people, TV, coffee table, a dining table for three (3) people, and the ability to charge personal devices.

1A.6.4.3(6)(d)(i)D Provide the ability to Secure this space when not in use by an adolescent Patient.

1A.6.4.3(6)(e) Collaboration Station

1A.6.4.3(6)(e)(i) Provide a collaboration station(s) for use by clinical Staff, allied health Staff, and physicians while providing on-unit services. Co-locate Workstations to create the collaboration station.

1A.6.4.3(6)(e)(i)A The unit clerk Workstation will also be included with the collaboration station.

1A.6.4.3(6)(e)(ii) Provide all technical and accommodation requirements for Workstations, clerical storage, and desk space.

1A.6.4.3(6)(e)(iii) Provide acoustic buffering for some Workstations for physician dictation, reviewing test results, and conducting private conversations.

1A.6.4.3(6)(e)(iv) Provide security and safety for Staff, if presented with a security issue, by accommodating a second egress point.

1A.6.4.3(6)(e)(v) Provide views to all Inpatient room access corridors.

1A.6.4.3(6)(e)(vi) Provide tempered laminated glass 6mm x 2 c/w polyvinyl butyral (PVB) interlayer surrounding the Collaboration Station while maintaining sightlines. Provide the ability to Secure the collaboration station and provide a minimum of two (2) egress points.

1A.6.4.3(6)(e)(vii) Provide a Secure Patient storage room accessible from the Collaboration Station(S) to store Patient belongings not allowed on the unit.

1A.6.4.3(6)(e)(viii) Medication Room

1A.6.4.3(6)(e)(viii)A The Medication Room will be located adjacent to the Collaboration Station.

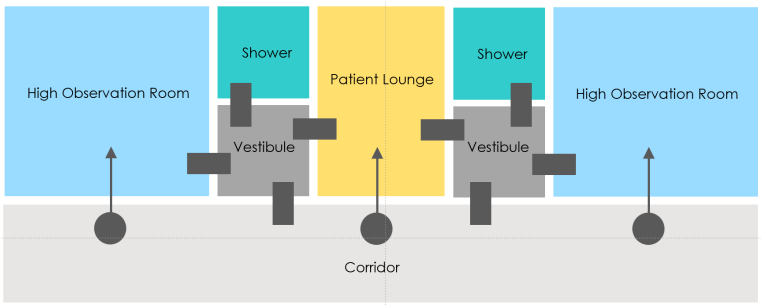
1A.6.4.3(6)(e)(viii)B Some Patients will have their medications delivered in their Patient rooms while others will walk to the Medication Room to retrieve their medications.

1A.6.4.3(6)(e)(viii)C The Medication Room will be Secure with Staff-only access. There will be a Patient corridor that enables Patients to walk up to a controlled area near the Medication Room where Staff can distribute medications to Patients who walk to the area.

1A.6.4.3(7) **High Observation Rooms**

1A.6.4.3(7)(a) Room design will meet or exceed the standards of the "Provincial Quality, Health & Safety Standards and Guidelines for Secure Rooms in Designated Mental Health Facilities" under the *Mental Health Act,* R.S.B.C. 1996 c288[1]. If any conflicts arise in the following section, refer to the most current standards.

1A.6.4.3(7)(b) High Observation Room Diagram



High Observation Rooms – access & visibility

1A.6.4.3(7)(c) The High Observation Rooms will be located away from the general Inpatient area.

1A.6.4.3(7)(c)(i) Provide one (1) point of access through a Secured access point.

1A.6.4.3(7)(d) Provide two-way communications and high-definition cameras and monitors linked to the Clinical Workstation (nursing station).

1A.6.4.3(7)(e) Provide visibility into each of the High Observation Rooms from the corridor. Provide window with integral blinds and polycarbonate glazing on the wall visible to the corridor for Patient privacy.

1A.6.4.3(7)(f) Provide a high observation Patient Lounge that is dedicated to the High Observation area and Secure from the rest of the unit.

1A.6.4.3(7)(g) Provide toileting with the room.

1A.6.4.3(7)(g)(i) Provide a dedicated Patient shower and shared lounge.

1A.6.4.3(7)(h) Provide airborne isolation capability for one (1) of the High Observation Rooms. This will require Facility Maintenance to convert when required.

1A.6.4.3(7)(i) Provide the following in each room:

[1] *Provincial Quality, Health & Safety Standards and Guidelines for Secure Rooms*. Government of British Columbia - Ministry of Health, Aug. 2014, www2.gov.bc.ca/assets/gov/health/managing-your-health/mental-health-substance-use/secure-rooms-standards-guidelines.pdf.

1A.6.4.3(7)(i)(i) a floor mattress appropriate for mental/behavioural health secure rooms

1A.6.4.3(7)(i)(ii) onboard toilet.

1A.6.4.3(7)(i)(ii)A water control shut-off from the nursing station.

1A.6.4.3(7)(i)(iii) Patient dining within the room but ensure the Patient will not have to sit on the floor to eat.

1A.6.4.3(7)(i)(iv) special treatment of fixtures.

1A.6.4.3(7)(i)(v) an absence of handles.

1A.6.4.3(7)(i)(vi) solid ceilings.

1A.6.4.3(7)(i)(vii) soundproofing.

1A.6.4.3(7)(i)(viii) an exterior electrochromic glass window with impact resistant material that provides natural light.

1A.6.4.3(7)(i)(ix) doors that swing in with the ability to be made to swing out, when required.

1A.6.4.3(7)(i)(x) no sharp edges or corners.

1A.6.4.3(7)(i)(xi) padding on walls and floors.

1A.6.4.3(7)(j) Provide a sealed floor drain.

1A.6.4.3(8) **Patient Support**

1A.6.4.3(8)(a) Patient Lounge

1A.6.4.3(8)(a)(i) Accommodate comfortable seating that is secured/fixed to the floor.

1A.6.4.3(8)(a)(ii) Accommodate a TV that is wall mounted with speakers.

1A.6.4.3(8)(a)(iii) Provide a view to the outdoors.

1A.6.4.3(8)(b) Dining Room

1A.6.4.3(8)(b)(i) Provide a design that accommodates a flexible arrangement for 18 Patients dining at the same time using a mix of secured / fixed seating, tables, and provisions for those who have mobility aids (e.g. wheelchairs).

1A.6.4.3(8)(b)(ii) Provide a lockable cupboard for storage of supplies.

1A.6.4.3(8)(b)(iii) Provide a hand hygiene sink.

1A.6.4.3(8)(c) Patient Kitchen

1A.6.4.3(8)(c)(i) Locate the Patient Kitchen adjacent to the Dining Room but with the ability for Staff to Secure the area as required.

1A.6.4.3(8)(c)(ii) Provide a refrigerator, stove, counter space, cupboards, and cabinets for storage. Provide remote shutoffs for the stove and sinks.

1A.6.4.3(8)(c)(iii) Provide the ability for Patients to Securely store some food items in the Patient Kitchen.

1A.6.4.3(8)(d) Activity Room

1A.6.4.3(8)(d)(i) Accommodate 12 people engaging in various activities. This space will be open and inviting to Patients. It will accommodate a variety of activities including, but not limited to, yoga, ping pong, colouring, games.

1A.6.4.3(8)(d)(ii) Provide natural light and views to the outdoors.

1A.6.4.3(8)(d)(iii) Provide built-in cabinets, counter space, and cupboards for storage.

1A.6.4.3(8)(e) Exercise Room

1A.6.4.3(8)(e)(i) Provide HVAC and electrical requirements to appropriately manage the exercise equipment.

1A.6.4.3(8)(e)(ii) Provide flooring that is suitable for exercise equipment and on floor activities.

1A.6.4.3(8)(e)(ii)A Equipment will be fixed to the floor.

1A.6.4.3(8)(f) Group Therapy Room

1A.6.4.3(8)(f)(i) Accommodate up to 10 people using chairs and movable tables.

1A.6.4.3(8)(f)(ii) Provide data and electrical plugs for those sitting at the table so that cords do not cause tripping hazards.

1A.6.4.3(8)(f)(iii) Provide a small educator Workstation where educators can access a PC to display information. The PC could be located in a cabinet with a wireless keyboard and mouse and/or connect to the screen via HDMI or other method.

1A.6.4.3(8)(f)(iv) Provide full multi-media capable services and built-in telehealth requirements (i.e. equipment, lighting, sound, etc.).

1A.6.4.3(8)(f)(v) Provide security and safety for Staff by accommodating a second egress point for when presented with a security issue.

1A.6.4.3(8)(g) Individual Consult / Therapy Space

1A.6.4.3(8)(g)(i) Accommodate up to six (6) people using chairs and movable tables.

1A.6.4.3(8)(g)(ii) Provide data and electrical plugs for those sitting at the table so that cords do not cause tripping hazards.

1A.6.4.3(8)(g)(iii) Provide a small educator Workstation where educators can access a PC to display information. The PC could be located in a cabinet with a wireless keyboard and mouse and/or connect to the screen via HDMI or other method.

1A.6.4.3(8)(g)(iv) Provide full multi-media capable services and built-in telehealth requirements (i.e. equipment, lighting, sound, etc.).

1A.6.4.3(8)(g)(v) Provide security and safety for Staff by accommodating a second egress point for when presented with a security issue.

1A.6.4.3(8)(h) Family Visiting Room

1A.6.4.3(8)(h)(i) Accommodate soft seating and table for four (4) people.

1A.6.4.3(8)(h)(ii) Provide adjustable lighting and anti-ligature requirements.

1A.6.4.3(8)(i) Patient Laundry Room

1A.6.4.3(8)(i)(i) Accommodate a residential washer and dryer and counter space.

1A.6.4.3(8)(i)(ii) This room will have visibility from the corridor even if the door is closed.

1A.6.4.3(8)(j) Courtyard Vestibule

1A.6.4.3(8)(j)(i) Provide a vestibule with one access from general circulation adjacent to centralized nursing station/Clinical Workstations and one access from Mental Health Inpatient Courtyard.

1A.6.4.3(9) **Not used**

1A.6.4.3(9)(a) Not used

1A.6.4.3(9)(b) Not used

1A.6.4.3(9)(b)(i) Not used

1A.6.4.3(9)(b)(ii) Not used

1A.6.4.3(9)(b)(iii) Not used

1A.6.4.3(9)(b)(iv) Not used

1A.6.4.3(9)(c) Not used

1A.6.4.3(9)(c)(i) Not used

1A.6.4.3(9)(c)(ii) Not used

1A.6.4.3(9)(c)(ii)A Not used

1A.6.4.3(9)(c)(ii)B Not used

1A.6.4.3(9)(c)(ii)C Not used

1A.6.4.3(9)(c)(ii)D Not used

1A.6.4.3(9)(c)(ii)E Not used

1A.6.4.3(9)(c)(ii)F Not used

1A.6.4.3(9)(c)(ii)G Not used

1A.6.4.3(9)(c)(ii)H Not used

1A.6.4.3(9)(d) Not used

1A.6.4.3(9)(d)(i) Not used

1A.6.4.3(9)(d)(ii) Not used

1A.6.4.3(9)(d)(iii) Not used

1A.6.4.3(9)(d)(iv) Not used

1A.6.4.3(9)(d)(v) Not used

1A.6.4.3(9)(e) Not used

1A.6.4.3(9)(e)(i) Not used

1A.6.4.3(9)(e)(ii) Not used

1A.6.4.3(10) **Access to Outdoor Space**

1A.6.4.3(10)(a) Provide an outdoor space that is designed for therapeutic functions.

1A.6.4.3(10)(b) Accommodate seating, benches, and tables.

1A.6.4.3(10)(c) Provide areas in the outdoor space that are covered from the elements for shade and protection from the rain.

1A.6.4.3(10)(d) The outdoor space will have an exterior wall around its entire perimeter that is un-scalable to prevent Patient elopement.

1A.6.4.3(10)(e) Not used.

1A.6.5 SCHEDULE OF ACCOMMODATION

1A.6.5.1 Space requirements for the Mental Health component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

10.0 Mental Health: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
10.1.0	**Reception and Waiting Area**					
10.1.01	Workstation: Unit Clerk	1	4.6	4.6	- Chair, accessible millwork counter, computer, phone, data, clerical storage	- locate within the collaboration station
10.1.02	Waiting Area	1	9.0	9.0	- Accommodate seating for 6 people; information screen; personal device charging	- Access from waiting area and outside of secure area
10.1.03	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); baby change area	- Access from waiting area and outside of secure area
Mental Health: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				18.2	**1.35**	**24.6**
10.2.0	**Patient Areas**					
10.2.01	Mental Health Inpatient Room	17	13.0	221.0	- Bed; millwork desk; Patient storage; nightstand; anti-ligature; assumes no vestibule; guest chair; Secure storage for Patients within the room; hand hygiene sink may or may not be in the room (Patient safety assessment); 2 (two) Mental Health IPU rooms require oxygen (per Appendix 1M) to be Secure and seamless in the wall; millwork shelf	- ensure natural light as much as possible - locate two (2) bedroom/washroom units off controlled corridor, adjacent to 10.2.10 Adolescent Holding Lounge - 1 hand hygiene sink to be shared between and adjacent to 2 Inpatient rooms, located in recessed alcove in corridor
10.2.02	Mental Health Inpatient Washroom	17	6.0	102.0	- Accessible 3-piece washroom (toilet, sink, shower); anti-ligature; call bell	- locate two (2) bedroom/washroom units off controlled corridor, adjacent to 10.2.10 Adolescent Holding Lounge
10.2.03	Mental Health Isolation Anteroom	1	5.0	5.0	- Sink, gowning, soiled linen hamper, garbage; millwork shelf (458mm x 610mm) above the linen hamper	-

10.0 Mental Health: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
10.2.04	Mental Health Inpatient Room - Bariatric	1	16.0	16.0	- Bed; millwork desk; Patient storage; nightstand; anti-ligature; assumes no vestibule; guest chair; Secure storage for Patients within the room; requires oxygen (per Appendix 1M) to be Secure and seamless in the wall; hand hygiene sink may or may not be in the room (Patient safety assessment); millwork shelf	- ensure natural light as much as possible - 1 hand hygiene sink to be shared between and adjacent to 2 Inpatient rooms, located in recessed alcove in corridor
10.2.05	Mental Health Inpatient - Bariatric Washroom	1	7.0	7.0	- Accessible 3-piece washroom (toilet, sink, shower); double-assist toilet, anti-ligature; call bell	-
10.2.06	Collaboration Station	4	3.0	12.0	- Accessible millwork counter for clinical and physician duties; provide security monitors; plexiglass enclosed; provide clerical storage, whiteboard; 2 egress points	-
10.2.07	Patient Storage Room	1	7.2	7.2	- Secured Patient storage; 18 half lockers for Patient belongings not allowed in the unit	-
10.2.08	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots; paper shredder, label printer; millwork counter	- Locate near the collaboration station
10.2.09	Crash Cart Alcove	1	0.8	0.8	- Charging requirements; unimpeded access for Staff	- Secure storage; located inside the collaboration station
Adolescent Holding						
10.2.10	Adolescent Holding Lounge	1	8.0	8.0	- Seating for 3; dining table, chairs; TV; coffee table; ability to charge personal devices	- locate on controlled corridor
High Observation Area						
10.2.11	High Observation Room	2	17.0	34.0	- Must meet current Ministry guidelines; provide a floor mattress appropriate for mental/behavioural health secure rooms; anti-ligature; one room to have airborne isolation capability (requires FME to convert); remote control mag lock; security camera; onboard toilet within the room; the overbed ceiling area and space must be clear so that Patients cannot reach any equipment; soundproofing; two-way voice communications	- dining will be in-room but Patient should not sit on the floor - seen as a therapeutic space
10.2.12	Patient Shower	1	4.0	4.0	- Anti-ligature and accessible	- to open off the Patient Lounge/Anteroom

10.0 Mental Health: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
10.2.13	Patient Lounge / Anteroom	1	12.0	12.0	- Seating for 2; TV, table; all fixed furniture and anti-ligature	- allow area in front of Patient doors that is open and spacious
10.2.14	Vestibule	2	4.0	8.0		- Ensure no blind spot is created where a Patient could potentially hide
Mental Health: Patient Areas				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				444.0	**1.40**	**621.6**
10.3.0	**Patient Support Areas**					
10.3.01	Patient Lounge	2	16.2	32.4	- Each lounge accommodates 8 people (can be combined per the design); in each space provide: natural light and view of outdoors; ability to separate areas to isolate quiet and noisy activities; lounge chairs (not couches) that are easily cleanable; TV; two (2) Patient computer stations (enclosed in a lockable cupboard or other system)	-
10.3.02	Dining Room	1	39.6	39.6	- Accommodates 18 people in a large group dining area; dining chairs, tables, unit kitchen, lockable cupboard for food and supplies	-
10.3.03	Patient Kitchen	1	12.0	12.0	- Provide a refrigerator, stove, microwave, secure cabinets, counter space, double sink, hot water dispenser; Secure millwork pantry storage cabinet for Patient personal items, etc.	- Adjacent to dining room with the ability to be closed/locked as required
10.3.04	Activity Room	1	24.0	24.0	- Accommodates 12 people; provide storage; natural light, view of outdoors, preferred to be an open and inviting space.	-
10.3.05	Exercise Room	1	14.0	14.0	- Equipment will include treadmill and universal strength machine (i.e. Bowflex type), open floor space; Secured	-
10.3.06	Group Therapy Room	1	20.0	20.0	- Accommodates 10 people (including clinicians) with meeting tables, chairs, multimedia and telehealth capable; double egress for safety	-
10.3.07	Individual Consult / Therapy Space	2	11.2	22.4	- Accommodates 6 people (including clinicians) with meeting tables, chairs, multimedia, and telehealth capable; double egress for safety	-

10.0 Mental Health: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
10.3.08	Family Visiting Room	1	12.0	12.0	- Soft seating, adjustable lighting; anti-ligature	-
10.3.09	Patient Laundry Room	1	6.0	6.0	- Residential washer/dryer; millwork counter	-
10.3.10	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); baby change area	-
10.3.11	Courtyard Vestibule	1	12.0	12.0	- Glazed; ability to be Secured	- one access from general circulation adjacent to Centralized Nursing Station/Clinical Workstations and - one access from Mental Health Inpatient Courtyard
Mental Health: Patient Support Areas				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				199.0	**1.40**	**278.6**
10.4.0 Clinical Support						
Medication						
10.4.01	Medication Room	1	18.0	18.0	- Secure storage for multiple carts, refrigerator/freezer; automated medication dispensing; wall mounted Workstation with phone; hand hygiene sink; emergency eye wash station; millwork storage cabinet	-
Equipment and Supply Storage						
10.4.02	Equipment Storage	1	20.0	20.0	- Provide shelving and charging requirements and open floor space; portable oxygen; one (1) mobile Patient lift; scales; vital signs monitor; geri chairs; wheelchairs	- Could be subdivided into 2 spaces
10.4.03	Clean Supply Utility	1	11.0	11.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	-
10.4.04	Alcove: Clean Linen	2	2.0	4.0	- For clean linen storage, provide shelving, data, and charging requirements; cannot be located underneath an electrical panel	- Consider an enclosed space rather than opening into hallway
10.4.05	Alcove: Cart Storage	2	0.8	1.6		
10.4.06	Alcove: Ice Machine and Blanket Warmer	2	1.0	2.0	- Secure alcove storage; electrical	

10.0 Mental Health: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
10.4.07	Soiled Utility	2	12.0	24.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and countertops (non-porous); storage of carts including one (1) standard size Ebco cart (63" long x 24" wide x 67.5" high) for soiled linen bags; general waste; medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink	-
10.4.08	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	-
Mental Health: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				87.6	**1.35**	**118.3**
10.5.0	**Staff Support**					
Workspace						
10.5.01	Office: Specialized Services Manager	1	10.0	10.0	- Private office with desk, chair, cabinets, 2 visitor chairs	-
10.5.02	Office: Team Lead	1	10.0	10.0	- Private office with desk, chair, cabinets, 2 visitor chairs	-
10.5.02.1	Office: Clinical Pharmacist	1	10.0	10.0	- Private office with desk, chair, cabinets, 2 visitor chairs	-
10.5.03	Clinical Workstation	2	3.0	6.0	- Chair, accessible millwork counter, computer, phone, data, cabinets, and wire rack shelving for storage	- Social Worker; Allied Health - Could be grouped together as a "Team Base"

1A.6 MENTAL HEALTH INPATIENT SERVICES

10.0 Mental Health: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
10.5.04	Physician Work Area	2	4.6	9.2	- Chair, accessible millwork counter/workspace, data, phone; open or closed touchdown space for physicians (dictation); provide acoustic and visual privacy	- Could be grouped together as a "Team Base"
10.5.05	Meeting / Education Room	1	28.0	28.0	- Accommodates 12-15 people; lightweight and movable tables & chairs; multi-media capable	-
10.5.06	Staff Lounge	1	22.0	22.0	- Soft seating for 8-10 Staff; kitchenette with refrigerator, dishwasher, microwave, cabinets, counter space, tables, chairs, double sink; PC station, TV	
Lockers and Washroom						
10.5.07	Locker Room with Change Areas	1	13.0	13.0	- Minimum assigned 20 Z-type lockers; boot and coat storage	- Could be located along a Staff only corridor
10.5.08	Staff Washroom	2	4.6	9.2	- Accessible 2-piece washroom (sink, toilet)	
Mental Health: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				117.4	**1.35**	**158.5**
10.6.01	Not used					
10.6.02	Not used					
10.6.03	Not used					
10.6.04	Not used					
10.6.05	Not used					
10.6.06	Not used					
10.6.07	Not used					
10.6.08	Not used					
10.6.09	Not used					
10.6.10	Not used					
10.6.11	Not used					
10.6.12	Not used					
10.6.13	Not used					
Total Mental Health Area				**866.2**		**1,201.5**

1A.7 SURGICAL SERVICES

This specification outlines the functional, operational, and physical requirements for surgical services.

1A.7.1 FUNCTIONAL DESCRIPTION

1A.7.1.1 Statement of Purpose

1A.7.1.1(1) The Building will provide surgical, G.I. endoscopy, level 1 (PARR) recovery, level 2 recovery, Patient preparation, OR booking, preoperative assessment clinics, and Patient registration and scheduling services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centred model of care.

1A.7.1.1(2) Surgical Patients include scheduled and unscheduled general and orthopedic surgery. Unscheduled Patients are typically admitted through the ED.

1A.7.1.2 Scope of Services

1A.7.1.2(1) **Functional Content**

1A.7.1.2(1)(a) Surgical Services:

1A.7.1.2(1)(a)(i) General surgery program

1A.7.1.2(1)(a)(ii) Gynecology and obstetrics.

1A.7.1.2(1)(a)(iii) Urology

1A.7.1.2(1)(a)(iv) ENT

1A.7.1.2(1)(a)(v) Dental

1A.7.1.2(1)(a)(vi) Orthopedic Surgery (Regional centre for Northeast Health Service Delivery Area).

1A.7.1.2(1)(a)(vi)A Arthroplasty (Hip, Knee and Shoulder)

1A.7.1.2(1)(a)(vi)B Fractures

1A.7.1.2(1)(b) G.I. Endoscopy

1A.7.1.2(1)(b)(i) Colonoscopy

1A.7.1.2(1)(b)(ii) Sigmoidoscopy

1A.7.1.2(1)(b)(iii) Proctoscopy

1A.7.1.2(1)(b)(iv) Rhinoscopy (endoscopic)

1A.7.1.2(1)(c) Level 1 (PARR) Recovery

1A.7.1.2(1)(c)(i) Patients undergoing general anesthesia and requiring level 1 (PARR) recovery will be accommodated in this area. Outpatients generally recover in the level 1 (PARR) recovery area while Inpatients are transferred to the surgical Inpatient unit.

1A.7.1.2(1)(d) Patient Preparation and Level 2 Recovery

1A.7.1.2(1)(d)(i) Outpatients and Inpatients requiring preparation prior to surgical and G.I. endoscopy will be accommodated in this area.

1A.7.1.2(1)(e) OR Booking and Preoperative Assessment Clinics

1A.7.1.2(1)(e)(i) These spaces will be provided within the component for Patients requiring assessment by an anesthetist prior to surgery.

1A.7.1.2(1)(f) Patient Registration and Scheduling

1A.7.1.2(1)(f)(i) Patients will be registered within the registration component prior to scheduled surgery or other procedures. Unscheduled Patients will be registered in the Emergency Department.

1A.7.1.2(2) **Planning Assumptions**

1A.7.1.2(2)(a) Standardization of Rooms and Long-Term Flexibility

1A.7.1.2(2)(a)(i) Operating rooms will be standardized in terms of area, overall configuration, location of booms and other ceiling mounted equipment, specialized power requirements, and storage to enable flexibility in scheduling of procedures and minimize risk to Patients.

1A.7.1.2(2)(a)(ii) Level 1 (PARR) recovery spaces and level 2 recovery spaces will be similarly designed.

1A.7.1.2(2)(b) Telemedicine

1A.7.1.2(2)(b)(i) Accommodation for telemedicine consults will be provided including remote presence technology where clinicians, including specialists, can interact within the OR. As services evolve, there is potential that real-time video communication will occur during procedures.

1A.7.1.2(2)(c) Medical Records

1A.7.1.2(2)(c)(i) An electronic medical record (EMR) system will be implemented prior to the Facility being developed.

1A.7.1.2(3) **Excluded**

1A.7.1.2(3)(a) No exceptions are noted.

1A.7.2 OPERATIONAL DESCRIPTION

1A.0.1.2 Hours of Operation

1A.7.2.1(1) The Surgical Services slate is scheduled from Monday-Friday, 0800-1500 with these services available after hours as required.

1A.7.2.1(2) The preparation / level 2 recovery area is available from 0700-1900 with additional time for Patients as required.

1A.7.2.2 Organization & Management

1A.7.2.2(1) Surgical Services will be managed by the Surgical Services manager.

1A.7.2.3 Workflow

1A.7.2.3(1) **Arrival and Intake**

1A.7.2.3(1)(a) Inpatients, Emergency Patients, and Maternity Patients

1A.7.2.3(1)(a)(i) Patients arriving through the ED or from an Inpatient unit will be registered by those departments prior to being transported to the Surgical Services area.

1A.7.2.3(1)(b) Scheduled Procedures

1A.7.2.3(1)(b)(i) Patients arriving for a scheduled procedure will register with central registration and proceed to the Surgical Services area.

1A.7.2.3(1)(b)(ii) Once in the Surgical Services area, Patients will be directed by Surgical Services Staff to a preparation / level 2 recovery space prior to their procedure.

1A.7.2.3(1)(b)(iii) If it is a minor procedure, the Patient may remain in the Waiting Area and be directed into the Minor Procedure room from the Waiting Area.

1A.7.2.3(2) **Procedure Preparation**

1A.7.2.3(2)(a) Inpatients, Emergency Patients, and Maternity Patients

1A.7.2.3(2)(a)(i) Patients will arrive to the Surgical Services area and will be taken directly to the procedure room. In most cases, they will be prepared for their procedure prior to or as they arrive in Surgical Services.

1A.7.2.3(2)(b) Scheduled Patients

1A.7.2.3(2)(b)(i) Patients arriving for a procedure will require some pre-operative preparation (IV, medication starts, changing, putting valuables in a bag provided by surgical services, etc.). This will occur in the procedure preparation / level 2 recovery area.

1A.7.2.3(3) **Procedure**

1A.7.2.3(3)(a) Scheduled Patients

1A.7.2.3(3)(a)(i) Once prepared for the procedure, Patients will walk or be stretchered by Surgical Services Staff to the designated procedure room (Operating Room, Minor Procedures Room, or Endoscopy Suite).

1A.7.2.3(3)(a)(ii) If the procedure is occurring in an operating room, the Patient will be taken to the holding area and temporarily held prior to entering the operating room.

1A.7.2.3(4) **Recovery**

1A.7.2.3(4)(a) Outpatients

1A.7.2.3(4)(a)(i) Following the procedure, Outpatients will recover in PARR (Level 1) recovery area, if required, and then be transferred to the Day Surgery Level 2 recovery area until they are recovered and ready to go home.

1A.7.2.3(4)(b) Inpatients and Emergency Patients

1A.7.2.3(4)(b)(i) Patients who will be (or are) admitted following the procedure will recover in PARR (Level 1) recovery area, if required, and once ready to be moved from the PARR (Level 1) recovery area, they will be transported to the Inpatient area or Emergency area to complete their recovery.

1A.7.2.3(4)(c) Maternity Patients

1A.7.2.3(4)(c)(i) Maternity Patients (c-sections) will recover in PARR (Level 1) recovery area, if required, and once ready to be moved from PARR (Level 1) recovery area, they will be transported to the Maternal and Newborn Inpatient Unit to complete their recovery.

1A.7.2.3(5) **Case Carts, Surgical Equipment, Surgical Instruments, and Post-Procedure Items**

1A.7.2.3(5)(a) Carts will be prepared by MDRD Staff and staged adjacent to the Sterile Supply Storage area. The Sterile Supply Storage and Case Cart Holding and Coordination area will be directly accessible from each Operating Room. A Non-Sterile Implant Storage room will be located adjacent to the Sterile Supply Storage area. Surgical Services and MDRD Staff will retrieve carts and items as needed for procedures.

1A.7.2.3(5)(b) Following the procedure, all procedure items (carts, equipment, instruments, etc.) and procedure waste will be collected and removed from the Operating Room.

1A.7.2.3(5)(b)(i) Specimens will be deposited in the specimen collection cabinet located at the Staff entrance to Surgical Services. Provide appropriate low-lying ventilation due to specimens fixed in formalin.

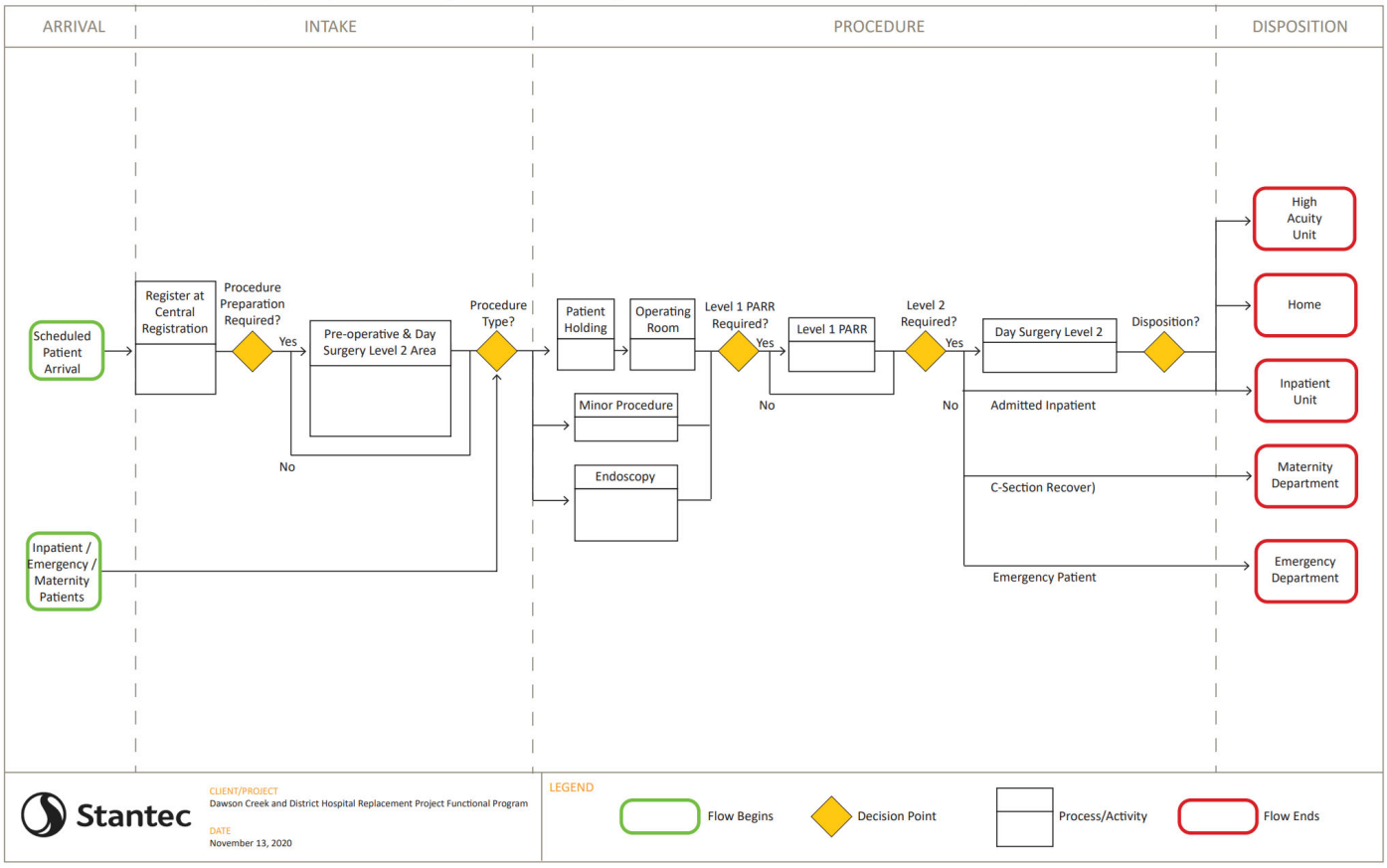
1A.7.2.3(5)(b)(ii) Procedure waste and other items will be disposed of in the Soiled Utility room adjacent to the entrance of the MDRD. No waste will enter the MDRD.

1A.7.2.3(5)(b)(iii) Procedure items (e.g. carts, equipment, instruments, etc.) will be dropped off in the MDRD lobby space adjacent to the Soiled Utility room.

1A.7.2.4 Future State Flow

1A.7.2.4(1) The future state flow map below describes the key flows for the future service delivery model for surgical services.

Dawson Creek and District Hospital Replacement Project - Functional Program - SURGICAL SERVICES - Future State Flow Map



1A.7.2.5 Support Activities

1A.7.2.5(1) For a description of general support activities applicable to this Component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.7.2.5(2) **Biomedical Engineering**

1A.7.2.5(2)(a) A Biomedical Engineering work area will be provided for maintenance and holding of OR equipment requiring repairs.

1A.7.2.5(3) **Diagnostic Imaging**

1A.7.2.5(3)(a) Portable X-ray and C-arm will be available to Surgical Services.

1A.7.2.5(3)(b) Portable ultrasound will be available.

1A.7.2.5(4) **Laboratory**

1A.7.2.5(4)(a) STAT specimens will be collected by laboratory technicians and transported by Lab Staff) to the Lab for further processing. Specimens will be held in a specimen pass-through cabinet that will be located at the Staff-controlled access point to the Surgical Services area. This enables Lab Staff to collect specimens from the cabinet located at the Staff entrance, without having to gown and enter the Surgical Services area.

1A.7.2.5(4)(b) Non-urgent specimens will have been collected in the Outpatient specimen collection area prior to or following the procedure.

1A.7.2.5(4)(c) Limited point-of-care testing will be performed by surgical Staff (urine and glucose).

1A.7.2.5(5) **Laundry and Linen**

1A.7.2.5(5)(a) OR scrubs will be housed in the locker rooms and inventory levels will be maintained using a top-up system. Soiled uniforms will be removed by Housekeeping Staff.

1A.7.2.5(6) **Medical Device Reprocessing Department (MDRD)**

1A.7.2.5(6)(a) Provide for the decontamination, cleaning, and sterilization of surgical equipment, instruments and tools, and the storage of sterile supplies and procedure carts.

1A.7.2.5(6)(b) Accommodate adequate quantities of emergency/backup procedure carts that are prepared for evenings and weekends.

1A.7.2.5(6)(c) A dedicated scope reprocessing area where endoscopes will be cleaned and delivered, through a pass-through cabinet, from the endoscopy clean area into the endoscopy suite.

1A.7.2.5(7) **Medications / Pharmacy**

1A.7.2.5(7)(a) Medication will be dispensed using an automated medication distribution system (AMDS).

1A.7.3 STAFFING

1A.7.3.1 Estimated future Staffing for surgical services is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Surgical Services: Projected Staffing	
Position	**Projected FTE**
Day Surg	
DC1 Nurse	2.0
OR Booking	
Clerk V	1.0
Operating Room	
DC1 Nurse	8.0
DC3 Nurse	1.0
Total Surgical Services Staffing	**12.0**

1A.7.4 DESIGN CRITERIA

1A.7.4.1 External Relationships

1A.7.4.1(1) Patients arriving for a surgical procedure from central registration will access Surgical Services via general Facility circulation.

1A.7.4.1(2) Visitors will access the Surgical Services Waiting Area via general Facility circulation.

1A.7.4.1(3) Patients arriving for a surgical procedure from the Emergency Department will access Surgical Services via controlled Facility circulation.

1A.7.4.1(4) Inpatients arriving for a surgical procedure from the Inpatient area will access Surgical Services via controlled Facility circulation.

1A.7.4.1(5) Maternity Patients (c-sections) will have direct access to Surgical Services via controlled Facility circulation.

1A.7.4.1(6) MDRD will access Surgical Services via internal circulation for both soiled instruments requiring sterilization and sterilized instruments in closed case carts requiring staging in the Surgical Services area.

1A.7.4.1(6)(a) Scope reprocessing area will be co-located with the Endoscopy room.

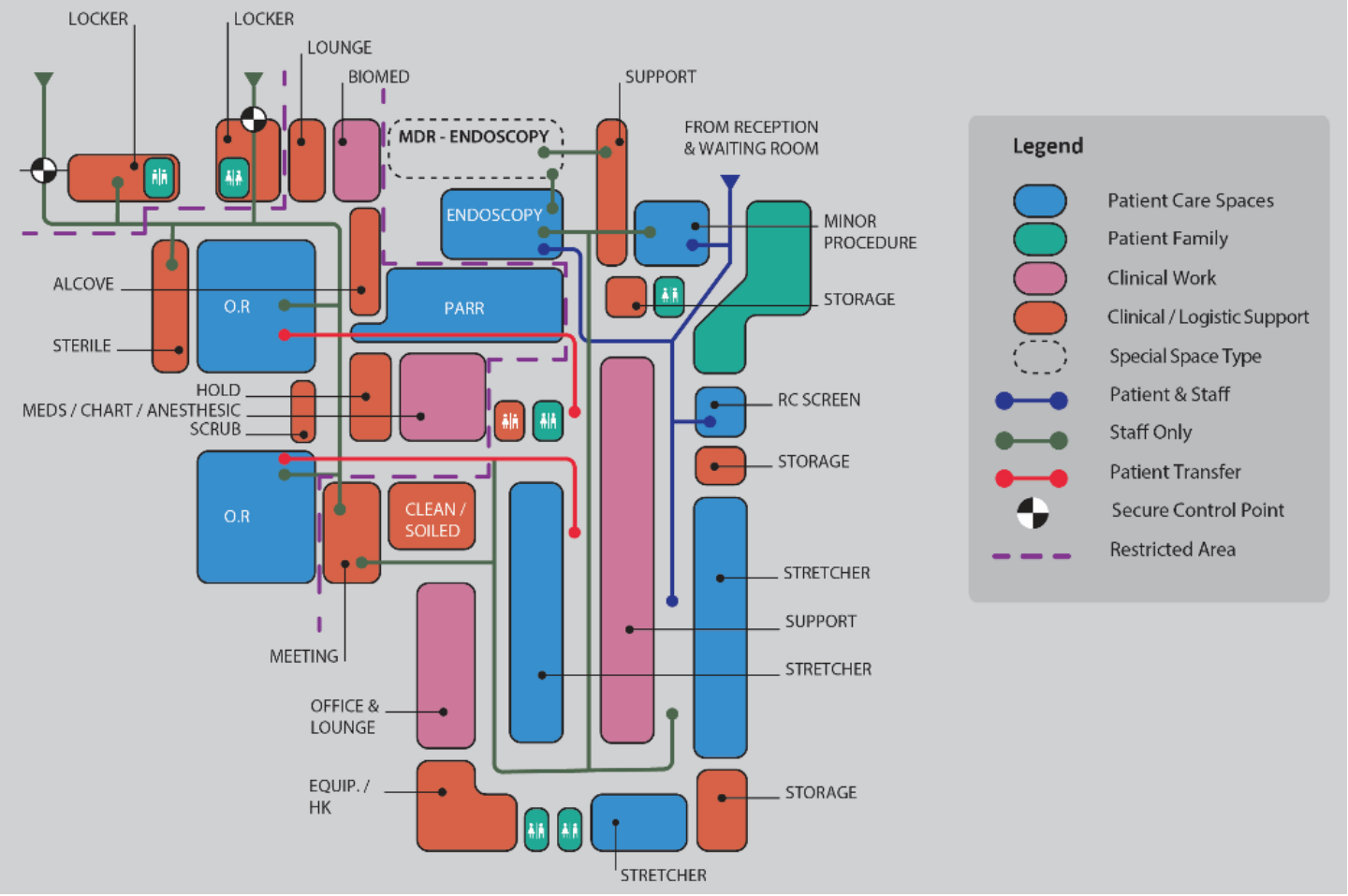
1A.7.4.1(7) Laboratory will access Surgical Services via controlled Facility circulation for the taking of specimens from Patients.

1A.7.4.1(7)(a) Some specimens will be placed in a pass-through cabinet located at the Staff entrance of Surgical Services to facilitate the collection of specimens by Lab Staff without having to enter the restricted area.

1A.7.4.1(8) To the extent possible, the delivery of supplies, equipment, laundry and linen, food services, lab collection, and medications to surgical services may occur via controlled Facility circulation (e.g. this could be a back-of-house access), however, general Facility circulation may also be used, if necessary.

1A.7.4.2 Functional Relationship Diagram

1A.7.4.2(1) Functional relationships between key areas generally will be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.7.4.3 Internal Design Criteria

1A.7.4.3(1) For a description of general design criteria applicable to this component, see Section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.7.4.3(2) **Functional Zoning**

1A.7.4.3(2)(a) Surgical services will be organized into four (4) major zones that define restrictions on access and different levels of cleanliness:

1A.7.4.3(2)(a)(i) A public zone accessed from a public corridor for Patients requiring pre-screening and for OR booking function.

1A.7.4.3(2)(a)(ii) An unrestricted zone represents the component's main Staff and Patient entrance. It is the point beyond which only authorized personnel and Patients will be allowed to proceed. Traffic monitoring and controlling will be key functions associated with this zone.

1A.7.4.3(2)(a)(iii) A semi-restricted zone accommodates support facilities including clean/sterile holding areas, technical work areas, and Staff support rooms. Additionally, the preparation and level 2 recovery spaces, minor procedures room, and endoscopy room will be part of this zone.

1A.7.4.3(2)(a)(iv) A restricted sterile zone represents the operating suites, sterile supply storage, non-sterile supplies, level 1 (PARR) recovery spaces, and associated support spaces.

1A.7.4.3(2)(a)(v) The operating rooms will be located the sterile corridor with each operating room having a minimum of two (2) doors. One (1) Staff door leading into the sterile supply storage, and one (1) large Patient door leading to the Patient circulation corridor.

1A.7.4.3(2)(b) Patient flow through these areas will be developed around efficient and direct pathways. Complete one-way flow in where inbound and outbound Patients do not cross paths is not required.

1A.7.4.3(3) **Separation of Clean and Dirty Flow**

1A.7.4.3(3)(a) Separate internal corridors between this component and the MDRD will enable preservation of the sterile core and transportation of contaminated items while providing the highest infection control standards. The co-location of the MDRD to the surgical services component is required.

1A.7.4.3(4) **Environmental Controls**

1A.7.4.3(4)(a) With the exception of water used for hand washing in scrub sinks, provide conditioned water throughout this Component.

1A.7.4.3(4)(b) All pressurization requirements will adhere to the CSA Z317.2 requirements.

1A.7.4.3(4)(c) Each of the operating rooms, the pre-operative / level 2 holding areas, and the level 1 (PARR) recovery area will have separate temperature and humidity controls. Temperatures in the operating rooms will be capable of being adjusted rapidly to accommodate heat generated by surgical equipment.

1A.7.4.3(4)(d) Exhaust systems incorporated into each operating room will be capable of immediately removing smoke that may be generated during a surgical procedure.

1A.7.4.3(4)(e) In terms of internal air handling and requirements for number of “air changes per hour”, areas of the surgical services component will be detailed in the technical specifications.

1A.7.4.3(5) **Component Access and Security**

1A.7.4.3(5)(a) Access to the semi-restricted and restricted zones will be restricted to authorized personnel; all points of access are controlled electronically (e.g. electronic reader for key card, fingerprint, etc.).

1A.7.4.3(5)(b) Access technology at the main Patient entrance will be connected to automatic doors enabling surgical Staff to maneuver stretchers, bariatric beds, and wheelchairs easily.

1A.7.4.3(5)(c) Access to the pre-screening office will require direct access off of a public corridor, Patients will not use the Component’s Main Entrance to access this space. This area must be fully accessible for those in wheelchairs or who have limited mobility.

1A.7.4.3(6) **Technology (SurgiNet)**

1A.7.4.3(6)(a) At time of this document, the details of the SurgiNet program are not fully defined. It is assumed that data, electrical, and wall space will be provided to accommodate tracking boards, power charts, and other SurgiNet processes.

1A.7.4.3(7) **Operating Room**

1A.7.4.3(7)(a) For each operating room:

1A.7.4.3(7)(b) Provide a minimum of two (2) doors; one (1) Staff door that opens the sterile supply storage and one (1) large Patient door leading to the Patient circulation corridor. A third door for movement of Staff and materials will be determined during the design.

1A.7.4.3(7)(c) Provide an adjacent scrub sink.

1A.7.4.3(7)(c)(i) Provide handsfree controls for faucets and soap dispensers.

1A.7.4.3(7)(c)(ii) Provide a stainless-steel shelf above the length of the scrub sink no less than 200mm deep.

1A.7.4.3(7)(c)(iii) The scrub sink will be in an alcove so that users are not standing in a circulation corridor.

1A.7.4.3(7)(d) Provide a width of no less than 7300mm.

1A.7.4.3(7)(e) Accommodate four (4) sided access around the Patient.

1A.7.4.3(7)(f) Provide booms that incorporate medical gases and suction (per Appendix 1M), video/monitors, anesthesia, IV poles, etc.

1A.7.4.3(7)(f)(i) Not used.

1A.7.4.3(7)(g) Provide medical gases and suction (per Appendix 1M) in the operating rooms using an articulating, boom-mounted system capable of adapting to different orientations of an operating room table or a Patient stretcher.

1A.7.4.3(7)(g)(i) Provide nitrogen for dental instruments and nitrous oxide for maternity twin delivery and/or emergency c-section.

1A.7.4.3(7)(h) Provide a ceiling mounted OR lights.

1A.7.4.3(7)(i) No fixed imaging is required.

1A.7.4.3(7)(j) Provide two (2) Workstations each with three (3) monitors capable of displaying Patient-related information, diagnostic images, laboratory test results, and real-time images of procedures in progress.

1A.7.4.3(7)(j)(i) A bank of three (3) monitors will be provided and fixed-mounted and located in a position capable of being viewed from any location in the operating room. It will include one (1) PACS monitor and one (1) monitor at the head of Patient (for anesthetists).

1A.7.4.3(7)(j)(ii) A second bank of three (3) monitors mounted on an articulating boom system will be provided for use by the surgeon/physician during a surgical procedure.

1A.7.4.3(7)(k) Provide ceiling heights and adequate clearance to allow a portable c-arm to be used when required.

1A.7.4.3(7)(l) Provide gas attachments at the foot of the room for radiant warmers (e.g. panda warmer).

1A.7.4.3(7)(m) Provide an active gas scavenging system with gas scavenging outlets in the OR.

1A.7.4.3(7)(n) Provide a Patient warmer (i.e. a Bair Hugger).

1A.7.4.3(7)(o) Provide all sinks installed in the OR with plaster traps.

1A.7.4.3(7)(p) Provide stainless steel workspaces, counters, and finishes.

1A.7.4.3(7)(q) If either or both of the operating rooms are located on an exterior wall, they will be provided with automated blackout blinds. Ensure maintenance access for blackout blinds.

1A.7.4.3(7)(r) Provide storage of items such as procedural supplies, medications, and specimen collection supplies outside of the space but in close proximity.

1A.7.4.3(7)(s) Accommodate access to cart storage alcoves located outside the room but in close proximity to the operating rooms.

1A.7.4.3(7)(t) The location and rating of electrical power outlets, medical gas and suction delivery systems, lighting systems, and video monitors will be standardized and confirmed with users during design.

1A.7.4.3(7)(u) Infant Resuscitation / Stabilization Area (inside OR)

1A.7.4.3(7)(u)(i) This space is not required if a close adjacency to the Maternal and Newborn Inpatient Unit is provided.

1A.7.4.3(7)(u)(ii) Babies will be stabilized in the operating room and transported to the Holding Nursery.

1A.7.4.3(8) **Minor Procedure Room**

1A.7.4.3(8)(a) Accommodate four (4) sided access around the Patient.

1A.7.4.3(8)(b) Provide booms that incorporate medical gases and suction (per Appendix 1M), vital signs monitor (VSM), video/monitors, IV poles, etc.

1A.7.4.3(8)(b)(i) Not used.

1A.7.4.3(8)(c) Provide a ceiling mounted procedure light.

1A.7.4.3(8)(d) Provide piped nitrous oxide. Refer to Appendix 1M.

1A.7.4.3(8)(e) No fixed imaging is required.

1A.7.4.3(8)(f) Provide compressed air, suction, and nitrogen (equipment power source) for dental surgery. Refer to Appendix 1M.

1A.7.4.3(8)(g) Provide medical gases and suction (per Appendix 1M) in the procedure room using an articulating, boom-mounted system capable of adapting to different orientations of a table or a Patient stretcher.

1A.7.4.3(8)(h) Provide two (2) Workstations each with two (2) monitors capable of displaying Patient-related information, diagnostic images, laboratory test results, and real-time images of procedures in progress.

1A.7.4.3(8)(h)(i) A bank of two (2) monitors will be provided and fixed-mounted and located in a position capable of being viewed from any location in the operating room. It will include one (1) PACS monitor.

1A.7.4.3(8)(h)(ii) A second bank of two (2) monitors mounted on an articulating boom system will be provided for use by the surgeon/physician during a procedure.

1A.7.4.3(8)(i) Provide ceiling heights and adequate clearance to allow a portable c-arm to be used when required.

1A.7.4.3(8)(j) Provide Patient comfort characteristics such as temperature control, audio/speakers, and dimmable lighting.

1A.7.4.3(8)(k) Provide stainless steel Workstation, workspaces, and counters.

1A.7.4.3(8)(l) Accommodate storage of items such as procedural supplies, medications, and specimen collection supplies outside of the space but in close proximity.

1A.7.4.3(8)(m) Accommodate access to cart storage alcoves located outside the room but in close proximity to the minor procedure room.

1A.7.4.3(8)(n) The location and rating of electrical power outlets, medical gas and suction delivery systems, lighting systems, and video monitors will be standardized and confirmed with users during design.

1A.7.4.3(9) **Endoscopy Suite**

1A.7.4.3(9)(a) Accommodate four (4) sided access around the Patient.

1A.7.4.3(9)(b) Provide booms that incorporate medical gases and suction (per Appendix 1M), vital signs monitor (VSM), video/monitors, IV poles, etc.

1A.7.4.3(9)(b)(i) Not used.

1A.7.4.3(9)(c) Provide a ceiling mounted procedure light.

1A.7.4.3(9)(d) Provide piped nitrous oxide.

1A.7.4.3(9)(e) No fixed imaging is required.

1A.7.4.3(9)(f) Provide compressed air, suction, and nitrogen (equipment power source) for dental surgery. Refer to Appendix 1M.

1A.7.4.3(9)(g) Provide medical gases and suction (per Appendix 1M) in the procedure room using an articulating, boom-mounted system capable of adapting to different orientations of a table or a Patient stretcher.

1A.7.4.3(9)(h) Provide two (2) Workstations each with three (3) monitors capable of displaying Patient-related information, diagnostic images, laboratory test results, and real-time images of procedures in progress.

1A.7.4.3(9)(h)(i) A bank of three (3) monitors will be provided and fixed-mounted and located in a position capable of being viewed from any location in the operating room. It will include one (1) PACS monitor.

1A.7.4.3(9)(h)(ii) A second bank of three (3) monitors mounted on an articulating boom system will be provided for use by the surgeon/physician during a procedure.

1A.7.4.3(9)(i) Provide ceiling heights and adequate clearance to allow a portable c-arm to be used when required.

1A.7.4.3(9)(j) Provide Patient comfort characteristics such as temperature control, audio/speakers, and dimmable lighting.

1A.7.4.3(9)(k) Provide stainless steel Workstation, workspaces, and counters.

1A.7.4.3(9)(l) Accommodate storage of items such as procedural supplies, medications, and specimen collection supplies outside of the space but in close proximity.

1A.7.4.3(9)(m) Accommodate access to cart storage alcoves located outside the room but in close proximity to the endoscopy room.

1A.7.4.3(9)(n) The location and rating of electrical power outlets, medical gas and suction delivery systems, lighting systems, and video monitors will be standardized and confirmed with users during design.

1A.7.4.3(9)(o) Provide a scope pre-cleaning area (Workstation, scanner) to initiate a scope reprocessing flow.

1A.7.4.3(9)(p) Provide a door into the scope reprocessing area (dirty side) for the movement of scopes used in a procedure to the starting point of the scope reprocessing process.

1A.7.4.3(9)(q) Provide clear access to the pass-through scope drying and storage cabinet which is stocked from the scope reprocessing clean area.

1A.7.4.3(10) **Level 1 (PARR) Recovery**

1A.7.4.3(10)(a) For each level 1 (PARR) recovery space:

1A.7.4.3(10)(a)(i) Provide a three (3) wall space for each bay. The side walls separating each bay will be full height dividing walls extending 900mm from the headwalls.

1A.7.4.3(10)(a)(ii) Provide a ligature-resistant curtain track system around the sides and foot of each bay for Patient privacy. When the curtains are open, Staff will have unobstructed sightlines to view all four (4) of the stretcher bays.

1A.7.4.3(10)(b) Provide a shared charting Workstation for every two (2) spaces with unobstructed access from the corridor and located in the ¼ section of the transparent wall.

1A.7.4.3(10)(c) Provide headwalls with all medical gases and suction (per Appendix 1M).

1A.7.4.3(10)(d) Provide emergency call buttons.

1A.7.4.3(10)(e) Provide a monitor capable of displaying Patient-related information including vital statistics, diagnostic images, and laboratory test results.

1A.7.4.3(10)(f) Not used.

1A.7.4.3(10)(g) The level 1 (PARR) will be adjacent to both the operating room area and level 2 recovery.

1A.7.4.3(10)(g)(i) Provide an automatic door with hold opens and push plates on both sides between PARR and the surgical area that is central to the procedure rooms.

1A.7.4.3(10)(g)(ii) Provide an automatic door with hold opens and push plates on both sides between PARR and the level 2 recovery area.

1A.7.4.3(10)(g)(iii) Provide corridors leading into and out of the area with few corners and turns with automatic doors with push plates on both sides.

1A.7.4.3(10)(g)(iv) Provide sufficient sightlines where fire doors remain closed, and integration of ceiling mounted convex mirrors at intersections.

1A.7.4.3(10)(h) Accommodate Patient stretchers in all PARR bays.

1A.7.4.3(10)(h)(i) Because all Patients are on stretchers, corridor widths in the PARR area will be 2400mm.

1A.7.4.3(11) **Pre-operative and Level 2 Recovery**

1A.7.4.3(11)(a) For each pre-operative / level 2 recovery space:

1A.7.4.3(11)(a)(i) Provide a three (3) wall space for each bay. The side walls separating each bay will be full height dividing walls extending 900mm from the headwalls.

1A.7.4.3(11)(a)(ii) Provide a ligature-resistant curtain track system around the sides and foot of each bay for Patient privacy. When the curtains are open, Staff will have unobstructed sightlines to view a minimum of 2-3 of the stretcher bays.

1A.7.4.3(11)(b) Provide a shared charting Workstation for every two (2) spaces with unobstructed access from the corridor and located in the ¼ section of the transparent wall.

1A.7.4.3(11)(c) Provide headwalls with all medical gases and suction (per Appendix 1M).

1A.7.4.3(11)(d) Provide emergency call buttons.

1A.7.4.3(11)(e) Provide a monitor capable of displaying Patient-related information including vital statistics, diagnostic images, and laboratory test results.

1A.7.4.3(11)(f) Provide a shared charting Workstation for every two (2) bays with unobstructed access from the corridor and at the start of the transparent wall.

1A.7.4.3(11)(g) Provide a ceiling mounted Patient lift in one (1) level 2 recovery space.

1A.7.4.3(11)(h) The level 2 recovery will be adjacent to level 1 (PARR) recovery.

1A.7.4.3(11)(i) Provide two (2) strategically located washrooms within the level 2 pre-operative /recovery bays for convenient access for Patients.

1A.7.4.3(11)(j) Accommodate Patient stretchers in all level 2 bays.

1A.7.4.3(11)(j)(i) Because all Patients are on stretchers, corridor widths in all prep/recovery areas will be 2400mm.

1A.7.5 SCHEDULE OF ACCOMMODATION

1A.7.5.1 Space requirements for surgical services are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.1.0	**Reception and Waiting Area**					
11.1.01	Workstation: Reception	1	4.6	4.6	- Accessible millwork Workstation with chair, computer station, phone, data, clerical storage; for unit clerk	-
11.1.02	Waiting Area	1	18.0	18.0	- Accommodates 12 people; soft seating; media capability (telehealth, education)	-
11.1.03	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); change table	Adjacent to waiting area
Surgical Services: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				27.2	**1.35**	**36.7**
11.2.0	**Procedure Preparation**					
-	Patient Preparation	- Included in Day Surgery (Level 2 Recovery) space				
Surgical Services: Procedure Preparation				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.50**	**0.0**

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.3.0	**Procedure Area**					
Operating Room						
11.3.01	Operating Room	2	60.0	120.0	- 2 booms & articulating arms (anesthesia and equipment); stainless steel finishes; Integrated computer system with monitors; Workstation; accommodate 2 stations; instrument tables, Patient warmer (Bair Hugger); cautery; Patient monitoring; OR lights; video monitoring; infusion pumps; IV poles (could be on the booms); medical gases (per Appendix 1M); PACS; surgical table (1 ortho table); physician stool; piped air; anaesthetics cart; ensure door and bed orientation is appropriate; tourniquet machine (on IV pole); gas attachments at the foot of the room for Panda Warmers	-
11.3.02	Scrub Sink Alcove	2	0.8	1.6	- Hands-free scrub sink & scrub supplies	-
11.3.03	Not used					
11.3.04	Charting Area	2	1.8	3.6	- Touchdown computer station (chair, computer, counter space)	-
11.3.05	Equipment Storage Alcove	1	10.0	10.0	- Storage with data and charging capability; mobile Patient lift	- adjacent to OR
11.3.07	Stretcher Alcove	2	3.0	6.0	- For Patient holding prior to procedure.	
11.3.08	Surgical Suite Control Desk	1	4.6	4.6	- Workstation with desk, PC, data; direct access to restricted areas	- 1 control desk for all surgical processes
11.3.09	Physician Dictation Workstation	2	4.6	9.2	- Chair, workspace, data, phone); open or closed touchdown space for physicians (dictation); provide acoustic and privacy requirements	- Outside of the OR
11.3.10	Not used					
11.3.11	Not used	-	-	-	-	-
11.3.12	Not used	-	-	-	-	-
11.3.13	Crash Cart Alcove	2	0.8	1.6	- Provide charging and data requirements; unimpeded access for Staff (pediatric, adult, neonatal)	-
11.3.14	Blanket Warmer	1	2.0	2.0	- Provide power requirements	-

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.3.15	Fluid Warmer	1	1.4	1.4	- Provide power requirements	-
11.3.16	Cart Storage	3	0.8	2.4	- Malignant hypothermia cart; cast cart; difficult intubation cart	- Illizarov Cart (in the MDRD)
11.3.17	Emergency Case Cart Storage	6	0.8	4.8	- Accommodates emergency case carts; 3 C-section carts; 1 gyne; 1 general surgery; 1 other; 2 ortho	- to store cart for after hours procedures
11.3.18	Alcove: Imaging and Equipment Alcoves	3	1.0	3.0	- Aprons, mini C-arm; dental cart; Panda Warmer; provide charging and data requirements	-
11.3.19	Alcove: C-Arm	1	2.0	2.0	- C-arm; provide charging and data requirements	-
11.3.19.02	Specimen Pass-Through Cabinet	1	0.5	0.5	- Secure pass-through specimen collection cabinet	- Must be located at the Staff entrance to the surgical services area and be accessible from both within the surgical services area (for specimen drop off after a procedure) and from the Staff circulation corridor so that lab Staff can collect specimens without entering the department.
-	Flash Sterilizer	Assumed to have adequate equipment redundancy; to be confirmed				
Minor Procedures						
11.3.20	Minor Procedure Room	1	23.0	23.0	- 4-sided Patient access without fixed imaging; lighting control; ceiling mounted articulating arms; cardiac monitoring; access to gyne stretcher; cautery; ceiling mounted light; storage for dressing supplies (cart or cabinets); piped nitrous	-
11.3.21	Scrub Sink Alcove	1	0.8	0.8	- Scrub sink & scrub supplies	-
11.3.22	Cart Storage	1	0.8	0.8	- Accommodates specialty carts; medication cart	-
11.3.23	Crash Cart Alcove	1	0.8	0.8	- Charging and data requirements; unimpeded access for Staff (shared between minor procedures and endoscopy)	- If in close proximity to PARR, may not be required - shared with endoscopy

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.3.24	Bed / Stretcher Storage	2	2.0	4.0	- Gyne stretcher and other	- Shared with Endoscopy; could be in a closed room
11.3.25	Charting Area	1	1.8	1.8	- Touchdown computer station (chair, computer, counter space)	-
Endoscopy						
11.3.26	Endoscopy Suite	1	38.0	38.0	- 4-sided Patient access with fixed imaging (includes control; lighting control; ceiling mounted articulating arms; ceiling mounted screens; data; light on a boom; monitor on boom; Patient and video monitoring; medical gases and suction (per Appendix 1M) on booms; cautery; argon	- charting to occur in the room
11.3.27	Scrub Sink Alcove	1	0.8	0.8	- Scrub sink & scrub supplies	-
-	Scope Storage	- Stored in the MDRD				
11.3.28	Supply Alcove	1	0.8	0.8	- Shelving for point-of-use supplies	- May be in room; to be determined
11.3.29	Anesthetic Workroom	1	4.6	4.6	- Supply storage; counter space; Workstation; label printer	-
11.3.30	Cart Storage	2	0.8	1.6	- Accommodates transport carts	assumes CO_2 is piped in
11.3.31	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink); baby change area	-
11.3.32	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	-
Surgical Services: Procedure Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				258.9	**1.50**	**388.4**
11.4.0 Recovery Area						
PARR (Level 1)						
11.4.01	PARR (Level 1) - Stretcher	4	9.5	38.0	- 3 walls with curtain across the front of the bay; walls separating Patients will have ligature-resistant curtain track system for privacy on 3 sides; vertical partial wall on 2 sides separating Patients; headwall; emergency & call buttons	-
11.4.02	Charting Area	2	1.8	3.6	- Touchdown computer station (chair, computer, counter space); 1x shared label printer	-
11.4.03	Blanket Warmer	1	2.0	2.0	- Provide electrical requirements	

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.4.04	Crash Cart Alcove	1	0.8	0.8	- Provide charging and data requirements; unimpeded access for Staff (shared between minor procedures and endoscopy)	- If in close proximity to PARR, may not be required - shared with endoscopy
11.4.05	Medication Room	1	16.4	16.4	- Refrigerator/freezer; multi-cart storage; secured; hand hygiene sink; computer; automated medication dispensing; emergency eye wash station; millwork storage cabinet; wall mounted Workstation	-
11.4.06	Hand Hygiene Sink	1	1.0	1.0	- Hands free; non-porous; splash-proof	
11.4.07	Soiled Utility	1	12.0	12.0	- Temporary storage of waste, supplies, and equipment; seamless flooring and counter tops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste; medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink	- In the non-restricted area
11.4.08	Clean Utility	1	11.0	11.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	- In the non-restricted area
11.4.09	Storage Alcove	2	0.8	1.6	- Block art; GlideScope	
11.4.10	Equipment Storage	1	10.0	10.0	- PCA pumps (6); ultrasound; Bair Hugger; blood warmer, IV pumps; mobile Patient lift	Shared between PARR and Level 2
Day Surgery Level 2						
11.4.11	Pre-Operative / Day Surgery (Level 2) Recovery Stretchers	12	9.5	114.0	- 3 walls with curtain across the front of the bay; walls separating Patients will have ligature-resistant curtain track system for privacy on 3 sides; vertical partial wall on 2 sides separating Patients; headwall; emergency & call buttons; ceiling-mounted Patient lift in 1 of the level 2 recovery rooms	-
11.4.12	Pre-Operative / Day Surgery (Level 2) Recovery - Washroom	2	4.6	9.2	- Accessible 2-piece washroom (sink, toilet)	-
11.4.13	Charting Area	6	1.8	10.8	- Touchdown computer station (chair, computer, counter space)	-

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.4.14	Blanket Warmer	1	2.0	2.0	- Provide charging requirements	-
11.4.15	Fluid Warmer	1	1.0	1.0	- Provide charging requirements	-
11.4.16	Patient Nutrition Station	1	3.0	3.0	- Sink, undercounter refrigerator, microwave, etc.	-
11.4.17	Hand Hygiene Sink	1	1.0	1.0	- Hands free; non-porous; splash-proof	
11.4.18	Secure Storage for Patients	1	2.4	2.4	- For Patient belongings while in procedure (6 half lockers)	-
11.4.19	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	-
Surgical Services: Recovery Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				244.4	**1.50**	**366.6**
11.5.0	**Clinical Support**					
Medication						
11.5.01	Medication / Clean Utility	1	15.0	15.0	- Secured; counter; automated medication dispensing; storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements); lockable cabinet secured to wall; emergency eye wash station	- In the restricted area
Equipment and Supply Storage						
11.5.02	Equipment Storage	1	10.0	10.0	- Provide shelving and charging requirements; scale	-
11.5.03	Not used					
11.5.04	Alcove: Clean Linen	2	2.0	4.0	- For clean linen storage; provide shelving, data, and charging requirements; cannot be located underneath an electrical panel	- consider an enclosed space rather than opening into hallway
-	Cart and Storage Alcoves	- Identified in the Procedure Area				
Environmental Services						
11.5.05	Soiled Utility	1	12.0	12.0	- Temporary storage of waste, supplies and equipment; seamless flooring and counter tops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste; medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink; macerator supplies	- In the restricted area near MDRD

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.5.06	Housekeeping Room	1	10.0	10.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment; touchless hand hygiene sink with a backer board	
Biomedical Engineering						
11.5.07	Biomed Workroom	1	10.0	10.0	- Provide medical gases (per Appendix 1M), water, electrical outlets, data, counter space for working	-
Surgical Services: Clinical Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				61.0	**1.35**	**82.4**
11.6.0	**Staff Support**					
Work Space						
11.6.01	Office: Nurse Manager	1	10.0	10.0	- Private office with desk, chair, cabinets, 2 visitor chairs	-
-	Workstation: Unit Clerk	- Included at reception				
11.6.02	Office: OR Booking Clerk	1	10.0	10.0	- Private office with desk, chair, cabinets, 2 visitor chairs	
11.6.03	Office: Pre-Screening	1	10.0	10.0	- Private office with desk, chair, cabinets, 2 visitor chairs; vital signs monitor; ensure area is wheelchair accessible	
11.6.04	Clinical Workstations	2	3.0	6.0	- Chair, millwork counter, computer, phone, data, cabinets, and shelving for storage	-
11.6.05	Business Centre	1	7.0	7.0	- Photocopier/fax; clerical supplies; mail slots	- Shared with MDRD
11.6.06	Meeting / Education Room	1	20.0	20.0	- Accommodates 8-10 people; lightweight and movable tables & chairs; multi-media capable	- Shared with MDRD

11.0 Surgical Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
11.6.07	Staff Lounge	1	20.0	20.0	- Soft seating for 8-12 Staff; - PC station, TV	- Shared with MDRD - combined with 21.6.01 Kitchenette in MDRD - to be located outside the restricted area
Lockers and Washroom						
11.6.08	Locker Room with Change Areas (male)	1	15.0	15.0	- 20 full lockers; PPE storage; bench	- Shared with MDRD
11.6.09	Locker Room with Change Areas (female)	1	15.0	15.0	- 20 full lockers; PPE storage; bench	- Shared with MDRD
11.6.10	Staff Washroom (Female)	1	6.0	6.0	- 3-pc Staff Washroom (toilet, sink, shower); hooks; fold-down seat	- Direct access from 11.6.09 Locker Room with Changes Areas (female)
11.6.11	Staff Washroom (Male)	1	6.0	6.0	- 3-pc Staff Washroom (toilet, sink, shower); hooks; fold-down seat	- Direct access from 11.6.08 Locker Room with Changes Areas (male)
-	Staff Washroom	- The Staff washrooms are located in the care areas and shared with MDRD. The locker rooms will be located in the restricted area and both the male and female locker rooms will incorporate a Staff washroom. - A Staff washroom must also be provided in the non-restricted area.				
Surgical Services: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				125.0	**1.35**	**168.8**
11.7.0	**On Call Room**					
-	On Call Sleep Room	- shared with other on-call sleep rooms				
-	On Call Washroom	- shared with other on-call sleep washrooms				
Surgical Services: On Call Room				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
Total Surgical Services Area				**716.5**		**1,042.8**

1A.8 DIAGNOSTIC IMAGING

This specification outlines the functional, operational, and physical requirements for Diagnostic Imaging (DI) component.

1A.8.1 FUNCTIONAL DESCRIPTION

1A.8.1.1 Statement of Purpose

1A.8.1.1(1) DI services will accommodate the imaging of internal organs, bones, and system functioning. Different imaging modalities will be used for diagnostic and interventional purposes.

1A.8.1.1(2) DI will accommodate both scheduled and unscheduled visits (from the Emergency Department, Inpatient areas, and Ambulatory Services).

1A.8.1.1(2)(a) Unscheduled walk-in Patients will present for x-ray only.

1A.8.1.1(3) DI services will accommodate residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centred model of care.

1A.8.1.2 Scope of Services

1A.8.1.2(1) **Functional Content**

1A.8.1.2(1)(a) DI will provide booking, registration and reception, imaging, processing, and interpretation of images, and documentation and distribution of results.

1A.8.1.2(1)(b) DI services will include:

1A.8.1.2(1)(b)(i) CT scanning

1A.8.1.2(1)(b)(ii) general radiology and fluoroscopy.

1A.8.1.2(1)(b)(iii) ultrasound

1A.8.1.2(1)(b)(iv) mammography

1A.8.1.2(1)(b)(v) bone densitometry

1A.8.1.2(1)(b)(vi) magnetic resonance imaging

1A.8.1.2(1)(b)(vii) As technology is rapidly evolving, flexibility will be planned to accommodate future technologies.

1A.8.1.2(1)(c) DI will provide modality support including change cubicles, washrooms, and waiting areas.

1A.8.1.2(1)(d) DI will provide Inpatient holding area.

1A.8.1.2(2) **Planning Assumptions**

1A.8.1.2(2)(a) The following items are expected to influence the nature and/or extent of functions in the future. Effects of these trends will be reflected in the design.

1A.8.1.2(2)(a)(i) Enhanced interconnectivity of medical imaging devices will require data and power requirements (i.e. data drops for the transfer of information into the electronic medical record (EMR) system in all clinical areas).

1A.8.1.2(2)(a)(ii) Telehealth / teleradiology technology will continue to expand more services to remotely located Patients.

1A.8.1.2(2)(a)(iii) Systems will shift to become Patient centric, allowing from self-booking and changing appointments to viewing reports and images online.

1A.8.1.2(2)(a)(iv) Provide data and power requirements to accommodate self check-in kiosks in the future.

1A.8.1.2(2)(a)(v) Emergence of 3D technologies, 3S ultrasonic holography, and fusion imaging.

1A.8.1.2(3) **Excluded**

1A.8.1.2(3)(a) Electrocardiograms (ECGs) will not be provided in Diagnostic Imaging and will be completed in the Lab.

1A.8.1.2(3)(b) Film-based images will be stored off-site and/or digitized.

1A.8.2 OPERATIONAL DESCRIPTION

1A.8.2.1 Hours of Operation

1A.8.2.1(1) DI will be available Monday to Friday, from 0800-1600 with after hours call-backs as required.

1A.8.2.1(2) DI will be available on weekends and holidays for emergencies and surgical services, from 0900-1700.

1A.8.2.2 Organization & Management

1A.8.2.2(1) DI will be managed by the DI manager.

1A.8.2.3 Workflow

1A.8.2.3(1) **Outpatients**

1A.8.2.3(1)(a) Patients arriving for scheduled or unscheduled imagining procedures will proceed directly to the DI department for reception and registration.

1A.8.2.3(1)(a)(i) Patients may have to wait in the waiting area prior to being registered and/or speaking to registration.

1A.8.2.3(1)(b) Once registered, Patients will be directed to the sub-waiting area and/or modality dedicated change cubicle most appropriate for their imaging procedure.

1A.8.2.3(1)(b)(i) Patients may have to change into a gown. If so, registration will provide the Patient with a gown and bag for personal items.

1A.8.2.3(1)(b)(ii) Patients will have secure lockers to store their belongings.

1A.8.2.3(1)(c) Patients who require multiple imaging modalities will not have to re-register and will be directed by Staff to the next modality area.

1A.8.2.3(1)(d) Following the imaging procedure, Patients will change, if required, and leave the DI area.

1A.8.2.3(2) **Inpatients and Emergency Patients**

1A.8.2.3(2)(a) Patients arriving from the Inpatient Units, and/or Emergency areas (or any other area in the Facility, if required) will be transported by Staff (could be either unit or DI Staff) to the DI area. These Patients will arrive on a stretcher, in a wheelchair, or on foot and will enter the modality room.

1A.8.2.3(2)(a)(i) The majority of the time, these Patients will not be called to the DI department until the modality room is ready. However, if there is a need to hold a Patient on a stretcher, a Patient holding stretcher will be located in close proximity to the CT area to be shared by all modalities.

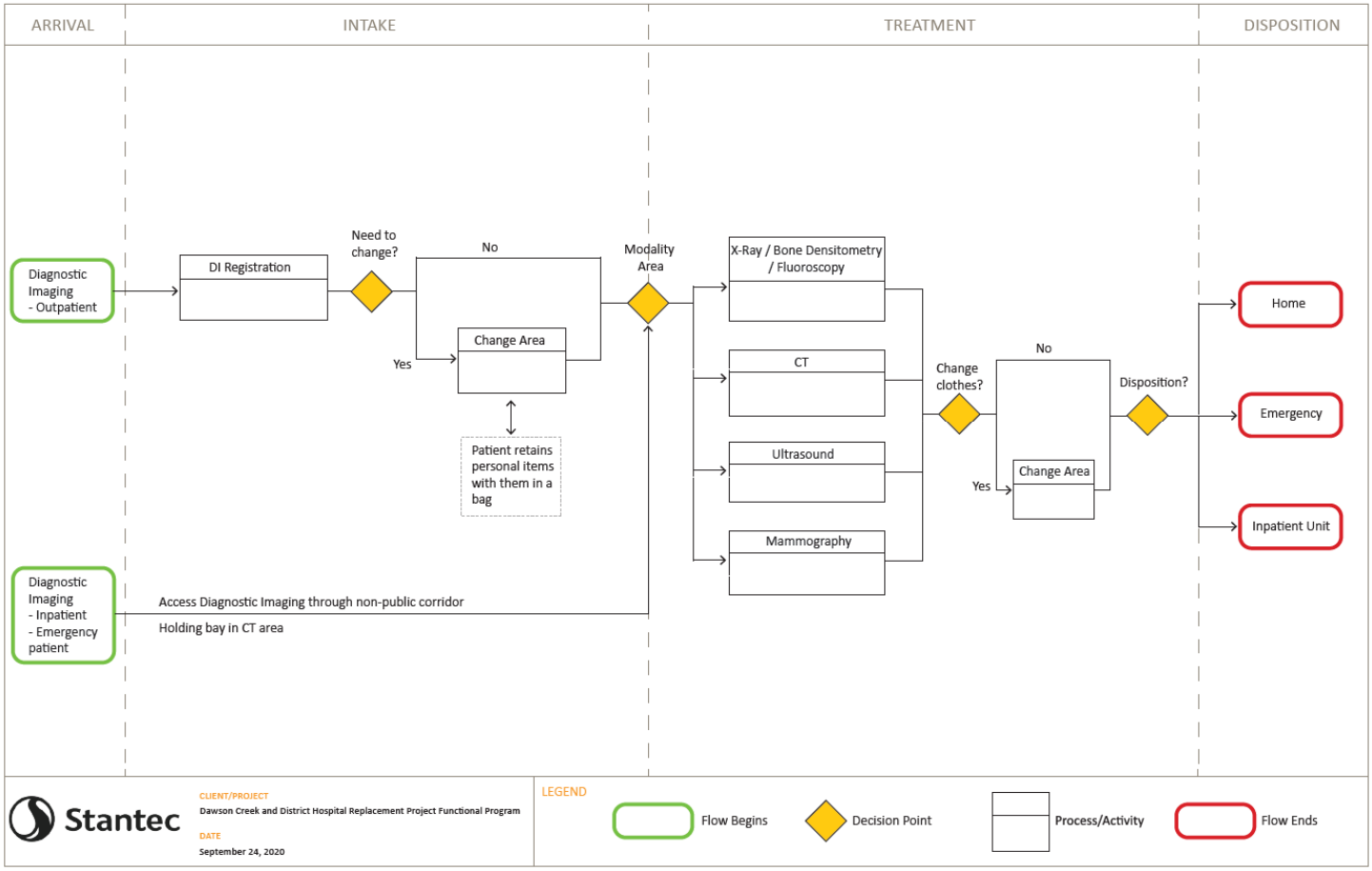
1A.8.2.3(2)(a)(ii) Security between all departments will be card swipe access with automatic door openers.

1A.8.2.3(2)(b) Following the imaging procedure, Patients will be transported back to their Inpatient Units or the Emergency Department (with direct access to the CT). If Patients are able to walk back to their care area, these Patients would be directed by DI Staff and assisted with wayfinding.

1A.8.2.3(3) **Future State Flow Map**

1A.8.2.3(3)(a) The future state flow map below describes the key flows for the future service delivery model for DI.

Dawson Creek and District Hospital Replacement Project - Functional Program - DIAGNOSTIC IMAGING - Future State Flow Map



1A.8.2.4 Support Activities

1A.8.2.4(1) For a description of general support activities applicable to this component, see section 1A.0. These two sections must be read together.

1A.8.2.4(2) **Medications / Pharmacy**

1A.8.2.4(2)(a) Medications administered via image guidance will be supplied by Pharmacy and administered by a radiologist.

1A.8.2.4(2)(b) Inpatient and/or Emergency department Patients, if required, will have medications administered in their care area prior to arriving at DI.

1A.8.3 STAFFING

1A.8.3.1 Estimated future Staffing for DI is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Diagnostic Imaging: Projected Staffing	
Staff / Position	**Projected FTE**
CIS - Medical Imaging	
Medical Radiography Tech IV	1.0
Medical Radiography Tech V	1.0
CT	
Medical Radiography Tech III	2.0
Radiology	
Medical Radiography Tech I	1.0
Medical Radiography Tech II	2.0
Medical Radiography Tech III	2.0
Medical Radiography Tech VI	1.0
Ultrasound	
Medical Radiography Tech III	1.0
Ultrasonographer III	2.0
Imaging - Administration	
Clerk IV - Admitting (Outpatient Booking)	4.0
Manager	1.0
NH Medical Imaging Quality Assurance	1.0
PACS Administrators	1.5
Total Diagnostic Imaging Staffing	**20.5**

1A.8.4 DESIGN CRITERIA

1A.8.4.1 External Relationships

1A.8.4.1(1) Outpatients will access the DI department via general Facility circulation from the Facility Main Entrance.

1A.8.4.1(2) Emergency Patients will access the DI department via controlled Facility circulation from the Emergency department (with direct access to the CT from the Emergency department).

1A.8.4.1(2)(a) A secure control point with access (e.g. wipe card access) and automatic door openers will be provided between these departments.

1A.8.4.1(3) Inpatients will access the DI department via controlled Facility circulation from the Inpatient Unit.

1A.8.4.1(4) To the extent possible, the delivery of supplies, equipment, laundry, and medications to the DI area may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.8.4.1(4)(a) Provide weight / load and appropriate structural capacity to accommodate the movement of all pieces of DI equipment in corridors where equipment would move from the shipping / receiving area to the DI department.

1A.8.4.1(5) **Housekeeping**

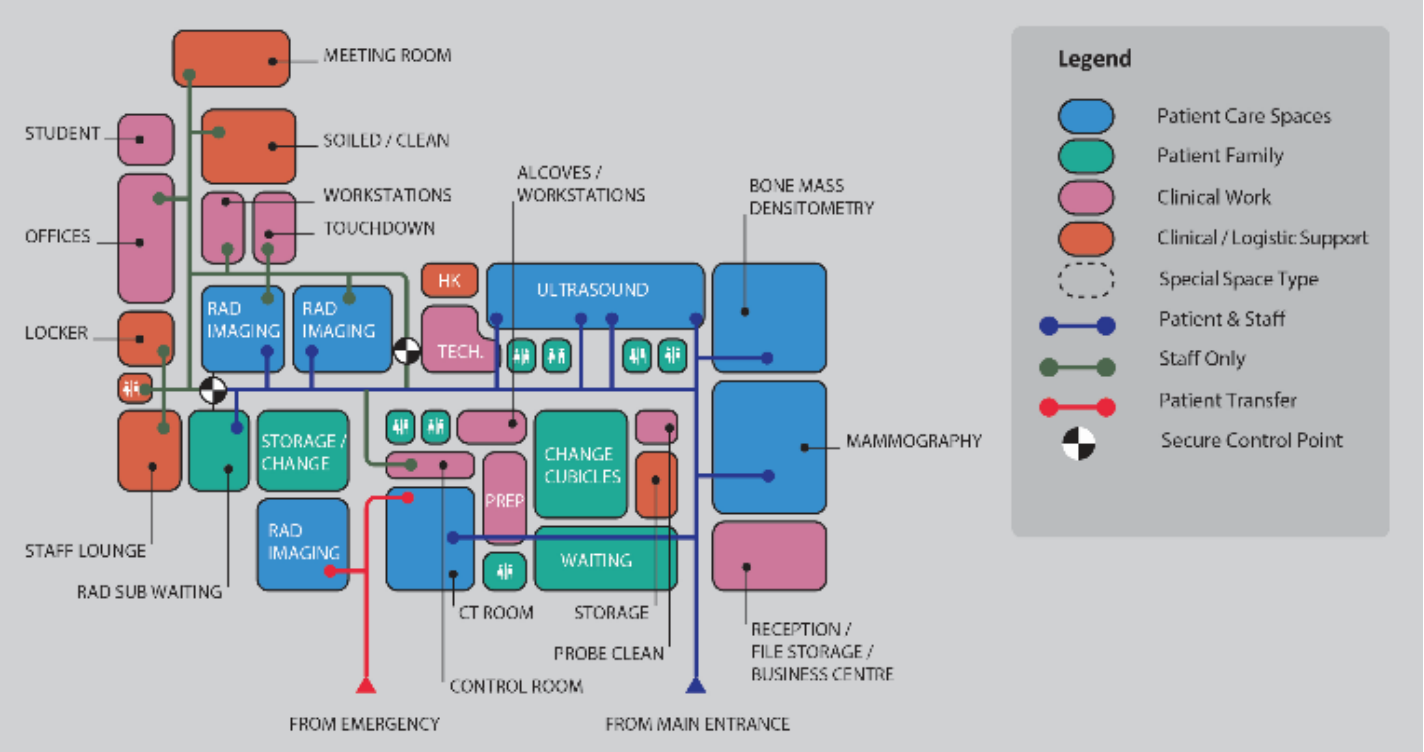
1A.8.4.1(5)(a) Clean and disinfect zone I-III program areas. Receives training as required to service MRI program areas.

1A.8.4.1(5)(b) Remove soiled supplies, garbage, biological and chemical waste, and recycling.

1A.8.4.1(5)(c) Zone IV is cleaned by the MRI techs. Space for specialized cleaning supplies (i.e. MRI safe non-metal/nonferromagnetic mop and bucket) is required in Zone III.

1A.8.4.2 Functional Relationship Diagram

1A.8.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. The diagram is not to scale, not all spaces may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.8.4.3 Internal Design Criteria

1A.8.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.8.4.3(2) **Unit Organization**

1A.8.4.3(2)(a) The modalities will be organized in six (6) distinct, self-contained clusters reflecting Staffing and Patient types as follows:

1A.8.4.3(2)(a)(i) One (1) cluster for radiography/fluoroscopy.

1A.8.4.3(2)(a)(ii) One (1) cluster for CT scan.

1A.8.4.3(2)(a)(iii) One (1) cluster for mammography.

1A.8.4.3(2)(a)(iv) One (1) cluster for ultrasound adjacent to bone densitometry.

1A.8.4.3(2)(a)(v) One (1) cluster for bone densitometry adjacent to ultrasound.

1A.8.4.3(2)(a)(vi) One (1) cluster for magnetic resonance imaging.

1A.8.4.3(3) **Entrances**

1A.8.4.3(3)(a) Provide two (2) separate entrances into this component that create both a physical and visual separation of two arriving Patient types.

1A.8.4.3(3)(a)(i) The majority of users will be ambulatory Outpatients. The entrance for this group will be easily visible and accessible from the Building Main Entrance.

1A.8.4.3(3)(a)(ii) A second entrance will be used for arriving and departing Emergency Patients and Inpatients. Cases arriving from the Emergency department (ED) can be unsettling to the public, and physical, visual, and acoustic isolation from the more public parts of the department will be provided.

1A.8.4.3(3)(a)(iii) The holding area for the Patients arriving from the Inpatient and ED will be adjacent to the CT area.

1A.8.4.3(3)(a)(iii)A Provide medical gases and suction (per Appendix 1M), emergency call bells, and be located in non-public area, without curtains, so that observation by Staff can occur.

1A.8.4.3(3)(a)(iii)B Provide point-of-use storage for equipment and for pre-procedure preparation (e.g. IV starts, etc.).

1A.8.4.3(4) **Reception and Waiting Area**

1A.8.4.3(4)(a) The registration Workstations and waiting area will be visible upon entry into the unit.

1A.8.4.3(4)(a)(i) Registration Workstations will be grouped together with full visibility of the General Waiting Area while retaining visual and acoustical privacy and Security (e.g. glazing) from the waiting area.

1A.8.4.3(4)(a)(ii) As there will not be a paper requisition triggering a Patient queueing system, registration Workstations will manage the Patient queueing and management system and coordinate with the techs for each modality.

1A.8.4.3(4)(a)(iii) One (1) of the reception Workstations will be wheelchair accessible.

1A.8.4.3(4)(a)(iv) Adjacent to the reception/registration desks will be the DI booking clerk office, Business Centre, and File Storage Area.

1A.8.4.3(4)(a)(iv)A These areas will not be accessible to the public. However, the DI booking clerk office will be accessed from the public corridor to facilitate Patient consultations. This office will not be located directly adjacent to the waiting area.

1A.8.4.3(4)(a)(iv)B The Business Centre is required to be an enclosed room if it is located in a Staff only area.

1A.8.4.3(4)(a)(iv)C Provide a Secure file storage area with wire rack shelving.

1A.8.4.3(4)(b) The General Waiting Area will have Patient chairs, a screen showing health information, and provide the ability for Patients to charge personal devices.

1A.8.4.3(5) **Modality Areas**

1A.8.4.3(5)(a) Each modality will be co-located with its support spaces creating a “pod” for each modality.

1A.8.4.3(5)(b) Provide clear signage and wayfinding from the reception and waiting area to each modality change room and waiting area for Patients navigating the DI department unescorted.

1A.8.4.3(5)(c) Sub-Waiting Areas

1A.8.4.3(5)(c)(i) Provide clear signage directing Patients from the registration and reception area to the various modality sub-waiting areas.

1A.8.4.3(5)(c)(ii) Provide each waiting area with a screen showing health information and provide the ability to charge personal devices.

1A.8.4.3(5)(c)(iii) In the CT area, provide an Inpatient holding stretcher area that accommodates one (1) stretcher. This area will include medical gases (per Appendix 1M), call bells, and curtains for Patient privacy.

1A.8.4.3(5)(d) Change Cubicles

1A.8.4.3(5)(d)(i) Provide change cubicles that will be three (3) walled booths with a door. Inside each cubicle, provide hooks for a coat and bag and a small millwork bench.

1A.8.4.3(6) **Modality Rooms**

1A.8.4.3(6)(a) All modality rooms will be enclosed spaces with a minimum door width of 1.2m wide.

1A.8.4.3(6)(b) Provide necessary shielding to retard particles general during the imaging procedures and shielding that meets all codes and industry requirements such as lead and steel plating.

1A.8.4.3(6)(b)(i) Provide 1.6mm (4-pound lead) lead lining in all Radiology imaging rooms, Radiology control rooms, the CT Room, and the CT Control Room.

1A.8.4.3(6)(b)(ii) For Radiology imaging rooms, provide 1.6mm (4-pound lead) lead lining on both sides of all shared walls.

1A.8.4.3(6)(c) Provide a design that meets all structural requirements, ceiling heights that facilitate the free movement of equipment, and the ability of the structure to accommodate any ceiling-mounted equipment, booms, etc.

1A.8.4.3(6)(c)(i) Provide appropriate floor loading capacity for equipment and shielding that considers the larger pieces of equipment.

1A.8.4.3(6)(d) Provide the entrance to the CT Room from a non-public corridor.

1A.8.4.3(6)(e) Imaging equipment will generate heat when in operation. Air handling in this component will be organized into zones enabling independent temperature regulation in different functional areas (driven by equipment selection and specifications).

1A.8.4.3(6)(f) Provide dedicated power source and UPS for each imaging room.

1A.8.4.3(6)(g) Provide a ceiling mounted (or equipment mounted) Patient lift in all Radiology imaging rooms, the CT Room, and one (1) Ultrasound Room.

1A.8.4.3(6)(h) Provide headwall with medical gases and two (2) suction (per Appendix 1M) and emergency call bells in each modality room.

1A.8.4.3(6)(i) Provide lighting controls that accommodate dimming. Dimmable lighting will be required in all meeting and educational spaces.

1A.8.4.3(6)(j) Provide a hand hygiene sink in each modality room except for MRI Room.

1A.8.4.3(6)(k) Provide PACS system in all control rooms and at all tech Workstations. All tech Workstations and anywhere in the Building where PACS viewing will occur, the Workstation will accommodate two (2) monitors (including one (1) PACS monitor).

1A.8.4.3(6)(k)(i) Provide lighting controls that accommodate dimming.

1A.8.4.3(6)(l) Provide Patient washrooms for each modality area that are adjacent to the modality rooms.

1A.8.4.3(6)(l)(i) Ultrasound and Bone Densitometry modality rooms will have dedicated washrooms accessible from within the modality room. One Ultrasound washroom will have accessibility from the corridor only, for use of waiting patients.

1A.8.4.3(7) **Flexibility and Adaptability**

1A.8.4.3(7)(a) The DI department will be planned to allow for changes in imaging equipment and possible expansion in the longer-term future.

1A.8.4.3(7)(b) Provide flexibility across modality rooms by standardizing a minimum imaging procedure area. While this exceeds current minimum CSA standards, it ensures future flexibility as imaging modalities evolve (e.g. potentially replacing bone densitometry with an emerging modality in the future).

1A.8.4.3(7)(b)(i) Locate the Bone Densitometry area next to the Ultrasound area.

1A.8.4.3(8) **Mobile Equipment**

1A.8.4.3(8)(a) Mobile imaging equipment will be located in secured alcoves in various departments.

1A.8.4.3(8)(a)(i) Provide each alcove with charging and data requirements.

1A.8.4.3(8)(a)(ii) Provide electrical requirements (e.g. voltage), backup power, and HVAC requirements that meet equipment specifications.

1A.8.4.3(9) **Radiologist Office**

1A.8.4.3(9)(a) Provide a height adjustable Workstation with three (3) monitors including a PACS system, lighting controls that enable blackout conditions (including blackout blinds if the office is on an exterior wall), and acoustical separation from the department.

1A.8.4.3(9)(b) Provide direct adjacency to the CT area.

1A.8.4.3(9)(c) Provide a hand hygiene sink outside of, but adjacent to, the office and accessible from the corridor.

1A.8.5 SCHEDULE OF ACCOMMODATION

1A.8.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.1.0	**Reception & Waiting Area**					
12.1.01	Reception Desk	2	4.6	9.2	- Each Workstation with accessible millwork counter, chair, computer station, phone, data, clerical storage	-
12.1.02	General Waiting Area	1	15.0	15.0	- Accommodate seating for 10 people; information screen; personal device charging	-
12.1.03	Office: DI Booking Clerk	1	12.0	12.0	- Private office with 2 desks, 2 chairs, 2 cabinets, 2 PC, 2 data	- 1 office with access to a public corridor
12.1.04	Business Centre	1	7.0	7.0	- Photocopier, fax, paper supply and storage, mail slots; combine with file storage	- Adjacent to Reception Desk
12.1.05	File Storage	1	5.0	5.0	- Provide wire rack shelving; combine with Business Centre	- Adjacent to Reception Desk
Diagnostic Imaging: Reception & Waiting				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				48.2	**1.40**	**67.5**
12.2.0	**Radiology**					
12.2.01	Radiology Sub-Waiting Area	1	22.5	22.5	- Accommodate seating for 15 people; information screen; personal device charging; hand hygiene sink; lockers for storing personal belongings	-
12.2.02	Change Cubicle	4	4.0	16.0	- Enclosed cubicles; accessible change cubicles; coat and jacket hooks on the wall; small millwork bench for seating	- minimum 1 per radiology room
12.2.03	Radiology Imaging Room	3	29.0	87.0	- Lead lining, glass window between control room and radiology; consider same handedness for each room; ceiling mounted (or equipment mounted) Patient lift; medical gases (per Appendix 1M)	- 1 is a Fluoroscopy Room
12.2.04	Radiology Control Room	1	7.5	7.5	- Standing height counter, hand hygiene sink, lead lining, lead glass window between radiology room & control room	- for Fluoroscopy room
12.2.05	Storage Alcove: Patient Stands	2	2.0	4.0	- Open, accessible space; Patient stands; stand/stitching	-
12.2.06	Storage Alcove: Portable X-Ray	1	1.0	1.0	- Provide charging and data requirements	-

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.2.07	Wheelchair Alcove	1	0.6	0.6	- Open, accessible space	-
12.2.08	Stretcher Alcove	1	2.0	2.0		
12.2.09	Patient Washroom	2	4.6	9.2	- Accessible; 2-piece washroom (toilet, sink);	- one (1) dedicated to and with direct access from fluoroscopy room.
12.2.10	Workstation: Tech	3	4.6	13.8	- Workstation (phone, clerical storage, PC, data); open Workstation environment; counter	- 1 per radiology room; combined;
12.2.11	Inpatient Holding	1	4.6	4.6	- stretcher; medical gases (per Appendix 1M); privacy curtain	- For Inpatients in stretchers or beds
12.2.12	Crash Cart Alcove	1	0.8	0.8	- Charging and data requirements; unimpeded access for Staff	- shared with Mammography
Diagnostic Imaging: Radiology				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				169.0	**1.40**	**236.6**
12.3.0	**CT**					
12.3.01	CT/MRI Sub-Waiting Area	1	15.0	15.0	- Accommodate seating for 12 people; information screen; personal device charging; blanket warmer; electrical	- shared with MRI
12.3.02	Change Cubicle	2	4.0	8.0	- Enclosed cubicles; accessible change cubicles; coat and jacket hooks on the wall; small millwork bench for seating	- shared with MRI
12.3.03	CT Room	1	40.0	40.0	- CT Room requires lead lining; medical gases (per Appendix 1M); ceiling mounted (or equipment mounted) Patient lift; millwork counter with sink; hand hygiene sink	- assumes a portable CT is stored in the ED
12.3.04	CT Control Room	1	11.0	11.0	- Separate corridor access into control room; CT Control Room has lead lining; area includes reading room	- 1 per CT room; adjacent to ED and Radiologist office
12.3.05	Patient Washroom	1	4.6	4.6	- Accessible; 2-piece washroom (toilet, sink); fold-down bench; hooks for clothing (to be secondary change area in case needed)	- shared with MRI Zone 1
12.3.06	Workstation: Tech	3	4.6	13.8	- Each Workstation will have a desk, phone, clerical storage, PC, data; PACS viewing 1 regular monitor; one-way film at window to Inpatient holding area;	- Centrally located

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.3.07	CT Preparation Room	1	13.5	13.5	- Requires counter space, supply storage; stretcher (IV start, etc.); medical gases (per Appendix 1M)	- Space to be open like an alcove, not an enclosed room
12.3.08	Crash Cart Alcove	1	0.8	0.8	- Charging and data requirements; unimpeded access for Staff; crash cart and vital signs monitor	- shared with MRI
Diagnostic Imaging: CT Scan				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				106.7	**1.40**	**149.4**
12.4.0	**Ultrasound**					
12.4.01	Ultrasound Sub-Waiting Area	1	15.0	15.0	- Accommodate seating for 10 people; information screen; personal device charging; ice machine	-
12.4.02	Inpatient Holding Area	1	4.6	4.6	- Stretcher; medical gases (per Appendix 1M); privacy curtain; for Inpatients in stretchers or beds	-
12.4.03	Change Cubicle	3	4.0	12.0	- Enclosed cubicles; accessible change cubicles; coat and jacket hooks on the wall; small millwork bench for seating	- 3 for Ultrasound area
12.4.04	Ultrasound Room	4	17.0	68.0	- Enclosed room; accommodate ultrasound equipment, family & student teaching, exam table, sink, charting area, 2 guest chairs; emergency call button, medical gases (per Appendix 1M), headwall, diagnostics; 1 room will have a ceiling mounted Patient lift	-
12.4.05	Patient Washroom	5	4.6	23.0	- Accessible 2-piece washroom (toilet, sink)	- 1 washroom requires access from the corridor only - 4 washrooms require door from within modality room only
12.4.06	Workstation: Tech	4	4.6	18.4	- Each Workstation will have a millwork counter; phone, clerical storage, PC, data; PACS viewing; scanner	- 1 per Ultrasound room
12.4.07	Probe Cleaning Room	1	9.0	9.0	- 2 sinks, counter space (sized to accommodate 1 probe cleaner and 1 future probe cleaner); ventilation; transducer storage cabinet (with HEPA filter that accommodates 5-7 probes)	- 1 for Ultrasound area

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.4.08	Crash Cart Alcove	1	0.8	0.8	- Charging and data requirements; unimpeded access for Staff	- shared with Mammography
Diagnostic Imaging: Ultrasound				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				150.8	**1.40**	**211.1**
12.5.0	**Mammography**					
12.5.01	Mammography Sub-Waiting Area	1	6.0	6.0	- Accommodate seating for 4 people; information screen; personal device charging; soft seating; adjustable lighting; acoustical buffering; blanket warmer	-
12.5.02	Change Cubicle	2	4.0	8.0	- Enclosed cubicles; accessible change cubicles; coat and jacket hooks on the wall; small millwork bench for seating	-
12.5.03	Patient Locker	4	0.4	1.6	- Half lockers	-
12.5.04	Mammography Room	1	32.0	32.0	- Enclosed room; mammography equipment, family & student teaching, exam table, hand hygiene sink, charting area, L-shaped millwork counter with chair; 2 guest chairs; emergency call button, medical gases (per Appendix 1M), headwall, data; storage of stereotactic equipment	-
12.5.05	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	- 1 per Mammography room
Diagnostic Imaging: Mammography				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				52.2	**1.40**	**73.1**
12.6.0	**Bone Mass Densitometry (BMD)**					
12.6.01	BMD Sub-Waiting Area	1	6.0	6.0	- Accommodate seating for 4 people; information screen; personal device charging	-
12.6.02	Change Cubicle	1	4.0	4.0	- Enclosed cubicle; accessible change cubicles; coat and jacket hooks on the wall; small millwork bench for seating	- 1 per BMD room

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.6.03	Bone Densitometry Room	1	19.0	19.0	- Fully enclosed; bone densitometer equipment, family & student teaching, charting area, guest chair, emergency call button, medical gases (per Appendix 1M); sized larger than the 17 NSM requirement to accommodate dual modalities and/or future flexibility; if physically separated, use a demising wall and provide accommodations to minimize sound transfer	- Co-located BMD with Ultrasound
Diagnostic Imaging: Bone Mass Densitometry (BMD)				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				29.0	**1.40**	**40.6**
12.7.0	**Patient Support**					
Supplies / Equipment						
12.7.01	Equipment Storage	1	10.0	10.0	- Provide shelving and electrical (charging) requirements	-
12.7.02	Clean Utility Room	1	11.0	11.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	-
Environmental						
12.7.03	Soiled Utility Room	1	14.0	14.0	- Temporary storage of waste, supplies, and equipment; seamless flooring, countertops (non-porous); storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; general waste, medical/hazardous waste, recycling; macerator; hand hygiene sink; utility sink; accommodate emergency eye wash / shower; combined unit; provide appropriate water temperature and pressure	-
12.7.04	Not used					

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.7.05	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	-
Diagnostic Imaging: Patient Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				42.0	**1.40**	**58.8**
12.8.0	**Staff Support**					
Meeting / Team Space						
12.8.01	Not used					
12.8.02	Staff Lounge	1	20.0	20.0	- Soft seating for 10; kitchenette with refrigerator, microwave, dishwasher, cabinets, counter space, tables, chairs, double sink; PC station, TV	- could be combined with another department
12.8.03	Student Area	1	10.0	10.0	- 2x Workstations for education, exams, research; ability to review images (PACS monitor)	- Primarily for Radiology
Offices & Workstations						
12.8.04	Office: Manager	1	10.0	10.0	- Private office with desk, chair, cabinets	-
12.8.05	Office: NH Medical Imaging Quality Assurance	1	10.0	10.0	- Private office with desk, chair, cabinets, PACS	-
12.8.06	Office: Radiologist	1	15.0	15.0	- Private office with 2x desk, 2x chair, cabinets; height-adjustable desk; 4 large screens, PACS, hand hygiene sink, adjustable lighting to accommodate blackout conditions; provide a full height partial dividing wall to accommodate 2 separate workspaces.	-

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.8.07	Touchdown Workstation	2	3.0	6.0	- Quality Officer (NHA); students; chair, workspace, data connection, phone, PACS viewing	-
12.8.07.2	Shared Office: PACS Administrator	1	10.0	10.0	- 1 typical Workstation and 1 touchdown Workstation; (chair, computer station, phone, data; storage for IT items; PACS	-
Washrooms & Lockers						
12.8.08	Locker Room	20	0.7	14.0	- Assigned full lockers; wall hooks, coat rack and benches as well as boot rack for winter wear	-
12.8.09	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); change area	-
12.6.04	Staff Washroom	1	4.6	4.6	-accessible; 2-piece washroom (toilet, sink)	- accessible from the circulation corridor
Diagnostic Imaging: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				104.2	**1.35**	**140.7**
12.9.0	**Magnetic Resonance Imaging (MRI)**					
12.9.01	MRI Room	1	50.0	50.0	- MRI machine; medical gases (per Appendix 1M), sink; millwork counter and cabinets	-
12.9.02	MRI Control Room	1	15.0	15.0	- Separate corridor access into control room; Workstation; hand hygiene sink; PPE storage; computer, phone, magnetic whiteboard; PC, data; counter; PACS monitor	- Adjacent to MRI Room
12.9.03	MRI Equipment Room	1	16.0	16.0	- Provide charging and data requirements; a dedicated cooling system will be provided for the room with an automatic emergency backup; Cooling Liquid is stored within (Glycol)	- can be combined with Cryogenic Storage room.
12.9.04	Cryogen Storage	1	5.0	5.0	- A back-up system for the MRI scanner's cryogenic helium cooling system will be provided; allowance for cryogen venting to exit the Facility to a safe location.	- can be accommodated in MRI Equipment Room
12.9.05	MRI Preparation Room	1	12.0	12.0	- Transition area between Waiting Area and MRI Room; circulation space for 2 stretchers; counter space, supply storage; stretcher (IV start, etc.); 1x IV chair; ice maker; utility sink; medical gases (per Appendix 1M); ceiling mounted Patient lift; hand hygiene sink	- adjacent to MRI Control Room

12.0 Diagnostic Imaging: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
12.9.06	MRI Vestibule	1	8.0	8.0	- May be accommodated in the MRI Control Room if space allows	- adjacent to MRI Room - located within MRI Zone 3
12.9.07	Patient Lockers	1	2.0	2.0	- Min. 4x z-lockers	- adjacent to Change Cubicles and CT/MRI Sub-waiting - shared with CT; 1-2 lockers to be located in close proximity to CT Patient Washroom - min. 1-2 lockers to be located adjacent to Patient Washroom in Zone 2
12.9.08	Patient Washroom	1	4.6	4.6	- 2 pc washroom (sink, toilet); ; fold-down bench; hooks for clothing (to be secondary change area in case needed)	- adjacent to MRI Preparation Room - located within MRI Zone 2
12.9.09	Not used					
-	Sub-waiting area	- Shared with CT; includes blanket warmer shared between CT and MRI				
-	Change Cubicle	- Shared with CT				
-	Viewing/Reading Area	- Shared (12.8.06 Office: Radiologist)				
Diagnostic Imaging: MRI				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				112.6	**1.40**	**157.6**
Total Diagnostic Imaging Area				**814.7**	-	**1135.4**

1A.9 LABORATORY

This specification outlines the functional, operational, and physical requirements for the Laboratory (Lab).

1A.9.1 FUNCTIONAL DESCRIPTION

1A.9.1.1 Statement of Purpose

1A.9.1.1(1) The Lab will offer specimen collection, ECG and Holter monitoring for Inpatients and Outpatients. The Lab will also provide accessioning and send out preparations, transfusion medicine services, hematology, and chemistry services.

1A.9.1.1(1)(a) All other specialty testing will be sent to other facilities for analysis. The Lab also prepares specimens for transfer to another facility.

1A.9.1.1(2) The Lab will support residents of the Peace River South LHA and surrounding northeast region based on a person and family-centred model.

1A.9.1.2 Scope of Services

1A.9.1.2(1) **Functional Content**

1A.9.1.2(1)(a) Execute scheduled and unscheduled Outpatient specimen collections.

1A.9.1.2(1)(b) Execute scheduled and unscheduled Inpatient specimen collections. Specimens will be collected by the Lab Staff and transported back to the Lab.

1A.9.1.2(1)(c) Provide after hours specimen collections on a callback protocol.

1A.9.1.2(1)(d) Provide ECG services.

1A.9.1.2(1)(e) Prepare specimens for onsite analysis or shipment off-site.

1A.9.1.2(1)(f) Provide transfusion medicine services, hematology, and chemistry services.

1A.9.1.2(1)(g) Process frozen specimens.

1A.9.1.2(1)(h) Provide basic microbiology services including blood cultures.

1A.9.1.2(2) **Planning Assumptions**

1A.9.1.2(2)(a) Full-service labs will be designed being modular and flexible to allow for expanding and contracting the environment based on need and resourcing.

1A.9.1.2(3) **Excluded**

1A.9.1.2(3)(a) No noted exclusions.

1A.9.2 OPERATIONAL DESCRIPTION

1A.9.2.1 Hours of Operation

1A.9.2.1(1) Outpatient specimen collection will be available from 0800-1700.

1A.9.2.1(2) Inpatient services will be available from 0700-2300 with on-call services as required.

1A.9.2.1(3) Lab analysis services will be available from 0700-2300.

1A.9.2.2 Organization & Management

1A.9.2.2(1) The Lab will be managed by the chief technologist.

1A.9.2.3 Workflow

1A.9.2.3(1) **Specimen Collection – Outpatient and Inpatient**

1A.9.2.3(1)(a) Specimen collection will be ordered by a physician. The order will be either 'stat' or routine, and Lab Staff will execute the specimen collection process.

1A.9.2.3(1)(b) Outpatients

1A.9.2.3(1)(b)(i) Outpatients will be registered prior to arriving at the specimen collection area and will bring the paper requisition to the specimen collection area of the Lab. In the future, the requisitions may be paper based or electronic.

1A.9.2.3(1)(b)(i)A For the registration process, please refer to the central registration workflow.

1A.9.2.3(1)(b)(ii) Outpatients will arrive at the specimen collection area and place their requisition in a bin to be processed by the control desk which then notifies the Lab Staff that the Patient has arrived. If paper requisitions are not appropriate (i.e. pandemic precautions), requisitions will be faxed to the control desk.

1A.9.2.3(1)(b)(iii) If the process becomes electronic, the control desk will receive electronic requisitions after the Patient registers.

1A.9.2.3(1)(b)(iv) While waiting to be seen, Patients will wait in the Lab Waiting Area.

1A.9.2.3(1)(c) Inpatients

1A.9.2.3(1)(c)(i) Inpatients will have their specimens collected in their Inpatient area by Lab Staff. Lab Staff will transport the specimen back to the Lab for analysis.

1A.9.2.3(1)(c)(i)A Specimens being dropped off or picked up.

1A.9.2.3(1)(d) Patients and/or couriers who drop off and/or pick up specimens will enter the Facility through the Main Entrance and proceed to the control desk. A Lab Staff

member will provide service at the control desk. Patients and couriers will not proceed further than the control desk.

1A.9.2.3(2) **Specimen Processing Area**

1A.9.2.3(2)(a) Specimen Preparation

1A.9.2.3(2)(a)(i) All specimens will be delivered to the accessioning area in the Lab and will be received and sorted according to urgency, the need for pre-processing, and type of testing.

1A.9.2.3(2)(a)(ii) Specimens that do not require preparatory centrifugation will be passed directly to the appropriate testing station. Other specimens will be spun, divided into aliquots, if necessary, labelled, and delivered to the test area.

1A.9.2.3(2)(b) Send Out

1A.9.2.3(2)(b)(i) Specimens that will be sent out to another location will be prepared, packaged, and held (refrigerated, frozen or room temperature) by Lab Staff and held for courier pick up.

1A.9.2.3(3) **Specimen Testing and Analysis**

1A.9.2.3(3)(a) Specimens will be distributed to the appropriate testing and analysis process which will have all required analyzers, supplies, and storage requirements.

1A.9.2.3(4) **Reporting**

1A.9.2.3(4)(a) Results will be reported and released by the technologist Staff for electronic reporting and will be submitted to the appropriate location. All results will be reported electronically using appropriate security protocols.

1A.9.2.3(5) **Point-of-Care Testing**

1A.9.2.3(5)(a) Point-of-care testing (glucose) will be performed by a certified point-of-care operator.

1A.9.2.3(6) **Blood Products**

1A.9.2.3(6)(a) The Lab will provide regional management of blood products.

1A.9.2.3(6)(b) The Lab will receive the blood products and hold them in the Lab.

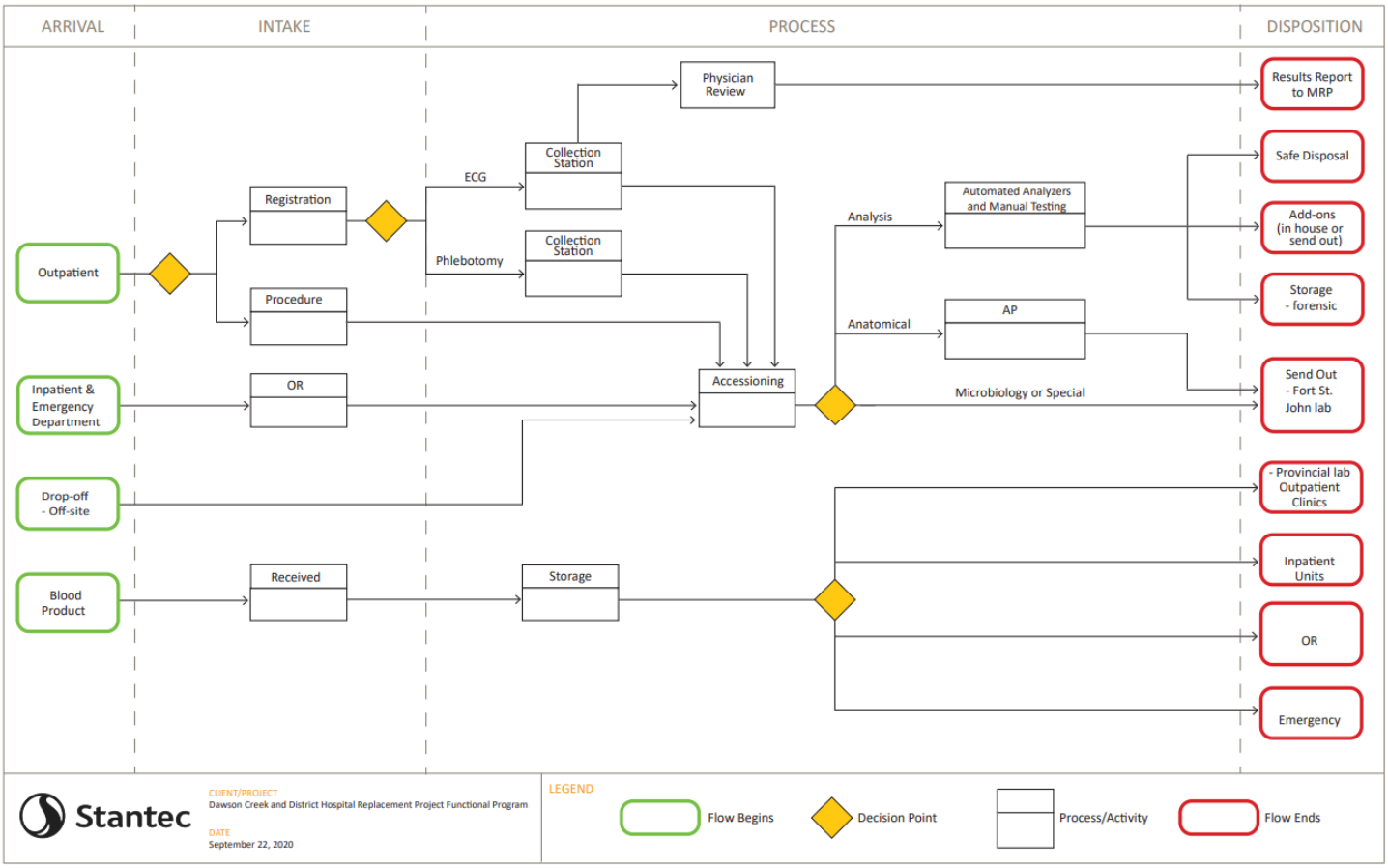
1A.9.2.3(6)(c) Blood products will be tested and prepared for use by Lab Staff and distributed as appropriate.

1A.9.2.3(6)(c)(i) Nursing Staff will require access to blood products, ability to retrieve after hours on emergent basis.

1A.9.2.3(7) **Future State Flow**

1A.9.2.3(7)(a) The future state flow map below describes the key flows for the future service delivery model for the Lab.

Dawson Creek and District Hospital Replacement Project - Functional Program - LABORATORY - Future State Flow Map



1A.9.2.4 Support Activities

1A.9.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.9.3 STAFFING

1A.9.3.1 Estimated future Staffing for the Lab is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Laboratory: Projected Staffing	
Position	**Projected FTE**
Lab Assistant II	4.46
Medical Tech I	4.40
Medical Tech II	2.00

Laboratory: Projected Staffing	
Position	**Projected FTE**
Medical Tech III	0.00
Medical Tech IV	1.00
Students (agreement w College)	2.00
Total Laboratory Staffing	**13.86**

1A.9.4 DESIGN CRITERIA

1A.9.4.1 External Relationships

1A.9.4.1(1) Patients who register at central registration will access the specimen collection area via general Facility circulation.

1A.9.4.1(2) Patients and couriers entering the Facility from the Building Main Entrance (to drop off and/or pick up samples) will access the Lab via general Facility circulation.

1A.9.4.1(3) Lab Staff (and other hospital Staff as required) will access the Lab by general Facility circulation from all areas in the hospital to return samples to the Lab for processing.

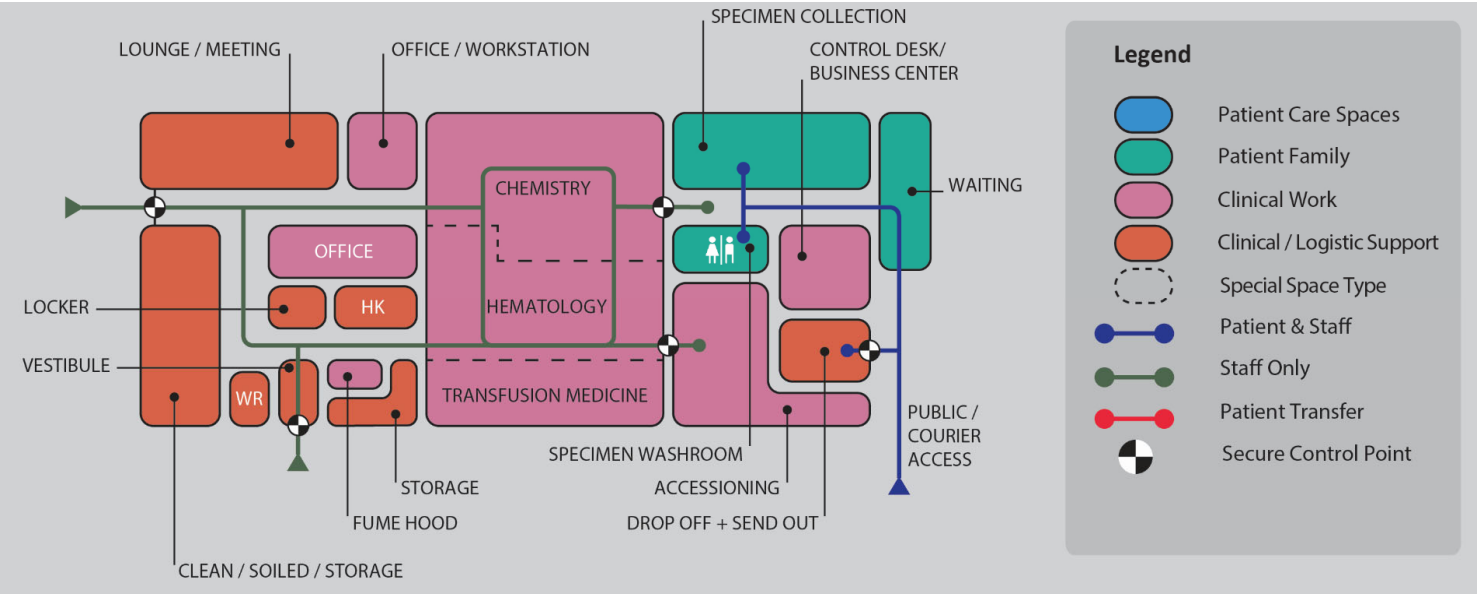
1A.9.4.1(4) Lab Staff will access the Emergency Department and High Acuity Unit via controlled Facility circulation.

1A.9.4.1(5) To the extent possible, Lab Staff may access all other clinical areas in the Facility for the collection of samples via controlled Facility circulation, however, general Facility circulation may also be used, if necessary.

1A.9.4.1(6) To the extent possible, the delivery of supplies, equipment, laundry, and medications to the Lab area may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.9.4.2 Functional Relationship Diagram

1A.9.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.9.4.3 Internal Design Criteria

1A.9.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.9.4.3(2) **Waiting Area**

1A.9.4.3(2)(a) The Waiting Area will:

1A.9.4.3(2)(a)(i) accommodate a Patient information screen for health programming, chairs, personal device charging, and wireless access for Patients.

1A.9.4.3(2)(a)(i)A The queuing system will be managed by Staff from the control desk.

1A.9.4.3(2)(a)(ii) One (1) of the control desks will have a direct sightline into the Waiting Area.

1A.9.4.3(3) **Specimen Collection**

1A.9.4.3(3)(a) Each of the specimen collection spaces will:

1A.9.4.3(3)(a)(i) be an enclosed room that is no less than 1500mm wide.

1A.9.4.3(3)(a)(ii) accommodate a specimen collection chair or stretcher.

1A.9.4.3(3)(a)(iii) provide cabinets and counter space.

1A.9.4.3(3)(a)(iv) accommodate a barcode scanner.

1A.9.4.3(3)(a)(v) provide walls that are suitable for wall hung accessories (i.e. coat hooks) and supplies.

1A.9.4.3(3)(a)(vi) provide a pass-through urine collection box that is accessible from each washroom to the beginning of the accessioning area.

1A.9.4.3(3)(a)(vii) provide emergency call bells in each room.

1A.9.4.3(3)(a)(viii) accommodate adequate area for ECG machine in each space. Accommodate storage for the portable ECG machine used for Inpatient services.

1A.9.4.3(4) **Control Desks and Send Out (included as part of accessioning)**

1A.9.4.3(4)(a) Provide a design that separates “clean” activities (e.g. clerical, data entry and administrative) and specimen handling.

1A.9.4.3(4)(a)(i) The two (2) control desks will process Patient (electronic and physical communication with Patients) and specimen information for preparation and send out.

1A.9.4.3(4)(a)(ii) One (1) of the control desks will be the first point of contact for Patients entering the lab for a specimen collection (e.g. to drop off their requisition forms) and will have a direct sightline into the Lab Waiting Area.

1A.9.4.3(4)(a)(iii) Provide each of the control desks with Workstation.

1A.9.4.3(4)(b) The send out area will be located at the entrance of the lab so that people dropping off or picking up will not enter deep into the lab.

1A.9.4.3(4)(b)(i) Provide a Workstation, counter space, and storage.

1A.9.4.3(5) **Open Lab Design**

1A.9.4.3(5)(a) The Lab area will:

1A.9.4.3(5)(a)(i) be open with limited hard partitions to allow for visibility and flexibility throughout the area.

1A.9.4.3(5)(a)(i)A Hard partitions will be limited to the waiting area, specimen collection areas, administrative spaces, and support spaces (i.e. washrooms, housekeeping, storage, etc.).

1A.9.4.3(5)(a)(i)B Technology Staff working in the laboratory disciplines will be conducting different tests at different Workstations

simultaneously therefore sight lines between Workstations, especially within a single discipline, will be unobstructed allowing for monitoring.

1A.9.4.3(5)(a)(ii) Provide a design, material selection, and configuration that will reduce noise transferred throughout the area.

1A.9.4.3(5)(a)(iii) Provide wall mounted display units.

1A.9.4.3(5)(a)(iv) Provide electrical and data requirements for refrigerator and freezer alarms.

1A.9.4.3(5)(a)(v) Provide modular casework equipped with locking wheels for easy relocation.

1A.9.4.3(5)(a)(vi) Provide non-porous finishes for work surfaces, walls, and floors.

1A.9.4.3(5)(a)(vii) Provide non-slip flooring.

1A.9.4.3(5)(a)(viii) Provide the ability to add vacuum separation to plumbing and vacuum lines, sealing of wall penetrations in case of loss of pressurization, and ability to add chemicals.

1A.9.4.3(5)(a)(ix) Provide an ergonomic design and configuration (e.g. pass-through height, bench heights, and height adjustable Workstations, etc.).

1A.9.4.3(5)(a)(x) Provide the ability to mount overhead all power, data, and gases, through service columns or suspended lines to the lab casework enabling horizontal distribution.

1A.9.4.3(5)(a)(x)A Provide flush mounted electrical and data ports to allow for reorganization and configurations of countertop equipment without being hampered by above surface mounted mechanical, electrical, and plumbing.

1A.9.4.3(5)(a)(xi) Accommodate HVAC systems and humidity controls to manage biohazard, chemical, and heat production.

1A.9.4.3(5)(a)(xii) Provide sinks and floor drains for emergency showers that are placed in areas that are unlikely to change such as aisles/walkways (i.e. areas which cannot be moved without major construction).

1A.9.4.3(5)(a)(xiii) Provide equipment drains that will be installed in a regular grid formation throughout the Lab, to be capped or uncapped as needed. This arrangement is especially useful with analyzers that require a deionized water feed and need access to a nearby drain to discharge wastewater.

1A.9.4.3(5)(a)(xiv) Provide a CCE server located no more than 15.24 metres from lab analyzers in a communication closet. The CCE servers convert the serial data to TCP/IP as well as save messages if the network connection is compromised.

1A.9.4.3(5)(a)(xv) Accommodate the clinical laboratory institute design standards (i.e. Clinical and Laboratory Standards Institute).

1A.9.4.3(5)(b) Blood requires refrigeration and associated alarm monitoring.

1A.9.4.3(6) **Air Quality Control**

1A.9.4.3(6)(a) The mechanical section of the SOR will define in detail these requirements. However, the following items must be provided:

1A.9.4.3(6)(a)(i) Not used.

1A.9.4.3(6)(a)(ii) Accommodate enhanced ventilation (i.e. inclusive of floor level ventilation for low lying fumes as are associated with formalin) requirements to manage the generation of fumes, noxious odours and heat from equipment and light fixtures.

1A.9.4.3(6)(a)(iii) Multiple ventilation features (e.g. bench level, high efficiency particulate air (HEPA) filter, biohazardous, and laminar flow hoods, etc.) will be incorporated to address the needs of each Workstation.

1A.9.4.3(6)(a)(iv) Passive ventilation will be required for some supplies (e.g. acids).

1A.9.4.3(7) **Biocontainment**

1A.9.4.3(7)(a) Provide level 2 containment for all technical areas processing specimens.

1A.9.4.3(7)(b) Provide design requirements that support molecular testing. These include an open space that is distinct from the Lab area with a biosafety cabinet.

1A.9.4.3(8) **Water Quality**

1A.9.4.3(8)(a) Provide type 1 (referred to as CLRW) (ultrapure) water quality.

1A.9.4.3(8)(a)(i) Type 1 (3 stage ASTM D1193-6) water is required for hematology, chemistry, and transfusion medicine analyzers at point-of-use or connected to dedicated lab system.

1A.9.4.3(9) **Building Monitoring System (BMS)**

1A.9.4.3(9)(a) Provide continuous monitoring via the BMS for all critical equipment including refrigerators and freezers.

1A.9.5 SCHEDULE OF ACCOMMODATION

1A.9.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
13.1.0	**Registration and Waiting Area**					
13.1.01	Waiting Area	1	18.0	18.0	- Accommodates seating for 12	-
Laboratory: Reception & Waiting				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				18.0	**1.2**	**21.6**
13.2.0	**Specimen Collection / ECG and Holter Monitoring**					
13.2.01	Specimen Collection Station / Room	3	9.5	28.5	- Preparation and collection desk with cabinets; stretcher or lay down bed; Workstation (computer, monitor, label scanner, 4” Zebra printer); hand hygiene sink; ECG machine	-
13.2.02	Specimen Collection Washroom	2	4.6	9.2	- Accessible 2-piece washroom (toilet, sink); pass-through cabinet for specimen holding; call bells	-
Laboratory: Specimen Collection / ECG and Holter Monitoring				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				37.7	**1.2**	**45.2**
13.3.0	**Accessioning and Send Out**					
13.3.01	Specimen Drop Off/Triage	1	4.5	4.5	- Computer, monitor, barcode scanner, 4” Zebra printer; accessible millwork counter, phone; undercounter refrigerator	- Adjacent to data entry; controlled access
13.3.02	Control Desk	2	6.0	12.0	Ergonomic millwork Workstations (computer, dual monitor on one Workstation and single monitor on the other; label scanner; printer; phone; 2x 8” Zebra printer; smart board; status/control panel; - Provide a secure pass-through window from the specimen collection washrooms to one of the control desks	-
13.3.03	Business Centre	1	7.0	7.0	- Photocopier, fax, paper supplies, clerical storage	-
13.3.04	Confidential Garbage	1	1.5	1.5	- 1 large bin	- Adjacent to Centrifugation & Specimen Process, and Phlebotomy Cart Area

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
13.3.05	Data Entry	1	4.6	4.6	- Ergonomic millwork Workstation (computer, monitor, 4" Zebra printer, label scanner), phone	- Adjacent to the Specimen Drop Off and future front-end automation area
13.3.06	Courier Drop Off	1	1.5	1.5	- Counter space; undercounter storage; shelving	- Adjacent to Specimen Drop Off
13.3.07	Hand Hygiene Sink	1	1.0	1.0	- Hands free	-
13.3.08	Freezer and Refrigerator Area	1	2.5	2.5	- For consolidating specimen receiving; 1 refrigerator (double door); 1 full size freezer (-20°C)	- Adjacent to Centrifugation and Specimen Pour Off
13.3.09	Centrifugation and Specimen Pour Off	1	6.1	6.1	- 3 Centrifuges (1 refrigerated), ergonomic workstation (computer, monitor, label scanner, 4" Zebra printer), work bench, phone; cabinets/shelves for supplies	- Adjacent to send out area
13.3.10	Send Out / Off Site	1	7.6	7.6	- 1 ergonomic Workstation (computer, monitor, label scanner, 4" Zebra printer), counter space, phone, laser printer, refrigerator/freezer; specimen transport boxes; dry ice storage container; courier pick up area	- Centrifugation and Specimen Pour Off and drop off; Adjacent to pickup window
13.3.11	Accessioning Storage	1	6.5	6.5	- Storage of consumables, dry supplies, venipuncture supplies; Kanban 2-bin system (RFID)	-
13.3.12	Phlebotomy cart area	1	5.0	5.0	- Space with supply shelves and restocking area; 3 phlebotomy cart parking; 6 wall hooks for lab coats; hand hygiene sink	- Adjacent to Accessioning Storage - Adjacent to internal circulation for access to Inpatient area and ED
13.3.13	Emergency Eye Wash / Shower	1	1.0	1.0	- Combined unit; provide water temperature and pressure requirements; floor drain	-
13.3.14	Front End Automation	1	2.5	2.5	- Specimen drop off, tube scanned, placed on line; counter space; Workstation	-
Laboratory: Accessioning and Send Out				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				63.3	**1.20**	**76.0**
13.4.0	**Transfusion Medicine and Blood Bank**					
13.4.01	Receiving Area (inventory & issuing)	1	4.0	4.0	- Secure vestibule entrance	- Adjacent to circulation corridor
13.4.02	Blood Products Storage	1	5.0	5.0	- Upright freezer (1 door); blood refrigerator (Helmer - 2 door); storage	- Adjacent to receiving/ dispensing

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
13.4.03	Storage Area, Supplies / Samples	1	7.5	7.5	- Room temperature storage for supplies; room temperature storage for massive transfusion packs, 8 Canadian Blood Services boxes	-
13.4.04	Blood Products Room Temperature Storage	1	4.5	4.5	- Supply carts, ergonomic Workstation (PC, monitor, barcode scanner, height adjustable);	-
13.4.05	Hand Hygiene Sink	1	1.0	1.0	- Hands free	-
13.4.06	Testing Area	1	5.6	5.6	- Cell washer x1; centrifuge x1; serofuge x1; utility sink	-
13.4.07	Microscope	1	4.6	4.6	- inverted without camera	- Adjacent to testing area
13.4.08	Plasma Thawer	1	1.5	1.5	- Workbench for 1 plasma thawer	-
13.4.09	Platelet / Incubator	1	2.0	2.0	- Workbench; platelet incubator	-
Laboratory: Transfusion Medicine and Blood Bank				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				35.7	**1.20**	**42.8**
13.5.0	**Hematology**					
13.5.01	Receiving Bench	1	7.5	7.5	- Work counter; centrifuge x1; Workstation (PC, monitor, barcode scanner); 1 confidential shredding bin	-
13.5.02	Automated hematology analyzer	1	17.0	17.0	- Floor drains; water system; disposal system for methanol (stainer); sink; Workstation (ergonomic, height adjustable, PC, monitor, barcode scanner)	
13.5.03	Microscopy Workstation	1	4.6	4.6	- Ergonomic Workstation (computer, 2 monitors for each station, barcode scanner, height adjustable); 1 microscope	
13.5.04	Manual Hematology & Fluids Workstation	1	6.0	6.0	- Workbench, PC, monitor, barcode scanner; 1x Class II Type B2 BSC with Cytospin; ESR Analyzer x1; Cytospin x1; 1x slide stainer	- Centrally located for all specialties (shared with chemistry and hematology)
13.5.05	Coagulation Analyzers	1	6.0	6.0	- 1 coagulation analyzer; 1 Workstation, supply storage; floor drains; PC, monitor, barcode scanner	
13.5.05.1	Flammable Storage	1	6.8	6.8	- Enclosed room to contain two (2) flammable storage cabinets; RFID (data/electrical requirements)	- within 12.5m walking distance of 13.5.05.2 Fume Hood
13.5.05.2	Fume Hood	1	9.0	9.0	- Pour formalin by lab Staff; fume hood with cup sink, eye wash station	

1A.9 LABORATORY

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
13.5.05.3	Hematology – Incubator	1	6.0	6.0	- Workbench, Workstation, incubator (benchtop room temperature incubator), supply storage	
13.5.06	Storage Area	1	15.0	15.0	- Walk-in Kanban (RFID); room temperature storage: carts; 2x refrigerators (double door) lab grade refrigerator sliding single; room does not require a door	
13.5.07	Workstation: Hematology	1	4.6	4.6	- Workstation, phone, clerical storage, PC, data	-
13.5.08	Eye Wash Emergency Shower / Drench Hose	1	1.0	1.0	- Floor drain	Adjacent to work area
13.5.09	Hand Hygiene Sink	1	1.0	1.0	- hands free; splash proof; non-porous	Adjacent to entrance/exit
13.7.09	Workstation: Teaching Microscope	1	3.0	3.0	- Chair, computer, phone, data; microscope with 2 heads	-
Laboratory: Hematology				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				87.5	**1.20**	**105.0**
13.6.0	**Chemistry**					
13.6.01	Specimen Reception – Bench Space	1	5.0	5.0	- Urine specimens, etc. dropped off that cannot go on robotic track; 1x Iron Mountain bin	-
13.6.02	Automated High-Volume Analyzers with Robotic Track	1	20.0	20.0	- 2x chemistry analyzer; track system; floor drains; CLRW water system; 2x Workstations (height adjustable, computer, monitor);	Front end adjacent to specimen accessioning; - Allow space for additional modules - See equipment list
13.6.03	Storage Area (Refrigerator / Freezer)	1	4.5	4.5	- 1 upright freezer (-70°C freezer); refrigerator (double door sliding)	-
13.6.04	Quality Assurance Area	1	2.0	2.0	- Workstation, phone, supply storage, PC, data	Adjacent to testing for results comparison
13.6.05	Fetal Fibronectin analyzer	1	2.0	2.0	- Fetal Fibronectin analyzer; Immunoassay analyzer	-
13.6.06	Urinalysis Area	1	7.5	7.5	- Ventilation requirements for odour control; 1x analyzer (also 1 in Emergency); microscope; bench space for manual testing; sink – single bowl; Workstation (height adjustable, ergonomic with PC, monitor, barcode scanner); 1x centrifuge; 1x Class II Type B2 BSC with Cytospin	Biosafety cabinet will be shared between Hematology and Chemistry

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
13.6.07	Osmometer Area	1	5.5	5.5	- 1x analyzer; benchtop; Workstation; monitor (manual area)	-
13.6.08	Blood Gas Analyzer	1	6.5	6.5	- 2x analyzers; benchtop; Workstation; monitor (manual area); no chair required	-
13.6.09	Workstation: Chemistry	2	4.6	9.2	- Workstation, phone, clerical storage, PC, data; no chair required; 1x glucometer	
13.6.10	Hand Hygiene Sink	1	1.0	1.0	- Hands-free; non-porous; splash-proof	Adjacent to entrance/exit
13.6.11	Eye Wash Emergency Shower / Drench Hose	1	1.0	1.0	- Floor drain	Adjacent to work area
Laboratory: Chemistry				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				64.2	**1.20**	**77.0**
13.7.0	**Staff Support**					
Logistics						
13.7.01	Not used					
13.7.02	Soiled Utility Room	1	12.0	12.0	- Temporary storage of biohazardous and chemical waste, supplies; seamless flooring; storage of carts, general waste, biohazard waste; recycling; washing of items in sinks; macerator; hand hygiene sink; utility sink; macerator supplies; eye wash station	Central location
13.7.03	Lab Safety Vestibule	1	6.0	6.0	- Hand hygiene sink; clean linen supply on a cart; PPE; spill kit; soiled linen hamper; closet for lab coats - Coat hooks outside the vestibule	At Staff entrance to the lab
13.7.04	Bulk Storage	1	20.0	20.0	- Kanban shelving for storage of supplies and bulk chemicals; clean supply storage (RFID); cart storage	Central location

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
13.7.05	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	-
Offices & Workstations						
13.7.06	Office: Supervisor	1	10.0	10.0	- Private office with desk, chair, computer, data, phone, lockable cabinets, 2 visitor chairs, filing cabinet	-
13.7.07	Office: Tech III	1	10.0	10.0	- Private office with desk, chair, computer, data, phone, lockable cabinets, 2 visitor chairs, filing cabinet	-
13.7.08	Office: Pathologist / Flex	1	10.0	10.0	- Private office with desk, chair, computer, data, phone, lockable cabinets, 2 visitor chairs, filing cabinet	-
13.7.09.2	Workstation: Touchdown	2	3.0	6.0	- Chair, computer, phone, data; microscope with 2 heads	
13.7.10	Meeting / Education Room	1	20.0	20.0	- Accommodates 8-10; lightweight and movable tables & chairs; multi-media capable (telehealth, a/v requirements); student teaching	-
13.7.11	Staff Lounge	1	17.0	17.0	- Soft seating for 8 Staff; kitchenette with refrigerator, dishwasher, microwave, cabinets, counter space, tables, chairs, double sink; PC station, TV	Could be shared with DI
13.7.12	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	Could be shared with DI
13.7.13	Locker Room	1	5.2	5.2	- Lab coats; 8 half lockers; coat and book storage	Could be shared with DI

1A.9 LABORATORY

13.0 Laboratory: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Laboratory: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				127.8	**1.35**	**172.5**
Total Laboratory Area				**434.4**		**540.2**

1A.10 PHARMACY

This specification outlines the functional, operational, and physical requirements for the Pharmacy component.

1A.10.1 FUNCTIONAL DESCRIPTION

1A.10.1.1 Statement of Purpose

1A.10.1.1(1) The Pharmacy will manage the ordering, receiving, processing, and distributing of medications used throughout the Facility and the region including picking for the northeast region.

1A.10.1.1(2) The Pharmacy will support residents of the Peace River South LHA and surrounding northeast region based on a person and family-centered model.

1A.10.1.2 Scope of Services

1A.10.1.2(1) **Functional Content**

1A.10.1.2(1)(a) The Pharmacy will provide regional pharmacy services as follows:

1A.10.1.2(1)(a)(i) Ordering, receiving, and providing inventory control for medications and narcotics.

1A.10.1.2(1)(a)(ii) Dispensing and distributing medications and narcotics throughout the Facility, as required.

1A.10.1.2(1)(a)(ii)A Providing unit dose ordering, packaging, and shipping/receiving for all northeast hospital sites.

1A.10.1.2(1)(a)(iii) Preparing and compounding specialist products including admixture preparation.

1A.10.1.2(1)(a)(iv) Providing northeast regional purchasing and drug shortage management services.

1A.10.1.2(1)(a)(v) Providing temporary storage/holding of unused / discarded medications and narcotics for off-site disposal.

1A.10.1.2(1)(a)(vi) Providing clinical pharmacy on call support to the region.

1A.10.1.2(1)(a)(vii) Consulting with Staff and Patients regarding drug administration and therapeutic drug monitoring.

1A.10.1.2(2) **Planning Assumptions**

1A.10.1.2(2)(a) Be integrated into multi-disciplinary care teams in Inpatient, Emergency Department, and Outpatient settings.

1A.10.1.2(2)(b) Implementation of National Association of Pharmacy Regulatory Authorities (NAPRA) standards and Canadian College of Pharmacy requirements for hazardous sterile compounding and for non-hazardous sterile compounding.

1A.10.1.2(2)(c) Function as the northeast service hub for inventory and distributions.

1A.10.1.2(2)(d) Expand centralized intravenous admixture (CIVA) program to support growing oncology program and full-service IV outpatient programs.

1A.10.1.2(2)(e) Pharmacy will continue to utilize telehealth to support other Authority sites for clinical Pharmacy needs.

1A.10.1.2(2)(f) Pharmacy will require that electronic images to be taken during the process. (e.g. screens, equipment, data requirements, etc.).

1A.10.1.2(3) **Excluded**

1A.10.1.2(3)(a) No noted exclusions.

1A.10.2 OPERATIONAL DESCRIPTION

1A.10.2.1 Hours of Operation

1A.10.2.1(1) **The Pharmacy will be available:**

1A.10.2.1(1)(a) Monday to Friday from 0700-1600.

1A.10.2.1(1)(b) Weekends from 0800-1530.

1A.10.2.1(1)(c) Outpatient counselling will be available Monday-Friday from 0800-1600.

1A.10.2.2 Organization & Management

1A.10.2.2(1) Pharmacy services will be managed by the northeast chief pharmacist.

1A.10.2.3 Workflow

1A.10.2.3(1) **Inventory Management**

1A.10.2.3(1)(a) Pharmacy Staff will order, receive, store, and provide inventory control for all medications, narcotics, and supplies.

1A.10.2.3(1)(b) Medications, narcotics, and supplies will be delivered to the Pharmacy from the shipping/receiving area. These items will arrive boxed (i.e. not decased).

1A.10.2.3(1)(c) Non-hazardous materials

1A.10.2.3(1)(c)(i) Non-hazardous materials will be delivered to the Pharmacy Receiving / Breakdown / Off-site Send Out Area by Supply Chain Staff.

1A.10.2.3(1)(c)(ii) Pharmacy Staff will decase the materials in the Pharmacy Receiving / Breakdown / Off-site Send Out Area and transport the items to the appropriate storage location.

1A.10.2.3(1)(d) Narcotics

1A.10.2.3(1)(d)(i) Narcotics will be delivered to the Pharmacy Receiving / Breakdown / Off-site Send Out Area by Supply Chain Staff.

1A.10.2.3(1)(d)(ii) Pharmacy Staff will decase the narcotics in the Pharmacy Receiving / Breakdown / Off-site Send Out Area and transport the narcotics to the narcotics storage room.

1A.10.2.3(1)(e) Hazardous materials

1A.10.2.3(1)(e)(i) Non-hazardous materials will be delivered to the Pharmacy Receiving / Breakdown / Off-site Send Out Area by Supply Chain Staff.

1A.10.2.3(1)(e)(ii) Hazardous materials will remain in boxes where Pharmacy Staff will transport hazardous materials to the hazardous storage room where it will be decased and stored.

1A.10.2.3(2) **Compounding Flows**

1A.10.2.3(2)(a) Hazardous and non-hazardous materials used in the process of sterile compounding and chemotherapy compounding will be transported by Pharmacy Staff to the preparation and checking area.

1A.10.2.3(2)(a)(i) The preparation and checking room will be shared by both sterile compounding and chemotherapy compounding services. While this room is shared by these processes, separate and distinct work areas and pass-through windows are required for each process.

1A.10.2.3(2)(a)(ii) Hazardous material storage room will be located adjacent to the preparation and checking area.

1A.10.2.3(3) **Sterile Compounding**

1A.10.2.3(3)(a) Materials moving from the preparation and checking area to the sterile compounding anteroom will be moved through a dedicated pass-through window.

1A.10.2.3(3)(a)(i) Staff will change in the vestibule / change area prior to entering the anteroom.

1A.10.2.3(3)(b) Materials moving from the sterile compounding anteroom to the sterile compounding room will be moved through a dedicated pass-through window.

1A.10.2.3(3)(b)(i) Staff will access the sterile compounding room from the sterile anteroom using a door.

1A.10.2.3(3)(c) Once sterile compounds are developed, they will be moved to the preparation and checking area using a dedicated pass-through window.

1A.10.2.3(3)(d) Once sterile compounds are confirmed, they will be moved to the appropriate service location by pharmacy Staff using carts.

1A.10.2.3(4) **Chemotherapy Compounding**

1A.10.2.3(4)(a) Materials moving from the preparation and checking area to the chemotherapy compounding anteroom will be moved through a dedicated pass-through window.

1A.10.2.3(4)(a)(i) Staff will change in the vestibule / change area prior to entering the anteroom.

1A.10.2.3(4)(b) Materials moving from the chemotherapy compounding anteroom to the chemotherapy compounding room will be moved through a dedicated pass-through window.

1A.10.2.3(4)(b)(i) Staff will access the chemotherapy compounding room from the chemotherapy anteroom using a door.

1A.10.2.3(4)(c) Once chemotherapy compounds are developed, they will be moved to the preparation and checking area using a dedicated pass-through window.

1A.10.2.3(4)(d) Once chemotherapy compounds are confirmed, they will be moved to the Cancer Clinic by Pharmacy Staff using carts.

1A.10.2.3(4)(d)(i) These two components (pharmacy and cancer centre) will be located close to each other and on the same level of the Facility.

1A.10.2.3(5) **Outpatient Medication Consultation**

1A.10.2.3(5)(a) Patients will call in advance and schedule a consultation prior to arriving at the pharmacy.

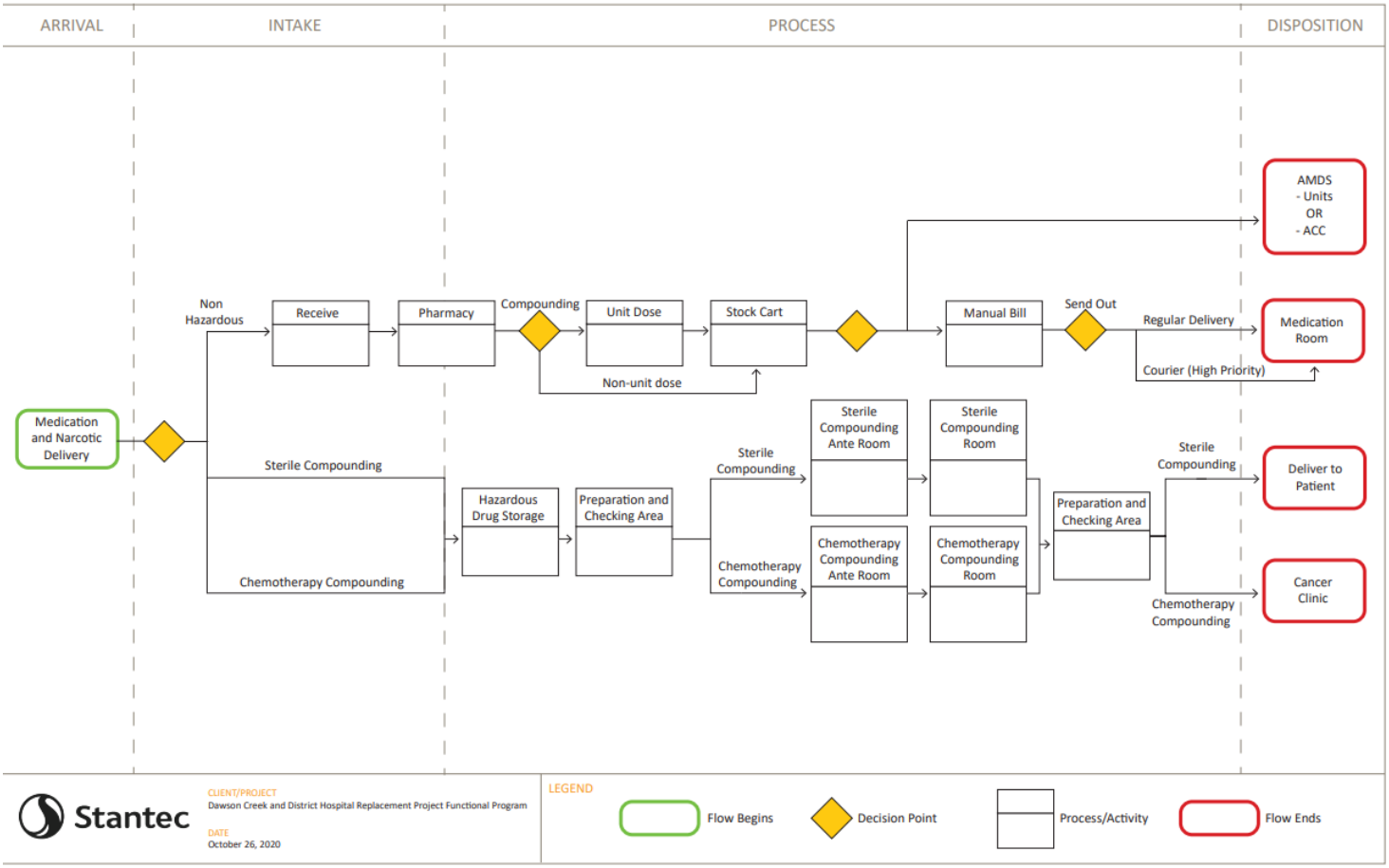
1A.10.2.3(5)(b) Patients will arrive to the consultation space which will be adjacent to the Pharmacy area and accessible from general Facility circulation (for Patients) and from within the Pharmacy (for Pharmacy Staff).

1A.10.2.3(6) **Future State Flow**

1A.10.2.3(6)(a) The future state flow map below describes the key flows for the future service delivery model for Pharmacy.

1A.10 PHARMACY

Dawson Creek and District Hospital Replacement Project - Functional Program - PHARMACY - Future State Flow Map



1A.10.2.4 Support Activities

1A.10.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.10.2.4(2) **Supply Management**

1A.10.2.4(2)(a) Pharmaceuticals will be received by supply chain and delivered to the Pharmacy receiving / breakdown area.

1A.10.3 STAFFING

1A.10.3.1 Estimated future Staffing for the pharmacy is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Pharmacy: Projected Staffing	
Position	**Projected FTE**
	2040/41
Manager (Pharmacist IV)	1.0

Pharmacy: Projected Staffing	
Position	Projected FTE
	2040/41
Pharmacy Technician Supervisor	1.0
Director of Pharmacy Operations	1.0
Medication, Safety Technician	1.0
Provincial Academic Detailing Pharmacist (Regional)	1.0
Quality Officer	1.0
Pharmacy Tech (includes purchaser, order entry, dispensary)	8.0
Pharmacist II	3.4
Total Pharmacy Staffing	**17.4**
Regional Pharmacist II (not dedicated DCDH Staff)	4.0

1A.10.4 DESIGN CRITERIA

1A.10.4.1 External Relationships

1A.10.4.1(1) Provide access for the movement of hazardous sterile chemotherapy products from pharmacy to the cancer clinic via controlled Facility circulation on the same floor.

1A.10.4.1(1)(a) If access requires utilizing a minimal amount of general Facility circulation, that will be acceptable.

1A.10.4.1(1)(b) The linkage between the cancer clinic and pharmacy for cytotoxic and hazardous drug preparations is both physical and operational. These two units would be located close together and on the same Building level. This adjacency will limit hazardous drug transportation throughout the Facility, reduce transport time, and allow for immediate intervention as needed.

1A.10.4.1(2) Provide access to Patients requiring Outpatient counselling services and/or picking up oncology or IV therapy medications via general Facility circulation.

1A.10.4.1(2)(a) Provide a second controlled departmental circulation access from the Pharmacy into the Outpatient counselling room.

1A.10.4.1(2)(b) Provide access for deliveries of supplies and equipment to the receiving / breakdown area via general Facility circulation.

1A.10.4.1(3) The Pharmacy will be accessible via general Facility circulation for Pharmacy Staff to deliver medications to all areas in the Hospital.

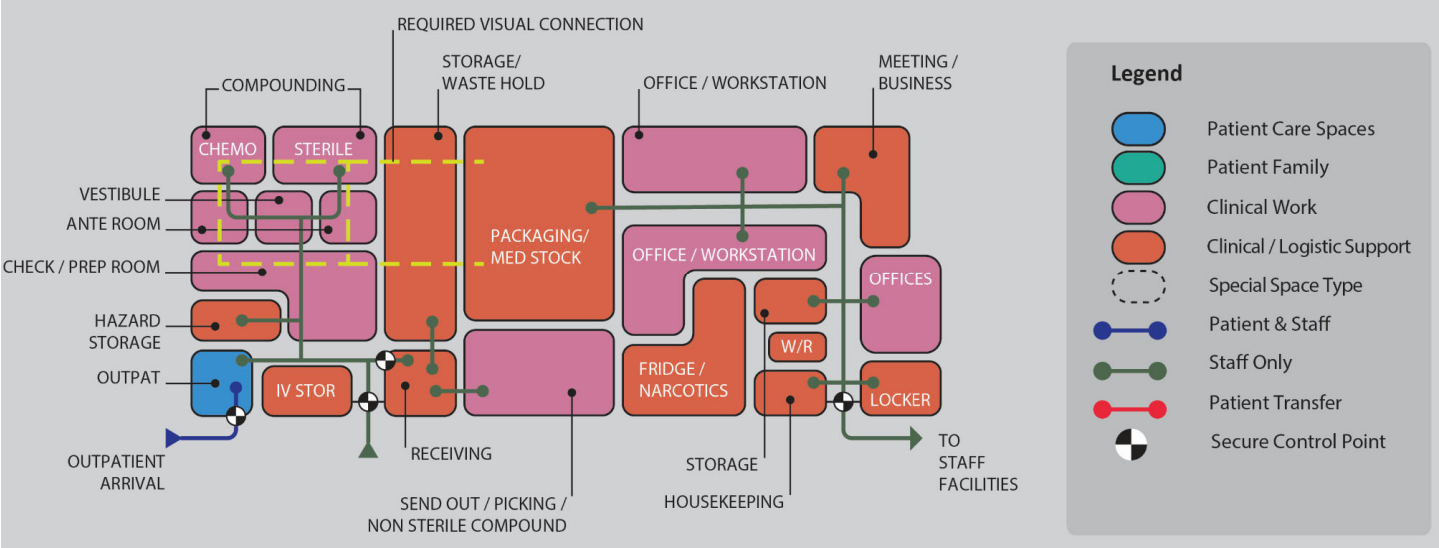
1A.10.4.1(3)(a) However, as much as possible, provide controlled Facility access for Staff who are transporting medication throughout the Facility (e.g. this could be a back of house access).

1A.10.4.1(4) The delivery of supplies, equipment, and medications to the Pharmacy may occur via general Facility circulation.

1A.10.4.1(4)(a) However, as much as possible, the delivery of supplies, equipment, and medications will access the Pharmacy through controlled Facility circulation (e.g. this could be a back of house access).

1A.10.4.2 Functional Relationship Diagram

1A.10.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.10.4.3 Internal Design Criteria

1A.10.4.3(1) For a description of applicable design criteria to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.10.4.3(1)(a) Open Plan Design

1A.10.4.3(1)(a)(i) Accommodate the use of mobile, pharmacy specific module furniture and storage systems to enable long term flexibility as compounding and storage requirements evolve.

1A.10.4.3(1)(a)(ii) Accommodate modular systems furniture that incorporate undercounter storage.

1A.10.4.3(1)(b) Pharmacy Security

1A.10.4.3(1)(b)(i) Provide Secure access to the pharmacy with video surveillance, 360-degree motion sensors, alarm systems, and recording.

1A.10.4.3(1)(b)(i)A Provide the pharmacy with both an internal security system, as part of the Facility security system, and an externally monitored security system.

1A.10.4.3(1)(b)(i)B The externally monitored security system will include motion detectors within department and within the narcotics room.

1A.10.4.3(1)(b)(ii) Provide a Staff safety alarm system built into each Workstation.

1A.10.4.3(1)(b)(iii) Provide audible alarms from pharmacy to central monitoring, including refrigerator and freezer alarms. Alarms must interface with the BMS.

1A.10.4.3(1)(b)(iv) Provide a solid ceiling (not drop down) and any exterior walls must extend from the floor to the base of the overlying slab to prevent unauthorized access.

1A.10.4.3(1)(c) Shipping / Receiving Storage Area

1A.10.4.3(1)(c)(i) Provide access to general Facility circulation for receiving and sending out deliveries.

1A.10.4.3(1)(c)(ii) The design of this space will clearly delineate receiving and outgoing flows. This separation will not be a wall or partition but will be a clearly defined and organized functional separation.

1A.10.4.3(1)(c)(iii) The design will accommodate for the separation of cardboard from the pharmacy area (not including hazardous material packaging).

1A.10.4.3(1)(c)(iv) Provide a minimum of six (6) linear metres of workbench area.

1A.10.4.3(1)(c)(iv)A Provide flush surface mount electrical and data ports to maximize flexibility on the work surface of the bench.

1A.10.4.3(1)(c)(v) Provide wire rack shelving.

1A.10.4.3(1)(c)(vi) Accommodate Workstation to manage supply chain activities.

1A.10.4.3(1)(c)(vii) Send Out Area

1A.10.4.3(1)(c)(vii)A This space will be located near the entrance of the department so that Patients, nurses, physicians, and delivery Staff will be restricted from the other areas of the pharmacy.

1A.10.4.3(1)(c)(vii)B Provide a send out area with workbench with under counter storage and provide wire rack shelving.

1A.10.4.3(1)(d) Order Dispensing / Picking Area

1A.10.4.3(1)(d)(i) Non-Sterile Compounding Area, Packaging Area, Medication Stock Shelving Area, Narcotic Room, and Refrigerated Storage:

1A.10.4.3(1)(d)(ii) Medication Stock Shelving Area

1A.10.4.3(1)(d)(ii)A Provide adjustable shelving for storage area. The storage medium will accommodate modular shelving (smaller bins and larger bins), be adjustable, be movable, and be cleanable.

1A.10.4.3(1)(d)(ii)B Accommodate the ability for two (2) carts to pull inventory and pass by each other without contacting each other, while moving through the shelving area.

1A.10.4.3(1)(d)(ii)C Provide organization where two inventories are managed; one (1) to the packager and one (1) that is packaged inventory.

1A.10.4.3(1)(d)(ii)C1 A 2-bin Kanban system will be implemented with RFID tracking. The includes an appropriate storage medium and electronics and data requirements.

1A.10.4.3(1)(d)(ii)D Provide overhead shelving above the cart holding areas.

1A.10.4.3(1)(d)(iii) Packaging Area

1A.10.4.3(1)(d)(iii)A Provide a flow where bulk inventory is moved to the packager, bulk bottles to the packager, and provide workspace and counter space for product that has been packaged and will be moved to shelving.

1A.10.4.3(1)(d)(iii)B Locate the packager between the bulk and packaged inventory.

1A.10.4.3(1)(d)(iii)C This area can be noisy. Provide acoustical buffering through configuration and layout (locate the machines away from offices).

1A.10.4.3(1)(d)(iii)D Provide appropriate HVAC requirements.

1A.10.4.3(1)(d)(iv) Narcotic Room

1A.10.4.3(1)(d)(iv)A Provide the narcotic room with Secure access.

1A.10.4.3(1)(d)(iv)B Will not be located on an outside wall of Building.

1A.10.4.3(1)(d)(iv)C Will be constructed of concrete or other impenetrable materials.

1A.10.4.3(1)(d)(iv)D Accommodate an automated dispensing cabinet within the narcotic room for the management of narcotics.

1A.10.4.3(1)(e) Outpatient Counselling

1A.10.4.3(1)(e)(i) Provide access into the Outpatient counselling room from public circulation (for the public) and a dedicated access for Pharmacy Staff from the Pharmacy area.

1A.10.4.3(1)(e)(ii) Provide wire rack shelving for storage of resource materials.

1A.10.4.3(1)(e)(iii) Accommodate a Workstation that is telehealth/tele-pharmacy capable.

1A.10.4.3(1)(e)(iv) Provide a window from the Pharmacy area into the Outpatient Counselling room for security.

1A.10.4.3(1)(f) IV Formulation Area

1A.10.4.3(1)(f)(i) This area will be organized into two (2) separate zones with a shared vestibule / receiving area:

1A.10.4.3(1)(f)(ii) Preparation Room and Checking Area

1A.10.4.3(1)(f)(ii)A The preparation room and two (2) checking areas (sterile and chemotherapy) will be a combined space.

1A.10.4.3(1)(f)(ii)A1 No physical separation is required, however, a clearly defined functional separation is required.

1A.10.4.3(1)(f)(ii)B Each of the checking areas will have a Workstation, counter space, and storage. Provide Workstations with built-in video monitoring requirements and telehealth/tele-pharmacy).

1A.10.4.3(1)(f)(ii)C The sterile compounding checking area will have a pass-through window into the sterile compounding anteroom.

1A.10.4.3(1)(f)(ii)D The chemotherapy compounding checking area will have a pass-through window into the chemotherapy compounding anteroom.

1A.10.4.3(1)(f)(ii)E Provide a pharmaceutical refrigerator with pullout shelves for storage of prepared items. Provide external monitoring and audible alarms.

1A.10.4.3(1)(f)(ii)F Provide an emergency eye wash station and emergency shower. This includes a floor drain.

1A.10.4.3(1)(f)(ii)G Co-locate the hazardous material storage and preparation room and checking area (chemotherapy side).

1A.10.4.3(1)(f)(iii) Vestibule

1A.10.4.3(1)(f)(iii)A Provide wire rack shelving for PPE, scrubs, supplies and undercounter storage of carts.

1A.10.4.3(1)(f)(iii)B Provide a hand hygiene sink and emergency eye wash station.

1A.10.4.3(1)(f)(iii)C Not used.

1A.10.4.3(1)(f)(iii)D The vestibule does not require direct access into the sterile and chemotherapy compounding anterooms. It must be adjacent to the anterooms for Staff before/after they have changed.

1A.10.4.3(1)(f)(iv) Sterile Compounding

1A.10.4.3(1)(f)(iv)A The sterile compounding product flow is as follows:

1A.10.4.3(1)(f)(iv)A1 Preparation and checking area > sterile compounding anteroom > sterile compounding room > sterile compounding anteroom > preparation and checking area.

1A.10.4.3(1)(f)(iv)B Non-Hazardous Sterile Compounding Anteroom

1A.10.4.3(1)(f)(iv)B1 The Non-Hazardous Sterile Compounding Anteroom will:

1A.10.4.3(1)(f)(iv)B1(a) be adjacent to the vestibule / change room area.

1A.10.4.3(1)(f)(iv)B1(b) Not used

1A.10.4.3(1)(f)(iv)B1(b)i Not used

1A.10.4.3(1)(f) (iv)B1(b)ii Not used

1A.10.4.3(1)(f)(iv)B1(c) be provided with a person door between the non-hazardous sterile compounding anteroom and non-hazardous sterile compounding room.

1A.10.4.3(1)(f)(v)B1(c)i Non-Hazardous Anterooms to meet the requirements of the National Associations of Pharmacy Regulatory Authorities (NAPRA) per the NAPRA Model Standards for Pharmacy Compounding of Non-Hazardous Sterile Preparations.

1A.10.4.3(1)(f)(v)B1(c)ii Combined Anterooms for hazardous and non-hazardous compounding, although allowed for in the NAPRA model standard, are not acceptable for this project unless approved by the Authority.

1A.10.4.3(1)(f)(iv)B1(d) be provided with temperature controls.

1A.10.4.3(1)(f)(iv)B1(e) be provided with a Workstation, counter space, and storage for supplies. Provide Workstations with built-in video monitoring requirements and telehealth/tele-pharmacy.

1A.10.4.3(1)(f)(iv)B1(f) be provided with chemically resistant work surfaces and for storage and shelving.

1A.10.4.3(1)(f)(iv)B1(g) be provided with glazing to provide visual observation and sightlines into the preparation and checking area and the sterile compounding room.

1A.10.4.3(1)(f)(iv)B1(h) be provided with a hand hygiene sink and scrub sink.

1A.10.4.3(1)(f)(v) Sterile Compounding Room

1A.10.4.3(1)(f)(v)A Non-Hazardous Sterile Compounding Room

1A.10.4.3(1)(f)(v)A1 The Non-Hazardous Sterile Compounding Room will:

1A.10.4.3(1)(f)(v)A1(a) be provided with pressurization requirements in accordance with:

1A.10.4.3(1)(f)(v)A1(a)i NAPRA Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations; and

1A.10.4.3(1)(f)(v)A1(a)ii NAPRA Model Standards for Pharmacy Compounding of Non-hazardous Sterile Preparations;

1A.10.4.3(1)(f)(v)A1(a)iii Model Standards for Pharmacy Compounding of Non-sterile Preparations USP 797;

1A.10.4.3(1)(f)(v)A1(a)iv CSA Z317.2 requirements;

1A.10.4.3(1)(f)(v)A1(a)v College of Pharmacy requirements; and

1A.10.4.3(1)(f)(v)A1(a)vi Biosafety cabinet/fume hood requirements.

1A.10.4.3(1)(f)(v)A1(b) be provided with a laminar flow hood (ISO 5).

1A.10.4.3(1)(f)(v)A1(c) be provided with 100% exhaust.

1A.10.4.3(1)(f)(v)A1(d) be provided with digital observation (i.e. camera) that is mounted to the flow hood.

1A.10.4.3(1)(f)(v)A1(e) Provide visual monitoring from this room into the main pharmacy are (i.e. glazing).

1A.10.4.3(1)(f)(vi) Chemotherapy Compounding

1A.10.4.3(1)(f)(vi)A The chemotherapy compounding product flow is as follows:

1A.10.4.3(1)(f)(vi)A1 Preparation and checking area > chemotherapy compounding anteroom > chemotherapy compounding room > chemotherapy compounding anteroom > preparation and checking area.

1A.10.4.3(1)(f)(vi)B Chemotherapy Compounding Anteroom

1A.10.4.3(1)(f)(vi)B1 The chemotherapy compounding anteroom will:

1A.10.4.3(1)(f)(vi)B1(a) be adjacent to the vestibule / change room area.

1A.10.4.3(1)(f)(vi)B1(b) be provided pass-through windows between:

1A.10.4.3(1)(f)(vi)B1(b)i The preparation and checking area (chemotherapy side) and the chemotherapy compounding anteroom.

1A.10.4.3(1)(f)(vi)B1(b)ii The chemotherapy compounding anteroom and the chemotherapy compounding room.

1A.10.4.3(1)(f)(vi)B2 be provided with an automatic glass person door with between the chemotherapy compounding anteroom and chemotherapy compounding room.

1A.10.4.3(1)(f)(vi)B3 be provided with all pressurization requirements in adherence to the CSA Z317.2 requirements.

1A.10.4.3(1)(f)(vi)B4 be provided with temperature controls.

1A.10.4.3(1)(f)(vi)B5 be provided with a Workstation, counter space, and storage for supplies. Provide Workstations with built-in video monitoring requirements and telehealth/tele-pharmacy).

1A.10.4.3(1)(f)(vi)B6 be provided with chemically resistant work surfaces and for storage and shelving.

1A.10.4.3(1)(f)(vi)B7 be provided with glazing to provide visual observation and sightlines into the preparation and checking area and the chemotherapy compounding room.

1A.10.4.3(1)(f)(vi)B8 be provided with a hand hygiene sink and scrub sink.

1A.10.4.3(1)(f)(vii) Hazardous (Chemotherapy) Compounding Room

1A.10.4.3(1)(f)(vii)A The Hazardous (Chemotherapy) Compounding Room will

1A.10.4.3(1)(f)(vii)A1 meet the requirements of the National Associations of Pharmacy Regulatory Authorities (NAPRA) per the Hazardous Compounding: Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations.

1A.10.4.3(1)(f)(vii)A2 be provided with a laminar flow hood (ISO 5).

1A.10.4.3(1)(f)(vii)A3 be provided with 100% exhaust.

1A.10.4.3(1)(f)(vii)A4 be provided with a 1829mm externally vented biosafety cabinet.

1A.10.4.3(1)(f)(vii)A5 be provided with digital observation (i.e. camera) that is mounted to the flow hood.

1A.10.4.3(1)(f)(vii)A6 provide visual monitoring from this room into the main pharmacy (i.e. glazing).

1A.10.4.3(1)(f)(vii)A7 be provided with chemically resistant work surfaces and for storage and shelving.

1A.10.4.3(1)(g) Automated Medication Dispensing System (AMDS)

1A.10.4.3(1)(g)(i) AMDS will follow the ISMP's guidelines on the Interdisciplinary Safe Use of Automated Dispensing Cabinets[2].

1A.10.4.3(1)(g)(ii) All Medication rooms will be sized for the use of AMDS in addition to the standard requirements with the requirements outlined in section 1A.0.

1A.10.4.3(1)(h) Medication Rooms

1A.10.4.3(1)(h)(i) Medication rooms will be distributed throughout the Facility. All Medication rooms will:

1A.10.4.3(1)(h)(i)A1 be equipped with a card reader (swipe card) for ease of access of authorized staff.

[2] Anon, (2018). *Interdisciplinary Safe Use of Automated Dispensing Cabinets*. [online] Available at: https://www.ismp.org/resources/revised-guidelines-safe-use-automated-dispensing-cabinets [Accessed 5 Feb. 2019].

1A.10.4.3(1)(h)(i)A2 be provided with doors into medication room that have automatic closure and locking to ensure they are closed and locked when not in use.

1A.10.4.3(1)(h)(i)A3 be provided with adequate space and lighting to prepare medications for dispensing, update records, store medications and file documents.

1A.10.4.3(1)(h)(i)A4 be provided with adequate storage space to store Patients own medications that are to be administered or held in safekeeping for duration of hospital stay, as well as extra crash cart trays as necessary after hours and weekends to replenish supplies as necessary after a code. Storage must separate the following:

- 1A.10.4.3(1)(h)(i)A4(a) look-alike/sound-alike medications.
- 1A.10.4.3(1)(h)(i)A4(b) different concentrations of the same medication.
- 1A.10.4.3(1)(h)(i)A4(c) high-alert medications.
- 1A.10.4.3(1)(h)(i)A4(d) expired, damaged and contaminated medications pending removal.

1A.10.4.3(1)(h)(i)A5 be provided with a medication disposal area.

1A.10.4.3(1)(h)(i)A6 be provided with a hand hygiene sink.

1A.10.4.3(1)(h)(i)A7 be provided with a stainless-steel sink.

1A.10.4.3(1)(h)(i)A8 be provided with adequate space for storage of reference materials.

1A.10.4.3(1)(h)(i)A9 be provided with adequate ventilation and temperature control to avoid overheating of the electronic systems (e.g. refrigerator, ADC, computer), and to maintain proper storage temperature for medications.

1A.10.4.3(1)(h)(i)A10 be provided with temperature control that will keep the temperature between 15° C to 25° C, which is the recommended range to maintain potency of most medications stored at room temperature.

1A.10.4.3(1)(h)(i)A11 be provided with a dedicated medication refrigerator.

1A.10.4.3(1)(h)(i)A12 be provided with a dedicated secure AMDS.

1A.10.5 SCHEDULE OF ACCOMMODATION

1A.10.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

14.0 Pharmacy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
14.1.0	**Shipping/Receiving Storage Area**					
14.1.01	Receiving / Breakdown/ Off-Site Send Out Area	1	22.0	22.0	- Secure entry; Workstation with bar code reader; pass-through from corridor for drop-offs; work bench with task lighting and power; undercounter open storage work counter; shelving	- Adjacent to entrance
14.1.02	Active Storage and Receiving	1	27.0	27.0	- Active storage - security door to hospital circulation corridor, PC Workstation based on 6 lineal metres of work bench; equipment footprint (Length 1015 mm - Width 900 mm - Height 1485 mm); includes oral solids unpacked; segregated holding for drugs (northeast inventory hub); modular shelving.	
14.1.02.1	Emergency Eye Wash / Shower	1	1.0	1.0	- Combined unit; provide water temperature and pressure; floor drain	- Adjacent to work area
14.1.03	Waste Holding	1	5.0	5.0	- Recycling; boxes; hand hygiene sink, emergency eye wash/shower; floor drain	- could be included in Active Storage and Receiving - could be included in Receiving / Breakdown/ Off-Site Send Out Area
14.1.04	AMDS/Equipment Storage	1	5.5	5.5	- AMDS components/bins; back up equipment; static shelving	
Pharmacy: Shipping/Receiving Storage Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				60.5	**1.20**	**72.6**
14.2.0	**Order Dispensing/Picking Area**					
14.2.01	Not used					
14.2.02	Picking Cart Holding Area	1	4.0	4.0	- Overhead shelving; 4 carts	-
14.2.03	Crash Cart Replenishment Area	1	2.0	2.0	- Overhead shelving; 2 Carts	-
14.2.04	Non-Sterile Compounding Area	1	12.0	12.0	- Includes undercounter dishwasher; workbench for injectables and creams; utility sink; chemical storage; hand hygiene sink; eye wash station	-

14.0 Pharmacy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
14.2.05	Packaging Area	1	30.0	30.0	- Solid dose packaging machine with PC; liquid dose packaging machine; automated packager and verifier; blister packager; liquid packaging station; checking counter; 2x Workstation; modular shelving.	-
14.2.06	Medication Stock Shelving Area	1	42.0	42.0	- Work bench with task lighting and power; undercounter open storage; 80 lineal metres shelving 6 shelves high; storage for eye/ear storage, rectal, vaginal, oral unit dosed solid, bulk oral solid, topical, injectable and creams; provide separate areas within the shelving or in a specialized pharmacy inventory storage area; hazardous drugs would not be stored here.	-
14.2.07	Narcotic Room	1	26.0	26.0	- 1 Workstation; alarm monitoring and card control; shelving; masonry wall construction, solid, secure; AMDS (7 narcotic tower); cabinet; refrigerator; provide ventilation requirements; shelving space for bulk narcotics and narcotic returns	-
14.2.08	Refrigerated Storage	1	12.0	12.0	- 4 door refrigerator and 2 refrigerators including CIVA refrigerator and drug stock refrigerator	-
14.2.09	Outpatient Counselling	1	13.0	13.0	- Shelving for resource materials; computer and printer; window from adjacent pharmacy area (security); telehealth capable	- Access from public circulation
Pharmacy: Dispensing/Picking Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				141.0	**1.30**	**183.3**
14.3.0	**IV Formulation Area**					
14.3.01	Vestibule	1	10.0	10.0	- hand hygiene sink and emergency eye wash station	-
14.3.02	Emergency Eye Wash / Shower	1	1.0	1.0	- Combined unit; provide water temperature and pressure; floor drain	- Adjacent to work area

14.0 Pharmacy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
14.3.03	Non-Hazardous Sterile Compounding Anteroom	1	10.0	10.0	- Surgeon style scrub sink and flip down emergency eye / face wash; emergency shower; floor drain; worksurfaces that are chemically resistant; washable ceiling and wall surfaces; pressurization and other requirements per the Model Standards for Pharmacy Compounding of Non-Hazardous Sterile Preparations.	- Adjacent to Vestibule
14.3.04	Non-Hazardous Sterile Compounding Room	1	12.5	12.5	- 1 Laminar flow hood — ISO classification of compounding rooms, ISO classification of Laminar Air Flow Workstations (LAFW) or Biosafety Cabinets (BSC) and pressurization per the Model Standards for Pharmacy Compounding of Non-Hazardous Sterile Preparations; utility/supply carts and other equipment; visual monitoring (glazing) from adjacent pharmacy spaces; pass-through to Checking Area	- Adjacent to Vestibule
14.3.05	Hazardous (Chemotherapy) Sterile Compounding Anteroom	1	10.0	10.0	- 2 utility/storage carts; surgeon style scrub sink and flip down emergency eye/face wash, emergency shower; floor drain; pressurization and other requirements per the Model Standards for Pharmacy Compounding of Hazardous Sterile Preparations; worksurfaces and cupboards chemically resistant; washable ceiling and wall surfaces; storage and hampers for linen and gowns	- Adjacent to Vestibule
14.3.06	Chemotherapy Compounding Room	1	12.5	12.5	- Externally vented biosafety cabinet; utility/supply carts and other equipment; visual monitoring (glazing) from adjacent pharmacy spaces; HEPA filter-equipped HVAC system,100% exhaust (supply and exhaust require HEPA); hazardous waste receptacle; pass-through to Checking Area; telemedicine link; storage; automatic door	- Adjacency to an emergency eye wash/shower is required. - Adjacent to Checking Area

14.0 Pharmacy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
14.3.07	Hazardous Drug Storage	1	12.0	12.0	- Large refrigerator; Secured room; modular storage.	- Co-located with and open to Preparation Room - Access only from IV Storage
14.3.08	IV Storage	1	12.0	12.0	- Secure storage	
14.3.09	Preparation Room	1	16.0	16.0	- 2x Workstations	- Co-located with and open to the IV Storage
14.3.10	Checking Area	2	10.0	20.0	- Two (2) stainless steel Workstations: 1 Workstation to be Telehealth-capable (Cisco); printer/scanner, charts, phone, schedules, storage for supplies (labels, files, etc.), packaging storage needs, storage for dedicated paperwork / binders, trays, chemo spill kit, hazardous disposal storage (18 gallon); Secure pass-through connecting Checking Area w/ adjoining 5.3.01 Medication Room	- 1 checking area for sterile compounding; 1 checking area for chemo compounding - Co-located with and open to the Vestibule
Pharmacy: IV Formulation Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				116.0	**1.35**	**156.6**
14.4.0	**Staff Support**					
14.4.01	Office: Manager	1	9.2	9.2	- Private office with desk, chairs, cabinets; provide acoustic buffering	- Must be located in the Pharmacy
14.4.02	Office: Supervisor	1	9.2	9.2	- Private office with desk, chairs, cabinets; provide acoustic buffering	-
14.4.03	Office: Director of Pharmacy Operations	1	10.0	10.0	- Private office with desk, chairs, cabinets; provide acoustic buffering	- Could be located elsewhere away from the Pharmacy
14.4.04	Shared Office: Medication, Safety Technician (local) and (regional)	1	10.0	10.0	- Workspace with chairs, data connection, phone	- Could be located elsewhere away from the Pharmacy
14.4.05	Office: Provincial Academic Detailing Pharmacist (Regional)	1	9.2	9.2	- Private office with desk, chairs, cabinets; provide acoustic buffering	- Could be located elsewhere away from the Pharmacy
14.4.06	Office: Purchaser Technician (Regional)	1	9.2	9.2	- Chair, workspace, data connection, phone, provide acoustical buffering	-

14.0 Pharmacy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
14.4.07	Shared Workstation	4	4.6	18.4	- Chair, workspace, data connection, phone; accommodates Clinical Pharmacist; Quality Officer (NHA); students, and Order Entry, 0.4 FTE for dispensary nights, dispensary nights and weekends	-
14.4.08	Shared Workspace: Multipurpose	1	4.6	4.6	- 2 workspaces with chair; data connection, phone	- Adjacent to Outpatient Counselling
14.4.09	Business Centre	1	7.0	7.0	- Photocopier, fax, paper supplies, clerical storage	- Ensure adjacency to the workstations and Medication Stock Shelving Area
14.4.10	Meeting / Education Room	1	16.0	16.0	- Accommodates 8-10 people; lightweight and movable tables & chairs; multi-media capable	
14.4.11	General Storage	1	10.0	10.0	- Provide appropriate storage medium	-
14.4.12	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); change area	-
14.4.13	Staff Lounge	1	28.0	28.0	- Soft seating for 10 staff; kitchenette with refrigerator, microwave, dishwasher, cabinets, counter space, tables, chairs, double sink; PC station, TV	- Could be shared with others
14.4.14	Locker Room with Change Areas	1	11.0	11.0	- Assigned 15 half lockers (could be located along a staff only corridor); 1 change partition (per SOR Clause 6.10.4 and 6.10.6); hooks; small millwork bench for seating; boot and coat storage	-

14.0 Pharmacy: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
14.4.15	Housekeeping Room	1	10.0	10.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	- Hazardous compounding area requires a dedicated (2nd) Housekeeping cart (this area could be split)
14.4.16	Change Room	1	5.0	5.0	- 4x Z-lockers; hooks, bench seat	- Adjacent to Vestibule
Pharmacy: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				171.4	**1.35**	**231.4**
Total Pharmacy Area				**488.9**		**643.9**

1A.11 REHABILITATION SERVICES

This specification outlines the functional, operational, and physical requirements for Rehabilitation Services (rehab).

1A.11.1 FUNCTIONAL DESCRIPTION

1A.11.1.1 Statement of Purpose

1A.11.1.1(1) The rehab component will accommodate non-invasive assessment and treatment of conditions that affect Patients' abilities to function at their maximum physical and mental potential. The goals of therapy will be to either restore function, or to slow down further deterioration of function.

1A.11.1.1(2) The Facility will provide Inpatient and Outpatient rehabilitation services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.11.1.2 Scope of Services

1A.11.1.2(1) **Functional Content**

1A.11.1.2(1)(a) Physiotherapy (PT) will be responsible for maintaining and/or improving Patients' physical capacities and work in an inter-professional collaborative approach with other allied health professionals. The focus of the service in Inpatient treatment and activation along with some pre- and post-surgical consultations, treatments, and Outpatient rehabilitation (post-surgical clinics).

1A.11.1.2(1)(b) Occupational therapy (OT) will be responsible for maintaining and/or improving Patients' functional capacity including, but not limited to:

1A.11.1.2(1)(b)(i) Assessment and treatment for arthritis Patients.

1A.11.1.2(1)(b)(ii) Splint fabrication and modification.

1A.11.1.2(1)(b)(ii)A The splinting fabrication and modification services may or may be required in the future. Its inclusion will be determined with users in the future.

1A.11.1.2(1)(b)(iii) Functional assessments including activities of daily living (ADL) assessments.

1A.11.1.2(2) **Planning Assumptions**

1A.11.1.2(2)(a) Therapy services are one of the key strategies used to minimize Inpatient stays or avoid Inpatient admission altogether. They also target those at risk for institutionalization by allowing them to live as independently, as practically, and for as long as possible. Demands for these services are expected to grow, especially in response to an aging population that often presents with multiple health and functioning issues.

1A.11.1.2(2)(b) Emphasis will continue being placed on group encounter therapy sessions with supplemental one-on-one sessions.

1A.11.1.2(3) **Excluded**

1A.11.1.2(3)(a) No Red Cross storage will be provided.

1A.11.2 OPERATIONAL DESCRIPTION

1A.11.2.1 Hours of Operation

1A.11.2.1(1) Rehabilitation services will be available Monday to Friday, from 0800-1630.

1A.11.2.2 Organization & Management

1A.11.2.2(1) Rehabilitation services will be managed by the lead occupational therapist / physiotherapist.

1A.11.2.3 Workflow

1A.11.2.3(1) **Inpatients**

1A.11.2.3(1)(a) Staff will provide most treatments within the rehab area.

1A.11.2.3(1)(b) In some cases, rehab Staff will go to the Inpatient area to help escort a Patient and/or provide rehabilitation services in the unit itself.

1A.11.2.3(2) **Outpatients**

1A.11.2.3(2)(a) All Outpatient services will occur in the Rehabilitation Area. These Patients will arrive at the Waiting Area to wait for Rehab Staff.

1A.11.2.4 Support Activities

1A.11.2.4(1)(a) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.11.3 STAFFING

1A.11.3.1 Estimated future Staffing for rehab is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Rehabilitation Services: Projected Staffing	
Position	**Projected FTE**
Rehab Assistant	3.0
Occupational Therapist II	1.0
Physiotherapist I	2.0
Total Rehabilitation Staffing	**6.0**

1A.11.4 DESIGN CRITERIA

1A.11.4.1 External Relationships

1A.11.4.1(1) **Inpatients**

1A.11.4.1(1)(a) Inpatient rehab Patients access the rehab area via controlled Facility circulation from the convalescent unit. The rehab department and Inpatient units will be on the same floor.

1A.11.4.1(1)(b) Inpatient rehab Patients access the rehab area via general Facility circulation from the Inpatient unit.

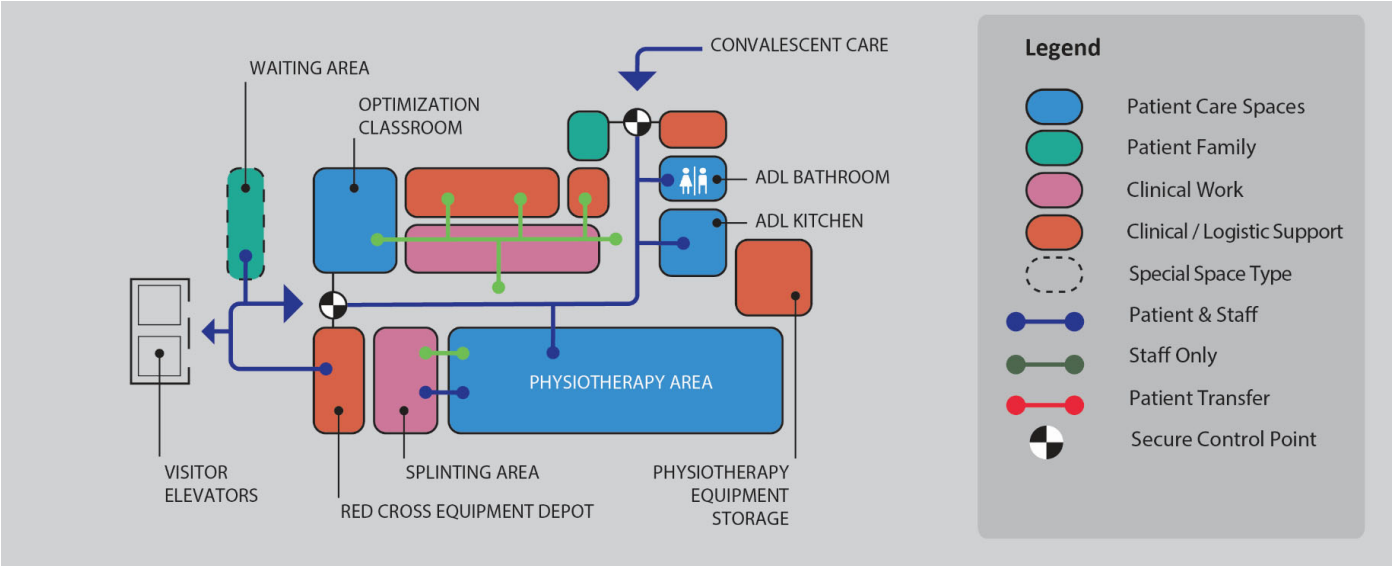
1A.11.4.1(2) **Outpatients**

1A.11.4.1(2)(a) Rehabilitation Patients access the rehab area via general Facility circulation from the Building Main Entrance and/or from central registration.

1A.11.4.1(3) To the extent possible, the delivery of supplies, equipment, laundry, and medications to the rehabilitation area may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.11.4.2 Functional Relationship Diagram

1A.11.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.11.4.3 Internal Design Criteria

1A.11.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.11.4.3(2) **Waiting Area**

1A.11.4.3(2)(a) The Waiting Area will be visible from the clinical Workstations.

1A.11.4.3(2)(b) The Waiting Area will have comfortable seating.

1A.11.4.3(2)(c) The Waiting Area will have access to wireless internet.

1A.11.4.3(2)(d) The Waiting Area will have large screen displays for clinic and health information.

1A.11.4.3(3) **Equipment Drop-Off Area**

1A.11.4.3(3)(a) A secure equipment drop-off area will be provided with access from a public corridor.

1A.11.4.3(3)(a)(i) The public corridor will be located at or near the Building Main Entrance.

1A.11.4.3(4) **Physiotherapy Area**

1A.11.4.3(4)(a) The PT assessment and treatment area will be configured in an open plan with minimal partitioning.

1A.11.4.3(4)(b) Individual treatment stations and require 360° circulation.

1A.11.4.3(4)(c) An open plan will assist in monitoring Patients, while therapists attend to other stations allowing for equipment to be moved as reorganizations become necessary.

1A.11.4.3(4)(d) Not used.

1A.11.4.3(4)(e) Equipment storage area will be adjacent to the gymnasium/exercise area.

1A.11.4.3(4)(f) All therapy stations within the gymnasium/exercise area will be visible (have line of sight) from the clinical Workstations.

1A.11.4.3(4)(g) Accommodate a movable Workstation (i.e. Workstation on wheels) for use in the PT area. This would be charged with data connections in the clinical Workstation area when not in use.

1A.11.4.3(5) **Optimization Classroom**

1A.11.4.3(5)(a) Provide access to the optimization classroom from out of the department, close to the Waiting Area for Patients waiting to access the classroom.

1A.11.4.3(5)(b) Provide access to the optimization classroom from within the department for rehab Staff members.

1A.11.4.3(5)(c) Accommodate up to 10 people using lightweight and movable tables and chairs.

1A.11.4.3(5)(d) Provide a small educator Workstation.

1A.11.4.3(5)(e) Provide full multi-media capable services (i.e. equipment, lighting, sound, etc.).

1A.11.4.3(6) **Occupational Therapy Area**

1A.11.4.3(6)(a) The OT area will be contained in an area that is separate from the open PT area.

1A.11.4.3(6)(b) Activities of Daily Living (ADL)

1A.11.4.3(6)(b)(i) An ADL treatment area will be provided in the OT area. The ADL area will resemble a standard kitchen, apartment, and 3-piece washroom (max. 381 mm high tub). All services will be functional.

1A.11.4.3(6)(c) Splinting Area

1A.11.4.3(6)(c)(i) Provide and accommodate worktable and tool and material storage.

1A.11.4.3(7) **Floor Finishes**

1A.11.4.3(7)(a) Patients accessing this component may have compromised mobility. Frequent use and presence of mobility aids including canes, crutches, walkers, wheelchairs, and motorized chairs/scooters will be anticipated. Patient ambulation may involve shuffling as opposed to stepping. Patients will also have varied levels of visual acuity.

1A.11.4.3(8) **Environmental Control**

1A.11.4.3(8)(a) Patients engaged in physical activity will have different heating/cooling requirements than those engaged in more passive sessions. Air handling in this component will be organized into zones enabling independent temperature regulation in different functional areas.

1A.11.4.3(8)(b) Fabrication of splints and orthotics relies on chemicals and processes that generate strong and potentially hazardous odours. The room(s) where this fabrication occurs must be enclosed, supplied with a high air exchange, and exhausted to the exterior.

1A.11.5 SCHEDULE OF ACCOMMODATION

1A.11.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

15.0 Rehabilitation Services: Schedule of Accommodation (detailed space list)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
15.1.0	**Reception and Waiting**					

15.0 Rehabilitation Services: Schedule of Accommodation (detailed space list)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
15.1.01	Equipment Drop-Off Area	1	4.0	4.0	- Secure drop-off area for community/loaner equipment dropped off after hours	-
15.1.02	Waiting Area	1	8.0	8.0	- Accommodates 4 people with seating, shoe, and coat racks	-
Rehabilitation Services: Reception and Waiting				**NSM Total**	**Planning Factor (CGSM)**	**Total CGSM**
				12.0	**1.40**	**16.8**
15.2.0	**Physiotherapy Area**					
15.2.01	Physiotherapy Area	1	91.0	91.0	- Designed as circuit training module with 9 stations, including treadmills, adjustable chairs and Bariatric chair, recumbent bikes, geri-bike, leg extension machine, leg curl machine, adjustable parallel bars ; stairs with walking slings; weight area (pulley weights) with full length mirrors; two (2) plinths and one (1) Bariatric plinth, all fitted with adjustable racks; utility sink; ice machine; hydrocollator; ultrasound storage with charging capability; vital signs monitor with charging capability; ceiling mounted Patient lift rated for Bariatric capacity; hand hygiene sink	-
15.2.02	Alcove: Wheelchair Scale	1	2.0	2.0		- Accessible on 3 sides
15.2.03	Physiotherapy Equipment Storage	1	12.0	12.0	- Recharging stations; shelving; Bariatric equipment including wheelchairs	- Adjacent to therapy areas
15.2.04	Clinical Workstation	3	3.0	9.0	- Chair, accessible millwork counter, computer, phone, data; glass enclosed	-
15.2.05	Optimization Classroom	1	20.0	20.0	- Classroom learning for 8-10 people; lightweight tables and chair; fully multi-media capable	- Located near the front entrance
15.2.06	Patient Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	
15.2.07	Soiled Utility	1	12.0	12.0	- Hand hygiene sink, SS utility sink, counter, waste and recycling, etc.; storage of carts including one (1) standard size Ebco cart (63” long x 24” wide x 67.5” high) for soiled linen bags; wheelchair washing machine	
Rehabilitation Services: Therapy Area				**NSM Total**	**Planning Factor (CGSM)**	**Total CGSM**
				150.6	**1.40**	**210.8**

15.0 Rehabilitation Services: Schedule of Accommodation (detailed space list)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
15.3.0	**Occupational Therapy**					
15.3.01	ADL Kitchen	1	12.0	12.0	- Assessment of Patients; wheelchair accessible; oven/stove, refrigerator, dishwasher, microwave; double sink; height adjustable counter and cabinets; drawers with pull and alternative opening systems; easily adapted barrier-free accessories to reflect the reality of the transition to home	-
15.3.02	ADL Bathroom	1	8.0	8.0	- Wheelchair accessible 3-piece (sink, toilet, tub); raised toilet seat; domestic bathtub (max. 381mm high) with bench; double assist toilet; grab bars; height adjustable worktable with storage and closet; easily adapted barrier-free accessories to reflect the reality of the transition to home	-
15.3.02.1	ADL Washer and Dryer	1	5.0	5.0	- Residential washer and dryer; laundry tub basin; millwork counter	-
15.3.03	Splinting Area	1	16.0	16.0	- Work table; tool and material storage; splint bath; splint storage; sewing table; hammer and anvil	-
15.3.04	Clinical Workstation	1	3.0	3.0	- Chair, accessible millwork counter, computer station, phone, data	-
Rehabilitation Services: Occupational Therapy				**NSM Total**	**Planning Factor (CGSM)**	**Total CGSM**
				44.0	**1.40**	**61.6**
15.4.0	**Clinical Support**					
15.4.01	Retail Supply Storage	1	8.0	8.0	- Supplies and equipment for purchase; crutches, braces, etc.	-
15.4.02	Clean Supply Closet	1	6.0	6.0	- Storage of clean and sterile supplies; 2-bin system; cart storage; RFID (data/electrical requirements)	-
-	Housekeeping Closet	Shared with Convalescent Care confirm adjacency to Rehab				
Rehabilitation Services: Staff Support				**NSM Total**	**Planning Factor (CGSM)**	**Total CGSM**
				14.0	**1.35**	**18.9**
15.5.0	**Staff Support**					
15.5.01	Business Centre	1	8.0	8.0	- Photocopier/fax; clerical supplies; mail slots	-
15.5.02	Not used					

1A.11 REHABILITATION SERVICES

15.0 Rehabilitation Services: Schedule of Accommodation (detailed space list)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
15.5.03	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	-
	Kitchenette	- Shared with Convalescent Care				
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lockers and Change Area	- 1 locker per projected FTE and is included in the Support Staff Locker and Change Area				
Rehabilitation Services: Staff Support				**NSM Total**	**Planning Factor (CGSM)**	**Total CGSM**
				12.6	**1.35**	**17.0**
Total Rehabilitation Services Area				**233.2**		**325.2**

1A.12 BIOMEDICAL ENGINEERING

This specification outlines the functional, operational, and physical requirements for the Biomedical Engineering (Biomed) component.

1A.12.1 FUNCTIONAL DESCRIPTION

1A.12.1.1 Statement of Purpose

1A.12.1.1(1) The purpose of the Biomedical Engineering space is to provide a base of operations for Biomedical Engineering personnel to ensure optimal operating condition of biomedical systems and equipment for the health care Facility. Activities in the Biomedical Engineering space will include the implementation of a comprehensive preventative maintenance program, as well as corrective and reactive (ad hoc) repairs of equipment.

1A.12.1.1(2) Biomed Engineering will support the Facility in providing services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person- and family-centered model of care.

1A.12.1.2 Scope of Services

1A.12.1.2(1) **Functional Content**

1A.12.1.2(1)(a) Functions that may be performed in the space include, but are not limited to:

1A.12.1.2(1)(a)(i) Pre-purchase planning and evaluation of new medical equipment.

1A.12.1.2(1)(a)(ii) Design, modification, or repair to sophisticated medical instruments or systems.

1A.12.1.2(1)(a)(iii) Cost effective management of biomedical equipment calibration and/or repairs.

1A.12.1.2(1)(a)(iv) Safety and performance testing of biomedical equipment.

1A.12.1.2(1)(a)(v) Inspection of all incoming (new) biomedical equipment for compliance and safety standards.

1A.12.1.2(1)(a)(vi) Establishment of performance benchmarks.

1A.12.1.2(1)(a)(vii) Medical equipment inventory control.

1A.12.1.2(1)(a)(viii) Coordination of outside services and vendors.

1A.12.1.2(1)(a)(ix) Training of medical personnel in the safe and effective use of medical devices and systems.

1A.12.1.2(1)(a)(x) Biomed computer support.

1A.12.1.2(1)(a)(xi) Input to the design of clinical facilities where medical technology is used.

1A.12.1.2(1)(a)(xii) Development and implementation of documentation protocols required by external accreditation and licensing agencies.

1A.12.1.2(1)(a)(xiii) Consultations to information management/information technology for biomedical device system integration.

1A.12.1.2(1)(a)(xiv) Technical/clinical incident investigations.

1A.12.1.2(2) **Planning Assumptions**

1A.12.1.2(2)(a) Two (2) satellite Biomed workspaces will be accommodated in the Emergency Department and surgical services area.

1A.12.1.2(3) **Excluded**

1A.12.1.2(3)(a) Patient monitoring services will not reside on the Facility network.

1A.12.2 OPERATIONAL DESCRIPTION

1A.12.2.1 Hours of Operation

1A.12.2.1(1) Biomed will be available from Monday to Friday, from 0800-1600.

1A.12.2.2 Organization & Management

1A.12.2.2(1) Biomed will be managed by an onsite Biomed technician.

1A.12.2.3 Workflow

1A.12.2.3(1) **Service Requests**

1A.12.2.3(1)(a) Unplanned Service Requests

1A.12.2.3(1)(a)(i) Clinical Staff will generate service requests for equipment requiring unplanned maintenance.

1A.12.2.3(1)(a)(i)A The requests will be electronically submitted as needed using a heat ticket system.

1A.12.2.3(1)(a)(i)B Requests for service will be assessed and confirmed through Biomed personnel to establish timelines, methods, equipment, and materials that may be required.

1A.12.2.3(1)(a)(ii) Biomed Staff will go to the area where the equipment is located, perform an analysis, if appropriate, and bring the piece of equipment to the Biomed workspace for servicing.

1A.12.2.3(1)(a)(iii) Biomed equipment will be cleaned prior to going to Biomed workshop.

1A.12.2.3(1)(b) Planned Service Requests

1A.12.2.3(1)(b)(i) Biomed Staff will adhere to planned preventative maintenance schedules for equipment throughout the Facility.

1A.12.2.3(1)(c) Biomed Staff will be responsible for ordering replacement parts for medical equipment, usually one-offs, and will coordinate with supply chain.

1A.12.2.3(1)(d) In cases where equipment will be sent off-site for repair, Biomed Staff will coordinate the shipping and return of the equipment with the service provider and will coordinate with Supply Chain Management.

1A.12.2.4 Support Activities

1A.12.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.12.3 STAFFING

1A.12.3.1 Estimated future Staffing for Biomedical Engineering is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Biomedical Engineering: Projected Staffing	
Position	**Projected FTE**
Biomedical Engineering Tech UPP Staff	3.0
Total Biomedical Engineering Staffing	**3.0**

1A.12.4 DESIGN CRITERIA

1A.12.4.1 External Relationships

1A.12.4.1(1) The Facility maintenance bed maintenance and storage area will be accessible to Biomed via controlled Facility circulation.

1A.12.4.1(1)(a) As the bed maintenance requirements evolve into a shared responsibility with Biomed, the Biomed Staff may utilize some or all of this space in the future.

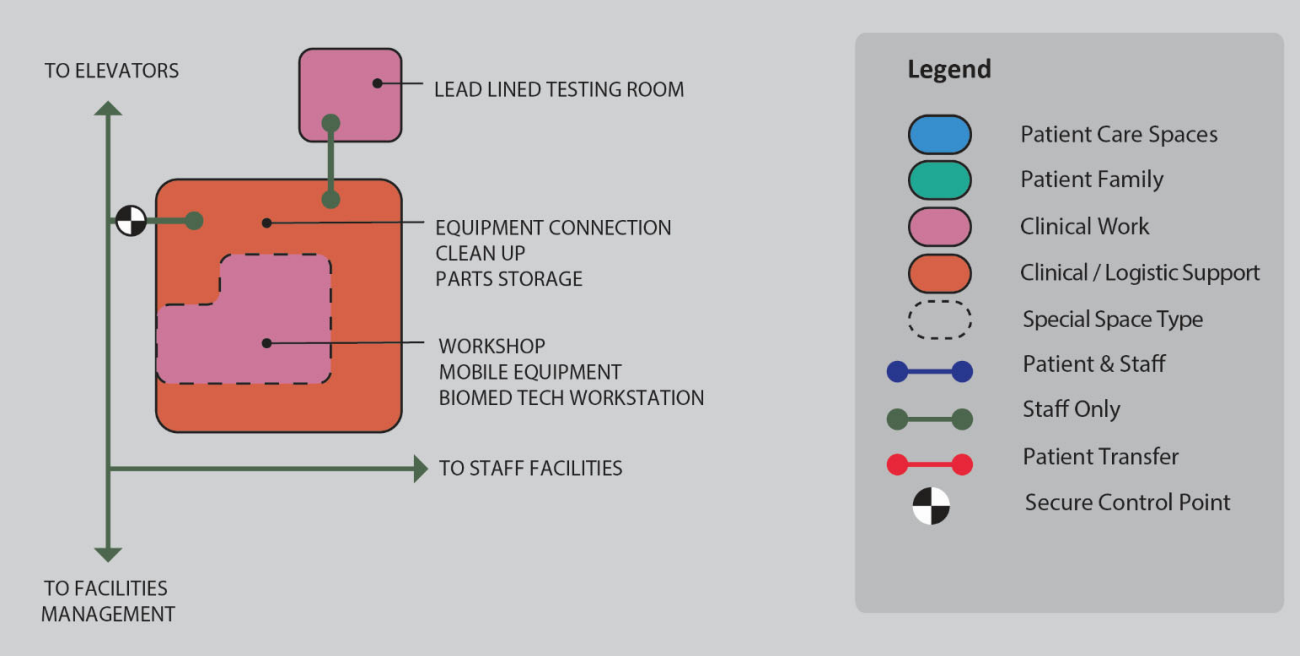
1A.12.4.1(2) Biomed equipment moving to/from other areas in the Facility to Biomed will be transported through Staff only areas, as much as possible.

1A.12.4.1(2)(a) Equipment that could be infectious or may require cleaning will not travel through general Facility circulation.

1A.12.4.1(3) To the extent possible, the delivery of supplies and equipment to Biomed may occur via controlled Facility circulation (e.g. this could be a back-of-house access), however, general Facility circulation may also be used, if necessary.

1A.12.4.2 Functional Relationship Diagram

1A.12.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.12.4.3 Internal Design Criteria

1A.12.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.12.4.3(2) **Departmental Organization**

1A.12.4.3(2)(a) Workbenches and workshop area will be co-located to provide effective workflows.

1A.12.4.3(2)(b) Storage areas will be separated but organized within a common, open floor space concept.

1A.12.4.3(2)(c) Staff must be able to move easily between technical work areas and storage areas.

1A.12.4.3(2)(d) Provide secure access to the Biomed area.

1A.12.4.3(2)(e) Provide double doors for access into the Biomed area to facilitate the movement of equipment and supplies.

1A.12.4.3(2)(f) Provide protection from electromagnetic interference in the Biomed area.

1A.12.4.3(3) **Workshop**

1A.12.4.3(3)(a) Three (3) workbenches will be designed to support heavy equipment and will be highly durable and drip-and stain-resistant.

1A.12.4.3(3)(b) Provide the workshop with the following:

1A.12.4.3(3)(b)(i) Medical vacuum.

1A.12.4.3(3)(b)(ii) Medical air.

1A.12.4.3(3)(b)(iii) Nitrous oxide.

1A.12.4.3(3)(b)(iv) Anesthetic gas scavenging.

1A.12.4.3(3)(b)(v) Oxygen.

1A.12.4.3(3)(b)(vi) Compressed air.

1A.12.4.3(3)(b)(vii) Electrical static discharge (ESD) – grounded Workstations.

1A.12.4.3(3)(c) Provide a lifting device (hoist) with minimum 450 kg capacity to aid in handling heavy equipment to the work benches or to the appropriate height for the Biomed Staff.

1A.12.4.3(3)(d) Provide a counter with hood for fume extraction.

1A.12.4.3(3)(e) Provide a floor drain.

1A.12.4.3(3)(f) Accommodate bulletin boards and white boards.

1A.12.4.3(4) **Lead Lined Testing Room**

1A.12.4.3(4)(a) Provide an area to support and test diagnostic equipment.

1A.12.4.3(4)(b) Provide an enclosed lead lined space that is appropriately 8.0 nsm with small control room.

1A.12.4.3(5) **Satellite Biomed Spaces**

1A.12.4.3(5)(a) Two (2) satellite Biomed workspaces will be developed in the Emergency Department and the surgical services area.

1A.12.4.3(5)(b) Provide the satellite workshop with the following:

1A.12.4.3(5)(b)(i) Medical vacuum.

1A.12.4.3(5)(b)(ii) Medical air.

1A.12.4.3(5)(b)(iii) Nitrous oxide.

1A.12.4.3(5)(b)(iv) Anesthetic gas scavenging.

1A.12.4.3(5)(b)(v) Oxygen.

1A.12.4.3(5)(b)(vi) Compressed air.

1A.12.4.3(5)(b)(vii) Appropriate ventilation, sinks, and floor drain.

1A.12.4.3(5)(b)(viii) Electrical static discharge (ESD) – grounded Workstations.

1A.12.4.3(6) **Storage**

1A.12.4.3(6)(a) Provide Secure storage area for flammable liquid storage chemicals that complies with all relevant statutes and hazardous materials programs.

1A.12.4.3(6)(b) Provide Secure storage for inventory control of test equipment and parts storage.

1A.12.4.3(6)(c) Provide wire rack shelving for storage requirements.

1A.12.4.3(7) **Clean Up Bay**

1A.12.4.3(7)(a) Provide plumbing, drainage, and basin sink for the cleaning of equipment and parts.

1A.12.4.3(8) **Electrical Considerations**

1A.12.4.3(8)(a) Electrical power and data will be provided in the workshop, satellite workspaces, and all storage areas within Biomed.

1A.12.4.3(8)(b) Access to 120VAC 60Hz (20A circuits) and single-phase 220 / 240VAC 60Hz power outlets, LAN data connections, and medical gases ports / connections will be strategically placed to allow for optimization of workflow. All ports will be labelled per Facility standards using lamicoids or other suitable labels.

1A.12.5 SCHEDULE OF ACCOMMODATION

1A.12.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

16.0 Biomedical Engineering: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
16.01	Workstation: Biomedical Engineering Tech UPP Staff	4	3.45	13.8	- 4 Workstations lined in a workbench; phone, clerical storage, PC, data	-
16.02	Equipment Collection Bay	1	12.0	12.0	- Accommodates 2 pallets; no shelving required	-
16.03	Mobile Equipment Bay	1	8.0	8.0	- Provide wire rack shelving; provide ten (10) 120-volt receptacles spaced evenly across the south wall.	-
16.04	Clean Up Bay	1	6.0	6.0	- Includes basin sink; stainless steel work surface with storage; provide plumbing and drainage requirements	-
16.05	Workshop	1	18.0	18.0	- Open floor area; medical gases (per Appendix 1M); 181kg capacity mobile material lift	-
16.06	Flammable Liquid Storage	1	3.0	3.0	- Secured space; one (1) flammable storage cabinet	-
16.07	Parts Storage	1	12.0	12.0	- Wire rack shelving; wall-mounted bin storage; provide charging requirements; provide ten (10) 120-volt receptacles spaced evenly across the south wall.	-
16.08	Lead Lined Testing Room	1	8.0	8.0	- Enclosed room, lead lined; 305mm x 305mm viewing window in each door; accommodate a C-arm for testing	
16.09	Hand Hygiene Sink	1	1.0	1.0	- Non-porous material; splash free	-
-	Satellite Biomedical Workrooms	- Satellite Biomedical Workrooms are included in both the Emergency and Surgical space lists				
-	Staff Washroom	- Shared with adjacent departments				
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lockers and Change Area	- 1 per projected FTE and is included in the Support Staff Locker and Change Area				
Total Biomedical Engineering Area Requirements				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				81.8	**1.35**	**110.4**

1A.13 REGISTRATION / ADMITTING

This specification outlines the functional, operational, and physical requirements for the registration / admitting component (registration).

1A.13.1 FUNCTIONAL DESCRIPTION

1A.13.1.1 Statement of Purpose

1A.13.1.1(1) Registration is a centralized Patient registration operation that will process Patients continuously and seamlessly without the need for Patients to revisit registration multiple times.

1A.13.1.1(2) Registration will support the Facility in providing services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.13.1.2 Scope of Services

1A.13.1.2(1) **Functional Content**

1A.13.1.2(1)(a) Three (3) registration booths with a Waiting Area will be available to all Outpatients and Inpatients.

1A.13.1.2(1)(a)(i) Diagnostic imaging Patients will bypass registration and go straight to the department.

1A.13.1.2(1)(a)(ii) Emergency Patients will register in the Emergency Department. Registration station and a remote registration booth will be available, along with bedside registration as required.

1A.13.1.2(1)(a)(iii) Some clinical services (i.e. cancer centre, IV therapy) require Patients to be registered only before their initial visit.

1A.13.1.2(1)(b) Registration clerk(s) will also provide switchboard duties. (one main switchboard with call-forwarding capability)

1A.13.1.2(1)(c) Registration kiosks will be provided for those Patients who are comfortable to self-register.

1A.13.1.2(1)(d) After hours, all registration services are done remotely (except for the emergency department).

1A.13.1.2(2) **Planning Assumptions**

1A.13.1.2(2)(a) An electronic medical record (EMR) system will be implemented prior to moving into the Facility.

1A.13.1.2(2)(a)(i) The EMR will be a secure, integrated collection of a person's encounters with the health care system and provide a comprehensive

digital view of a Patient's health history that links clinics, hospitals, pharmacies, and other points of care.

1A.13.1.2(2)(b) Planning assumes that Facility operations will continue to utilize the integrated booking/scheduling system (Cerner) where each department schedules their own appointments (e.g. visiting specialists clerk books their own appointments).

1A.13.1.2(2)(c) It is critical to clearly separate Patient registration from Diagnostic Imaging so there is no delay in registering Patients for either service. Signage and wayfinding will be critical in guiding Patients to this area.

1A.13.1.2(3) **Excluded**

1A.13.1.2(3)(a) Diagnostic Imaging and Emergency Patients will be registered in their areas. Space has been provided in those areas.

1A.13.1.2(3)(a)(i) Registration will not register emergency Patients unless requested.

1A.13.1.2(3)(b) Registration will not schedule / book appointments or Patient visits.

1A.13.2 OPERATIONAL DESCRIPTION

1A.13.2.1 Hours of Operation

1A.13.2.1(1) A registration clerk and kiosk will be available from Monday to Friday, 0700-1700.

1A.13.2.2 Organization & Management

1A.13.2.2(1) Registration will be managed by the health information management system (HIMS) coordinator.

1A.13.2.3 Workflow

1A.13.2.3(1) **Registration**

1A.13.2.3(1)(a) Patients arriving to the Building Main Entrance will ~~go~~ to the registration area.

1A.13.2.3(1)(b) Patients will be directed by signage and graphic cues to take a number and wait until their number is shown above a registration booth ("now serving"). Then will proceed to the assigned registration booth and be registered.

1A.13.2.3(1)(c) Patients may utilize the registration kiosks rather than the registration booths.

1A.13.2.3(2) **Emergency Patients**

1A.13.2.3(2)(a) Emergency Patients will be directed by signage to the ED triage area where registration will be performed concurrently with triage.

1A.13.2.3(2)(b) If a Patient presents in a condition that requires immediate medical attention, bedside registration will be executed by the care provider, by phone.

1A.13.2.3(3) **Diagnostic Imaging Patients**

1A.13.2.3(3)(a) Diagnostic imaging Patients will be directed by signage to the diagnostic imaging area where registration will be performed.

1A.13.2.4 Support Activities

1A.13.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.13.3 STAFFING

1A.13.3.1 Estimated future Staffing for registration is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Registration / Admitting: Projected Staffing	
Position	**Projected FTE**
Clerk 4 – Admitting	5.0
Total Registration / Admitting Staff	**5.0**

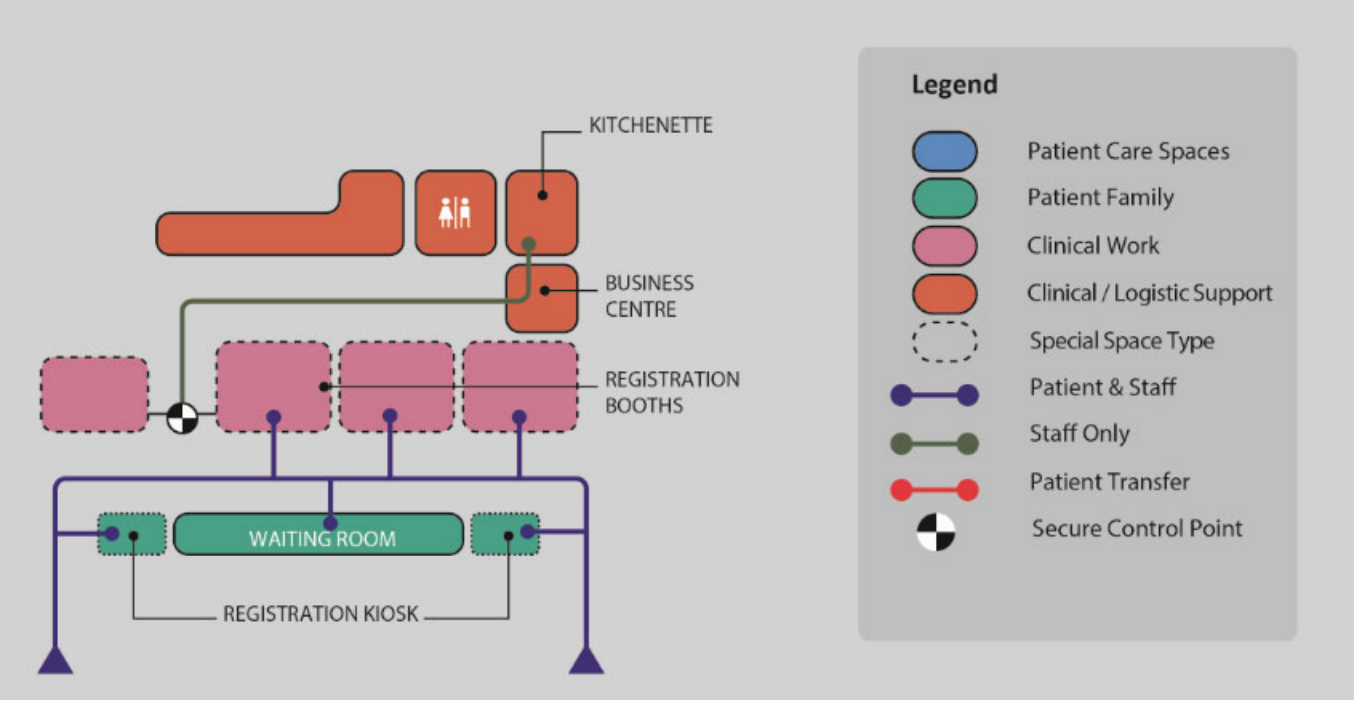
1A.13.4 DESIGN CRITERIA

1A.13.4.1 External Relationships

1A.13.4.1(1) Patients will access the registration area by general Facility circulation from the Building Main Entrance.

1A.13.4.2 Functional Relationship Diagram

1A.13.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.13.4.3 Internal Design Criteria

1A.13.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.13.4.3(2) **Organization**

1A.13.4.3(2)(a) The registration area will be directly adjacent to the Building Main Entrance and clearly visible.

1A.13.4.3(2)(b) All registration booths will be grouped together and aligned into a row.

1A.13.4.3(2)(b)(i) Two (2) registration kiosks will be located adjacent to the registration booths for Patients who wish to use them.

1A.13.4.3(2)(c) Not used.

1A.13.4.3(2)(c)(i) Not used.

1A.13.4.3(2)(c)(ii) Not used.

1A.13.4.3(3) **Information Desk and Waiting Area**

1A.13.4.3(3)(a) Information Desk

1A.13.4.3(3)(a)(i) Provide an information desk near the Building Main Entrance. This will be occupied by a volunteer or structured as an unmanned information area when a volunteer is not available.

1A.13.4.3(3)(b) Waiting Area will

1A.13.4.3(3)(b)(i) be adjacent to the registration booths.

1A.13.4.3(3)(b)(ii) be provided with comfortable seating.

1A.13.4.3(3)(b)(iii) be provided with access to wireless internet.

1A.13.4.3(3)(b)(iv) be provided with large screen displays for clinic and health information.

1A.13.4.3(4) **Registration Booths**

1A.13.4.3(4)(a) Each registration booth will:

1A.13.4.3(4)(a)(i) be provided with a unique digital label (i.e. booth #1, #2, #3, etc.) that is clearly visible from all areas in the waiting area. Provide an audible feature to enable Patients and registration clerks to see the next person. This is to accommodate the queuing system.

1A.13.4.3(4)(a)(ii) provide one (1) of the registration booths with switchboard equipment and call forwarding capability.

1A.13.4.3(4)(a)(iii) be organized into Patient space, counter space, and registration clerk space.

1A.13.4.3(4)(a)(iii)A Patient Area

1A.13.4.3(4)(a)(iii)A1 Accommodate space for those in wheelchairs or mobility aids.

1A.13.4.3(4)(a)(iii)A2 Accommodate space for two to side-by-side chairs in each registration booth, including a fold down stool.

1A.13.4.3(4)(a)(iii)A2(a) Provide a fold down stool for a companion. When it is not in use, it will leave room for wheelchair (stool folds down from wall).

1A.13.4.3(4)(a)(iii)A3 Accommodate a seating width of no less than 1600mm.

1A.13.4.3(4)(a)(iii)A4 Provide a minimum of two, floor to ceiling walls for privacy and to form an alcove such that the Patient does not sit in the circulation space while registering.

1A.13.4.3(4)(a)(iii)A5 Provide a glazed swing door, violence prevention WSBC glazing – 6mm and shatterproof, that encloses the Patient area of the registration booth to ensure

Patient privacy but provides visibility behind the Patient for the registration clerk.

1A.13.4.3(4)(a)(iii)A5(a) Provide a lockable swing door so that when the registration booth is not in use, it can be secured from public access.

1A.13.4.3(4)(a)(iii)B Counter Area

1A.13.4.3(4)(a)(iii)B1 Accommodate a countertop that is no less than 900mm deep between the Patient and registration clerk.

1A.13.4.3(4)(a)(iii)B2 Provide a portion of the counter that can fold up to allow the registration clerk to move past the counter and the Patient and manually open, close, and/or secure the glazed swing door.

1A.13.4.3(4)(a)(iii)B3 Provide a safety glass screen to separate Patients and registration Staff, as required.

1A.13.4.3(4)(a)(iii)C Registration Clerk Space

1A.13.4.3(4)(a)(iii)C1 Provide a registration Workstation.

1A.13.4.3(4)(a)(iii)C2 Provide a panic alarm.

1A.13.4.3(4)(a)(iii)C3 Provide an open area behind the registration booths that is accessible from each of the registration booths.

1A.13.4.3(4)(a)(iii)C3(a) Staff in this area must have a means of leaving their Workstation for immediate access to a safe place should their personal safety be jeopardized.

1A.13.4.3(4)(a)(iii)C3(b) Accommodate access to the business centre and Staff support spaces behind the registration booths.

1A.13.5 SCHEDULE OF ACCOMMODATION

1A.13.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

17.0 Registration / Admitting: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
17.1.0	**Registration and Waiting Area**					

1A.13 REGISTRATION / ADMITTING

17.0 Registration / Admitting: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
17.1.01	Waiting Area	1	18.0	18.0	- Accommodates 12; allow design to separate infectious persons (zones) and/or small areas for conversations	- General Facility waiting area located near the Building Main Entrance
17.1.02	Information Desk	1	4.6	4.6	- Millwork Workstation (phone, clerical storage, PC, data)	-
17.1.03	Registration Kiosk	2	2.0	4.0	- Require power and data	-
-	Remote Registration Room	Located in the Emergency Department SOA				
17.1.04	Registration Booths	3	7.5	22.5	- Millwork Workstation with computer, data, phone; glass partitions between clerk and Patient area; configuration to allow for privacy and confidentiality; all booths to be wheelchair accessible; includes switchboard	-
Registration / Admitting: Registration and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				49.1	**1.35**	**66.3**
17.2.0	**Staff Support**					
17.2.01	Business Centre	1	5.0	5.0	- Photocopier, fax, wire rack shelving for paper supplies and clerical storage	-
17.2.02	General Storage	1	8.0	8.0	- Provide appropriate storage medium	-
17.2.03	Kitchenette	1	5.0	5.0	- Staff refrigerator, double sink, cabinets, counter space, microwave	-
17.2.04	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	-
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
Registration / Admitting: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				22.6	**1.35**	**30.5**
Total Registration / Admitting Area				**71.7**		**96.8**

1A.14 ADMINISTRATION / STAFFING OFFICE

This specification outlines the functional, operational, and physical requirements for the administration / Staffing office (administration).

1A.14.1 FUNCTIONAL DESCRIPTION

1A.14.1.1 Statement of Purpose

1A.14.1.1(1) Administration will accommodate the following:

1A.14.1.1(1)(a) Administrative and non-Patient contact functions required to support the day-to-day operations of Facility and operations of the Authority's funded services conducted off-site.

1A.14.1.1(1)(b) The Facility's occupational health and safety functions.

1A.14.1.1(1)(c) Site leadership and itinerant (touchdown) workspace for visitors such as Authority's management and visiting clinicians.

1A.14.1.1(1)(d) Support the Facility in providing services for the residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.14.1.1(2) The administration area is comprised of the following:

1A.14.1.1(2)(a) Site leadership.

1A.14.1.1(2)(b) Regional leadership.

1A.14.1.1(2)(c) Site support.

1A.14.1.1(3) The administration will manage the scheduling services for all of Dawson Creek, Fort Nelson, Tumbler Ridge, and Chetwynd.

1A.14.1.2 Scope of Services

1A.14.1.2(1) **Functional Content**

1A.14.1.2(1)(a) The following list specifies the minimum set of functions that will be accommodated within the administration area:

1A.14.1.2(1)(a)(i) Office-based functions including reading, producing correspondence and documents, small scale printing and photocopying and receipt and distribution of hard copy mail.

1A.14.1.2(1)(a)(ii) Conducting medical Staff administration, including granting and tracking hospital privileges.

1A.14.1.2(1)(a)(iii) Administration and Staff visits associated with the Building's occupational health and safety program.

1A.14.1.2(1)(a)(iv) Managing practical learning experiences by medical learners, nursing students and students in the allied health professions.

1A.14.1.2(1)(a)(v) External stakeholders will visit the administration area on occasion (public, consultants, political figures, etc.) and will require privacy.

1A.14.1.2(2) **Planning Assumptions**

1A.14.1.2(2)(a) While a significant number of Staff will be housed in the administration area, Staff and leadership dedicated to specific Patient services have been planned to be accommodated within their clinical area.

1A.14.1.2(2)(b) For Staff with an administrative responsibility, meetings will account for a substantial part of each workday.

1A.14.1.2(2)(c) Advances in computer networks, wireless networks, and mobile computing will continue enabling Staff to work remotely from their colleagues. Hospital will likely require generic workspaces that any eligible Staff member can access for periods of time.

1A.14.1.2(3) **Excluded**

1A.14.1.2(3)(a) No noted exclusions.

1A.14.2 OPERATIONAL DESCRIPTION

1A.14.2.1 Hours of Operation

1A.14.2.1(1) Administration will be available Monday to Friday, as follows:

1A.14.2.1(1)(a) Scheduling clerks from 0545-1700.

1A.14.2.1(1)(b) Administrative Staff from 0730-1630 and some evenings as meetings and other requirements are scheduled.

1A.14.2.2 Organization & Management

1A.14.2.2(1) Administration will be managed by the on-site health services administrator.

1A.14.2.3 Workflow

1A.14.2.3(1) **Visitors / Public**

1A.14.2.3(1)(a) Visitors / public will access the administrative area using general Facility circulation.

1A.14.2.3(1)(a)(i) Visitors will buzz into the administrative area and wait in the waiting area until Staff invites them into the administrative area.

1A.14.2.3(1)(a)(ii) Visitors / public will be greeted by the administrative assistants and be directed as appropriate.

1A.14.2.4 Support Activities

1A.14.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.14.3 STAFFING

1A.14.3.1 Estimated future Staffing for administration / Staffing office is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Administration / Staffing Office: Projected Staffing		
Position	**Projected FTE**	**Accommodation to be found in:**
Site Leadership		
Director of Patient Care	1.0	Admin/Staffing Office
Admin Assistant - Director of Patient Care	1.0	Admin/Staffing Office
Director NE Specialized Services (office)	1.0	Admin/Staffing Office
Admin Assistant - Director NE Specialized Services	1.0	Admin/Staffing Office
South Peace Health Services Administrator	1.0	Admin/Staffing Office
Admin Assistant - South Peace Health Services Administrator	1.0	Admin/Staffing Office
Human Resources Advisor	1.0	Admin/Staffing Office
Human Resources Assistant	1.0	Admin/Staffing Office
Practice Support Coach	1.0	Admin/Staffing Office
Infection Control Practitioner	1.0	Admin/Staffing Office
Manager of Patient Services	1.0	Admin/Staffing Office
Staffing Office		
Scheduling Clerk	6.0	Admin/Staffing Office
Total Administration / Staffing Office Staffing	**17.0**	-

1A.14.4 DESIGN CRITERIA

1A.14.4.1 External Relationships

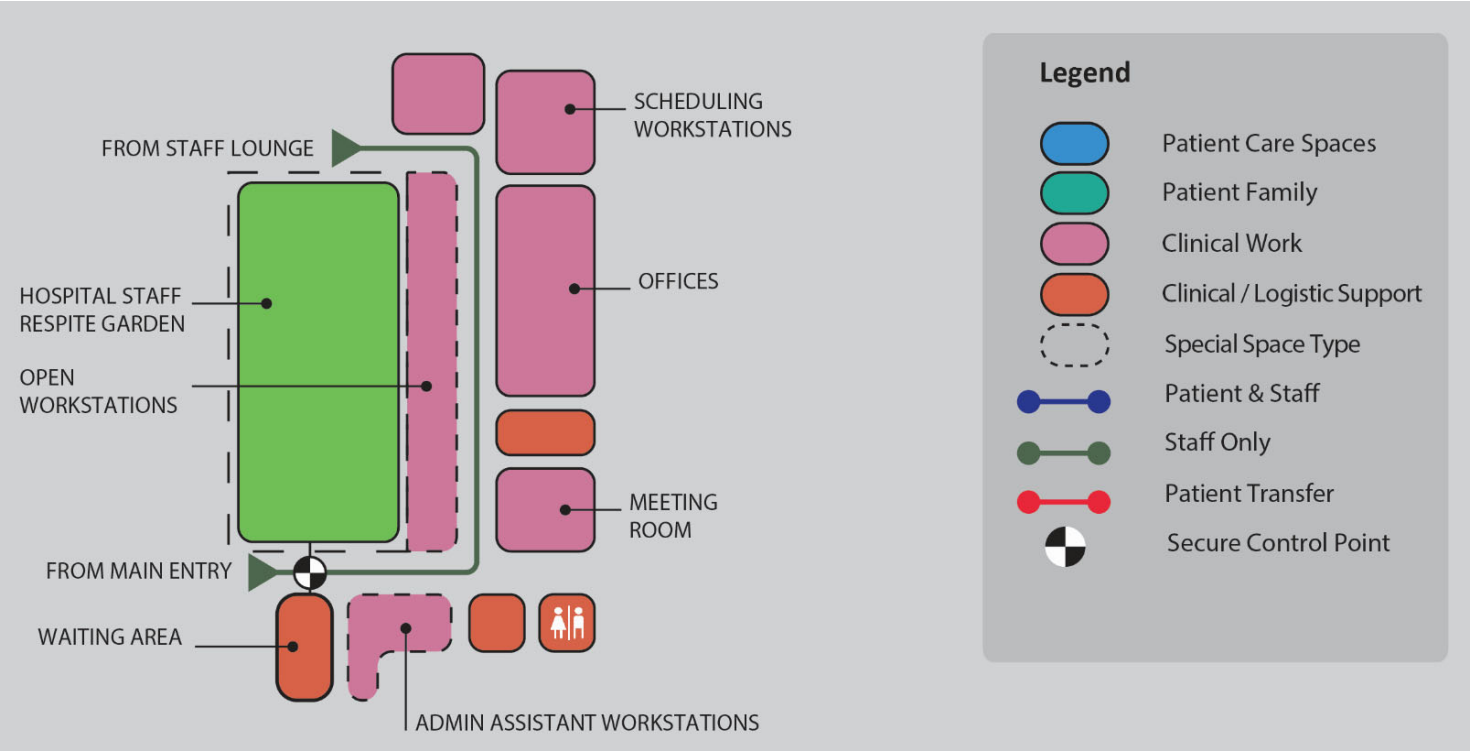
1A.14.4.1(1) Staff, visitors, and non-permanent Staff will access the administration area via general Facility circulation (public corridors) from the Building Main Entrance.

1A.14.4.1(2) To the extent possible, the delivery of supplies and equipment to the administrative area may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.14.4.1(3) Administration does not require any adjacencies to other departments or services.

1A.14.4.2 Functional Relationship Diagram

1A.14.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.14.4.3 Internal Design Criteria

1A.14.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.14.4.3(2) **General Layout**

1A.14.4.3(2)(a) Waiting Area

1A.14.4.3(2)(a)(i) The waiting area will be located outside of the administrative area.

1A.14.4.3(2)(a)(ii) The glazed doors will be in view of at least one (1) of the administrative assistant Workstations. It will also be provided with a buzzer system that alerts the administrative assistant area that someone is at the door.

1A.14.4.3(2)(a)(iii) The doors will be provided with access control so they can be locked when outside operational hours.

1A.14.4.3(2)(a)(iv) The waiting area will

1A.14.4.3(2)(a)(iv)A be provided with comfortable seating.

1A.14.4.3(2)(a)(iv)B be provided with access to wireless internet.

1A.14.4.3(2)(a)(iv)C be provided with large screen displays for clinic and health information.

1A.14.4.3(2)(b) Administrative Assistants

1A.14.4.3(2)(b)(i) The administrative assistant Workstations will be grouped together in a pod near the entrance of the department (inside the secure control point), be accessible to the public, and serve as the first point of contact for those entering the department.

1A.14.4.3(2)(b)(ii) The touchdown Workstations will be located close to the administrative assistant pod.

1A.14.4.3(2)(b)(iii) Provide a close adjacency to the business centre and storage room.

1A.14.4.3(2)(c) Meeting Room

1A.14.4.3(2)(c)(i) The meeting room will be located near the entrance of the department so that visitors are not required to travel deep into the department.

1A.14.4.3(2)(c)(ii) Accommodate up to 8 people for meetings using lightweight, movable, and wipeable tables and chairs.

1A.14.4.3(2)(c)(iii) Provide full multi-media capable (videoconferencing - DX80 hardware) services (i.e. equipment, lighting, sound, etc.).

1A.14.4.3(2)(d) Office and Workstations

1A.14.4.3(2)(d)(i) Office and Workstations will be located between the administrative assistant pod and the scheduling area.

1A.14.4.3(2)(d)(ii) The director of Patient care, manager of Patient services, and the health services administrator offices will be adjacent to each other.

1A.14.4.3(2)(d)(iii) Offices will be placed towards the interior of the administration area allowing natural light into the area for non-office Staff.

1A.14.4.3(2)(d)(iii)A Offices will be setback with glazing.

1A.14.4.3(2)(d)(iii)B Workstations will be closer to windows to allow natural light to enter into the department.

1A.14.4.3(2)(e) Scheduling Area

1A.14.4.3(2)(e)(i) The six (6) scheduling Workstations will be group together in a single, enclosed space.

1A.14.4.3(2)(e)(ii) Provide appropriate sound attenuation recognizing this Staff spends majority of time on the phone.

1A.14.4.3(2)(e)(iii) Provide ability to accommodate physical distancing / separation through the following strategies:

1A.14.4.3(2)(e)(iii)A Adequate separation between Workstations

1A.14.4.3(2)(e)(iii)B Revised workplace strategies that can impact the number of Staff onsite at any given time.

1A.14.5 SCHEDULE OF ACCOMMODATION

1A.14.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

18.0 Administration / Staffing Office: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
18.1.0	**Reception and Waiting Area**					
18.1.01	Waiting Area	1	3.0	3.0	- Accommodates 2	-
Administration / Staffing Office: Reception and Waiting Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				3.0	**1.35**	**4.1**

1A.14 ADMINISTRATION / STAFFING OFFICE

18.0 Administration / Staffing Office: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
18.2.0	**Staff Area**					
Site Leadership						
18.2.01	Office: Director of Patient Care	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data	-
18.2.02	Workstation: Admin Assistant - Director of Patient Care	1	4.6	4.6	- Chair, computer, data, phone, cabinet	-
18.2.03	Office: Director NE Specialized Services	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data	-
18.2.04	Workstation: Admin Assistant - Director NE Specialized Services	1	4.6	4.6	- Chair, computer, data, phone, cabinet	-
18.2.05	Office: South Peace Health Services Administrator	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data	-
18.2.06	Workstation: Admin Assistant - South Peace Health Services Administrator	1	4.6	4.6	- Chair, computer, data, phone, cabinet	-
18.2.07	Office: Human Resources Advisor	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data	-
18.2.08	Workstation: Practice Support Coach	1	4.6	4.6	- Chair, computer, data, phone, cabinet	- one (1) shared office
18.2.09	Workstation: Infection Control Practitioner	1	4.6	4.6	- Chair, computer, data, phone, cabinet	- one (1) shared office
18.2.10	Office: Manager of Patient Services	1	10.0	10.0	- Private office with desk, chair, cabinets, computer, phone, data	-
18.2.11	Workstation: Touchdown Area	2	3.0	6.0	- 2 Workstations in a shared office; each workspace with chair, computer, data, phone, cabinet	-
18.2.12	Workstation: Clinical IT Technologist	1	4.6	4.6	- Chair, computer, data, phone, cabinet	- one (1) shared office
18.2.12.02	Office: Manager, Support Services	1	10.0	10.0	- Desk, 2 visitor chairs, cabinets, storage; video-monitoring tower with 2 monitoring, card access tower	-
18.2.12.03	Workstation: Human Resources Assistant	1	4.6	4.6	- Chair, computer, data, phone, cabinet	-
Staffing Office						
18.2.12.01	Workstation: Scheduling Clerk	6	4.6	27.6	- 6 Workstations in a shared office; each workspace with chair, computer, data, phone, cabinet, shelving	-
Staff Support						
18.2.13	Business Centre	1	7.0	7.0	- Photocopier, fax, paper supplies, clerical storage	-

1A.14 ADMINISTRATION / STAFFING OFFICE

18.0 Administration / Staffing Office: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
18.2.14	Meeting / Education Room	1	15.0	15.0	- Accommodates 6-8 people; lightweight and movable tables and chairs; fully multimedia capable	-
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
18.2.15	Not used					
18.2.16	General Storage Room	1	10.0	10.0	- Provide electrical and shelving medium requirements	-
26.2.10	Mail Room	1	9.0	9.0	- 1x sorting table (large); mail cart; mail sorting counter; recycling and waste; Shred-It bin; mail slots/sorter; storage for supplies	
-	Housekeeping Closet	Shared with adjacent departments				
Administration / Staffing Office: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				166.8	**1.35**	**225.2**
Total Administration/ Staffing Office Area				**169.8**		**229.3**

1A.15 HEALTH INFORMATION MANAGEMENT SYSTEMS (HIMS)

This specification outlines the functional, operational, and physical requirements for the health information management systems (HIMS) component.

1A.15.1 FUNCTIONAL DESCRIPTION

1A.15.1.1 Statement of Purpose

1A.15.1.1(1) An electronic medical record (EMR) system will be implemented prior to moving into the Facility.

1A.15.1.1(1)(a) The EMR will be a secure, integrated collection of a person's encounters with the health care system and provide a comprehensive digital view of a Patient's health history that links clinics, hospitals, pharmacies, and other points of care.

1A.15.1.1(2) The HIMS department will support residents of the Peace River South LHA and surrounding northeast region based on a person and family-centered model.

1A.15.1.2 Scope of Services

1A.15.1.2(1) **Functional Content**

1A.15.1.2(2) The Facility will open with an EMR however there will be an ongoing requirement to house and process paper medical records. This will require associated infrastructure, such as storage.

1A.15.1.2(2)(a) HIMS includes the following services:

1A.15.1.2(2)(a)(i) Establishing and ensuring formatting and content standards.

1A.15.1.2(2)(a)(ii) Checking for completion and notifying physicians of outstanding/incomplete medical records.

1A.15.1.2(2)(a)(iii) Conducting retrospective audits.

1A.15.1.2(2)(a)(iv) Assisting and advising Patients with access and distribution of their medical record.

1A.15.1.2(2)(a)(v) Supporting the Facility with data requests from the existing systems to inform improvement planning.

1A.15.1.2(3) **Planning Assumptions**

1A.15.1.2(3)(a) The trend of Patients becoming advocates for their own health will continue. Engaging members of the public and providing them with access to their records will continue.

1A.15.1.2(3)(b) Patient information, regardless of which service generates it, will become integrated into a common source for future retrieval.

1A.15.1.2(4) **Excluded**

1A.15.1.2(4)(a) Visiting specialist paper files will not be stored in the general file storage area.

1A.15.1.2(4)(b) No transcription services will be provided at the Facility.

1A.15.1.2(4)(c) If a scan and destroy process is initiated by the Authority as part of the electronic health record implementation, this will not occur at the Facility using HIMS Staff and departmental area.

1A.15.2 OPERATIONAL DESCRIPTION

1A.15.2.1 Hours of Operation

1A.15.2.1(1) The HIMS department will be available Monday to Friday, from 0800-1600.

1A.15.2.2 Organization & Management

1A.15.2.2(1) HIMS will be managed by the HIMS coordinator.

1A.15.2.3 Workflow

1A.15.2.3(1) **Physicians / Chart Completion**

1A.15.2.3(1)(a) Physicians will be required to complete incomplete charts. The majority of the time, physicians will execute this task in the physician lounge.

1A.15.2.3(1)(b) If a physician requires to meet with a HIMS Staff member or spend time in the HIMS department, they will temporarily utilize a touchdown Workstation.

1A.15.2.3(2) **Patients Requesting the Medical Record**

1A.15.2.3(2)(a) When a Patient requests their Patient chart, a HIMS Staff member will schedule a meeting with the Patient to accommodate this request. A HIMS Staff member will meet the Patient in the lobby of the Facility and proceed to a previously booked meeting room.

1A.0.1.2(1)(a)(i) This meeting will not occur within the HIMS department unless no other options are available. In these cases, the HIMS Staff member will meet the Patient in the lobby and escort the Patient to the HIMS area.

1A.15.2.4 Support Activities

1A.15.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.15.3 STAFFING

1A.15.3.1 Estimated future Staffing for HIMS is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

HIMS: Projected Staffing	
Position	**Projected FTE**
	2040/41
HIM Advisor	1.0
HIM Coder	1.2
HIM Clerk	3.5
HIM Clerk (casual)	1.0
Total HIMS Staffing	**6.7**
HIMS Coordinator	Will be accommodated in the touchdown area

1A.15.4 DESIGN CRITERIA

1A.15.4.1 External Relationships

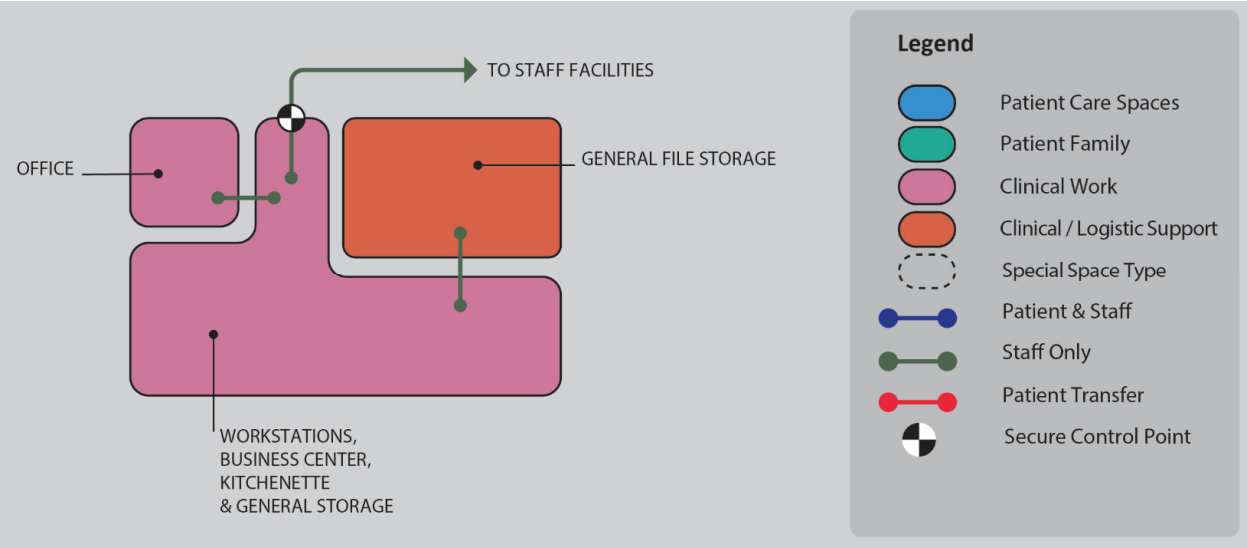
1A.15.4.1(1) The HIMS department will be accessible only through controlled Facility circulation for Staff and physicians.

1A.15.4.1(1)(a) No public access will be provided.

1A.15.4.1(2) To the extent possible, the delivery of supplies and equipment to HIMS department may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.15.4.2 Functional Relationship Diagram

1A.15.4.2(1) Functional relationships between key areas will be generally as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.15.4.3 Internal Design Criteria

1A.15.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.15.4.3(2) **General File Storage**

1A.15.4.3(2)(a) The general file storage area will:

1A.15.4.3(2)(a)(i) Be located discreetly and out of the public view. No wayfinding to the HIMS department from public areas will be provided.

1A.15.4.3(2)(a)(ii) Be provided with high-density shelving. Shelving will meet ergonomic requirements, on tracks with mechanism to move shelving (no manual pushing required) with appropriate heights.

1A.15.4.3(2)(a)(ii)A Aisle widths will accommodate a mobile table / cart to move between the high-density shelving rows.

1A.15.4.3(2)(a)(iii) Accommodate a table / cart for chart picking and staging. This table will be mobile with the ability to lock the wheels in place.

1A.15.4.3(2)(a)(iv) Be provided with electrical and data requirements to facilitate the future transition from a storage area into a Workstation area or and/or support space.

1A.15.4.3(3) **HIMS Advisor, HIMS Clerks, and HIMS Coder Area**

1A.15.4.3(3)(a) The HIMS advisor office will require secure access in the department.

1A.15.4.3(3)(b) The Workstation area will:

1A.15.4.3(3)(b)(i) Accommodate privacy for all Staff through the layout and configuration of the Workstations.

1A.15.4.3(3)(b)(ii) Accommodate the HIMS coders, who require a quieter and more private area of the HIMS department than the HIMS clerks.

1A.15.4.3(3)(c) Each Workstation will:

1A.15.4.3(3)(c)(i) Be modular Workstations in a shared, open area.

1A.15.4.3(3)(c)(ii) Coder Workstations will be provided with additional acoustic considerations. This includes the ability to enclose these spaces using a door. This door will not be glazed.

1A.15.4.3(3)(c)(iii) Be provided with wire rack shelving on one side of the Workstation.

1A.15.4.3(3)(c)(iv) Be provided with sit-stand capability.

1A.15.4.3(3)(c)(v) Be provided with additional wire rack storage in the business centre and kitchenette.

1A.15.5 SCHEDULE OF ACCOMMODATION

1A.15.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

19.0 HIMS: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
19.01	General File Storage	1	25.5	25.5	- Storage of Patient files that will continue to be held at the Facility	-
19.02	Office: HIM Advisor	1	10.0	10.0	- Workstation (phone, clerical storage, computer, data)	-
19.03	Workstation: HIMS Clerk	4	4.6	18.4	- Workstation (phone, clerical storage, computer, data)	-
19.04	Workstation: HIMS Coder	2	4.6	9.2	- Workstation (phone, clerical storage, computer, data)	- Coders will be in a private/quiet area
19.05	Workstation: Touchdown	1	3.0	3.0	- Workstation (phone, clerical storage, computer, data)	-
19.06	Workstation: Scanning	1	7.0	7.0	- Workstation (phone, clerical storage, computer, data); scanner; table	-
19.07	Business Centre and Kitchenette	1	16.0	16.0	- Photocopier, fax, paper supplies, clerical storage; wire rack shelving for items not able to be stored at the Workstations; Staff refrigerator, double sink, microwave, cabinets, counter space	-

1A.15 HEALTH INFORMATION MANAGEMENT SYSTEMS (HIMS)

19.0 HIMS: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
19.08	General Storage	1	10.0	10.0	- Provide shelving for general storage items	-
-	Staff Washroom	- Shared with adjacent departments				
-	Meeting Room	- accommodated in the support Staff meeting room and lounge area				
-	Staff Lounge	- accommodated in the support Staff meeting room and lounge area				
HIMS Area Requirements				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				99.1	**1.35**	**133.8**

1A.16 INFORMATION TECHNOLOGY

This specification outlines the functional, operational, and physical requirements for the information technology (IT) component.

1A.16.1 FUNCTIONAL DESCRIPTION

1A.16.1.1 Statement of Purpose

1A.16.1.1(1) The IT component will accommodate the Facility's telecommunications rooms and technical personnel required to support the Facility's information management and communications systems.

1A.16.1.1(2) IT services will support residents of the Peace River South LHA and surrounding northeast region based on a person and family-centered model.

1A.16.1.2 Scope of Services

1A.16.1.2(1) **Functional Content**

1A.16.1.2(1)(a) Maintenance of on-site centralized data management and communication systems, and in accordance with policies established by the Authority for corporate computing and communication services.

1A.16.1.2(1)(b) Receiving and staging of personal computers, printers, and wireless devices prior to delivery to the user.

1A.16.1.2(1)(c) Providing IT support to remote locations (i.e. Fort St. John, Tumbler Ridge, Chetwynd, and Fort Nelson).

1A.16.1.2(2) **Planning Assumptions**

1A.16.1.2(2)(a) With few exceptions, operating systems used throughout the Facility will be supported by electronic information management and communication technology (e.g. inventory tracking/ordering, equipment tracking, Patient data). Staff working in all areas will require initial and recurrent training on systems applicable to their functions.

1A.16.1.2(2)(b) When a large overflow of IT equipment is temporarily staged (2-3 weeks) at the Facility, it will utilize one (1) of the shared meeting rooms for the storage of overflow equipment.

1A.16.1.2(2)(c) A clinical IT technologist will support the site and be located in the administrative department. This space is included in the administrative area.

1A.16.1.2(3) **Excluded**

1A.16.1.2(3)(a) No noted exclusions.

1A.16.2 OPERATIONAL DESCRIPTION

1A.16.2.1 Hours of Operation

1A.16.2.1(1) The ITS service desk will be available 24 hours per day, 7 days per week.

1A.16.2.1(2) IT technicians will be on site Monday to Friday, from 0800-1600, with after hours call out service as required.

1A.16.2.2 Organization & Management

1A.16.2.2(1) The deskside support will be managed by the regional manager of NTT Data (based out of Prince George).

1A.16.2.3 Workflow

1A.16.2.3(1) **Service Requests for Desktop Support**

1A.16.2.3(1)(a) Facility Staff will request desktop support using an electronic service management system (e.g. heat ticket system).

1A.16.2.3(1)(b) The IT Staff will receive this service request and undertake the appropriate mitigation strategy.

1A.16.2.3(1)(b)(i) If IT Staff are required to travel to the department where the request was generated, they will have access throughout the Facility using general and controlled circulation corridors.

1A.16.2.3(1)(b)(ii) If IT Staff are required to transport equipment to/from the department where the request was generated, they will use carts (as needed) and transport those throughout the Facility using general and controlled circulation corridors.

1A.16.2.3(1)(b)(iii) Non-IT Facility Staff will not transport or drop-off equipment at the IT department.

1A.16.2.3(1)(c) Ordering of Equipment and Parts

1A.16.2.3(1)(c)(i) If any IT related equipment is sent of-site for repairs, supply chain and the service provider (NTT Data) will coordinate the return either through the loading dock or delivered through Main Entrance.

1A.16.2.4 Support Activities

1A.16.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.16.3 STAFFING

1A.16.3.1 Estimated future Staffing for IT is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

IT: Projected Staffing	
Position	**Projected FTE**
	2040/41
IT Service Desk Technicians	3.0
Total IT Staffing	**3.0**

1A.16.4 DESIGN CRITERIA

1A.16.4.1 External Relationships

1A.16.4.1(1) IT Department Staff will access all areas in the Facility via general and controlled Facility circulation.

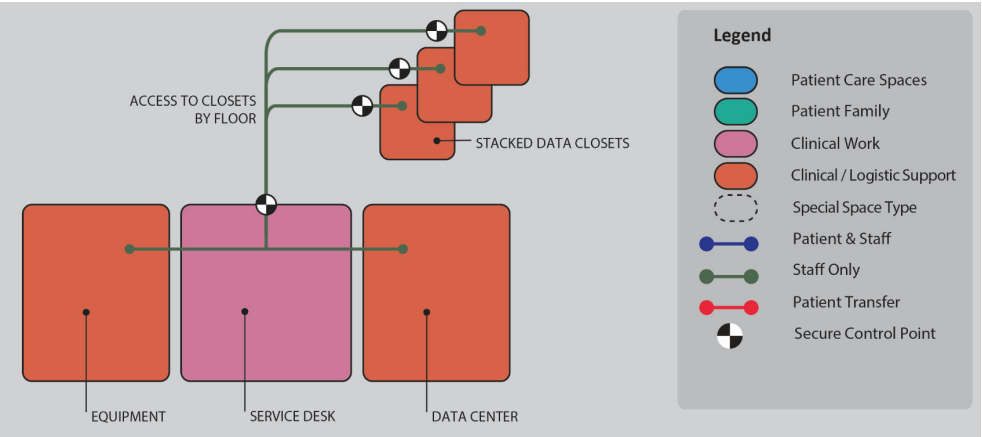
1A.16.4.1(2) The delivery of supplies and equipment from loading dock to the IT Department will occur via controlled Facility circulation. Equipment will be asset tagged locally.

1A.16.4.1(3) Some deliveries may arrive to IT directly from the Building Main Entrance which will occur via general Facility circulation.

1A.16.4.1(4) Provide an adjacency between the IT, Facilities Maintenance, and Biomedical Engineering Departments.

1A.16.4.2 Functional Relationship Diagram

1A.16.4.2(1) Functional relationships between key areas generally will be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.16.4.3 Internal Design Criteria

1A.16.4.3(1) For a description of general design criteria applicable to this Component, see Section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.16.4.3(2) **Service Desk**

1A.16.4.3(2)(a) The service desk will:

1A.16.4.3(2)(a)(i) Be provided with four (4) Workstations in a workbench style around the perimeter of the room.

1A.16.4.3(2)(a)(ii) Accommodate open workspace in the centre of the space to allow for IT Staff to work on equipment.

1A.16.4.3(2)(a)(iii) Be provided with rack shelving for storage for IT equipment in various states of repair.

1A.16.4.3(2)(b) Provide Secure, double doors into the service area from the Facility circulation corridor.

1A.16.4.3(2)(c) Provide Secure, double doors into the equipment storage.

1A.16.4.3(3) Not used.

1A.16.4.3(4) Not used.

1A.16.5 SCHEDULE OF ACCOMMODATION

1A.16.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

20.0 IT: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
20.1.0	**IT Department**					
20.1.01	Office: Service Desk	1	30.0	30.0	- 4 Workstations; workbench; printer/supply area; provide data and electrical requirements	-
20.1.02	Equipment Storage	1	7.9	7.9	- Receiving/holding equipment; storage; shelving, provide data and electrical requirements	-
n/a	Main Telecommunications Room (Main Cross Connect Room and Back-up Cross Connect Room)	2	- space accounted for in the building gross-up	-	- See SOR #7.7.6 and SOR #7.7.7.3	-

20.0 IT: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
n/a	Entrance Facility	2	- space accounted for in the building gross-up	-	- See SOR #7.7.6 and SOR #7.7.7.3	-
n/a	Telecommunications Room	- space accounted for in the building gross-up	- space accounted for in the building gross-up	-	- See SOR #7.7.6 and SOR #7.7.7.3	-
n/a	Telecommunications Closet	- space accounted for in the building gross-up	-space accounted for in the building gross-up (Minimum 2.5mX3m each)	-	- See SOR #7.7.6 and SOR #7.7.7.3	-
IT: IT Department				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				37.9	**1.20**	**45.5**
20.2.0	**Staff Support**					
-	Staff Washroom	- Shared with adjacent departments				
-	Meeting Room	- Accommodated in the Support Staff Meeting room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting room and Lounge area				
-	Staff Lockers and Change Area	- 1 lockers per projected FTE and is included in the Support Staff Lockers and Change rea				
IT: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				0.0	**1.35**	**0.0**
Total IT Area Requirements				**37.9**		**45.5**

1A.17 MEDICAL DEVICE REPROCESSING DEPARTMENT

This specification outlines the functional, operational, and physical requirements for the medical device reprocessing department (MDRD).

1A.17.1 FUNCTIONAL DESCRIPTION

1A.17.1.1 Statement of Purpose

1A.17.1.1(1) The MDRD will decontaminate, sanitize, sterilize, and re-assemble all medical devices used in clinical procedures at the Facility. Endoscopes will be reprocessed in a dedicated and distinct scope reprocessing area in proximity to the endoscopy suite.

1A.17.1.1(2) The MDRD will assemble all procedure trays and case carts including disposable sterile supplies and medical devices specific to individual clinical procedures. The transfer of all dirty and clean/sterilized items including carts and trays between the MDRD and the Surgical Services will be performed by MDRD Staff.

1A.17.1.2 Scope of Services

1A.17.1.2(1) **Functional Content**

1A.17.1.2(1)(a) Receiving and decontamination of:

1A.17.1.2(1)(a)(i) Trays and carts used in the transportation of sterile items.

1A.17.1.2(1)(a)(ii) Medical devices and instruments used in clinical procedures.

1A.17.1.2(1)(b) Cleaning of endoscopic scopes.

1A.17.1.2(1)(c) Instrument tray and pack assembly.

1A.17.1.2(1)(d) Medical device reassembly.

1A.17.1.2(1)(e) Sterilization of trays, packs, medical devices, and instruments.

1A.17.1.2(1)(f) Assembly of procedure carts.

1A.17.1.2(2) **Planning Assumptions**

1A.17.1.2(2)(a) The MDRD will be co-located with the Surgical Services.

1A.17.1.2(2)(b) One-way flow from end of procedure (soiled/decontaminated instruments and equipment to MDRD decontamination, clean, sterile, and returned to Surgical Services ready for use).

1A.17.1.2(2)(c) Endoscopic scope reprocessing will be a one-way flow the delivery of a dirty scope following a procedure, cleaning, and delivery of a clean scope to the endoscopy room via a pass-through scope drying and storage.

1A.17.1.2(2)(d) There will be storage for emergency case carts (pre-prepared) stored in the OR sterile supply storage.

1A.17.1.2(2)(e) Disposable wraps will be utilized.

1A.17.1.2(3) **Excluded**

1A.17.1.2(3)(a) Ultrasound probes used in Diagnostic Imaging will be cleaned in Diagnostic Imaging.

1A.17.2 OPERATIONAL DESCRIPTION

1A.0.1.3 Hours of Operation

1A.17.2.1(1) The MDRD will be available Monday to Friday, 0730 – 1530.

1A.17.2.2 Organization & Management

1A.17.2.2(1) The MDRD will be managed by an OR and Surgical Services manager.

1A.17.2.3 Workflow

1A.17.2.3(1) **Instruments and Equipment**

1A.17.2.3(1)(a) Contaminated medical devices will be transported on carts from the operating rooms to the lobby area of the MDRD (entry into the decontamination area).

1A.17.2.3(1)(a)(i) Specimens will be delivered to a pass-through specimen cabinet located at the Staff entrance of Surgical Services and prior to entering the MDRD.

1A.17.2.3(1)(a)(ii) Procedure waste and other items will be disposed of in a soiled utility room prior to entering the MDRD.

1A.17.2.3(1)(b) The instruments are separated from the carts and are cleaned through the two 3-sink areas with an adjacent standalone ultrasonic cleaner.

1A.17.2.3(1)(c) The carts are placed near the cart wash which will open into the clean area of the MDRD.

1A.17.2.3(1)(d) From the ultrasonic cleaner, items are put on conveyors into the washer/disinfectors that open into the preparation and packing area.

1A.17.2.3(1)(e) The preparation and packing area is aligned with the washer/disinfectors and each of the tables are organized with packaging/wrapping supplies and instruments readily accessible.

1A.17.2.3(1)(f) Items move from the preparation and packing area to the sterilization area with high temperature sterilizers and biological monitoring system or clean storage.

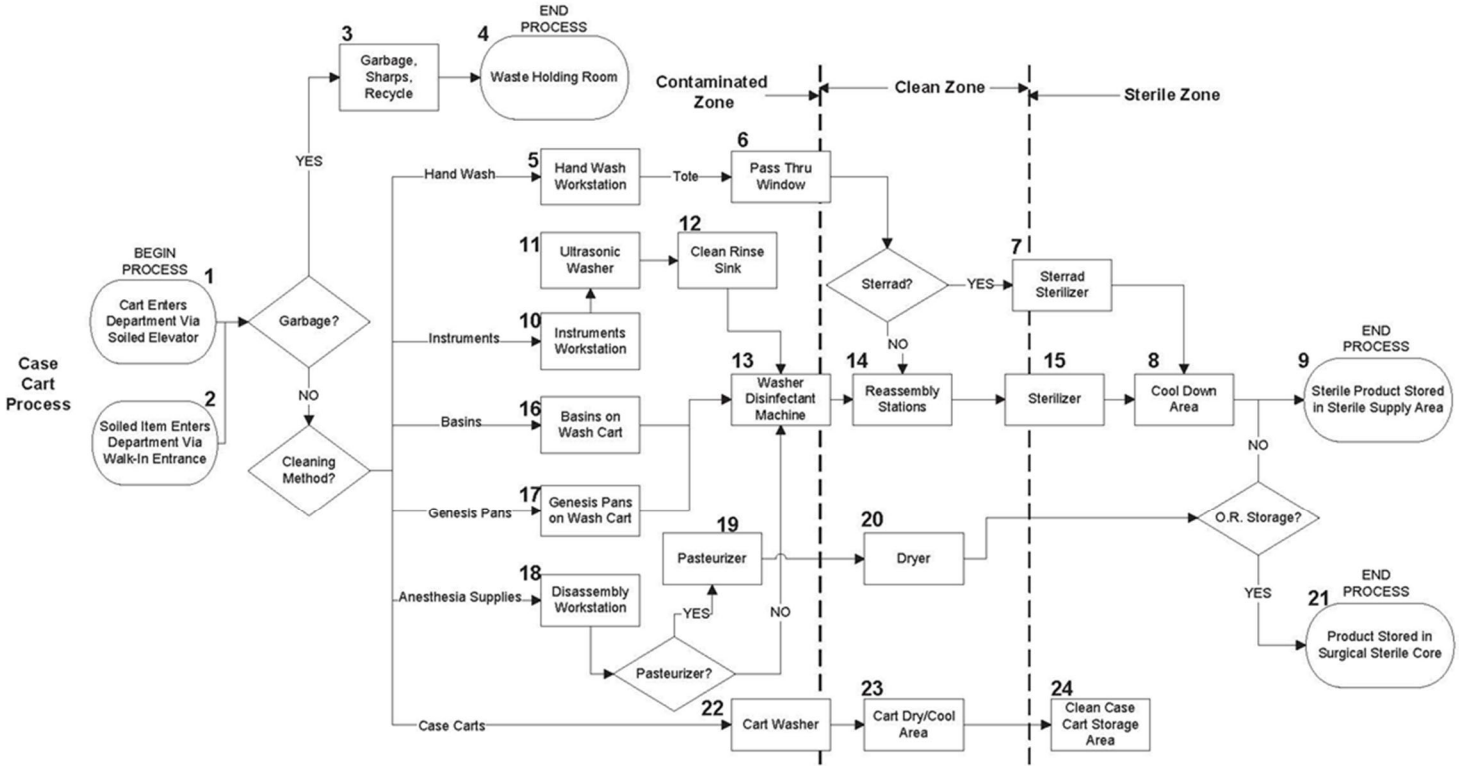
1A.17.2.3(1)(g) Once cooled, these items are moved to the sterile storage area.

1A.17.2.3(1)(h) Low temperature sterilization will be provided for temperature sensitive medical devices.

1A.17.2.3(1)(i) Case carts and procedure trays are assembled for use in the surgical suite and other areas of the hospital performing clinical procedures.

1A.17.2.3(2) **Future State Flow**

1A.17.2.3(2)(a) The future state flow map below describes the key flows for the future service delivery model for the MDRD.



1A.17.2.4 Support Activities

1A.17.2.4(1) For a description of general support activities applicable to this Component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.17.2.4(2) **Environmental Services**

1A.17.2.4(2)(a) Dedicated housekeeping rooms are required, one for soiled zone one for clean/sterile zone.

1A.17.2.4(2)(b) OR garbage will not enter the MDRD and will be disposed of in a soiled utility room.

1A.17.2.4(3) **Laundry and Linen**

1A.17.2.4(3)(a) Clean PPE clothing will be provided, and soiled linen hampers picked up on a daily basis.

1A.17.2.4(4) **Supply Management**

1A.17.2.4(4)(a) Single use items are decased and delivered to MDRD sterile supply area directly from supply management.

1A.17.2.4(5) **Facilities Maintenance**

1A.17.2.4(5)(a) Facilities Maintenance Staff will service some equipment in the MDRD. The vendor will service/maintain specialized equipment.

1A.17.2.4(5)(b) Area will be located adjacent to the sterilizers so that Facilities Maintenance Staff or vendors are able to service the equipment.

1A.17.3 STAFFING

1A.17.3.1 Estimated future Staffing for the MDRD is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

21.0 MDRD: Projected Staffing	
Position	**Projected FTE**
	2040/41
Nursing Assistant I (endo)	**0.0**
Nursing Assistant II (one is core aide)	3.0
Nursing Assistant III	2.0
Total MDRD Staffing	**5.0**

1A.17.4 DESIGN CRITERIA

1A.17.4.1 External Relationships

1A.17.4.1(1) Soiled medical devices and case carts will be transferred from the operating rooms to the MDRD via controlled Facility circulation.

1A.17.4.1(2) Clean medical devices and case carts will be transferred to the operating rooms from the MDRD via controlled Facility circulation.

1A.17.4.1(3) Scope reprocessing will access the Endoscopy Suite by:

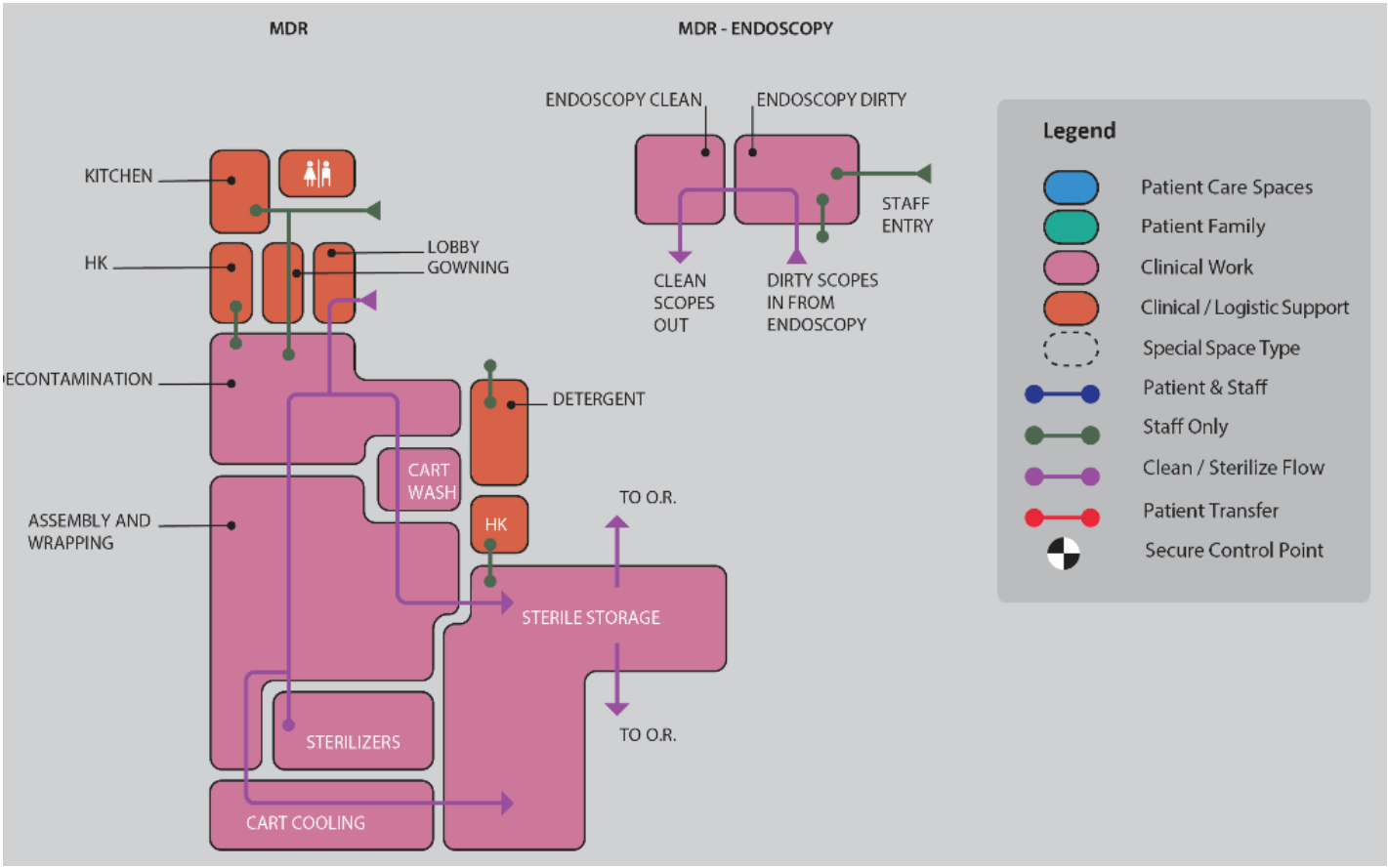
1A.17.4.1(3)(a) A door to move dirty scopes on carts following the procedure into scope reprocessing dirty area.

1A.17.4.1(3)(b) A pass-through scope drying and storage cabinet from the scope reprocessing clean side to the Endoscopy Suite for clean scopes that are ready to use for procedures.

1A.17.4.1(4) To the extent possible, the delivery of supplies and equipment to the MDRD may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.17.4.2 Functional Relationship Diagram

1A.17.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. The diagram is not to scale, not all spaces may be illustrated, and lines and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.17.4.3 Internal Design Criteria

1A.17.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.17.4.3(2) **Functional Zoning**

1A.17.4.3(2)(a) The MDRD will be designed as four (4) separate areas with vestibule entrances including internal connections between contaminated and sterile zones:

1A.17.4.3(2)(a)(i) Decontamination Zone

1A.17.4.3(2)(a)(ii) Clean Zone

1A.17.4.3(2)(a)(iii) Sterile Zone

1A.17.4.3(2)(a)(iv) Scope Reprocessing (decontamination zone and clean zone)

1A.17.4.3(2)(b) Functional zoning will provide one-way flow through the department.

1A.17.4.3(2)(c) Access to MDRD areas will be restricted to authorized personnel and have controlled access (e.g. card readers).

1A.17.4.3(3) **Design Principles**

1A.17.4.3(3)(a) Provide zones that are physically isolated from each other (decontaminated, clean, sterile, and scope reprocessing).

1A.17.4.3(3)(a)(i) The decontamination and clean areas of the MDRD will be fully separated.

1A.17.4.3(3)(a)(ii) The clean and sterile areas of the MDRD will be distinct but with access via corridors and/or doors.

1A.17.4.3(3)(a)(iii) Scope reprocessing dirty and clean areas will have distinct and separate workspace but will also have a door connecting the areas.

1A.17.4.3(3)(b) Provide pressurization in the sterile, clean and decontamination per the requirements of CSA Z317.2 (Table 1, reference 24 - Medical device reprocessing areas.

1A.17.4.3(3)(c) Provide stainless steel workspaces, surfaces, and finishes.

1A.17.4.3(3)(d) Provide height-adjustable Workstations throughout the MDRD.

1A.17.4.3(3)(e) Provide ceiling mounted access to electrical and data requirements to accommodate flexibility and organization of work surfaces with tables centered in the workspace with access to labeller.

1A.17.4.3(3)(f) Provide work surfaces that are flat, cut-resistant, seamless, and stainless steel so they can be cleaned, disinfected, and dried.

1A.17.4.3(3)(g) Provide waterproof counter tops that have a backsplash.

1A.17.4.3(3)(h) Provide finishes within the MDRD to reflect an operating room level and comply with infection prevention and control standards.

1A.17.4.3(3)(i) Provide finishes and furnishings with curved junctions to facilitate cleaning (both horizontal and vertical junctions).

1A.17.4.3(3)(j) Provide ceilings that are solid, integral, and wipeable.

1A.17.4.3(3)(k) Provide flooring and wall finishes that are easy to clean, impact resistant, and able to withstand standard, hospital grade disinfectants.

1A.17.4.3(3)(k)(i) Provide non-slip flooring in the decontamination areas.

1A.17.4.3(3)(l) Provide light fixtures that are sealed and wipeable.

1A.17.4.3(3)(m) Provide hand hygiene sinks at each egress/entrance point.

1A.17.4.3(3)(n) Provide technological capability (workstations, data, power) to implement an instrument tracking system, including instrument tracking. This includes provisions for computers to display instrument tracking, case cart flow, and information for making up case carts, procedure trays, and instrument sets.

1A.17.4.3(4) **Water Quality**

1A.17.4.3(4)(a) The requirements for utility and critical water will be dependent on the quality of the water available on site and scope reprocessing equipment that is selected. A water quality assessment is advised to assess the options and requirements prior to the detailed design process.

1A.17.4.3(4)(b) The decision regarding the need to treat incoming tap water to provide adequate water for medical device reprocessing and this solution will be determined as detailed design occurs. These options include:

1A.17.4.3(4)(b)(i) Utility (Public) Water

1A.17.4.3(4)(b)(i)A Water as it comes from the tap that might require further treatment to achieve the equipment and reprocessing specifications. This water is mainly used for flushing, washing, and rinsing.

1A.17.4.3(4)(b)(ii) Critical Water

1A.17.4.3(4)(b)(ii)A Water that is extensively treated (usually by a multistep treatment process that could include a carbon bed, softening, DI, and RO or deionization) to ensure that the microorganisms and the inorganic and organic material are removed from the water; a final submicron filtration could also be part of the treatment process. This water is mainly used for the final rinse or steam generation.

1A.17.4.3(5) **Standards and Guidelines**

1A.17.4.3(5)(a) The following standards apply to the design including transportation and distribution of medical devices:

1A.17.4.3(5)(a)(i) Accreditation Canada Reprocessing of Reusable Medical Devices, For Surveys Starting After: January 01, 2017, Date Generated: April 01, 2016, Ver. 11.

1A.17.4.3(5)(a)(ii) Adherence to the CSA Z8000, 2018 Section 10.7 Medical Device Reprocessing is required.

1A.17.4.3(5)(a)(iii) A health facility would meet Accreditation Canada requirements if they conformed to CSA 314.0 and Z314.18.

1A.17.4.3(5)(a)(iv) CAN/CSA-Z314-18, Canadian medical device reprocessing, issued February 2018. It replaces CSA Z314.0, Z314.3, Z314.8, Z314.10.1, Z314.10.2, Z314.14, Z314.15, Z314.22, and Z314.23.

1A.17.4.3(6) **Decontamination Area**

1A.17.4.3(6)(a) Provide double doors that open into the department for the delivery of soiled carts, instruments, and equipment.

1A.17.4.3(6)(b) Provide a bar scanner to enable equipment to be tracked when it advances through the reprocessing process.

1A.17.4.3(6)(c) Some loaner items that will arrive from Supply Chain Management will require sterilization. Because these are unique sets, a separate table for disassembly prior to sterilization will be provided. Once sterilized, loaner items will be assembled in the sterile supply area (accessible from the restricted area).

1A.17.4.3(6)(d) Decontamination Sinks with Counter and Shelving

1A.17.4.3(6)(d)(i) Provide two (2) sets of three (3) height adjustable 760 mm sink bays.

1A.17.4.3(6)(d)(i)A Provide stainless steel counter space on either side of the sinks and stainless-steel shelving above the sinks that is as long as the sink assembly.

1A.17.4.3(6)(d)(i)B Provide two (2) flexible industrial faucet heads with pressure control to prevent splash back. Centered faucets between the three (3) sinks.

1A.17.4.3(6)(d)(i)C Provide a water gun with a manual adjustable tempered water mixing valve that operates independently from faucets.

1A.17.4.3(6)(d)(i)D Provide instrument grade air and an air gun with a flexible hose adjacent to the sinks.

1A.17.4.3(6)(d)(i)E Provide user regulated suction (vacuum) (per Appendix 1M).

1A.17.4.3(6)(d)(i)F Provide pure water.

1A.17.4.3(6)(d)(i)G Provide a wall mounted Workstation with/ monitor (instructions, etc.) and scanning capability (i.e. to display cleaning instructions, etc.)

1A.17.4.3(6)(d)(i)H Provide a magnifying device.

1A.17.4.3(6)(e) Ultrasonic Cleaner

1A.17.4.3(6)(e)(i) Provide an ultrasonic cleaner in sequence following the decontamination sinks.

1A.17.4.3(6)(e)(ii) Accommodate the exhaust, plumbing, and cleaning requirements as per specifications for this item.

1A.17.4.3(6)(f) Washer / Disinfector and Pass-Through Window

1A.17.4.3(6)(f)(i) Provide two (2) pass-through washer/disinfectors and a pass-through window (with stainless steel counter space on each side) that serves as the dividing line between the decontamination area and the clean area and can open into each zone.

1A.17.4.3(6)(f)(ii) Accommodate the exhaust, plumbing, and cleaning requirements as per specifications for this item.

1A.17.4.3(6)(g) Cart Washer

1A.17.4.3(6)(g)(i) Provide a cart washer to accommodate the cleaning of carts.

1A.17.4.3(6)(g)(i)A Provide a cart washer with options for lower temperatures to accommodate wheelchair washing (i.e. lower temperatures to accommodate rubber wheels).

1A.17.4.3(6)(g)(ii) Accommodate the exhaust, plumbing, and cleaning requirements as per specifications for this item.

1A.17.4.3(6)(g)(iii) The cart washer will be located so that as soiled instruments and equipment are unloaded to be processed through the decontamination sinks, the carts will be staged and loaded into the cart washer.

1A.17.4.3(6)(g)(iii)A Equipment selection will dictate water quality and structural requirements.

1A.17.4.3(6)(g)(iv) The cart washer will open into the clean area.

1A.17.4.3(7) **Clean Area**

1A.17.4.3(7)(a) Prep / Assembly Table

1A.17.4.3(7)(a)(i) Provide one-way flow as items progress through the process.

1A.17.4.3(7)(a)(ii) Provide instrument air and vacuum (per Appendix 1M), power and data, a Workstation with bar scanner, monitor with smart track screen that show procedures (workload tracker), and stainless-steel drawers and shelving.

1A.17.4.3(7)(a)(iii) Provide prep / assembly tables with either floor or ceiling mounted electrical and data that reach the table without acting as a tripping hazard.

1A.17.4.3(7)(a)(iv) The prep / assembly table will lead into the instrument storage, pre-pack/heat sealer, wrap table, drying station, and assembly Workstation.

1A.17.4.3(8) **Sterile Area**

1A.17.4.3(8)(a) Provide open floor space dedicated to a cooling zone for recently sterilized carts that is clearly defined and not located in general circulation patterns.

1A.17.4.3(8)(b) Provide sterile supply storage area (wire rack shelving) with aisle widths that allow carts to move unimpeded between rows of shelving.

1A.17.4.3(8)(b)(i) Provide wire rack shelving.

1A.17.4.3(8)(b)(ii) Provide open floor area to organize, coordinate, and stage case carts for upcoming procedures. The storage solutions and layout will be confirmed during detailed design with users.

1A.17.4.3(8)(c) Endoscopy Reprocessing Area

1A.17.4.3(8)(c)(i) The scope reprocessing area consists of a dirty side (or decontamination side) and clean side. These two (2) areas will be adjacent to each other to facilitate one-way flow.

1A.17.4.3(8)(c)(ii) The dirty side and the clean side will be linked by two (2) pass-through endoscope processors. This will allow for endoscopes to be pass-through without compromising flow.

1A.17.4.3(8)(c)(iii) The clean side will be adjacent to both the dirty side (to receive scopes from the pass-through endoscope processor) and the Endoscopy Suite in order to distribute clean scopes using a pass-through scope cabinet that is shared between the endoscopy – clean side and the Endoscopy Suite.

1A.17.4.3(8)(d) Access to scope reprocessing area (decontamination and clean) will be restricted to authorized personnel and have controlled access (e.g. card readers).

1A.17.4.3(8)(e) Separation of dirty and clean areas

1A.17.4.3(8)(e)(i) Dirty area will be separated from the scope reprocessing clean area by walls to control traffic flow and to contain contaminants generated during the stages of decontamination.

1A.17.4.3(8)(e)(ii) Provide walls or partitions that are constructed of materials capable of withstanding frequent cleaning with the cleaning and disinfecting products.

1A.17.4.3(8)(e)(iii) Provide doors to all scope reprocessing work areas that are always closed by implementing self-closing doors to restrict access and optimize ventilation control. They must have the ability to be kept open.

1A.17.4.3(8)(e)(iv) Accommodate air flows from clean to decontamination areas.

1A.17.4.3(8)(f) Scope Reprocessing – Dirty (Decontamination)

1A.17.4.3(8)(f)(i) The space and the design of the scope reprocessing area is planned to accommodate one-way workflow.

1A.17.4.3(8)(f)(ii) Preparation Area

1A.17.4.3(8)(f)(ii)A Provide minimum of 1.5 lineal metres of stainless-steel workspace for preparation.

1A.17.4.3(8)(f)(ii)B Provide a bar scanner to ensure equipment is tracked when it is received.

1A.17.4.3(8)(f)(ii)C Provide hand hygiene sink.

1A.17.4.3(8)(f)(iii) Endoscopy Sinks

1A.17.4.3(8)(f)(iii)A Provide one (1) set of two (2) endoscopy cleaning sinks.

1A.17.4.3(8)(f)(iii)B Provide sinks that are height-adjustable with a stainless-steel counter.

1A.17.4.3(8)(f)(iii)C Provide a height-adjustable Workstation.

1A.17.4.3(8)(f)(iii)D Provide two (2) pass-through endoscope reprocessors that allow dirty scopes to be placed into the reprocessors and are opened on the clean side (once cleaned).

1A.17.4.3(8)(f)(iii)E Provide wall racks and/or hooks for scopes awaiting processing.

1A.17.4.3(8)(f)(iii)F Provide a window pass-through adjacent to the endoscope reprocessors, to allow equipment, scopes, and other items to be passed from the clean area to the decontamination area (i.e. if a scope requires the cleaning process to be executed a second time, the scope will be passed through the pass-

through window from the clean area back into the decontamination area).

1A.17.4.3(8)(f)(iii)G Provide a bar scanner to ensure equipment is tracked when it advances through the endoscope cleaning process.

1A.17.4.3(8)(f)(iii)H Accommodate the exhaust, plumbing, and cleaning requirements as per specifications for this item.

1A.17.4.3(8)(g) Scope Reprocessing – Clean

1A.17.4.3(8)(g)(i) Inspection Area

1A.17.4.3(8)(g)(i)A Scopes are retrieved from the pass-through endoscope reprocessors and brought to the inspection area.

1A.17.4.3(8)(g)(i)B Provide stainless steel counter space, Workstation with monitor, magnifying lens, and compressed air.

1A.17.4.3(8)(g)(i)C Provide a bar scanner to ensure equipment is tracked when it advances through the testing process.

1A.17.4.3(8)(g)(i)D Provide wall racks and/or hooks for scopes awaiting transfer to pass-through scope drying and storage cabinet.

1A.17.4.3(8)(g)(i)E Provide hand hygiene sink.

1A.17.4.3(8)(g)(ii) Pass-through Scope Drying and Storage Cabinet

1A.17.4.3(8)(g)(ii)A Once scopes are deemed ready for use, they are placed in the pass-through scope drying and storage cabinet and retrieved from this cabinet from within the Endoscopy Suite.

1A.17.4.3(8)(g)(ii)A1 Accommodate the transport (cart/bin) for the transport of specialty scopes.

1A.17.5 SCHEDULE OF ACCOMMODATION

1A.17.5.1 Space requirements for the MDRD are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

21.0 MDRD: Schedule of Accommodation (Detailed Space List)					
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description / Ratio and Distribution**
21.1.0	**Decontamination Area**				
21.1.01	PPE Gowning Area	1	7.5	7.5	- Shelving for boots, gowns, head cover, gloves, masks, hand hygiene sink

1A.17 MEDICAL DEVICE REPROCESSING DEPARTMENT

21.0 MDRD: Schedule of Accommodation (Detailed Space List)					
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description / Ratio and Distribution**
21.1.02	Soiled Holding	1	7.5	7.5	- Accommodates double doors that open into the department clear and open space; restricted access on all access/egress points; adjacent to the soiled utility room in the restricted area (room and space found in surgical services)
21.1.03	Workstation: Receiving / Bar Code Scanner	1	3.0	3.0	- Computer workstation; scanner/tracker to track carts arriving in the MDRD (standalone or multi-user)
21.1.04	Holding Area for Soiled Carts	1	8.0	8.0	- Accommodates ~ six (6) 760 mm x 915 mm and/or 760 mm x 1830 case carts waiting to be cleaned
21.1.05	Miscellaneous Shelving Alcove	3	1.4	4.2	- Open storage area for utility wire racks (760 mm x 1830 mm)
21.1.06	Emergency Eye Wash / Shower	1	1.0	1.0	- Provide water temperature, pressure, and floor drain
21.1.06.2	Loaner Equipment Disassembly Table	1	4.0	4.0	- Stainless steel table for disassembly of loaner items (to ensure they remain separated from the general items)
21.1.07	Decontamination Sinks with Counter and Shelving	2	7.0	14.0	- 610 mm x 1220 mm movable wire shelf; 915 mm of counter space; 3 sinks (soak, flush, rinse) with 760 mm length sink bays, sinks should be height adjustable; Workstation with mounted screen (with bar code scanner); provide plumbing and cleaning requirements (air and water pistols, overmount sprayers for each sink, etched sink bay markings, pure water faucet, etc.); all furnishings will be stainless steel; each sink to have Workstation and monitor (smart track screens) showing procedures (workload tracker)
21.1.08	Ultrasonic Cleaner	1	3.0	3.0	- Located at the end of the decontamination sink area (in a line)
21.1.09	Instrument Tray Staging Area	1	3.0	3.0	- Placed linear to the washer/disinfector and ultrasonic (in a line); open space (~1830-2440 mm) between the ultrasonic and the tray staging area that leads into the washer/disinfector
21.1.10	Washer / Disinfector	2	3.0	6.0	- Pass-through to the clean side of MDRD
21.1.11	Pass-Through Window	1	3.0	3.0	- Pass-through to the clean side of MDRD
21.1.12	Not used				
21.1.13	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board; storage for all chemicals, cleaning/detergent distribution lines; floor drain; Secured

21.0 MDRD: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description / Ratio and Distribution**	
11.3.06	Ortho Loaner Storage	1	9.0	9.0	- shelving for 15 305mm x 610mm stainless steel pans and mobile storage cart for consumables	
Cart Wash Area						
21.1.14	Utility Racks Storage	2	1.4	2.8	- Staging area (open floor space) for utility racks (instruments, etc.) storage when they are not in the cart washer	
21.1.15	Soiled Cart Holding Area	1	0.7	0.7	- Holding area (open floor space) for case carts waiting to go through the cart washer; accommodate ~two (2) 760 mm x 915 mm and/or 760 mm x 1830 mm case carts	
21.1.16	Cart Washer	1	13.0	13.0	- Pass-through cart washer with clearance on both the dirty and clean side	
MDRD: Decontamination Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				96.7	**1.15**	**111.2**
21.2.0	**Clean Area**					
Cart Wash Area - Clean Side						
21.2.01	Case Cart Drying Area	8	1.2	9.6	- Clear floor area to remove clean carts from cart wash and dry; accommodates ~ eight (8) 760mm x 915mm and/or 760mm x 1830mm case carts; rack for drying blood pressure cuffs	
Washer / Disinfectors - Clean Side						
21.2.02	Tray Area for Cleaned Items	2	5.0	10.0	- Tray area (2m x 2m) per washer/disinfector; ~1830-2440mm of open floor space between this and Prep / Assembly tables	
Assembly and Wrapping Area						
21.2.03	Prep / Assembly Tables	1	8.0	8.0	- Instrument cart (760mm x 1830mm); prep cart (610mm x 1220mm); assembly table (915mm x 1830mm) with 2x Workstations (height adjustable table); shelving; 1 table per specialty; in view of the assembly tables, 1 monitor per table (smart track screens) showing procedures (workload tracker)	
21.2.04	Pre-pack	1	6.0	6.0	- Steripeel; packaging supplies; heat sealer; ergonomic; height adjustable; Workstation	
21.2.05	Wrap Table	1	8.0	8.0	- 1 stainless steel height adjustable table (915mm x 1828mm)	
21.2.06	Wrapping Material Storage Area	1	5.0	5.0	- Close to wrap tables; include hanging racks for disposable wrapping material; include cart area for tape, labels, etc.	
21.2.07	Utility Racks for Wrapped Items	2	4.0	8.0	- Items that are wrapped and waiting for sterilization; accommodates 760mm x 1830mm cart	
21.2.08	Instrument Storage	1	6.0	6.0	- 915mm counter space that runs the length of the assembly tables; drawers/cupboards on the bottom and peg board on top of the counter space; all stainless steel; should be adjacent to the Steripeel area	
21.2.09	Drying Station	2	4.0	8.0	- Small workspace with medical gases (per Appendix 1M)	
21.2.10	Assembly Workstation	1	4.6	4.6	- Stainless steel; height adjustable computer Workstation	
Sterilizer Area						

21.0 MDRD: Schedule of Accommodation (Detailed Space List)					
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description / Ratio and Distribution**
21.2.11	Workstation	1	3.0	3.0	- Height adjustable computer Workstation; placed before items go to sterilizers
21.2.12	Incubator (benchtop)	2	0.5	1.0	- 1 for Sterrad; 1 for sterilizer; located on countertop next to workstation
21.2.13	Sterilizer	2	10.0	20.0	- Ensure clearance in front of sterilizers and provide a maintenance area behind
21.2.14	Sterilizer Staging Area	2	7.5	15.0	- Open floor area to stage carts before entering sterilizers
21.2.15	Sterilizer Maintenance Area	1	12.0	12.0	- Secure maintenance area that provides access to the backside of the sterilizers; requires access to the exterior of the department (if possible); RO water treatment area (if required)
21.2.16	Low Temperature Sterilizer (Sterrad)	1	9.0	9.0	- Ensure clearance in front of the low temperature sterilizer
Support Space					
21.2.17	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); shared by clean and sterile
21.2.18	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board
21.2.19	Vestibule	2	5.1	10.2	- Open floor space to allow unimpeded access; Restricted access on all access/egress points; hand hygiene sink
MDRD: Clean Area				**Total NSM**	**Planning Factor (CGSM)** / **Total CGSM**
				155.0	**1.15** / **178.3**
21.3.0	**Sterile Area**				
21.3.01	Hand Hygiene Sink	1	1.0	1.0	- Non-porous, splash-proof
21.3.02	Cooling Zone for Sterilized Carts	2	2.0	4.0	- Open floor area to hold carts that complete sterilization process; Accommodates ~ two (2) 1830 mm x 760 mm carts (1 for each sterilizer)
21.3.03	Workstation: Bar Code Workstation	1	3.0	3.0	- Height adjustable touchdown computer workstation; placed before items go to sterilizers; Instrument management system; scanner;
21.3.04	Work Table	1	6.0	6.0	- Stainless steel; height adjustable
21.3.05	Sterile Supply Storage	1	66.0	66.0	Includes 90% of current OR storage - Accommodates ~(35x) 1830 mm x 760 mm shelves for all sterile supplies; ensure adequate aisle width that allows carts to move between rows unimpeded - Alarmed temperature and humidity monitoring with printout or electronic record-keeping; 915 mm aisle widths to accommodate transfer carts

21.0 MDRD: Schedule of Accommodation (Detailed Space List)					
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description / Ratio and Distribution**
21.3.05.01	Non-Sterile Implant Storage	1	2.0	2.0	- 1830 mm x 760 mm cart for implant storage
21.3.06	Case Cart Holding and Coordination (smaller carts)	1	12.0	12.0	- Open area to coordinate / organize case carts; Accommodates 1830 mm x 760 mm and 915 mm x 610 mm carts; carts can be back-to-back but must have adequate space to move completely out of the way and allow access to other carts
21.3.07	Vestibule	1	5.0	5.0	- Open floor space to allow unimpeded access; Restricted access on all access/egress points; hand hygiene sink
-	Loaner Room	Included in the Supply Chain Management section			
-	Emergency Cart Storage	In OR sterile core			
MDRD: Sterile Area				**Total NSM**	**Planning Factor (CGSM)** / **Total CGSM**
				99.0	**1.15** / **113.9**
21.4.0	**Endoscopy - Dirty**				
21.4.01	Vestibule	1	1.0	1.0	- Open floor space to allow unimpeded access; Restricted access on all access/egress points
21.4.02	Hand Hygiene Sink	1	1.0	1.0	- Non-porous, splash-proof
21.4.03	Emergency Eye Wash / Shower	1	1.0	1.0	- Provide water temperature, pressure, and floor drain
21.4.04	Endoscopy Sinks	1	2.5	2.5	- 1 set of 2 sinks, height adjustable, stainless steel; provide plumbing and cleaning requirements (air and water pistols, each sink with one overmount sprayer, etched sink bay markings, pure water faucet, etc.); monitor; cleaning instructions; stainless steel shelf (approx. 305mm deep by 610mm wide) mounted above sinks.
21.4.05	Endoflush (wall mounted)	1	0.2	0.2	- Leak tester-dispenser-flushing (all in 1-piece equipment; undercounter detergent; requires water
21.4.06	Floor Mounted High-Level Disinfection Endoscope Processor (pass-through)	1	1.0	1.0	- Provide plumbing and cleaning requirements; pass-through to clean area
21.4.07	Shelving	1	1.0	1.0	- 1830 mm x 760 mm wire shelf; accessories for endoflush
21.4.08	Counter space	1	1.5	1.5	- For quality testing; general stainless-steel counter space for staging equipment, supplies
21.4.09	Probe Cleaning Room	1	6.0	6.0	- 2 sinks, counter space; ventilation; vented cabinet (HEPA filter that accommodates 5-7 probes)
MDRD: Endoscopy - Dirty				**Total NSM**	**Planning Factor (CGSM)** / **Total CGSM**
				15.2	**1.15** / **17.5**
21.5.0	**Endoscopy Clean**				
-	Trophon	Included in Diagnostic Imaging			
21.5.01	Inspection Table	1	1.5	1.5	- Stainless steel, height adjustable table; magnifying light
21.5.02	Workstation	1	3.0	3.0	- flat bed, handheld scanner, monitor / workspace

1A.17 MEDICAL DEVICE REPROCESSING DEPARTMENT

21.0 MDRD: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description / Ratio and Distribution**	
21.5.03	Storage for transport carts and basins / closed containers	1	1.0	1.0	- Storage for 610 mm x 915 mm transport carts; shelving for basins and containers; may not be required if pass-throughout connections are established	
21.5.04	Hand Hygiene Sink	1	1.0	1.0	- Non-porous, splash-proof	
21.5.05	Pass-Through Drying and Scope Storage Cabinets	2	3.0	6.0	- 10 scopes (flexible); scope drying, and storage cabinet connected to Endoscopy Suite	
MDRD: Endoscopy - Clean				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				12.5	**1.15**	**14.4**
21.6.0	**Staff Support**					
21.6.01	Kitchenette	1	8.0	8.0	- Cabinets, counter space, microwave, refrigerator, dishwasher, chairs, table; double sink - combined with 11.6.07 Staff Lounge in Surgical Services	
-	Office: Supervisor	- Included in Surgical Services				
-	Staff Washroom	- One staff washroom will be located adjacent to the decontamination area. - Staff working in the clean and sterile areas will use the staff washrooms located in the locker rooms within the restricted area.				
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area or with Surgical Services				
-	Staff Lockers and Change Area	- 1 per projected FTE and is included in the Support Staff Locker and Change Area				
MDRD: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				8.0	**1.35**	**10.8**
Total MDRD Area Requirements				**386.4**		**446.0**

1A.18 HOUSEKEEPING

This specification outlines the functional, operational, and physical requirements for the Housekeeping component.

1A.18.1 FUNCTIONAL DESCRIPTION

1A.18.1.1 Statement of Purpose

1A.18.1.1(1) Housekeeping Staff will perform cleaning duties throughout the Facility and maintain clean and sanitary conditions as established in accordance with the Authority's policies, procedures, and processes.

1A.18.1.1(2) Housekeeping services will support the Facility in providing services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.18.1.2 Scope of Services

1A.18.1.2(1) **Functional Content**

1A.18.1.2(1)(a) Housekeeping Staff will perform the following functions:

1A.18.1.2(1)(a)(i) Cleaning of interior Building surfaces throughout the Facility such as:

1A.18.1.2(1)(a)(i)A Floors, baseboard, stairways, walls, windows, and ceilings by methods such as scrubbing, sweeping, vacuuming, dust mopping, spot washing, and wet washing with mops and buckets and/or mechanical equipment.

1A.18.1.2(1)(a)(i)B Clean and disinfect washrooms and replenishes items / supplies such as soap, hand sanitizer, lotion, and towels.

1A.18.1.2(1)(a)(i)C Clean, disinfect, and make beds, bassinettes and stretchers.

1A.18.1.2(1)(a)(i)D Clean items such as furniture, ledges, fixtures, and venetian blinds.

1A.18.1.2(1)(a)(i)D1 No blinds will be built into windows with the exception of those provided in the mental health Inpatient area.

1A.18.1.2(1)(a)(i)E Clean and disinfect nursing areas and isolation rooms, Patient equipment, such IV poles, commodes, sharps containers and wheelchairs.

1A.18.1.2(1)(a)(i)F Dust air vents, radiators, and light fixtures; remove and rehang drapes and bed curtains as required.

1A.18.1.2(1)(a)(i)G Empty, clean, and disinfect waste / recycling containers; collect, disinfect, compact, and remove garbage / recycling according to departmental procedures.

1A.18.1.2(1)(a)(ii) Cleaning for the discharge and terminal areas is done on an on-demand basis, with response and clean guidelines.

1A.18.1.2(1)(a)(iii) Move selected portions of the waste stream from points-of-use, and from soiled utility/holding rooms to the loading dock area. The major portions of the waste stream including soiled linen, general waste, and mixed recyclables, will be transported in carts.

1A.18.1.2(1)(a)(iv) Maintain housekeeping equipment by cleaning and replacing items such as filter bags and report damaged and/or inoperable fixtures, equipment and furniture and reports low supplies.

1A.18.1.2(2) **Planning Assumptions**

1A.18.1.2(2)(a) A central housekeeping area will be accommodated along with decentralized housekeeping closets planned throughout the Facility with housekeeping Staff being responsible for replenishment of supplies in housekeeping closets.

1A.18.1.2(3) **Excluded**

1A.18.1.2(3)(a) Confidential shredding is under a contracted service, and this will continue in the future.

1A.18.1.2(3)(b) Separation and storage of recyclable materials has not planned.

1A.18.2 OPERATIONAL DESCRIPTION

1A.18.2.1 Hours of Operation

1A.18.2.1(1) The Housekeeping department will be available 7 days / week, 0700-2300.

1A.18.2.2 Organization & Management

1A.18.2.2(1) The Housekeeping Department will be managed by the support services manager and coordinator.

1A.18.2.3 Workflow

1A.18.2.3(1) **Staff**

1A.18.2.3(1)(a) Housekeeping Staff will be assigned to specific areas of the hospital to provide cleaning services.

1A.18.2.3(1)(b) The storage and recharging of large pieces of cleaning equipment (e.g. auto scrubbers, burnishers, floor finishing/stripping machine, etc.) will be conducted centrally, as will the storage of bulk cleaning supplies.

1A.18.2.3(1)(c) The various forms of soiled material handling/waste management will be addressed as follows:

1A.18.2.3(1)(c)(i) General, non-infectious trash will be collected on the Patient care units from individual Patient rooms, treatment areas, and soiled utility rooms.

1A.18.2.3(1)(c)(ii) Housekeeping Staff will transport trash carts located throughout the Facility directly to central waste holding area adjacent to the loading docks and/or directly into trash compactor.

1A.18.2.3(1)(c)(iii) Regulated medical waste, including infectious waste and sharps will be collected at the source and taken to the soiled holding area.

1A.18.2.3(1)(c)(iii)A The Authority will use reusable sharps containers. This process will include removing sharps containers, once they are full, to the soiled holding area.

1A.18.2.3(1)(c)(iv) Hazardous waste will be stored in user areas before Housekeeping transports the waste to a secure storage Facility adjacent to the loading dock.

1A.18.2.4 Support Activities

1A.18.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.18.3 STAFFING

1A.18.3.1 Estimated future Staffing for the Housekeeping department is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Housekeeping: Projected Staffing	
Position	**Projected FTE**
Cleaner	11.0
Manager, Support Services – NE	1.0
Total Housekeeping Staffing	**12.0**
Coordinator (based out of Rotary Manor)	As required

1A.18.4 DESIGN CRITERIA

1A.18.4.1 External Relationships

1A.18.4.1(1) Access from the central housekeeping to the loading dock via controlled Facility circulation.

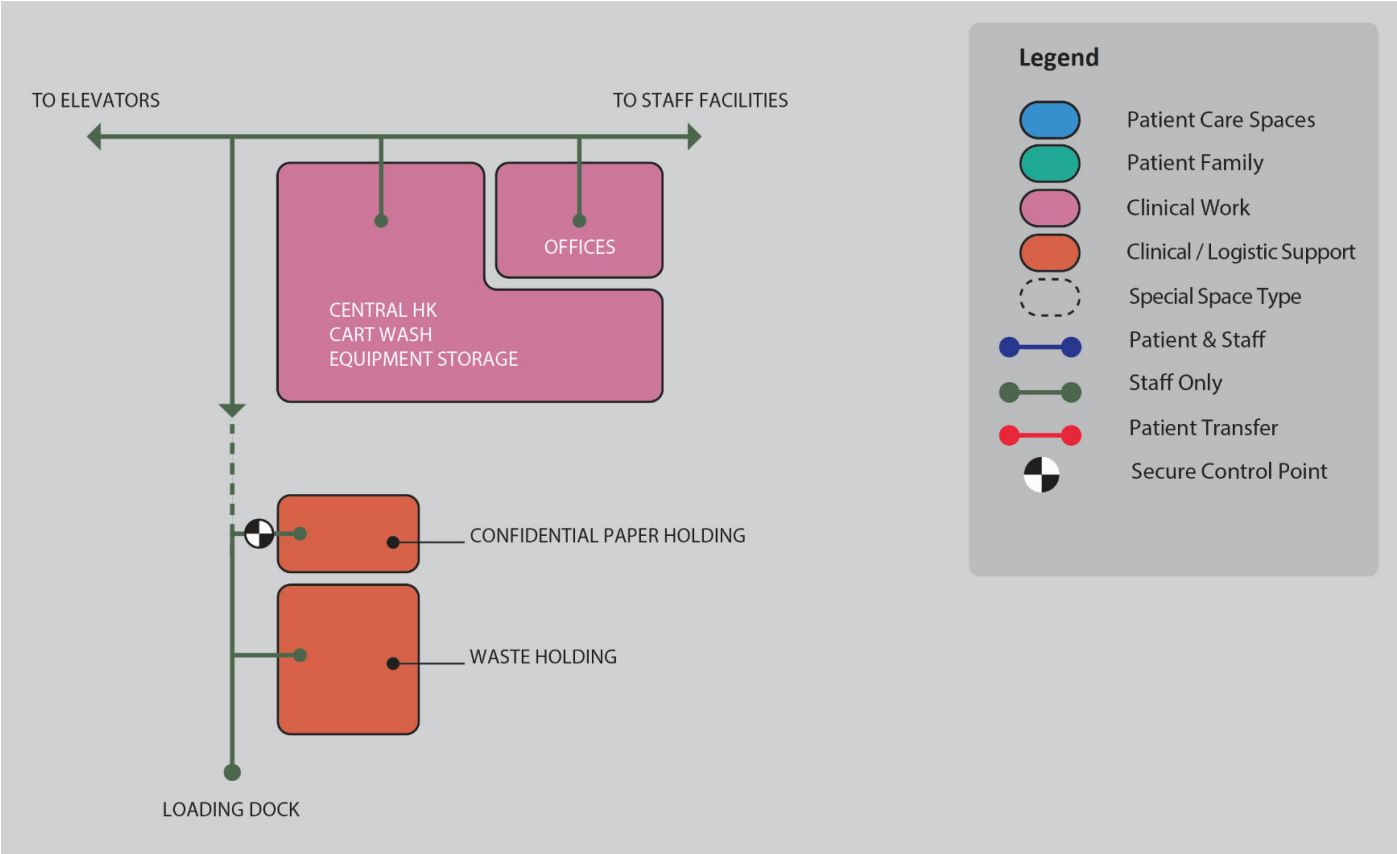
1A.18.4.1(2) Housekeeping Staff and housekeeping carts will move throughout the Facility via both general and controlled Facility circulation.

1A.18.4.1(3) To the extent possible, the delivery of supplies and equipment to the housekeeping closets may occur via controlled Facility circulation (e.g. this could be a back of house access), however, general Facility circulation may also be used, if necessary.

1A.18.4.1(4) Housekeeping Staff will access housekeeping closets via both general and controlled Facility circulation.

1A.18.4.2 Functional Relationship Diagram

1A.18.4.2(1) Functional relationships between key areas will generally be as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.18.4.3 Internal Design Criteria

1A.18.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.18.4.3(2) **Central Housekeeping Area**

1A.18.4.3(2)(a) The following items will be applicable to the central housekeeping area:

1A.18.4.3(2)(a)(i) Provide door opening of at least 1220 mm wide.

1A.18.4.3(2)(a)(ii) Provide secured access.

1A.18.4.3(2)(a)(iii) Provide wire rack shelving for storage.

1A.18.4.3(2)(a)(iv) Provide power source for recharging of floor equipment (i.e. floor cleaner, floor equipment, charging imops, etc.).

1A.18.4.3(2)(a)(v) Provide wall faucets/hose bibs, floor sink, and drain.

1A.18.4.3(2)(a)(vi) Accommodate plumbing to support chemical dispensing units.

1A.18.4.3(2)(a)(vii) Provide a secure and safe chemical storage area.

1A.18.4.3(2)(a)(viii) Provide durable wall protection.

1A.18.4.3(2)(a)(ix) Provide an eyewash station.

1A.18.4.3(2)(a)(x) Provide a utility sink.

1A.18.4.3(2)(a)(xi) Provide a hand hygiene sink.

1A.18.4.3(3) **Housekeeping Staff Area**

1A.18.4.3(3)(a) Provide a Staff area that is accessible afterhours.

1A.18.4.3(3)(b) Accommodate a small refrigerator, microwave, two (2) touchdown Workstations, and small meeting table with four (4) chairs.

1A.18.4.3(3)(c) The access into the Staff area will not be through the central housekeeping area and will not expose Staff to operational functions to access this space.

1A.18.4.3(4) **Housekeeping Rooms and Closets**

1A.18.4.3(4)(a) The following items will be applicable to all housekeeping rooms and closets:

1A.18.4.3(4)(a)(i) Provide door opening of at least 1220 mm wide.

1A.18.4.3(4)(a)(ii) Provide secured access.

1A.18.4.3(4)(a)(iii) Provide wire rack shelving for storage.

1A.18.4.3(4)(a)(iv) Provide power source for recharging of floor equipment (i.e. floor cleaner, floor equipment, charging imops, etc.).

1A.18.4.3(4)(a)(v) Provide wall faucets, hose bibs, floor sink, and drain.

1A.18.4.3(4)(a)(vi) Provide a utility sink.

1A.18.4.3(4)(a)(vii) Provide a hand hygiene sink.

1A.18.4.3(5) **Environmental Criteria for the Central Housekeeping Area and Housekeeping Rooms and Closets**

1A.18.4.3(5)(a) The following environmental criteria will be applicable to the central housekeeping area:

1A.18.4.3(5)(a)(i) Appropriate air temperature and ventilation controls will be provided in work areas for Staff comfort and equipment sensitivities (e.g. floor care equipment (battery charging), cleaning supplies, etc.).

1A.18.4.3(5)(a)(ii) Appropriate flammable stores will be provided for centralized holding of flammable cleaning products.

1A.18.4.3(5)(a)(iii) Sound attenuation systems/finishes will be used wherever possible to keep noise to minimum levels.

1A.18.4.3(5)(a)(iv) To prevent floor equipment from damaging any sheet flooring, patterned floor covering will be provided to hide imperfections to flooring and possible damage.

1A.18.4.3(5)(a)(v) Bumper protection on walls and corners exposed to cart traffic or powered equipment will be provided. Bumpers to project out from wall and to protect both upper and lower part of the wall.

1A.18.4.3(6) **Garbage and Recycling Area**

1A.18.4.3(6)(a) Compactor Loading Area

1A.18.4.3(6)(a)(i) Coordinate Compactor Loading Area to accommodate the two (2) compactors (minimum size 4000 mm wide x 6700 mm long) that will be supplied and installed by the Authority's Vendor as follows:

1A.18.4.3(6)(a)(i)A General waste compactor.

1A.18.4.3(6)(a)(i)B Cardboard compactor.

1A.18.4.3(6)(a)(ii) Accommodate this secured space adjacent to the loading dock.

1A.18.4.3(6)(a)(iii) The site design will accommodate one (1) spare 30-cu. yard capacity bin, (minimum size 4000 mm wide x 6700 mm long), located adjacent to the compactors with convenient safe access for Staff.

1A.18.4.3(6)(b) Organic Waste Holding

1A.18.4.3(6)(b)(i) Provide a secured, refrigerated, and vented space for organic waste holding.

1A.18.4.3(6)(b)(ii) Accommodate this space adjacent to the loading dock but inside the Facility.

1A.18.4.3(6)(c) Biomedical Waste Holding

1A.18.4.3(6)(c)(i) Provide a secured and refrigerated space that adheres to the CSA Z317.2 requirements.

1A.18.4.3(6)(c)(ii) Accommodate this space adjacent to the loading dock but inside the Facility.

1A.0.1.3(1)(a)(i) Ensure the doorways are large enough to fit reusable sharps containers/transporters in height/width.

1A.18.4.3(6)(d) Not used

1A.18.4.3(6)(d)(i) Not used

1A.18.5 SCHEDULE OF ACCOMMODATION

1A.18.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

22.0 Housekeeping: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
22.1.0	**Central Area**					
22.1.01	Central Housekeeping Area	1	15.0	15.0	- Storage shelving; touchless hand hygiene sink with a backer board; utility sink; includes chemical storage	-
22.1.02	Housekeeping Staff Area	1	22.0	22.0	- Kitchenette with refrigerator, microwave, one (1) set of double sinks, counter space, and cabinets with drawers; two (2) touchdown Workstations; small meeting table with 4 chairs	-
22.1.03	Equipment Storage	1	25.0	25.0	- Recharging stations; floor maintenance equipment; shelving - Upright vacuum, mop sink, chemical dispensing unit with a backer board; wet mop and bucket, burnishers, wet dry vacuum, touchless hand hygiene sink with backer board	- Adjacent to hallway circulation
22.1.04	Cart Washer	1	10.0	10.0	- Provide plumbing, electrical, and drainage requirements	- Close to loading dock

22.0 Housekeeping: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
22.1.05	Housekeeping Closet	1	7.0	7.0	- Provide electrical requirements, cart storage, janitor's floor sink, water source, shelving for storage of supplies (germicidal solution, general purpose cleaner, non-acid crème cleaner, toilet bowl cleaner, spot cleaner, furniture polish); toilet bowl swab and caddy; putty knife; safety goggles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE; disposables; paper supplies; garbage bags; gloves; soaps; cleaning cloths; tool; power equipment, step stool, whiteboard, janitor carts that hold imop, chemical dispenser on backer board, touchless hand hygiene sink with a backer board	- to support the basement level
Housekeeping: Central Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				79.0	**1.20**	**94.8**
22.2.0	**Garbage and Recycling Area**					
22.2.01	Compactor Loading Area	1	20.0	20.0	- Waste removal/soiled holding for general garbage; provides access to manual/automatic compactors for cardboard and waste; hand hygiene sink	- locate adjacent to loading dock
22.2.02	Organic Waste	1	9.0	9.0	- Refrigerated and vented space	- locate close to loading dock
22.2.03	Biomedical Waste Holding	1	15.0	15.0	- Accommodates negative pressure and refrigeration; indicate a location for transport cart measuring 2030mm H x 1220mm D x 1015mm W	- locate close to loading dock
22.2.04	Not used					
Housekeeping: Garbage and Recycling Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				44.0	**1.20**	**52.8**
22.3.0	**Staff Support**					
22.3.01	Not used	-	-	-	-	-
22.3.02	Office: Coordinator	1	10.0	10.0	- Chair, workspace, data connection, phone, cabinet	-
-	Staff Washroom	- Shared with adjacent departments				
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lockers and Change Area	- 1 locker per projected FTE and is included in the Support Staff Locker and Change Area				
Housekeeping: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				10.0	**1.35**	**13.5**
Total Housekeeping Area Requirements				**133.0**		**161.1**

1A.19 NUTRITION AND FOOD SERVICES

The following information and requirements form the basis from which all food and beverage services are received, stored, prepared and delivered to the Dawson Creek and District Hospital Patients.

1A.19.1 FUNCTIONAL DESCRIPTION

1A.19.1.1 Project Parameters

1A.19.1.1(1) The Building will be designed and equipped to offer all Patients healthy choices of meals, nourishments, and snacks.

1A.19.1.1(2) A collaborative relationship between clinical nutrition department and the Nutrition and Food Services department which collectively report to, and work with, the health service administrator to offer Patients greater choice and meal satisfaction.

1A.19.1.2 General Requirements

1A.19.1.2(1) **Operational Philosophy**

1A.19.1.2(1)(a) Kitchen production will operate between 0530 and 1900 seven days per week for Patient meal consumption generally on that same day.

1A.19.1.2(1)(b) Inpatients will receive fully assembled meal trays at bed side; some in convalescent may go to a dining area.

1A.19.1.2(1)(c) Although a significant amount of current product is “out-sourced” prepared or partially prepared food (from outside vendors), provisions for increased in-house production are desired for periods where outsourcing does not meet desired quality or becomes cost prohibitive.

1A.19.1.2(1)(d) No additional demands for food or beverages are to be planned for (e.g. Staff cafeteria, meals on wheels or catering); any desired vending will be provided by an outside provider.

1A.19.1.2(2) **Planning Guidelines**

1A.19.1.2(2)(a) Nutrition and Food Service will provide up to seventy (70) daily “trayed” meals to Inpatients, including breakfast, lunch, and supper.

1A.19.1.2(2)(b) CBORD compliant food service information technology will assist in providing computerized dietary management to support the operation of food services and will be fully integrated with the Building’s information system. A Workstation must be located adjacent to cooking and Patient meal assembly for convenience.

1A.19.1.2(2)(c) Computerized shared Workstations will be used in the Inpatient units for use by the clinical dietitians and diet technicians.

1A.19.1.2(2)(d) All food and beverage products are procured through a single vendor, the prime vendor, with dairy and bread procured / delivered separately from alternate

suppliers. Procurement will vary from time to time so provisions must be adaptable for all / any supplier.

1A.19.1.2(2)(e) Food will be prepared using conventional cook-serve procedures using conventional equipment that must be able to be readily serviced and locally.

1A.19.1.2(2)(f) Not used.

1A.19.1.3 Internal Areas and Relationships

1A.19.1.3(1) Internal kitchen receiving and breakdown area should be as close to the shipping / receiving area as possible and should be contained to reduce airborne particulates from entering the actual preparation / processing areas.

1A.19.1.3(2) Storage rooms should be located as close to internal kitchen receiving and breakdown area as possible.

1A.19.1.3(3) Storage areas and rooms to be arranged so as to provide shortest routes and closest adjacencies to all production areas promoting a forward flow (from raw to finished processes) considering and eliminating potential cross-contamination resulting from poor design through undesired Staff traffic flow.

1A.19.1.3(4) Preparation / processing areas to be located as close to dry and tempered storage rooms as possible arranged to avoid cross-contamination of clean and soiled foods, equipment, or traffic.

1A.19.1.3(5) Segregated preparation areas to be arranged to enable various types of preparation to be completed within their designated areas.

1A.19.1.3(6) Cooking and re-thermalizing area to be located adjacent to preparation and tray assembly areas incorporating a partial stainless steel service wall, approximately 1400mm high, behind / between for distribution of electrical and mechanical services while optimizing open / clear visibility throughout the kitchen area.

1A.19.1.3(7) Immediately adjacent to cooking lines, stainless steel tables and ancillary equipment must be provided to enable panning, portioning, modifying, etc.

1A.19.1.3(8) Immediately adjacent to the production area, a patient meal tray assembly area, accommodating mobile equipment arranged in a cell along with beverage counter and equipment for complete patient meal assembly. Ample circulation space for meal delivery carts will be required. This area must be located directly off of the service corridor and as close to service elevators as possible.

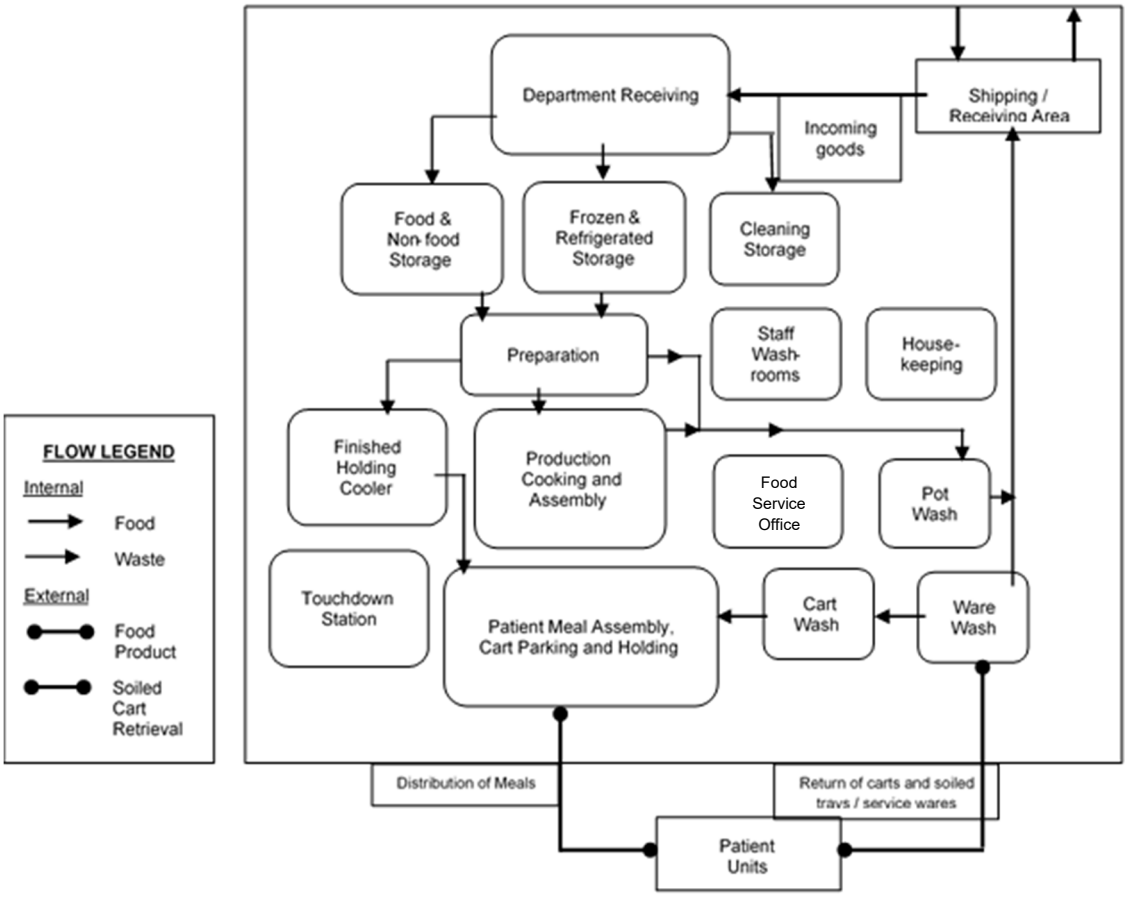
1A.19.1.3(9) In a segregated area within the kitchen, directly off of the service corridor, a warewash area to facilitate Patient carts holding and stripping. Warewash tabling (both soiled and clean) in conjunction with a conveyor dishwasher will be required to strip, wash, and sanitize all Patient wares. A separate pot and utensil wash area may be co-located within if easily accessible and in close proximity to preparation and production areas; if not, pot and utensil washing is to be located in a separate area adjacent to cooking and production.

1A.19.1.3(10) An open front cart cleaning kiosk to be provided, within the warewash area, for Patient meal tray and kitchen utility cart washing / sanitizing.

1A.19.1.3(11) Generous provisions towards providing kitchen Staff with readily available hands-free hand hygiene sinks must be provided in all areas including points of entry-exit, preparation, cooking-serving, tray assembly and warewashing.

1A.19.1.3(12) Aisles within the kitchen area to be sufficient to accommodate 700mm wide cart traffic throughout with minimum spacing of 1700mm between prep counters and food storage (dry and tempered) rooms, 1600mm between preparation counters and/or cooking, 1500mm between cooking and assembly counters and 2200mm between warewashing and walls or pot washing.

NUTRITION AND FOOD SERVICE DEPARTMENT



1A.19.2 STAFFING

1A.19.2.1 Nutrition and Food Services staffing will provide shift-and-a-half coverage and provide service three meals per day, seven days per week. Estimated future staffing for this component is summarized below.

Food Service: Projected Staffing	
Position	**Projected FTE**
	2025/26
Manager, Support Services - NE	.25
Food Service Worker 2	2.80
Cook 1	1.80
Cook 2	1.00
Total Food Service Staffing	**5.85**

1A.19.3 KITCHEN – AREA BREAKDOWN

1A.19.3.1 Receiving and Breakdown Area

1A.19.3.1(1) Raw product deliveries to the Facility generally occur weekly from the prime vendor and twice a week from bread and dairy suppliers.

1A.19.3.1(2) All incoming nutrition services deliveries will share the shipping / receiving area in Supply Chain Management. Service corridors and finishes, as well as doorways between hospital and department receiving, must be able to accommodate pallet traffic.

1A.19.3.1(3) Palletized food and associated product will be delivered to the kitchen from the shipping / receiving area and left in a contained food service department receiving area for food services Staff de-casing.

1A.19.3.1(4) Kitchen Staff will record product temperatures and delivery dates of received food prior to sorting and stocking in the coolers, freezers, and storage rooms.

1A.19.4 HOUSEKEEPING ROOM

1A.19.4.1 A housekeeping room is to be provided and equipped with a floor mount janitor sink, miscellaneous portable housekeeping equipment as well as housekeeping tools including brooms, mops, etc.

1A.19.4.2 Equipment required.

1A.19.4.2(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.5 CHEMICAL AND CLEANING SUPPLY STORAGE

1A.19.5.1 A separate, secured, and exclusive use room for chemicals and cleaning supplies used for both cleaning and sanitizing of foodservice equipment and small wares; to be provided adjacent to warewashing and department receiving.

1A.19.5.2 Warewash and pot wash chemicals are delivered in 20 litre pails – require space for storage of five (5) pails at all times.

1A.19.6 STAFF WASHROOMS

1A.19.6.1 Two (2) unisex washrooms should be located within the kitchen, however not directly off food production, preparation, or assembly areas.

1A.19.6.2 A small area near Staff entry to be provided complete with hand hygiene sink, small counter with cubby holes for Staff personal items, hair nets and sign-in sheet, must be provided.

1A.19.7 DRY STORAGE, FOOD AND FOOD RELATED

1A.19.7.1 A vented environment is required for storage of

1A.19.7.1(1) Food and ingredients such as canned food and fruit, cookies, jams, dry mix ingredients (flour, sugar, etc.), rice, cereals, and nutritional supplements.

1A.19.7.1(2) Disposables including liners, foils, and plastic wrap.

1A.19.7.1(3) Miscellaneous kitchen utensils, appliances as well as dining room “smallwares”.

1A.19.7.2 Equipment Required

1A.19.7.2(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.8 DRY STORAGE: NON-FOOD RELATED

1A.19.8.1 A vented environment is required for storage of

1A.19.8.1(1) Disposables including paper and plastic products,

1A.19.8.1(2) Miscellaneous kitchen utensils and appliances as well as Patient tray make-up components.

1A.19.8.2 Equipment Required

1A.19.8.2(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.9 FOODSERVICES OFFICE

1A.19.9.1 To be equipped with office desk, phone, file cabinet and computer for day-to-day operations, sized primarily for single person occupancy, however, periodically must accommodate two (2) persons.

1A.19.9.2 Office to be situated and constructed (incorporating windows) with direct sightlines to preparation, production, and assembly areas of kitchen.

1A.19.9.3 A touchdown Workstation, adjacent to the cooking area, with minimum 1000mm space for counter and computer to be provided.

1A.19.10 REFRIGERATED STORAGE ROOMS

1A.19.10.1 Walk-in freezers to be provided complete with insulated floors recessed into the floor slab; finished freezer floor and kitchen floor to be at same elevations.

1A.19.10.2 Walk-in coolers to be provided complete with insulated floors recessed into the floor slab; finished cooler floor and kitchen floor to be at same elevations.

1A.19.10.3 All refrigerated rooms to have insulated modular locking walls, ceilings and floors fabricated to a minimum of 100mm thicknesses, incorporating internally coved corners to all ceiling, wall, and floor panels, along with gasketed joints.

1A.19.10.4 Not used.

1A.19.10.5 Interior shelving to incorporate sectional mat type shelving on rust resistant shelf frames. Each unit to be independent of each other and to include casters.

1A.19.10.6 16 ga. stainless steel wall cladding to be supplied for all exposed exterior walls to a height of 1220 mm from floor and 610mm high around complete interior perimeter of all walk-in coolers and freezers.

1A.19.11 MEAT PREPARATION

1A.19.11.1 Meat preparation will consist of a stainless steel open base table with integral sinks, 150mm high splayed, coved back and end splashes, stainless steel drawer with removable liner and double undershelves.

1A.19.11.2 Equipment required.

1A.19.11.2(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.12 VEGETABLE PREPARATION

1A.19.12.1 Vegetable preparation will consist of a stainless steel open base table with integral sinks, 150mm high splayed, coved back and end splashes, stainless steel drawer with removable liner and double undershelves.

1A.19.12.2 Equipment required.

1A.19.12.2(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.13 BAKE AND DESSERT PREPARATION

1A.19.13.1 Bake preparation to consist of stainless steel top table with integral 150mm high splayed, coved back and end splashes, stainless steel cabinet enclosing three drawers, each with removable liners and open area for mobile ingredient bin storage below.

1A.19.13.2 Equipment required.

1A.19.13.2(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.14 COOKING BATTERY (HOT PRODUCTION)

1A.19.14.1 All equipment will be either gas or electric; any equipment requiring steam must be self-generated with internal boiler and supplied complete with manufactured approved in-line water filters.

1A.19.14.2 All equipment with exception of combi ovens and steamer to be supplied with casters – front locking.

1A.19.14.3 All equipment to be supplied with approved flexible gas connectors, restraints and quick disconnects as appropriate.

1A.19.14.4 Exhaust ventilation with integral fire suppression system to cover all cooking equipment in accordance with NFPA and Building Codes.

1A.19.14.5 Exhaust ventilation system to incorporate variable exhaust extraction, from 50-100% capacity, based on cooking volume determined from heat, smoke and moisture emissions of the cooking equipment covered.

1A.19.14.6 Exhaust hoods to be sized to provide a minimum of 200mm overhangs on rear and both ends with a minimum 500mm overhang on fronts.

1A.19.14.7 Exhaust hoods to be supplied with LED lighting and enclosure panels, to seal areas above and around to Building ceiling, walls, and columns.

1A.19.14.8 A cooking arrangement with a stainless steel distribution wall with all services to be concealed within this wall, including feeds from above via stainless steel service chases, will be provided.

1A.19.14.9 Equipment required.

1A.19.14.9(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.15 COOKS HOT AND COLD MEAL ASSEMBLY

1A.19.15.1 Stainless steel tables with integral 150mm high splayed, coved back and end splashes to be located adjacent to cooking equipment, fabricated with double undershelves and stainless steel drawers with removable liners.

1A.19.15.2 Mobile pot and pan storage shelving will complement the cooks' work area, as necessary.

1A.19.15.3 **Equipment required.**

1A.19.15.3(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.16 PATIENT MEAL TRAY ASSEMBLY, CART LOADING AND PARKING

1A.19.16.1 Stainless steel counters with integral sinks will be required for tray assembly assistance equipment.

1A.19.16.2 Docking stations, three (3), to be conveniently located in assembly area.

1A.19.16.3 **Equipment Required**

1A.19.16.3(1) Refer to Appendix 1H(II) Foodservice Equipment Schedule.

1A.19.17 WAREWASHING

1A.19.17.1 Designated areas within the kitchen will be provided for pot/utensil and dishwashing functions.

1A.19.17.2 Pot wash provisions will be accommodated with a stainless steel soiled table, with integral scrap station, waste disposer and three compartment sink – one 760mm wide and two 610mm wide; all 300mm deep; between soiled and clean tabling, install door type pot & utensil washer. Adjacent to washer, provide mobile stainless steel clean table with front locking casters.

1A.19.17.3 Stainless soiled wares dish tabling, for scrapping and sorting, to be provided with integral scrap station and waste disposer, to be interconnected to a "conveyor" dishwasher with integral pre-wash and blower dryer. Sanitizing will be provided with an integral hot water booster heater. A stainless steel clean dishtable, connected to opposite end of dishwasher to be provided.

1A.19.17.4 Both soiled and clean dishtables to include stainless steel undershelves to accommodate dishrack storage below.

1A.19.17.5 Provide space and infrastructure, at the soiled end of warewash, for organic waste digester, capable of processing an average of 7kg of food waste per hour, to be collected from both production and warewash areas for biologically processing into grey wastewater.

1A.19.17.6 The dishwasher must incorporate "heat recovery" design to reduce hot water consumption.

1A.19.17.7 Mechanical grease interceptor to be sized and supplied by mechanical division; all food service equipment wastewater with potential of containing grease and / or oil, along with floor drains

and floor drain pans must be capture and contained outside of processing areas but easily accessible for cleaning.

1A.19.18 CART CLEANING & SANITIZING

1A.19.18.1 Provide an area, enclosed on three sides and open on the front with a recessed stainless-steel floor drain pan integral with the floor slab for capturing soiled wash water.

1A.19.18.2 Floor drain pan to have removable fibre grating and sloped drain.

1A.19.18.3 Ceilings and walls to have smooth, easily cleanable, robust, moisture resistant protection.

1A.19.19 SCHEDULE OF ACCOMMODATION

1A.19.19.1 Schedule of Accommodation (Detailed Space List)

23.0 Food Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
23.1.0	**Food Services Areas**					
23.1.01	Kitchen Receiving and Breakdown Area	1	20.0	20.0	- Set down space for four (4) pallets	- Near Building receiving & internal storage spaces
23.1.02	Housekeeping Room / Chemical/Cleaning Supply Storage	1	14.0	14.0	- Space for janitor's floor sink, mop bucket, touchless hand hygiene sink with a backer board; eye wash station	- Near production and warewash area
23.1.03	Not Used					
23.1.04	Staff Washroom	1	7.0	7.0	- Accessible 2-piece washroom (toilet, sink)	- Away from food preparation
23.1.05	Staff Washroom	1	7.0	7.0	- Accessible 2-piece washroom (toilet, sink)	- Away from food preparation
Food Services: Food Services Areas				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				48.0	**1.35**	**64.8**
23.2.0	**Dry Storage**					
23.2.01	Consumables (Food and Food Related)	1	25.0	25.0	- 4-tier mobile anti-microbial shelving and gravity fed can storage	- Near Building receiving and preparation area
23.2.02	Non-Food; Paper and Appliances (including small wares)	1	12.0	12.0	- 4-tier mobile anti-microbial shelving	- Near production and tray assembly areas
Food Services: Dry Storage				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				37.0	**1.35**	**50.0**
23.3.0	**Administration**					
23.3.01	Food Service Office	1	10.0	10.0	- Office desk, file cabinet, computer, phone, data	- Visibility to complete production and tray assembly areas
23.3.02	Touchdown Station in Kitchen	1	2.0	2.0	- Desktop, computer, phone, data; Cbord printer	- Near production and tray assembly areas

23.0 Food Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Food Services: Administration				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				12.0	**1.35**	**16.2**
23.4.0	**Refrigerated Storage Rooms**					
23.4.01	Walk-in Freezer - Raw Product Storage	1	12.0	12.0	- Prefabricated 100mm thk mod. panel construction with recessed ins. floor	- Near Building receiving and walk-in cooler
23.4.02	Walk-in Freezer - Finished / Prepared Product Storage	1	12.0	12.0	- Pre-fabrication 100mm thk mod. panel construction with recessed ins. floor	- Near receiving and production
23.4.03	Walk-in Cooler - Raw Product Storage	1	12.0	12.0	- Prefabricated 100mm thk mod. panel construction with recessed ins. floor	- Near receiving and production
23.4.04	Walk-In Cooler Finished / Prepared Product Storage	1	12.0	12.0	- Prefabricated 100mm thk mod. panel construction with recessed ins. floor	- Near receiving and production
Food Services: Refrigerated Storage Rooms				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				48.0	**1.35**	**64.8**
23.5.0	**Preparation Area**					
23.5.01	Meat Preparation Area	1	6.0	6.0	- stainless steel table with integral 2 comp't sink	- Near walk-in cooler and cooking area
23.5.02	Vegetable Preparation Area	1	9.0	9.0	- stainless steel table with integral 2 comp't sink	- Near walk-in cooler and cooking area
23.5.03	Bake and Dessert Preparation Area	1	8.0	8.0	- stainless steel table with mobile bins	- Near walk-in cooler and cooking area
Food Services: Refrigerated Storage Rooms				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				23.0	**1.35**	**31.1**
23.6.0	**Production Area**					
23.6.01	Cooking Line	1	28.0	28.0	- Variable exhaust hoods with fire systems above	- Centrally located within the kitchen
23.6.02	Hot Cabinet	1	4.0	4.0	- Mobile 2100mm H 2 door cabinet	- Adjacent to cooking and tray assembly
23.6.03	Hot Assembly Counter w/ Sink	1	12.0	12.0	- Min 1500mm L stainless steel counter with sink	- Adjacent to cooking and tray assembly
23.6.04	Cold Assembly and Texture Modifying Counter	1	12.0	12.0	- Min 1800mm L stainless steel counter with cooler below	Adjacent to cooking and tray assembly
Food Services: Production Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				56.0	**1.35**	**75.6**
23.7.0	**Patient Meal Cart Loading & Parking**					
23.7.01	Patient Meal Cart Loading & Parking	1	53.0	53.0	- To accommodate B-Lean system c/w mobile counters, warmers, and carts	- Adjacent to hot and cold assembly and service corridor
-	Beverage Production and Portioning	included above			- Min 1500mm L stainless steel counter with sink, coffee brewer and HW disp.	as above

23.0 Food Services: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
-	Ice and Water Dispenser	included above			- Hands free	as above
-	Roll-In Cooler	included above			- To accommodate mobile tray racks	as above
-	Mobile Accessory Equipment	included above			- Cup and glass dispensers, rotary toaster and rotary toaster on cart, tray, and cover carts	as above
-	Patient Meal Delivery Carts	included above			- 4 or 5, room layout to dictate	as above
	Refrigerated sliding table	included above			- Burlodge	
	Docking Stations (3)	Included above			- Burlodge	
Food Services: Patient Meal Cart Loading & Parking				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				53.0	**1.35**	**71.6**
23.8.0	**Warewashing**					
23.8.06	Warewashing	1	33.0	33.0	- Above normal heat and humidity conditions to be mechanically conditioned	- Adjacent to hot and cold assembly and service corridor
	Soiled Patient Meal Return Cart Holding	included above			- Burlodge Z-racks; to be used to return soiled dishes to kitchen	as above
	Pot Washing	included above			- With condensate ventilation	as above
	Soiled Wares Scrapping and Sorting	included above			- Stainless steel tables with integral scrap stations, waste disposers and undershelf	as above
	Conveyor Dishwasher with Rinse Water Booster	included above			- With heat recovery and condensate ventilation	as above
	Clean Wares Sorting and Drying	included above			- Stainless steel table with undershelf	as above
Food Services: Warewashing				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				33.0	**1.35**	**44.6**
23.9.0	**Cart Cleaning & Sanitizing**					
23.9.01	Cart Cleaning & Sanitizing Area with Wall Mount Hose and Spray Wash	1	10.0	10.0	- Moisture (high) proof wall and ceiling construction with Stainless steel floor drain pan recessed flush to top of slab	
Food Services: Cart Cleaning & Sanitizing				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				10.0	**1.35**	**13.5**
Total Food Services Area				**320.0**		**432.0**

1A.20 LAUNDRY SERVICES

The following information and requirements form the basis from which two types of Laundry services are to be accommodated – institutional receiving, holding and distribution for the region as well as personal laundry processing, both to be fully facilitated within the new Dawson Creek and District Hospital.

1A.20.1 FUNCTIONAL DESCRIPTION

1A.20.1.1 Project Parameters

1A.20.1.1(1) **Institutional Laundry Holding & Distribution**

1A.20.1.1(1)(a) The Building will be designed to receive, hold, and distribute institutional laundry, both soiled and clean, from the Building as well as Rotary Manor, Tumbler Ridge and Chetwynd Care Centres in the Dawson Creek region.

1A.20.1.1(2) **Personal Laundry Processing**

1A.20.1.1(2)(a) The laundry area will be designed and equipped to receive, process and ship clean personal laundry to and from the Authority's 115 resident Rotary Manor.

1A.20.1.1(2)(b) Processing includes receiving, holding, sorting, weighing, washing, drying, folding, tagging, and shipping.

1A.20.1.2 General Requirements

1A.20.1.2(1) **Operational Philosophy**

1A.20.1.2(1)(a) Hours of operation are 0600 to 1400, 5 days per week, however Staffing levels will fluctuate and vary based on demands.

1A.20.1.2(1)(b) In the event that the regional laundering processes provided in Fort St. John is interrupted by inclement weather, mechanical failures or unforeseen circumstances dictate, the Building will provide support services.

1A.20.1.2(2) **Planning Guidelines**

1A.20.1.2(2)(a) Designated Authority Staff will collect, bag and transport, in soiled transport carts, institutional laundry from Inpatient rooms as well as linens from various departments throughout the Building, to soiled institutional holding for shipping to Fort St. John.

1A.20.1.2(2)(b) Incoming personal laundry will be received at the loading dock, transported (in soiled transport carts) to laundry processing then shipped from the loading dock back to the Rotary Manor.

1A.20.1.2(2)(c) Incoming clean institutional laundry (from Fort St. John) will be received at the loading dock, transported (in clean transport carts) to institutional clean holding, to be separated and distributed within the Building as well as sent out to the other regional care centres.

1A.20.2 INTERNAL AREAS AND RELATIONSHIPS

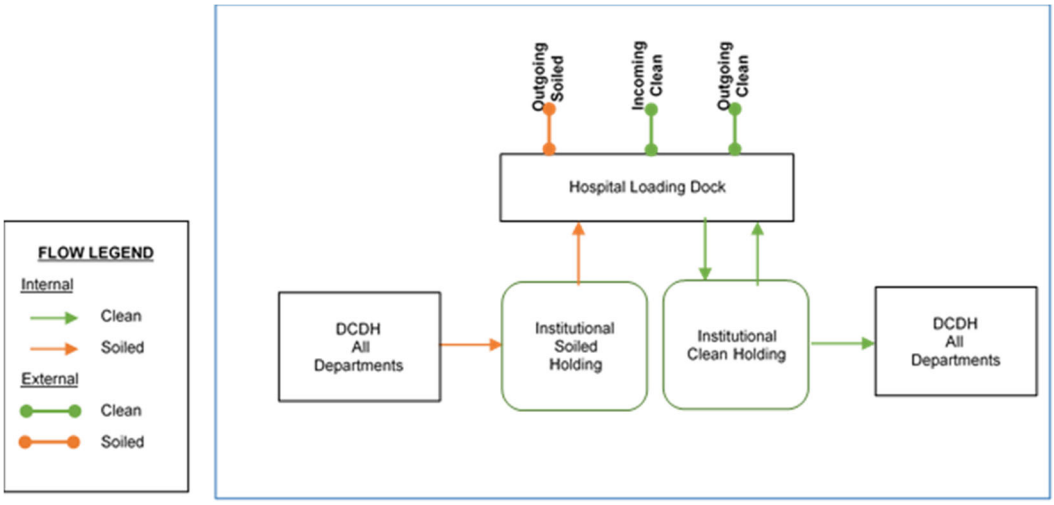
1A.20.2.1 Institutional Holding and Distribution

1A.20.2.1(1) Institutional soiled holding area must be located as close to the shipping / receiving area (for incoming laundry from other facilities) as well as elevators for institutional hospital laundry as possible.

1A.20.2.1(2) Soiled laundry holding room must be provided with robust and easily cleanable surfaces capable of withstanding rigorous heavy cart traffic and will adhere to CSA Z317.2 requirements.

1A.20.2.1(3) A clean laundry holding room must also be provided with robust finishes capable of withstanding rigorous heavy cart traffic.

INSTITUTIONAL LAUNDRY HOLDING AND DISTRIBUTION



1A.20.2.2 Internal Areas and Relationships; Personal Laundry Processing

1A.20.2.2(1) A defined personal soiled laundry room that adheres to CSA 317.2 requirements must be provided to receive, hold, and sort soiled laundry.

1A.20.2.2(2) Personal soiled laundry will be sorted and weighed prior to washing.

1A.20.2.2(3) A semi-contained area, adjacent to both soiled & clean process areas, complete with recessed floor drain pan with drainage and hose bib to be provided to accommodate manual washing and sanitizing of linen transport carts.

1A.20.2.2(4) Commercial washers to be installed on a concrete housekeeping pad approximately 350mm high; at the rear of the washers an all-welded stainless-steel pan “trench”, formed and set into the concrete, sufficiently sized to collect wastewater generated from two (2) of the largest washers draining simultaneously.

1A.20 LAUNDRY SERVICES

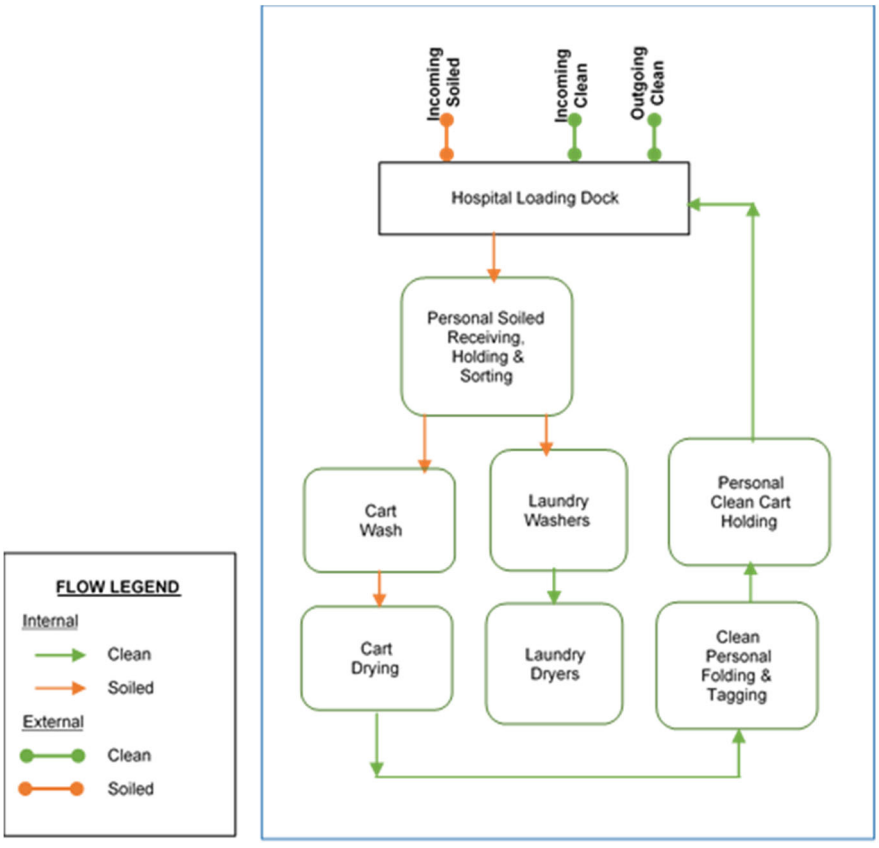
1A.20.2.2(5) A separate chemical room, with double doors, adjacent to wash machines, for holding and dispensing cleaning chemicals. Chemicals will be automatically dispensed into the washers from containers located inside; actual “dispensing” will be supplied and installed by the product supplier.

1A.20.2.2(6) Commercial dryers must be housed in an enclosed room, with only the machine fronts fully visible to contain heat and noise – a man door for servicing must also be provided; commercial front-loading gas dryers to be provided and vented to the exterior. A wall mounted central vacuum complete with sufficient hose to reach all dryers to be provided within dryer room.

1A.20.2.2(7) Adjacent to dryers, an area for manual folding complete with tables to be provided.

1A.20.2.2(8) Personal laundry will be separated, tagged, and organized and/or hung on shelves of mobile storage units for distribution / transporting back to Rotary Manor.

PERSONAL LAUNDRY PROCESSING



1A.20.3 STAFFING

1A.20.3.1 Estimated future staffing for this component is summarized below.

Laundry: Projected Staffing	
Position	**Projected FTE**
	2040/41
Laundry Worker 2	0.80
Laundry Worker 3	1.00
Total Laundry Staffing	**1.80**

1A.20.4 SCHEDULE OF ACCOMMODATION

1A.20.4.1 Schedule of Accommodation (Detailed Space List)

24.0 Laundry: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
24.1.01	Institutional Soiled Holding	1	20.0	20.0	Holding area for mobile carts waiting to be transported to Ft. St. John	Near Building shipping & receiving
24.1.02	Personal Soiled Laundry Receiving, Holding and Sorting	1	42.0	42.0	Space for convertible linen carts, manual wash station, and hand hygiene sink. Recessed 1220mm x 1220mm x 100mm D weigh scale	Directly off service corridor via soiled entry
24.1.03	Cart Washing & Sanitizing	1	8.0	8.0	Moisture (high moisture proof wall and ceiling construction with SS floor drain pan recessed flush to top of slab	Adjacent to soiled entry - holding and clean exit - cart drying
24.1.04	Washers	1	25.0	25.0	Space for 4 washers; 1-110lb; 2-75lb; 1-45lb with rear drain pan and service access	Adjacent to soiled sorting area and dryers
24.1.05	Chemical Holding and Dispensing	1	16.0	16.0	Enclosed storage room for detergents, rinse aids, etc.	In soiled processing area and adjacent to washers Emergency Eye Wash / Shower to be located within room
24.1.05.2	Emergency Eye Wash / Shower	1	1.0	1.0	Provide water temperature, pressure, and floor drain	Located within Chemical Holding and Dispensing
24.1.06	Dryers	1	25.0	25.0	Enclosed space with front open for 4 dryers; 3-120lb and 1-50lb with approximately 1600mm accessible back area for venting	Adjacent to washers and folding area
24.1.07	Clean Folding	1	25.0	25.0	To accommodate 2 folding tables, labelling worktable, Zebra labeller, desk, computer, phone, mobile shelf carts, and clean storage shelving	Adjacent to dryers and clean exit

24.0 Laundry: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
24.1.08	Personal Clean Linen Cart Storage	1	22.0	22.0	Space for holding tagged clean resident ware transport carts	Adjacent to folding and clean exit
24.1.09	Cart Drying and Holding (clean)	1	13.0	13.0	To accommodate transport carts	Adjacent to cart washing & clean exit, and institutional clean linen storage
24.1.10	Institutional Clean Linen Cart Storage	1	60.0	60.0	Holding area for mobile clean linen carts delivered from Fort St. John plus folding table and admin Workstation, computer & labeller	Near Building shipping/receiving and adjacent to clean laundry processing
Laundry Services Area Requirements				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				257.0	**1.35**	**347.0**

1A.21 FACILITY MAINTENANCE

This specification outlines the functional, operational, and physical requirements for the Facility Maintenance (FM) component.

1A.21.1 FUNCTIONAL DESCRIPTION

1A.21.1.1 Statement of Purpose

1A.21.1.1(1) FM provides maintenance services for the Facility, including the Building and plant systems. This includes:

1A.21.1.1(1)(a) Preventive maintenance intended to actively reduce the risk of on-demand maintenance.

1A.21.1.1(1)(b) Corrective (or on-demand) maintenance, which is unplanned activities to correct, repair, replace, or refurbish the Facility.

1A.21.1.1(1)(c) Predictive maintenance, which uses specialized tests (vibration, thermography, etc.) to predict the need for maintenance of certain equipment within the Facility.

1A.21.1.1(2) FM will support the Facility providing services to the residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.21.1.2 Scope of Services

1A.21.1.2(1) **Functional Content**

1A.21.1.2(1)(a) The management of the physical plant encompasses a broad range of systems and components, many of which are covered by CSA standards and by regulatory requirements.

1A.21.1.2(1)(b) A preventive maintenance management system will be employed to carry out the tasks required to maintain the equipment in good operating order within the various systems.

1A.21.1.2(1)(c) These include building envelope components, architectural finishes, grounds, electrical distribution and infrastructure, medical gases (per Appendix 1M), air, fluid transfer distribution and storage systems, HVAC systems, boiler, hot water, steam, sterilization systems and distribution, life safety systems such as fire alarm, nurse call, code blue, auxiliary communication systems, security systems, plumbing, elevators, refrigeration, and other related systems (e.g. reverse osmosis system, pest control, security surveillance systems, WanderGuard, etc.).

1A.21.1.2(1)(d) Other general services include the management and maintenance of

1A.21.1.2(1)(d)(i) Site property, grounds, irrigation, drainage, fencing, signage, lighting, parking, auxiliary buildings, utility service corridors systems, and public areas management and maintenance.

1A.21.1.2(1)(d)(ii) Facilities exterior, building envelope, foundations, roof systems, and utility services Building connections from demarcations.

1A.21.1.2(1)(d)(iii) Facility interior walls, architectural finishes, floors, ceilings, and structural components.

1A.21.1.2(1)(d)(iv) Building operational services systems, Building operating components, and physical plant.

1A.21.1.2(1)(d)(v) Maintenance (e.g. doors, hardware, key control, elevators, signage, loading docks, kitchen services, elevators, sterilization, rolling stock, beds, recycling program, etc.).

1A.21.1.2(1)(d)(vi) Maintenance of Patient beds.

1A.21.1.2(1)(d)(vii) Primary electrical transformation and distribution systems and secondary electrical distribution systems.

1A.21.1.2(1)(d)(viii) Emergency power generation, distribution, and uninterrupted power supply systems.

1A.21.1.2(1)(d)(ix) Lighting systems and controls.

1A.21.1.2(1)(d)(x) Nurse call, code call, intercoms, and other audio communication systems.

1A.21.1.2(1)(d)(xi) Life safety alarming, monitoring, and protection systems.

1A.21.1.2(1)(d)(xii) HVAC generation, distribution, and systems.

1A.21.1.2(1)(d)(xiii) Quality air and ventilation systems distribution, control, and maintenance (i.e. HEPA, AIRs, computer rooms, and other specially ventilated areas).

1A.21.1.2(1)(d)(xiv) Plumbing and water treatment systems (e.g. demineralization, ultraviolet, filtration systems).

1A.21.1.2(1)(d)(xv) Fire suppression sprinkler standpipe and fire hydrant systems.

1A.21.1.2(1)(d)(xvi) Medical gases distribution, bulk storage, and generation systems.

1A.21.1.2(1)(d)(xvii) Special and wastewater collection system.

1A.21.1.2(1)(d)(xviii) Steam and heating systems distribution and maintenance.

1A.21.1.2(1)(d)(xix) Hazardous waste storage and flammable storage.

1A.21.1.2(1)(d)(xix)A Fire prevention and safety.

1A.21.1.2(1)(d)(xix)B Supervision/coordination of work requiring specialized training/outsourced services, such as elevators and medical gases.

1A.21.1.2(2) **Planning Assumptions**

1A.21.1.2(2)(a) Inventory Management

1A.21.1.2(2)(a)(i) Consolidate storage and create linear processes for inventory stocking; minimize double backing by Staff/vendors restocking and pulling inventory for work.

1A.21.1.2(2)(b) Technology

1A.21.1.2(2)(b)(i) Enhance the electronic work order entry and tracking system.

1A.21.1.2(2)(b)(ii) Adopt of computer-based inventory management system.

1A.21.1.2(2)(b)(iii) Utilize wireless communication tools for keeping team members connected, informed, and safe.

1A.21.1.2(2)(b)(iv) Incorporate modular storage systems that can inventory a variety of parts, large items, small consumables, and provide secure storage for high-cost items.

1A.21.1.2(3) **Excluded**

1A.21.1.2(3)(a) FM will not provide services on information technology systems and biomedical equipment.

1A.21.2 OPERATIONAL DESCRIPTION

1A.21.2.1 Hours of Operation

1A.21.2.1(1) FM services will be available on-site Monday to Friday, 0700-1600. Services will be on-call after hours and on holidays and weekends.

1A.21.2.2 Organization & Management

1A.21.2.2(1) The FM area will be managed by the FM supervisor.

1A.21.2.3 Workflow

1A.21.2.3(1) **Service Requests**

1A.21.2.3(1)(a) Unplanned Service Requests

1A.21.2.3(1)(a)(i) Staff will generate service requests for equipment requiring unplanned maintenance.

1A.21.2.3(1)(a)(i)A The requests are electronically submitted using a heat ticket system.

1A.21.2.3(1)(a)(i)B Requests for service will be assessed and confirmed through FM personnel to establish timelines, methods, equipment, and materials that may be required.

1A.21.2.3(1)(a)(ii) FM Staff will go the area where the equipment is located and perform an analysis. Depending on the service required, some servicing will occur in the department and in some cases the piece of equipment will be brought to the FM workspace for servicing.

1A.21.2.3(1)(a)(iii) Equipment will be cleaned by housekeeping Staff prior to redistributing the equipment in the Facility.

1A.21.2.3(1)(b) Planned Service Requests

1A.21.2.3(1)(b)(i) FM Staff will adhere to planned preventative maintenance schedules for equipment throughout the Facility.

1A.21.2.3(1)(c) FM Staff will be responsible for ordering replacement parts for equipment and coordinate with supply chain.

1A.21.2.3(1)(d) In cases where equipment will be sent off-site for repair, FM Staff will coordinate the shipping and return of the equipment with the service provide. In some cases, the vendor will arrive to the Facility and collect the equipment. In some cases, FM Staff to transport a piece of equipment to a local repair Facility.

1A.21.2.4 Support Activities

1A.21.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.21.3 STAFFING

1A.21.3.1 Estimated future Staffing for the FM component is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Facilities Maintenance: Projected Staffing	
Position	**Projected FTE**
	2040/41
Maintenance Supervisor IV	1.0
Maintenance Worker V	2.0
Power Engineer IV	3.0
Electrician	1.0
Total Facilities Maintenance Staffing	**7.0**

1A.21.4 DESIGN CRITERIA

1A.21.4.1 External Relationships

1A.21.4.1(1) FM will have access to the loading dock via controlled Facility circulation for the movement of supplies, movement of beds to off-site repair, send out for vendor warranty work, and disposition of waste including construction materials.

1A.21.4.1(2) Contractors will be granted access to some or all of the Facility on a case-by-case basis. These contractors will access the Facility as an employee.

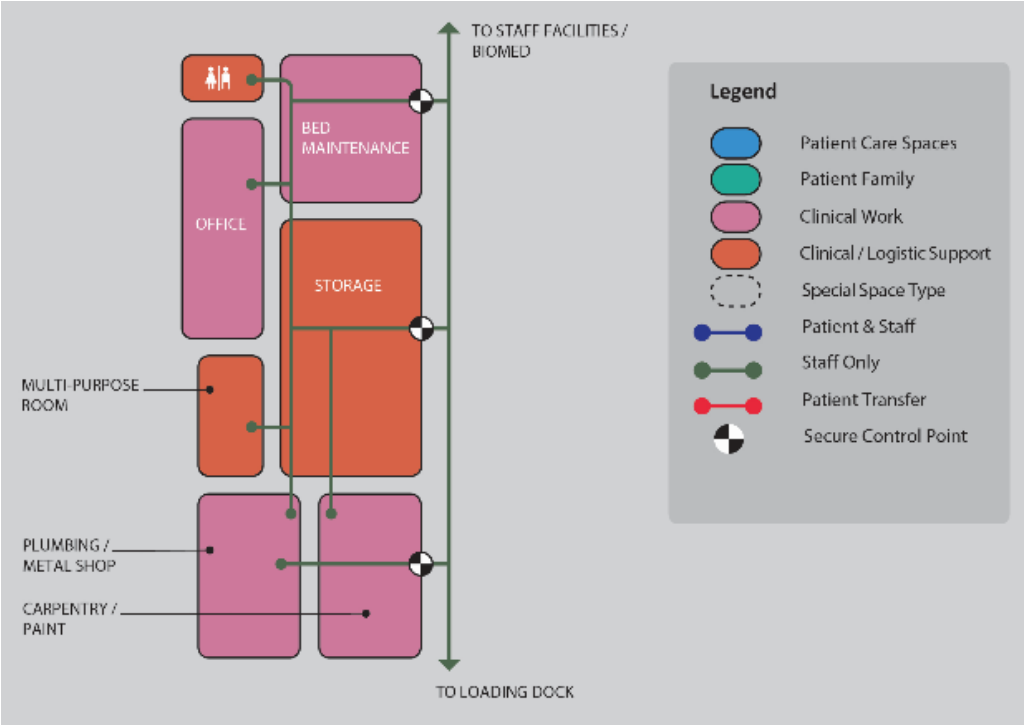
1A.21.4.1(2)(a) A security monitored access process will be enabled to facilitate the vetting and access requirements of contractors.

1A.21.4.1(3) Some vendors will arrive at the loading dock and will locate the FM department on their own through controlled Facility circulation. Clear wayfinding is required.

1A.21.4.1(4) Co-locate FM and Biomedical Engineering departments. However, these departments will be designed as separate and secure departments.

1A.21.4.2 Functional Relationship Diagram

1A.21.4.2(1) Functional relationships between key areas will be generally as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.21.4.3 Internal Design Criteria

1A.21.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.21.4.3(2) **Workshops**

1A.21.4.3(2)(a) Two (2) workshops are required: Carpentry / Paint Shop / General Maintenance Shop and a Plumbing / Mechanical / Millwright / Metal Shop.

1A.21.4.3(2)(b) The workshops will be located next to each other with access between the workshops. Both shops will be provided with access from the corridor.

1A.21.4.3(2)(c) The central parts storage and maintenance storage areas will be centrally located and adjacent to the workshops.

1A.21.4.3(2)(d) Carpentry / Paint Shop / General Maintenance Shop

1A.21.4.3(2)(d)(i) Provide dimensions that allow for a full-sized piece of plywood to be cut in the workshop space.

1A.21.4.3(2)(d)(ii) Provide HVAC systems that meets shop requirements.

1A.21.4.3(2)(d)(iii) Provide overhead modular power and pneumatic air.

1A.21.4.3(2)(d)(iv) Provide an overhead lift that accommodates 0.907 tonne (1 ton).

1A.21.4.3(2)(d)(v) Provide an articulated hose for dust collection as part of the dust collection systems.

1A.21.4.3(2)(d)(vi) Provide flammable storage units that are vented to the outside.

1A.21.4.3(2)(d)(vii) Provide electrical requirements and storage medium to store a table saw, mitre saw, cut off saw, sheet storage, and all other items that will be located in the shop.

1A.21.4.3(2)(d)(vii)A FM Staff must be consulted on the storage medium, the number of electrical outlets, the location, and the supply voltage of electrical outlets prior to design.

1A.21.4.3(2)(d)(viii) Not used.

1A.21.4.3(2)(d)(ix) Provide workbench space.

1A.21.4.3(2)(d)(x) Not used.

1A.21.4.3(2)(d)(xi) Provide a utility sink.

1A.21.4.3(2)(d)(xii) Provide an eye wash station.

1A.21.4.3(2)(e) Plumbing / Mechanical / Millwright / Metal Shop

1A.21.4.3(2)(e)(i) Provide HVAC systems that meets shop requirements.

1A.21.4.3(2)(e)(ii) Provide overhead modular power and pneumatic air.

1A.21.4.3(2)(e)(iii) Provide an overhead lift that accommodates 0.907 tonne (1 ton).

1A.21.4.3(2)(e)(iv) Provide a medical gas testing area with electrical requirements, medical gases (per Appendix 1M), and shut offs.

1A.21.4.3(2)(e)(v) Provide an engineered hood for fume extraction over the workbench area.

1A.21.4.3(2)(e)(vi) Provide flammable storage units that are vented to the outside.

1A.21.4.3(2)(e)(vii) Provide electrical requirements and storage medium to store all other items that will be located in the shop.

1A.21.4.3(2)(e)(vii)A FM Staff must be consulted on the storage medium, the number of electrical outlets, the location, and the supply voltage of electrical outlets prior to design.

1A.21.4.3(2)(e)(viii) Provide workbench space.

1A.21.4.3(2)(e)(ix) Provide a small Workstation with the ability to view security and systems information.

1A.21.4.3(2)(e)(x) Provide a utility sink.

1A.21.4.3(2)(e)(xi) Provide an eye wash station.

1A.21.4.3(3) **Bed Maintenance Area**

1A.21.4.3(3)(a) Provide an adjacency to the bed maintenance storage area and to Biomedical Engineering.

1A.21.4.3(3)(b) Provide open floor for up to three (3) beds that are being worked on.

1A.21.4.3(3)(c) Provide electrical requirements to ensure tools and equipment can be charged as required.

1A.21.4.3(3)(d) Provide an overhead lift that accommodates 0.907 tonne (1 ton).

1A.21.4.3(3)(e) Provide wire rack shelving to accommodate in-use tools and supplies.

1A.21.4.3(3)(f) Provide a small Workstation with the ability to view security and systems information.

1A.21.4.3(3)(g) Provide a first aid station and eye wash station.

1A.21.4.3(3)(h) Bed Maintenance Storage

1A.21.4.3(3)(h)(i) Provide open floor space for items such as beds, stretchers, and geri-chairs that are in various states of repair.

1A.21.4.3(3)(h)(ii) Provide electrical requirements to charge items as required.

1A.21.4.3(4) **Central Parts Storage**

1A.21.4.3(4)(a) Provide wire rack shelving and storage systems that are flexible and modular.

1A.21.4.3(4)(b) Provide electrical requirements to ensure tools and equipment can be charged as required.

1A.21.4.3(4)(c) Provide data and electrical requirements to enable a future accommodation of inventory management technologies.

1A.21.4.3(4)(d) Accommodate this space to be adjacent to the workshops.

1A.21.4.3(5) **Maintenance Storage**

1A.21.4.3(5)(a) Provide a small Workstation to manage inventory and requests.

1A.21.4.3(5)(b) Accommodate storage of isolation equipment and carts.

1A.21.4.3(5)(c) Accommodate a mobile vestibule / anteroom.

1A.21.4.3(5)(d) Accommodate a mobile person lift.

1A.21.4.3(5)(e) Provide wire rack shelving for storage, wall mounted storage for ladders (and other items)

1A.21.4.3(5)(f) Provide electrical requirements to ensure tools and equipment can be charged as required, in their identified storage location.

1A.21.4.3(5)(g) Locate this space to be adjacent to public circulation.

1A.21.4.3(6) **Plan Room / Multi Purpose Space**

1A.21.4.3(6)(a) The plan room / multi purpose space is a multi use space that accommodates a movable table surrounded by six (6) lightweight and movable chairs.

1A.21.4.3(6)(a)(i) The table will be large enough to unfold / unroll large A0 sized drawings and to be able to lay them flat on the table so that they can be reviewed by Staff.

1A.21.4.3(6)(a)(ii) Provide a screen and multimedia connectivity so plans and drawings can be presented / shared electronically to the group.

1A.21.4.3(6)(a)(iii) Provide storage for paper drawing sets. Provide storage for rolled drawings.

1A.21.4.3(6)(a)(iv) Provide a small nutrition area that includes a small refrigerator, counter space, storage cabinet space for consumables, and microwave.

1A.21.4.3(7) **Exterior Maintenance and Mental Health Program Storage**

1A.21.4.3(7)(a) Provide a storage in a Secure structure near the loading dock but outside of the Building.

1A.21.4.3(7)(b) Provide Secure access and a combination of wire rack shelving and open floor space for camping supplies and general exterior maintenance equipment.

1A.21.5 SCHEDULE OF ACCOMMODATION

1A.21.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

25.0 Facilities Maintenance - Schedule of Accommodations (detailed space list)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
25.1.0	**Workshops**					
25.1.01	Carpentry / Paint Shop / General Maintenance	1	28.0	28.0	- Workstation; articulated hose for dust collection; movable table saw, mitre saw, cut off saw; sheet storage; one (1) flammable storage cabinet vented outside; utility sink; first aid station/eye wash; overhead 1000 kg fixed electric hoist; hoist position to be stationary in room	- Workshops will be located next to each other
25.1.02	Plumbing / Mechanical / Millwright / Metal Shop	1	28.0	28.0	- Separate medical gas testing area with outlets and shut off; Workstation; engineered hood for fume extraction over a workbench; one (1) flammable storage cabinet vented outside; hand hygiene sink; eye wash/emergency shower; utility sink; overhead 1000 kg fixed electric hoist; hoist position to be stationary in room	- Workshops will be located next to each other
25.1.03	Bed Maintenance Area	1	20.0	20.0	- Workstation; utility sink; first aid station/eye wash; overhead 1000 kg fixed electric hoist; hoist position to be stationary in room; accommodates 3 beds; provide shelving for tools and equipment	-
25.1.04	Bed Maintenance Storage	1	16.7	16.7	- Accommodate 10 beds, stretchers, geri-chairs in or waiting for service; two (2) hinged, fold-up millwork workbenches (1220mm wide x 610mm deep), supported on heavy-duty fold-out legs	-
25.1.05	Central Parts Storage	1	20.0	20.0	- High turnover critical parts; provide storage system for small parts and consumables	- Adjacent to workshops - May be subdivided into more smaller areas
25.1.06	Maintenance Storage	1	25.0	25.0	- Ladders, carts; Power tools (rechargeable); Workstation; storage of isolation equipment and mobile anteroom; carts; person lift	Adjacent to circulation
25.1.07	Not used					
25.1.08	Plan Room / Multipurpose Space	1	15.0	15.0	- Central table for paper drawing review for 4-6 people; computer, Workstations for drawing review; plotter; stick sets and flat file for paper drawing storage; nutrition station (counter, small refrigerator, sink)	-

25.0 Facilities Maintenance - Schedule of Accommodations (detailed space list)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
-	Facility Maintenance Closets	Small storage for ladders and other FM supplies on each floor of the Facility; identified in the Inpatient schedule of accommodation (ref #7.1.3.08)				
Facilities Maintenance: Workshops				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				152.7	**1.20**	**183.2**
25.2.0	**Staff Support**					
25.2.01	Office: Supervisor	1	10.0	10.0	- Desk, 2 visitor chairs, cabinets, storage; card access tower	-
25.2.02	Shared Office: 4 Workstations	1	13.8	13.8	- Touchdown stations; 4x desks, 4x chairs, computers, data, clerical storage	-
25.2.03	Business Centre	1	7.0	7.0	- Photocopier, printers, clerical supplies; security system/monitors including video monitoring tower with 2 wall-mounted monitors; small Workstation	-
25.2.04	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	Can be centralized with other support services
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lockers and Change Area	- 1 per projected FTE and is included in the Support Staff Locker and Change Area				
Facilities Maintenance: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				35.4	**1.35**	**47.8**
Total Facilities Maintenance Area Requirements				**188.1**		**231.0**

1A.22 SUPPLY CHAIN MANAGEMENT

This specification outlines the functional, operational, and physical requirements for the Supply Chain Management (Supply Chain) component.

1A.22.1 FUNCTIONAL DESCRIPTION

1A.22.1.1 Statement of Purpose

1A.22.1.1(1) Supply Chain will accommodate the receiving, processing, and distributing of the majority of items used throughout the Facility.

1A.22.1.1(2) Supply Chain will support the Facility providing services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.22.1.2 Scope of Services

1A.22.1.2(1) **Functional Content**

1A.22.1.2(1)(a) Receiving of electronic purchase orders from all user Components.

1A.22.1.2(1)(b) Submitting purchase requisitions through the purchasing system.

1A.22.1.2(1)(c) Receiving of materials and supplies, equipment, and specials orders.

1A.22.1.2(1)(d) Distributing materials and supplies, equipment, and specials orders throughout the Facility and to other facilities as required by the Authority.

1A.22.1.2(1)(e) Tracking and notification of all deliveries to and from the Facility including but not limited to Purolator, FedEx, hotshots for the lab, Canada Post, etc.

1A.22.1.2(1)(f) Moving capital assets on and off-site.

1A.22.1.2(1)(g) Purchasing/receiving equipment.

1A.22.1.2(1)(h) Breaking out and de-casing of bulk deliveries.

1A.22.1.2(1)(i) Receiving secure storage items such as narcotics and valuables

1A.22.1.2(2) **Planning Assumptions**

1A.22.1.2(2)(a) Technology

1A.22.1.2(2)(a)(i) Supply chain management in healthcare is moving to a more streamlined and technology capable environment (e.g. RFID, 2-bin Kanban systems, etc.).

1A.22.1.2(2)(a)(ii) Enhancing wireless communication tools for keeping team members connected, informed, and safe will be required.

1A.22.1.2(2)(a)(iii) Implementing vertical lift technology.

1A.22.1.2(3) **Excluded**

1A.22.1.2(3)(a) No noted exclusions.

1A.22.2 OPERATIONAL DESCRIPTION

1A.22.2.1 Hours of Operation

1A.22.2.1(1) The supply chain area will be available 7 days per week, from 0800-1600.

1A.22.2.2 Organization & Management

1A.22.2.2(1) The supply chain area will be managed by the PHSA supervisor.

1A.22.2.3 Workflow

1A.22.2.3(1) **Supplies and Equipment**

1A.22.2.3(1)(a) Equipment and supplies are electronically requested by Facility Staff.

1A.22.2.3(1)(b) SC Staff order the requested items.

1A.22.2.3(1)(c) Upon delivery, SC Staff will receive the items, decase, store, and deliver items to all areas of the Building.

1A.22.2.3(1)(c)(i) Some pharmacy supplies are delivered directly to the pharmacy without being decased while other pharmacy items are decased, stored, and delivered to the pharmacy.

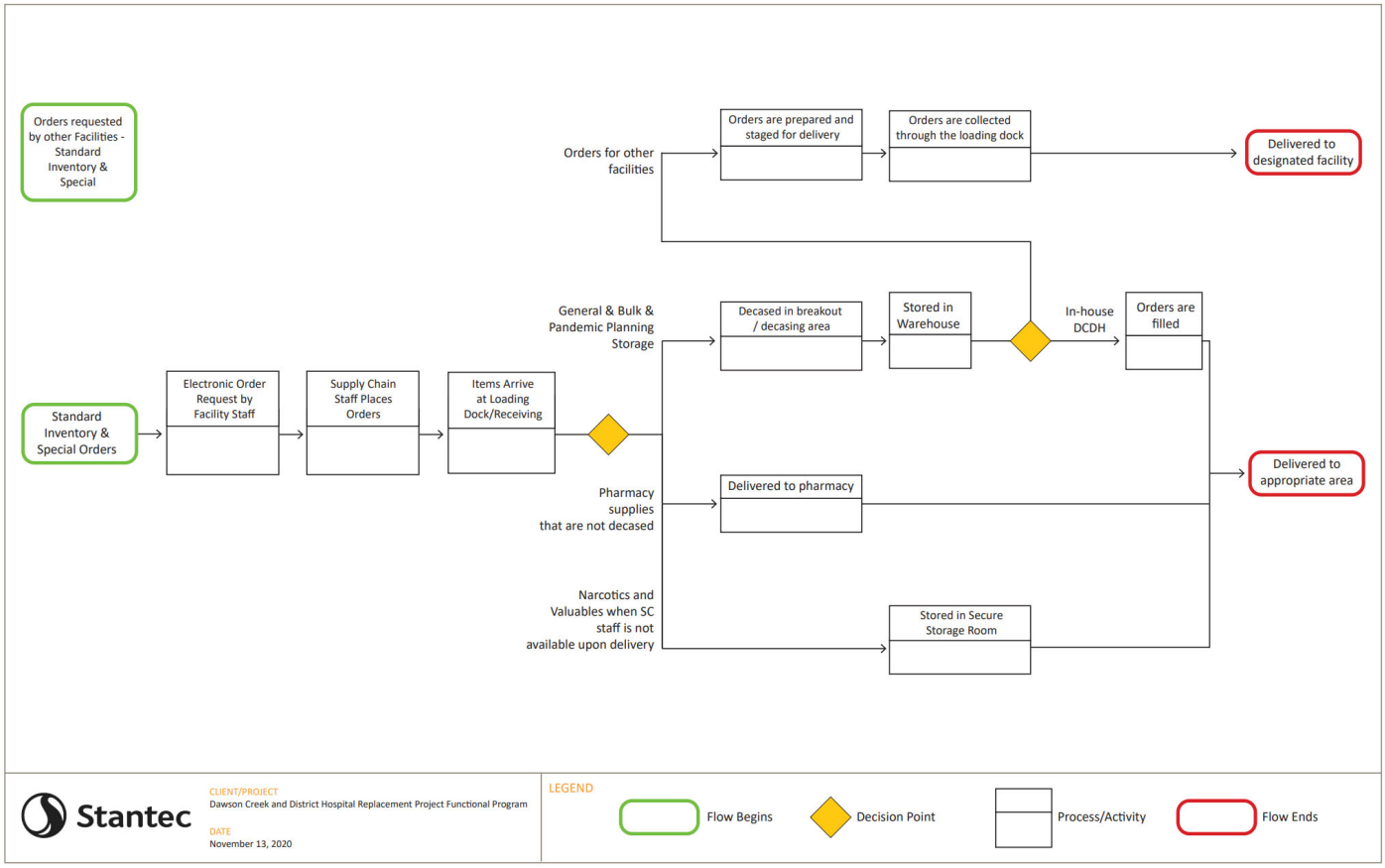
1A.22.2.3(1)(c)(ii) If a courier arrives with narcotics or other valuable items and SC Staff is unavailable to receive them, these items will be placed in a Secure storage room by the courier.

1A.22.2.3(1)(c)(iii) Supplies and equipment that are being transported off-site (e.g. to another Facility) will have staging areas near the outgoing area of the warehouse where items are being collected and staged before shipping.

1A.22.2.3(2) **Future State Flow**

1A.22.2.3(2)(a) The future state flow map below describes the key flows for the future service delivery model for the supply chain.

Dawson Creek and District Hospital Replacement Project - Functional Program - SUPPLY CHAIN MANAGEMENT - Future State Flow Map



1A.22.2.4 Support Activities

1A.22.2.4(1) For a description of general support activities applicable to this Component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.22.3 STAFFING

1A.22.3.1 Estimated future Staffing for the supply chain is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Supply Chain Management: Projected Staffing	
Position	**Projected FTE**
	2040/41
Buyer Supervisor	1.0
Inventory Analyst	1.0
Stores Attendant SM 3	4.0
Transportation Driver	2.0

Supply Chain Management: Projected Staffing	
Position	Projected FTE
	2040/41
Total Supply Chain Management Staffing	8.0

1A.22.4 DESIGN CRITERIA

1A.22.4.1 External Relationships

1A.22.4.1(1) SC will be adjacent to and have access to the loading dock for receiving deliveries via controlled Facility circulation.

1A.22.4.1(1)(a) Compressed gas cylinders will be delivered to the loading dock and housed in the medical gas storage room. This room will be on the same level as SC but is not required to be within the department.

1A.22.4.1(1)(b) The medical gas storage room will be a secured room with rack and wall mounted holding systems for tanks.

1A.22.4.1(2) SC will have access the service elevators for distribution of supplies via controlled Facility circulation.

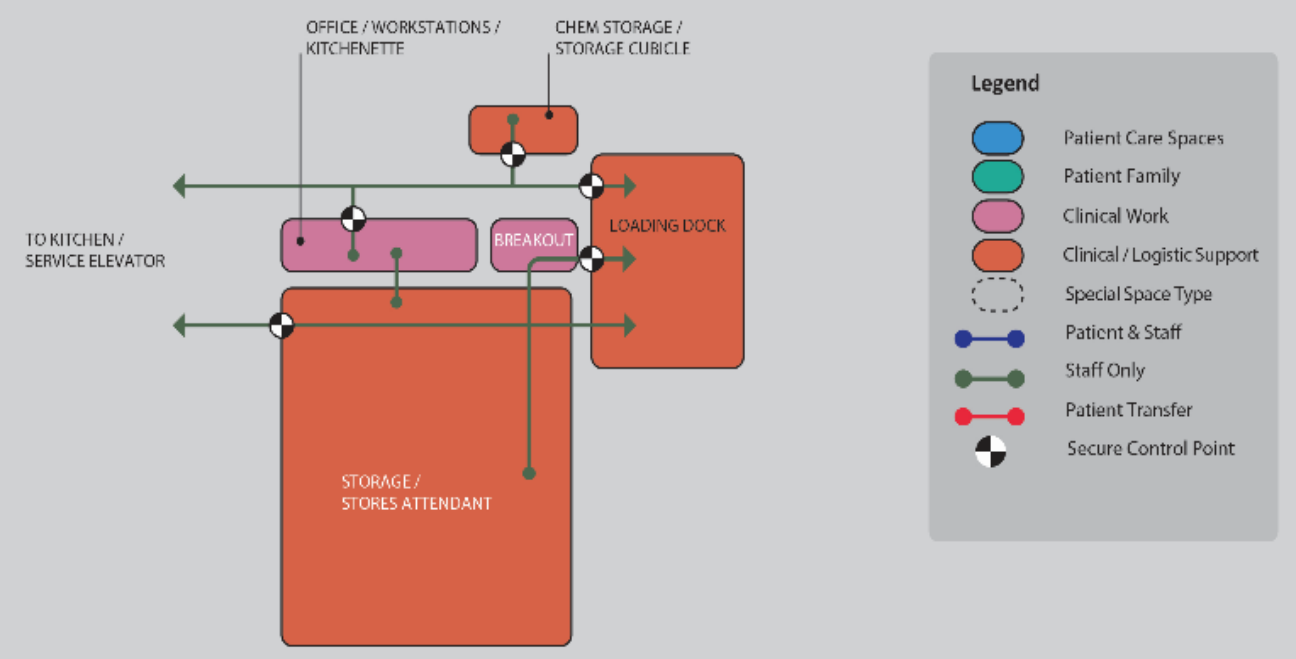
1A.22.4.1(3) SC warehouse will be located on the same level as the loading dock.

1A.22.4.1(4) SC will access all areas of the Building through general Facility circulation.

1A.22.4.1(4)(a) However, as much as possible, SC will deliver supplies and equipment through controlled Facility circulation (e.g. back of house access into some departments).

1A.22.4.2 Functional Relationship Diagram

1A.22.4.2(1) Functional relationships between key areas will be generally as illustrated in the following diagram. The diagram is not to scale, not all spaces may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.22.4.3 Internal Design Criteria

1A.22.4.3(1) For a description of general design criteria applicable to this Component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.22.4.3(2) **Radio Frequency Identification (RFID)**

1A.22.4.3(2)(a) A RFID replenishment system will be implemented and/or planned for future implementation throughout all clinical and most support areas (e.g. Logi-D 2 Bin RFID system).

1A.22.4.3(2)(b) The RFID system is not planned to manage housekeeping supplies and supplies stored in soiled utility rooms. However, data and power requirements will be provided in these spaces to accommodate a potential future change in supply management processes.

1A.22.4.3(2)(c) The RFID wall-mounted reader boards will be provided at the exit point of each area where RFID is planned. Reader boards will be hardwired.

1A.22.4.3(2)(d) Shelving and/or carts for supplies will be provided in all clean utility/supply rooms throughout the Facility.

1A.22.4.3(3) **Shipping / Receiving Area**

1A.22.4.3(3)(a) The shipping / receiving area will consist of the loading dock area, decasing area, Secure storage area for valuable items, and short-term equipment holding (e.g. loaner equipment), and with sufficient space to accommodate pallets

accumulating between deliveries and disposal. A stores attendant Workstation will be located near where items arrive to the Facility.

1A.22.4.3(3)(b) These areas will be located adjacent to the loading dock with a design that facilitates access and security.

1A.22.4.3(3)(b)(i) Chemical storage and short-term equipment holding can be located away from the entry to the shipping / receiving area.

1A.22.4.3(3)(c) The flow of materials must create separate and logical circulation for:

1A.22.4.3(3)(c)(i) The receiving of deliveries – providing flow from receiving to decasing to storing to retrieval, and delivery.

1A.22.4.3(3)(c)(ii) The sending of items off-site which includes a clear path for soiled laundry to the exit point and the staging of shipments (in various stages of completion) directly accessible to the exit point to the loading dock.

1A.22.4.3(3)(c)(iii) Separate and dedicated circulation patterns are required but some crossover is acceptable.

1A.22.4.3(4) **Loading Dock / Post Receiving Area**

1A.22.4.3(4)(a) Provide three (3) truck berths.

1A.22.4.3(4)(b) Provide three (3) access points:

1A.22.4.3(4)(b)(i) One (1) into the receiving area of SC and the breakout/decasing area.

1A.22.4.3(4)(b)(ii) One (1) into the exit point of SC.

1A.22.4.3(4)(b)(iii) One (1) into the Building that bypasses SC.

1A.22.4.3(4)(c) Provide sufficient space to accommodate pallets and provide the ability to organize pallets into deliveries and disposal.

1A.22.4.3(5) **Warehouse Area**

1A.22.4.3(5)(a) General Storage Area

1A.22.4.3(5)(a)(i) Provide adjustable, open, high density, tiered, metal shelving for large and small items (storage details to be determined in detailed design).

1A.22.4.3(5)(a)(i)A The space and storage medium requirements for this area will vary depending on the selected material, type, and strategic direction.

1A.22.4.3(5)(a)(ii) Provide aisle widths that are a minimum of 1.2 m.

1A.22.4.3(5)(a)(iii) Provide a minimum vertical clearance of 3.7 m.

1A.22.4.3(5)(a)(iii)A This requirement assumes the vertical lift module (which requires a 5.5 m clearance height) will be accommodated.

1A.22.4.3(5)(a)(iv) Provide pallet racking that does not cover the ceiling lights.

1A.22.4.3(5)(a)(v) Provide an electric pallet jack recharging station. This recharging station will be mounted to the wall and allow docking of pallet jacks and picking lifts.

1A.22.4.3(5)(a)(vi) Provide a medical gas storage that is on the same level as SC. Cylinders will be delivered through SC but will be stored in the medical gas room.

1A.22.4.3(5)(a)(vii) Provide an eye wash station.

1A.22.4.3(5)(a)(viii) Provide passive ventilation through the installation of upper and lower gravity louvers in the exterior wall.

1A.22.4.3(5)(a)(ix) Provide flooring that will have proper finishing allowing for extreme wear by pallets and heavy equipment to occur without damage.

1A.22.4.3(5)(a)(x) Provide flooring that is non-skid and anti-spark material. The floor will be equipped with a drain connected to a dry sump. There will be liquid-tight seals between interior walls and the floor.

1A.22.4.3(5)(b) Bulk Storage Area

1A.22.4.3(5)(b)(i) Provide the bulk storage area with all of the criteria described in the general storage area.

1A.22.4.3(5)(b)(i)A The items in this are typically stored on pallets therefore storage solutions (e.g. pallet racking) will be considered during detailed design and confirmed with users.

1A.22.4.3(5)(b)(ii) Provide 1.8m aisle widths in the bulk storage area rather than the 1.2m aisle widths in the general storage area.

1A.22.4.3(5)(c) Pandemic Storage

1A.22.4.3(5)(c)(i) Pandemic inventory will be integrated into the general storage area for management and distribution.

1A.22.4.3(5)(c)(ii) Provide the pandemic storage area with all of the criteria described in the general storage area.

1A.22.4.3(5)(c)(iii) Provide 1.8m aisle widths in the pandemic storage area rather than the 1.2m aisle widths in the general storage area.

1A.22.4.3(5)(d) Vertical Lift Module (VLM)

1A.22.4.3(5)(d)(i) Refer to Schedule 1 – Schedule of Requirements section 6.15.1 for design requirements.

1A.22.4.3(5)(d)(ii) Coordinate Vertical Lift Module that will be supplied and installed by the Authority's Vendor.

1A.22.4.3(5)(e) Flammable Storage Room

1A.22.4.3(5)(e)(i) Provide a flammable storage room with at least one (1) wall being an exterior Building wall that will have “blow-out” capability.

1A.22.4.3(5)(e)(ii) Provide a door to this room that automatically closes and is hinged to swing out on its vertical axis.

1A.22.4.3(5)(e)(iii) Provide a minimum fire resistance rating of one (1) hour.

1A.22.4.3(5)(e)(iv) Upon confirmation of the material and quantities of items that will be stored in the flammable storage room (during detailed design), cabinets may be a more appropriate storage solution rather than an enclosed room.

1A.22.4.3(5)(f) Loaner Room

1A.22.4.3(5)(f)(i) Provide a room for loaner storage.

1A.22.4.3(5)(f)(ii) Provide a combination of wire rack shelving for large totes and open floor space for storage.

1A.22.4.3(6) **Clean Utility / Supply Rooms**

1A.22.4.3(6)(a) There are Clean Utility / Supply rooms located throughout the Building.

1A.22.4.3(6)(b) All inventory will be managed through a RFID system.

1A.22.4.3(6)(b)(i) Provide a two (2) bin system for all supply storage areas.

1A.22.4.3(6)(b)(ii) There will be consideration for additional items to be included within the RFID system and this will be considered as detailed design progresses and may impact the size of the room.

1A.22.4.3(6)(b)(iii) Macerator supplies will be stored in these spaces.

1A.22.4.3(6)(c) The configuration will include the following:

1A.22.4.3(6)(c)(i) Provide the par wall in 915mm sections. Exact configurations are to be determined during detailed design.

1A.22.5 SCHEDULE OF ACCOMMODATION

1A.22.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

26.0 Supply Chain Management: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
26.1.0	**Shipping / Receiving Area**					
26.1.01	Loading Dock / Post Receiving Bay	1	75.0	75.0	- Open area; directly connected to exterior loading dock; mechanical dock to accommodate up to 3 truck beds of varying heights	-
26.1.02	Storage Cubicle	1	6.0	6.0	- Secure room to store valuable items (e.g. narcotics); Provide wire rack shelving.	-
26.1.03	Short Term Equipment Holding	1	20.0	20.0	- Short-term holding of outgoing equipment, etc.	-
26.1.04	Chemical Storage	1	10.0	10.0	- Provide appropriate mechanical requirements are met	-
26.1.04.01	Medical Gas Cylinder Storage Room	1	TBD	TBD	- Determine size based on compliance with CSA Z7396.1-17	-
26.1.05	Workstation: Shipper / Receiver	1	4.6	4.6	- Multipurpose workspace with desk, chair, data connection;	- Must be locate near the receiving area from the loading dock and be accessible from interior SC circulation.
26.1.06	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	-
26.1.07	Hand Wash Sink	1	1.0	1.0	- Hands free	
26.1.08	Emergency Eye Wash Station	1	2.0	2.0	- Combined unit; provide appropriate water temperature and pressure; floor drain	Adjacent to work area
Supply Chain: Shipping / Receiving Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				123.2	**1.20**	**147.8**
26.2.0	**Warehouse Area**					
26.2.01	General Storage Area	1	300.0	300.0	- Adjustable open metal shelving for large and small items; minimum 3658 mm clearance; recharging station for pallet lifts, picking lifts; minimum aisle width 1219 mm	-
26.2.02	Bulk Storage Area	1	25.0	25.0	- minimum aisle width - 1828 mm; similar storage medium to the general storage area with 3658 mm clearance; provide varied storage options including pallet storage	-

26.0 Supply Chain Management: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
26.2.03	Pandemic Planning Storage	1	70.0	70.0	- minimum aisle width - 1828 mm; similar storage medium to the general storage area with 3658 mm clearance - Provide secure storage to delineate from general storage supplies.	-
26.2.04	Vertical Lift Storage	1	10.0	10.0	- Requires charging capability.	- along a wall; on backup generator - Provide for hook-ups for a second VLM for future use.
26.2.05	Flammable Storage	1	12.0	12.0	- See Design Criteria; provide appropriate mechanical and structural requirements; three (3) flammable storage cabinets	-
26.2.06	Breakout / Decasing Area, Cart Marshalling Area	1	23.0	23.0	- Space for 6 exchange/top-up carts; Workstation with desk/table; shelving, storage; provide data and electrical	-
26.2.07	Workstation: Stores Attendant (RFID scanner)	2	3.0	6.0	- Workstation (phone, clerical storage, PC, Data, MFC); storage cabinet; magnetic whiteboard	-
26.2.08	Loaner Room	1	12.0	12.0	- Shelving for storage of loaner materials, equipment, instruments, etc.; Workstation to track/manage inventory	
26.2.09	Exterior Maintenance Storage	1	16.0	16.0	- Equipment: 3 lawnmowers, snow shovels, axes, aerator, etc.; free-standing structure with basic electrical power and lighting; no heating/cooling; storage for machinery related fuels and oils; no fence/gate; doors appropriately sized for ride-on lawnmowers, snowblowers, etc.; ramped to grade.	-
Supply Chain: Warehouse				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				474.0	**1.20**	**568.8**
26.3.0	**Staff Support**					
26.3.01	Office: Supervisor	1	10.0	10.0	- Desk, 2 visitor chairs, cabinets, storage	-
26.3.02	Office: Inventory Analyst	1	10.0	10.0	- 2 multipurpose Workstations; scanner; barcode reader; meeting space for 1-2 people	-
26.3.03	Business Centre	1	7.0	7.0	- Photocopier, printers, clerical supplies, can be an alcove space	-
26.3.04	Kitchenette	1	5.0	5.0	- Staff refrigerator, double sink, counter space, cabinets, microwave	-

26.0 Supply Chain Management: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
-	Staff Washroom	- Included in ref #1.08				
-	Meeting Room	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lounge	- Accommodated in the Support Staff Meeting Room and Lounge area				
-	Staff Lockers and Change Area	- 1 locker per projected FTE and is included in the Support Staff Locker and Change Area				
Supply Chain: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				32.0	**1.35**	**43.2**
Total Supply Chain Area				**629.2**		**759.8**

1A.23 CONCIERGE

This specification outlines the functional, operational, and physical requirements for the Concierge component.

1A.23.1 FUNCTIONAL DESCRIPTION

1A.23.1.1 Statement of Purpose

1A.23.1.1(1) The Concierge services encompass the “front-of-house” services that can enhance Patient and family experiences. It is an encompassing group of services that are essential in supporting clinical and non-clinical programs, services, and includes:

1A.23.1.1(1)(a) Lobby / Reception area

1A.23.1.1(1)(b) Auxiliary and Gift Shop

1A.23.1.1(1)(c) Volunteer Services

1A.23.1.1(1)(d) Foundation

1A.23.1.1(1)(e) Spiritual area

1A.23.1.1(2) Concierge services will support the Facility providing services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person- and family-centered model of care.

1A.23.1.2 Scope of Services

1A.23.1.2(1) **Functional Content**

1A.23.1.2(1)(a) Lobby / Reception Area

1A.23.1.2(1)(a)(i) The Lobby / Reception area serves as the Main Entrance and front door of the Building and is typically where non-emergency Patients, visitors, and Staff will enter the Building. (There are strategically located Staff Entrances as required.)

1A.23.1.2(1)(b) Auxiliary and Gift Shop

1A.23.1.2(1)(b)(i) The Auxiliary and Gift Shop will provide retail space for convenience food, novelty items, gifts for Staff, Patients, and visitors. It will be located close to the Main Entrance and adjacent to the Lobby / Reception area with clear wayfinding and signage.

1A.23.1.2(1)(c) Volunteer Services

1A.23.1.2(1)(c)(i) Volunteers can play an important role in today's hospitals as there is a variety of tasks that can improve the Patient experience and enhance Patient flow. A hospital volunteer works in a hospital without regular pay. They essentially donate their time and skills to help the hospital and community. Some examples of volunteer tasks may include:

1A.23.1.2(1)(c)(i)A Transport Patients

1A.23.1.2(1)(c)(i)B Clerical duties

1A.23.1.2(1)(c)(i)C Give directions or escort visitors

1A.23.1.2(1)(c)(i)D Cashier

1A.23.1.2(1)(c)(i)E Deliver flowers

1A.23.1.2(1)(c)(i)F Socialize with Patients and/or visitors

1A.23.1.2(1)(d) Dawson Creek and District Hospital Foundation

1A.23.1.2(1)(d)(i) The Foundation is a charitable, autonomous organization that focuses on fundraising and plays an important role in communications and public relations between the hospital and the community.

1A.23.1.2(1)(d)(ii) The Dawson Creek and District Hospital Foundation is a non-profit organization. The Foundation is managed by a volunteer board of directors and has been active in the Peace River South LHA since its inception in 1992.

1A.23.1.2(1)(d)(iii) The Foundation's mission is to raise money and awareness via fundraising events. This helps to promote community engagement, as well as purchase equipment for the local hospital and care facilities.

1A.23.1.2(1)(e) Spiritual Care

1A.23.1.2(1)(e)(i) The Spiritual Care Team is an integral part of the healthcare team, providing spiritual care to Patients, families, and Staff of all faith and spiritual denominations. It affirms the inherent dignity and value of all persons and respects different spiritual perspectives and practices — which may or may not be rooted in a religious tradition[3].

1A.23.1.2(1)(e)(i)A To (re)discover meaning and significance in times of illness, crisis, and loss.

1A.23.1.2(1)(e)(i)B Through mindful and heart-felt listening.

1A.23.1.2(1)(e)(i)C By assisting to identify and access inner resources for coping.

1A.23.1.2(1)(e)(i)D By providing end-of-life and bereavement support.

1A.23.1.2(1)(e)(i)E By providing guidance and support through challenging ethical and moral decision-making processes.

[3] Sunnybrook Health Sciences Centre. 2019. *Spiritual & Religious Care*. [ONLINE] Available at: https://sunnybrook.ca/content/?page=spiritual-religious-care-chaplains. [Accessed 7 January 2019].

1A.23.1.2(1)(e)(i)F By facilitating connections between Patients, families, Staff, and spiritual leaders from diverse religious communities.

1A.23.1.2(1)(e)(i)G Through mediation support in situations of conflict.

1A.23.1.2(1)(e)(i)H By leading and facilitating ceremonies, rites of passage, religious rituals, meditation, and prayer.

1A.23.1.2(1)(e)(i)I Space will be East facing as required by some denominations.

1A.23.1.2(1)(f) Café

1A.23.1.2(1)(f)(i) The Café will be adjacent to the Main Entrance Lobby. The intent is to accommodate a third party vendor for the provision of prepared food and light meals available to visitors, staff and Patients. There will be a seating area directly adjacent to the Café.

1A.23.1.2(2) **Planning Assumptions**

1A.23.1.2(2)(a) No planning assumptions are noted.

1A.23.1.2(3) **Excluded**

1A.23.1.2(3)(a) No exclusions are noted.

1A.23.2 OPERATIONAL DESCRIPTION

1A.23.2.1 **Hours of** Operation

1A.23.2.1(1) The Lobby / Reception (Main Entrance) will be available from 0700-1730, Monday to Friday and from 0700-1600 on weekends and holidays.

1A.23.2.1(2) Gift Shop will be available from 0800-1700, 7 days per week.

1A.23.2.1(3) The Volunteer space will be available from 0800-1600, Monday to Friday.

1A.23.2.1(4) The Foundation will be available from 0800-1600, Monday to Friday.

1A.23.2.1(5) The Spiritual area will be available 24 hours per day, 7 days per week.

1A.23.2.1(6) The Café will be available from 0800-1700, 7 days per week.

1A.23.2.2 **Organization & Management**

1A.23.2.2(1) The Lobby / Reception (Main Entrance) will be managed by the Authority.

1A.23.2.2(2) Gift Shop will be managed by the Authority.

1A.23.2.2(3) The Volunteer space will be managed by Authority.

1A.23.2.2(4) The Foundation will be managed by Foundation representative.

1A.23.2.2(5) The Spiritual area will be managed by the Authority.

1A.23.2.2(6) The Café will be managed by the Authority but operated by a third party vendor.

1A.23.2.3 Workflow

1A.23.2.3(1) **Auxiliary and Gift Shop**

1A.23.2.3(1)(a) Auxiliary and Gift Shop Staff will order supplies through Supply Chain. The supplies will be received by Supply Chain and delivered to the Gift Shop Storage area.

1A.23.2.3(1)(b) Auxiliary and Gift Shop Staff will replenish inventory from the Storage room, as required.

1A.23.2.3(2) **Volunteer Services**

1A.23.2.3(2)(a) Volunteers will arrive at the Team Room to store personal items. The volunteers will then be directed to their service area in the Building.

1A.23.2.3(3) **Foundation**

1A.23.2.3(3)(a) Foundation Staff will arrive at the Foundation area and execute their task based out of that space.

1A.23.2.3(4) **Spiritual Area**

1A.23.2.3(4)(a) The Spiritual area will be accessed by Patients and visitors at any time.

1A.23.2.3(4)(b) At selected times, services will be held in the Non-Denominational Spiritual Room by visiting spiritual practitioners. These practitioners will store items in the Non-Denominational Spiritual Storage room and retrieve them as required.

1A.23.2.3(5) **Café**

1A.23.2.3(5)(a) Third party vendor staff will arrive at the Café and execute their tasks out of that space.

1A.23.2.4 Support Activities

1A.23.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.23.3 STAFFING

1A.23.3.1 Estimated future Staffing for the Concierge is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Concierge: Projected Staffing	
Position	**Projected FTE**
	2040/41
Auxiliary and Gift Shop	2.0
Volunteers	4.0
Foundation	2.0
Total Concierge Staffing	**8.0**

1A.23.4 DESIGN CRITERIA

1A.23.4.1 External Relationships

1A.23.4.1(1) The Lobby / Reception area will be at the Main Entrance of the Building to welcome Patients and visitors.

1A.23.4.1(2) The Auxiliary and Gift Shop will be located near the Main Entrance and will be clearly visible from the Main Entrance. It will be accessible to all Patients and visitors via general Facility circulation.

1A.23.4.1(3) The Volunteer space will be accessible from anywhere in the Building via general Facility circulation.

1A.23.4.1(4) The Foundation will be located near the Main Entrance and will be clearly visible from the Main Entrance. It will be accessible to all Patients and visitors via general Facility circulation.

1A.23.4.1(5) The Spiritual area will be located close to the Emergency Department and will be accessible from anywhere in the Building via general Facility circulation.

1A.23.4.1(6) The Café space will be located to allow for easy access for delivery of supplies, and removal of garbage without disrupting the Lobby.

1A.23.4.2 Internal Design Criteria

1A.23.4.2(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.23.4.2(2) Lobby / Reception

1A.23.4.2(2)(a) These areas will be welcoming to Patients, families, and visitors with the following:

1A.23.4.2(2)(a)(i) Provide natural light.

1A.23.4.2(2)(a)(ii) Provide windows with electronic blinds and/or window coverings (e.g. consider argon coating lobby glazing to minimize radiant heat during the summer months).

1A.23.4.2(2)(a)(iii) Provide wall and floor colours, patterns, and materials that create a non-institutional feel and assist in wayfinding.

1A.23.4.2(2)(a)(iv) Provide strong wayfinding and signage that clearly directs Patients, visitors, and Staff to their desired locations.

1A.23.4.2(2)(a)(v) Accommodate acoustical dampening furnishing and finishes to reduce ambient noise.

1A.23.4.2(2)(a)(vi) Provide a donor wall / display area to recognize donors and key Facility and community personnel near the Main Entrance.

1A.23.4.2(2)(a)(vii) Not used.

1A.23.4.2(2)(a)(viii) Provide a general seating area that is an open space but with smaller areas planned for smaller groups (e.g. grouping soft chairs into groups of 4 or 6) that allow for family and friends to gather and speak to each other without others sitting next to them. Ensure furniture will accommodate the capacity to move these to create socially distanced pods of sub-seating when required.

1A.23.4.2(2)(a)(ix) Provide Public Washrooms, vending machine and phone alcoves adjacent to the Lobby.

1A.23.4.2(3) **Auxiliary and Gift Shop**

1A.23.4.2(3)(a) Provide wayfinding and signage that clearly directs Patients, visitors, and Staff to the Gift Shop.

1A.23.4.2(3)(b) The Auxiliary area will have the ability to be Secured after hours.

1A.23.4.2(3)(b)(i) Provide the ability to Secure the space (i.e. an item with similar features to retail gates that are used in shopping malls).

1A.23.4.2(3)(b)(ii) Provide glazing along the entire wall facing the Lobby / Reception area.

1A.23.4.2(3)(c) Within the Gift Shop, items of various shapes and sizes will be displayed.

1A.23.4.2(3)(c)(i) Provide a mix of display mediums such as shelves, countertops and display cases, including a commercial upright display refrigerator and a display chest freezer.

1A.23.4.2(3)(c)(ii) Patrons must be able to identify, see, and reach for items without being strained.

1A.23.4.2(3)(c)(iii) Provide aisle widths that allow for persons in a wheelchair to navigate the space.

1A.23.4.2(3)(c)(iv) Implementing wall and floor colours and materials that create a non-institutional feel.

1A.23.4.2(3)(c)(v) Provide shelving that is not higher than 1525 mm.

1A.23.4.2(3)(c)(vi) Provide refrigerators for beverages and flowers (including plumbing and electrical requirements).

1A.23.4.2(3)(d) Financial transactions will be performed in the Gift Shop.

1A.23.4.2(3)(d)(i) Accommodate a cash register (or similar system) and electronic transactions.

1A.23.4.2(3)(e) Provide a Secured Storage room and Office to be adjacent to the Gift Shop.

1A.23.4.2(3)(e)(i) Provide a Storage Room with access from general Facility circulation and from the Gift Shop.

1A.23.4.2(3)(e)(ii) Provide Secured door (for loading and unloading) for all access points.

1A.23.4.2(3)(f) Provide an Auxiliary and Gift Shop Office, with two (2) Workstations and storage, for management of financial and inventory requirements.

1A.23.4.2(4) **Volunteer Services**

1A.23.4.2(4)(a) The Team Room provides a “home base” where volunteers can put their personal items, lunch, check emails, and can have somewhere to take a break.

1A.23.4.2(4)(b) The Team Room will

1A.23.4.2(4)(b)(i) be a Secured room.

1A.23.4.2(4)(b)(ii) accommodate two (2) touchdown Workstations.

1A.23.4.2(4)(b)(iii) be provided with six (6) purse lockers.

1A.23.4.2(4)(b)(iv) accommodate a kitchenette with small refrigerator, counter space, and microwave.

1A.23.4.2(4)(b)(v) accommodate lightweight table and four (4) chairs.

1A.23.4.2(4)(b)(vi) provide an adjacent storage room with wire rack shelving and open floor space.

1A.23.4.2(5) **Foundation**

1A.23.4.2(5)(a) The Foundation area will encompass a Reception and Waiting area, Shared Office, Meeting Room, and Storage.

1A.23.4.2(5)(a)(i) Provide glazing along the entire wall facing the Lobby / Reception area.

1A.23.4.2(5)(a)(ii) Provide a glazed swing door into the Foundation area.

1A.23.4.2(5)(b) Waiting Area

1A.23.4.2(5)(b)(i) Not used.

1A.23.4.2(5)(b)(ii) Accommodate a waiting area with large screen that displays health information.

1A.23.4.2(5)(c) Shared Office

1A.23.4.2(5)(c)(i) Two (2) Workstations will be group together in a single, enclosed space.

1A.23.4.2(5)(c)(ii) Provide ability to accommodate physical distancing / separation through adequate separation between Workstations.

1A.23.4.2(5)(d) Meeting Room

1A.23.4.2(5)(d)(i) The Meeting Room will be located near the entrance of the department.

1A.23.4.2(5)(d)(ii) Accommodate up to six (6) people for meetings using lightweight and movable tables chairs.

1A.23.4.2(5)(d)(iii) Provide full multi-media capable services (i.e. equipment, lighting, sound, etc.).

1A.23.4.2(5)(e) Storage

1A.23.4.2(5)(e)(i) Provide an adjacent Storage room with wire rack shelving and open floor space.

1A.23.4.2(6) **Spiritual Services**

1A.23.4.2(6)(a) The Spiritual Care area will:

1A.23.4.2(6)(a)(i) provide the ability to deliver multiple religious services (multiple denominations).

1A.23.4.2(6)(a)(ii) provide a quiet and reflective space.

1A.23.4.2(6)(a)(iii) provide lightweight and soft seating, adjustable (e.g. dimmable) lighting, and acoustical dampening.

1A.23.4.2(6)(a)(iv) provide natural light and exterior, operable window.

1A.23.4.2(6)(a)(v) provide ability to accommodate smudging (mechanical and security features.

1A.23.4.2(6)(a)(v)A Healing/Smudging

1A.23.4.2(6)(a)(v)B The design, configuration and orientation of this space will be planned in consultation with Indigenous advisors.

1A.23.4.2(6)(a)(v)C Provide technical requirements including HVAC and fire suppression systems that enable contained fires/smoke generation within an enclosed space.

1A.23.4.2(7) **Café**

1A.23.4.2(7)(a) The Café and seating area will:

1A.23.4.2(7)(a)(i) provide natural light with views to the exterior.

1A.23.4.2(7)(a)(ii) have good sightlines from the Facility Main Entrance.

1A.23.4.2(7)(a)(iii) provide a calm and pleasant atmosphere for patrons of the Café.

1A.23.5 SCHEDULE OF ACCOMMODATION

1A.23.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

27.0 Concierge: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
27.1.0	**Lobby / Reception**					
27.1.01	Lobby / Entrance	1	40.0	40.0		-
27.1.02	Public Washroom	3	4.6	13.8	- Accessible 2-piece washroom (toilet, sink)	- Distribute to ensure equitable access for public
27.1.03	Family Washroom	1	7.0	7.0	- Accessible 2-piece washroom (toilet, sink); baby change area	- adjacent to Visiting Specialists area
27.1.04	Vending / Phone Area	1	6.0	6.0	- Accommodate public phone; one (1) electrical-only vending machine	- adjacent to or within the Waiting area
Concierge - Lobby / Reception				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				66.8	**1.35**	**90.2**
27.2.0	**Auxiliary and Gift Shop**					
27.2.01	Gift Shop	1	20.0	20.0	- Provide shelving medium for gifts, cards, snacks, etc.; register/desk area for cash and electrical transactions; one (1) refrigerator and one (1) freezer; electrical and data as required.	-
27.2.02	Storage Room	1	15.0	15.0	- Shelving; Provide electrical (charging) requirements	-
27.2.03	Office	1	9.0	9.0	- 2 Workstations with desk, chair, computer, phone, data; clerical storage	-
Concierge: Auxiliary and Gift Shop				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				44.0	**1.35**	**59.4**
27.3.0	**Volunteer Space**					
27.3.01	Team Room	1	15.0	15.0	- Secured room; table and chairs to accommodate four (4) people; one (1) touchdown Workstation with chair, computer, phone, data - six (6) purse lockers - Kitchenette with small refrigerator, counter space, and microwave.	- adjacent to Storage Room
27.3.02	Storage Room	1	8.0	8.0	- Wire rack shelving; provide electrical (charging) requirements	-
Concierge: Volunteer Space				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				23.0	**1.35**	**31.1**

1A.23 CONCIERGE

27.0 Concierge: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
27.4.0	**Foundation**					
27.4.01	Waiting Area	1	9.1	9.1	- Accommodate seating for 3 people, display space	-
27.4.02	Shared Office	1	12.0	12.0	- 2 Workstations each with computer, phone, clerical storage, data, storage; photocopier/fax, clerical supplies	-
27.4.03	Meeting Room	1	12.0	12.0	- Accommodates 4-6 people; lightweight and movable tables & chairs; multi-media capable; display area	-
27.4.04	Storage	1	10.0	10.0	- Shelving; provide electrical (charging) requirements	-
Concierge: Foundation				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				43.1	**1.35**	**58.2**
27.5.0	**Spiritual Area**					
27.5.01	Non-Denominational Spiritual Room	1	25.0	25.0	- Room is to be round/oval shaped at one end at minimum; open area with seating; ability to accommodate smudging; quiet and reflective space (finishes, acoustics, etc.)	-
27.5.02	Non-Denominational Spiritual Storage Room	1	10.0	10.0	- Provide shelving and charging requirements	-
Concierge: Spiritual Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				35.0	**1.35**	**47.3**
27.6.0	**Café**					
27.6.01	Café	1	75.0	75.0	- Serviced shell space to accommodate future 3rd party vendor tenant fit-out including stub-out mechanical, HVAC and electrical connections. Provide base building services to accommodate meal preparation activities inside the Café including a 100mm (4”) drain line to the perimeter the room, a flat floor slab, a 200A panel in the room, and one (1) 19mm (3/4”) water line stubbed to the perimeter of the room.	-
27.6.02	Seating	1	36.0	36.0	- General seating directly adjacent to the Café for 12 people using lightweight and movable tables and chairs in an open area adjacent to and integrated with the Lobby.	-
Concierge: Café				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				111.0	**1.35**	**149.9**
Total Concierge Area				**322.9**		**436.1**

1A.24 ACADEMIC AND TEACHING

This specification outlines the functional, operational, and physical requirements for the Academic and Teaching component.

1A.24.1 FUNCTIONAL DESCRIPTION

1A.24.1.1 Statement of Purpose

1A.24.1.1(1) The Academic and Teaching area aims to integrate theoretical knowledge into practical knowledge in real-life situations and to help students develop their problem-solving skills.

1A.24.1.1(2) Due to rapid changes in clinical placements, Patient safety issues, and ethical concerns, students' direct experience with Patient care and opportunities to handle problem-based clinical situations have been diminished. Simulation-based clinical education is a useful pedagogical approach that provides nursing and allied health students with opportunities to practice their clinical and decision-making skills through varied real-life situational experiences, without compromising the Patient's well-being.

1A.24.1.1(3) The Academic and Teaching component will support the Facility in providing services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.24.1.2 Scope of Services

1A.24.1.2(1) **Functional Content**

1A.24.1.2(1)(a) Practicum experience for a variety of health services and education programs such as nursing education, allied health education.

1A.24.1.2(1)(b) Ongoing clinical skills development, professional development, and specialized training will also be supported.

1A.24.1.2(1)(c) Training and education requirements for nurses and other health care professionals that can be executed through simulation processes is likely to increase in the future.

1A.24.1.2(1)(d) Simulation-based clinical education in nursing including a variety of activities such as:

1A.24.1.2(1)(d)(i) Patient simulators, including devices, trained persons, lifelike virtual environments, and role-playing, not just handling mannequins.

1A.24.1.2(1)(d)(ii) Realistic clinical scenarios, simulation-based educational interventions in nursing can train novice as well as experienced nurses, helping them develop effective non-technical skills, practice rare emergency situations, and providing a variety of authentic life-threatening situations.

1A.24.1.2(2) **Planning Assumptions**

1A.24.1.2(2)(a) Sizing Patient care spaces to accommodate learners and students:

1A.24.1.2(2)(a)(i) Patient rooms, Operating and Procedure rooms, and other clinical areas have been sized to accommodate learners as additional members of the care team.

1A.24.1.2(2)(b) Clinical space for learning and teaching:

1A.24.1.2(2)(b)(i) Throughout clinical areas, spaces access to clinical Workstations and meeting rooms have been provided to facilitate on-unit or intra-departmental learning.

1A.24.1.2(2)(c) Dedicated education space:

1A.24.1.2(2)(c)(i) Most education will occur within clinical areas and will be augmented by formal learning sessions and meeting rooms and simulation lab.

1A.24.1.2(3) **Excluded**

1A.24.1.2(3)(a) No noted exclusions.

1A.24.2 OPERATIONAL DESCRIPTION

1A.24.2.1 Hours of Operation

1A.24.2.1(1) The Academic and Teaching component will be available and operational 24 hours per day, 7 days per week for the Debriefing/Multi-purpose VC Room, Medical Learners Lounge, Simulation Room, Control/Observation room, and on-call rooms.

1A.24.2.2 Organization & Management

1A.24.2.2(1) The Facility Academic and Teaching aspects will be managed by PHSA.

1A.24.2.2(2) The UBC medical teaching space will be managed by UBC.

1A.24.2.3 Workflow

1A.24.2.3(1) **Educators and Learners**

1A.24.2.3(1)(a) Educators and learners will arrive to the Academic and Teaching space and will enter through the controlled door either using swipe card access or by being let in by the educational assistant. There will be visiting Staff and volunteer Patients who will not have card access.

1A.24.2.4 Support Activities

1A.24.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.24.3 STAFFING

1A.24.3.1 Estimated future Staffing for the Academic and Teaching component is summarized below. The information is for space planning purposes only and does not represent a commitment for hiring.

Academic and Teaching: Projected Staffing	
Position	**Projected FTE**
	2040/41
ED2 Nurse	1.0
Administrative Assistant	2.0
Total Academic and Teaching Staffing	**3.0**

1A.24.4 DESIGN CRITERIA

1A.24.4.1 External Relationships

1A.24.4.1(1) **Educators and Learners**

1A.24.4.1(1)(a) Educators and learners will access the Academic and Teaching space using general Facility circulation. There will be visiting Staff and volunteer Patients who will not have card access.

1A.24.4.2 Internal Design Criteria

1A.24.4.2(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.24.4.2(1)(a) UBC spaces will be designed in accordance with the UBC Faculty of Medicine Design Guidelines. Simulation Room, videoconference/debriefing room, lounge and on-call rooms to be designed in accordance with UBC Design Guidelines.

1A.24.4.2(2) **Simulation Room**

1A.24.4.2(2)(a) The Simulation room will mirror a typical medical / surgical Inpatient room and will be accommodated and provided with all items required for a typical Inpatient room.

1A.24.4.2(2)(b) The Simulation room will have the ability to transition to simulate an Emergency Department exam / treatment room.

1A.24.4.2(3) **Debriefing / Multipurpose VC Room**

1A.24.4.2(3)(a) The Debriefing Room will be provided with a CCTV with two-way audio and video connections into the Simulation Room so students and instructors can observe and direct those in the Simulation Room.

1A.24.4.2(3)(b) Accommodate up to 20 people using lightweight and movable tables with casters, folded and nested, and stackable chairs with casters.

1A.24.4.2(3)(c) Provide full multi-media capable services (i.e. video-conferencing equipment, lighting, sound, etc.).

1A.24.4.2(3)(c)(i) Provide audio and visual equipment to meet UBC design guidelines.

1A.24.4.2(3)(d) This multipurpose space is a shared administrative, teaching, and disaster response space.

1A.24.4.2(3)(e) Not used.

1A.24.4.2(4) **Storage Room**

1A.24.4.2(4)(a) Provide a storage rack for various simulation dummies.

1A.24.4.2(4)(b) Provide the ability to charge equipment.

1A.24.4.2(4)(c) Provide storage for some exam/treatment equipment when not in the Simulation room.

1A.24.4.2(5) **Control / Observation Room**

1A.24.4.2(5)(a) Provide two (2) computer Workstations, each with four (4) monitors, and simulation technology with the ability to control dummies and other aspects in the Simulation room.

1A.24.4.2(5)(b) Provide a one-way mirror into the Simulation room.

1A.24.4.2(5)(c) Provide two-way audio communication into the Simulation room.

1A.24.4.2(5)(d) Accommodate increased heat and ventilation requirements with user temperature control in both rooms.

1A.24.4.2(5)(e) Provide wire rack shelving.

1A.24.4.2(6) **Medical Learners Lounge**

1A.24.4.2(6)(a) Accommodate four (4) lounge-style seating and table.

1A.24.4.2(6)(b) Provide two (2) study Workstations (carrel style).

1A.24.4.2(6)(c) Provide four (4) full height lockers outside of lounge.

1A.24.4.2(6)(d) Provide a kitchenette with small refrigerator, counter space, and microwave.

1A.24.5 SCHEDULE OF ACCOMMODATION

1A.24.5.1 Space requirements for the Academic and Teaching area are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

28.0 Academic and Teaching: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
28.1.0	**Academic and Teaching Space**					
28.1.01	Simulation Room	1	26.0	26.0	- Accommodates mannequin simulation; mimics an Inpatient room in all aspects using an emergency stretcher; storage; fully functioning headwalls with medical gases (1M);crash cart; defibrillator; hand hygiene sink; ceiling mounted Patient lift with track extending into adjacent 28.1.03 Storage Room; user temperature control; design to reflect actual configuration of an Inpatient room and/or ED space; to be designed in accordance with UBC Design Guidelines	- adjacent to 28.1.03 Storage Room; a full-height 2400mm wide clear opening to 28.1.03
28.1.02	Debriefing / Multipurpose VC Room	1	50.0	50.0	- Accommodates ~18-20 people in lightweight table and chairs; fully multimedia capable; shared administrative, teaching, and disaster response space; furniture and equipment for videoconferencing, and administration; to be designed in accordance with UBC Design Guidelines	- ability to accommodate Mental Health Act education, motivational interviewing, etc.
28.1.03	Storage Room	1	15.0	15.0	- Morgue drawer-type designed for storing animated simulation dolls; provide shelving for teaching materials and supplies; space for IV poles, pumps, cart; provide charging and electrical requirements; stainless steel utility sink	- adjacent to 28.1.01 Simulation Room; a full-height 2400mm wide clear opening to 28.1.01
28.1.04	Control / Observation Room	1	11.0	11.0	- Computer terminal; one-way mirror (min. 2400mm wide) per into the Simulation Room; provide HVAC requirements; whiteboard; shelving for scenario binders and charts; user temperature control	-
28.1.05	Staff Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet); change area, z-lockers (may be located in corridor)	-
Academic and Teaching: Reception & Waiting				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				106.6	**1.35**	**143.9**
28.2.0	**Staff Support**					
28.2.01	Shared Office: Education Staff	1	15.0	15.0	- 2x Workstation with chair, workspace, data connection, phone; accommodates Educator and Admin Assistant; small table; multimedia capable	- On-call spaces are included in the Maternity and Surgical areas
-	Meeting Room	- Accommodated in the Debriefing Room (ref #28.1.02)				

28.0 Academic and Teaching: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
Academic and Teaching: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				15.0	**1.35**	**20.3**
28.3.0	**UBC Faculty of Medicine**					
28.3.01	Not used					
28.3.02	Medical Learners Lounge	1	15.0	15.0	- Lounge (4 stacking chairs & single round table); study (2 carrels); Kitchenette with under-counter refrigerator, microwave, cabinets, counter space, tables chairs, double sink; adequate data capacity; to be designed in accordance with UBC Design Guidelines	
Academic and Teaching: Staff Support				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				15.0	**1.35**	**20.3**
Total Academic and Teaching Area				**136.6**		**184.4**

1A.25 MORGUE

This specification outlines the functional, operational, and physical requirements for the Morgue.

1A.25.1 FUNCTIONAL DESCRIPTION

1A.25.1.1 Statement of Purpose

1A.25.1.1(1) The Morgue will provide cadaver storage and separate viewing area for families and visitors.

1A.25.1.1(2) The Morgue will provide an opportunity for the coroner to examine bodies.

1A.25.1.1(3) The Morgue will support residents of the Peace River South LHA and surrounding northeast region based on a person- and family-centered model.

1A.25.1.2 Scope of Services

1A.25.1.2(1) **Functional Content**

1A.25.1.2(1)(a) The following list specifies the minimum set of functions that will be accommodated within the Morgue:

1A.25.1.2(1)(a)(i) Receiving of and temporary cold storage of cadavers arriving from anywhere in the Facility and those from the community.

1A.25.1.2(1)(a)(ii) Provide access to mortuary attendants to transfer cadavers to local funeral homes.

1A.25.1.2(1)(a)(iii) Provide separated viewing area for families of deceased persons.

1A.25.1.2(2) **Planning Assumptions**

1A.25.1.2(2)(a) Grieving for deceased persons will occur in the Morgue or in the Inpatient or Emergency areas. This will be determined on a case-by-case basis.

1A.25.1.2(2)(b) Pediatric cadavers will be accommodated in regular adult cadaver storage.

1A.25.1.2(2)(c) Storage for biomedical waste, fluids, and body parts (i.e. from amputations) will be stored in the Biomedical Waste room (located near the loading dock and included in the Housekeeping section).

1A.25.1.2(3) **Excluded**

1A.25.1.2(3)(a) There are no provisions for autopsies and/or specimen storage.

1A.25.2 OPERATIONAL DESCRIPTION

1A.25.2.1 Hours of Operation

1A.25.2.1(1) The Morgue will be available 24 hours a day, 7 days per week.

1A.25.2.2 Organization & Management

1A.25.2.2(1) The Morgue will be managed by Health Services administrators.

1A.25.2.3 Workflow

1A.25.2.3(1) **Family / Visitors**

1A.25.2.3(1)(a) If a Patient passes away in the Emergency Department or an Inpatient unit, the body will remain on the unit for a period of time and the family / visitors will be encouraged to view and grieve on the unit.

1A.25.2.3(1)(b) Some body viewing will occur in the Morgue by family / visitors. Family / visitors will be escorted to / from the Morgue (Viewing Room) by Facility Staff.

1A.25.2.3(1)(c) Family / visitors will not have access to the Morgue without being escorted by Facility Staff.

1A.25.2.3(1)(d) Family / visitors will not have access to any area in the Morgue other than the Viewing Room.

1A.25.2.3(2) **Cadavers**

1A.25.2.3(2)(a) Cadavers arriving from within the Facility.

1A.25.2.3(2)(a)(i) Cadavers from the Emergency Department or an Inpatient unit will be transported to the Morgue by nursing Staff.

1A.25.2.3(2)(b) Cadavers arriving to the Facility.

1A.25.2.3(2)(b)(i) Cadavers arriving by ambulance will be transported from the loading dock to the Morgue and will not access the Ambulance Garage.

1A.25.2.3(2)(b)(ii) Cadavers arriving to the site by funeral home staff will be transported from the loading dock to the Morgue.

1A.25.2.3(2)(c) Cadavers leaving the Facility.

1A.25.2.3(2)(c)(i) Cadavers will be housed in the Morgue and will be transported from the site through the loading dock. In most cases, funeral home staff will transport the body from the Morgue to the loading dock.

1A.25.2.3(2)(d) All cadaver transports will be conducted using covered transport carts.

1A.25.2.4 Support Activities

1A.25.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements.

1A.25.3 STAFFING

1A.25.3.1 There is no dedicated Facility Morgue Staffing.

1A.25.4 DESIGN CRITERIA

1A.25.4.1 External Relationships

1A.25.4.1(1) Cadavers will be transported from the Emergency Department or an Inpatient unit to the Morgue by Staff via controlled Facility circulation.

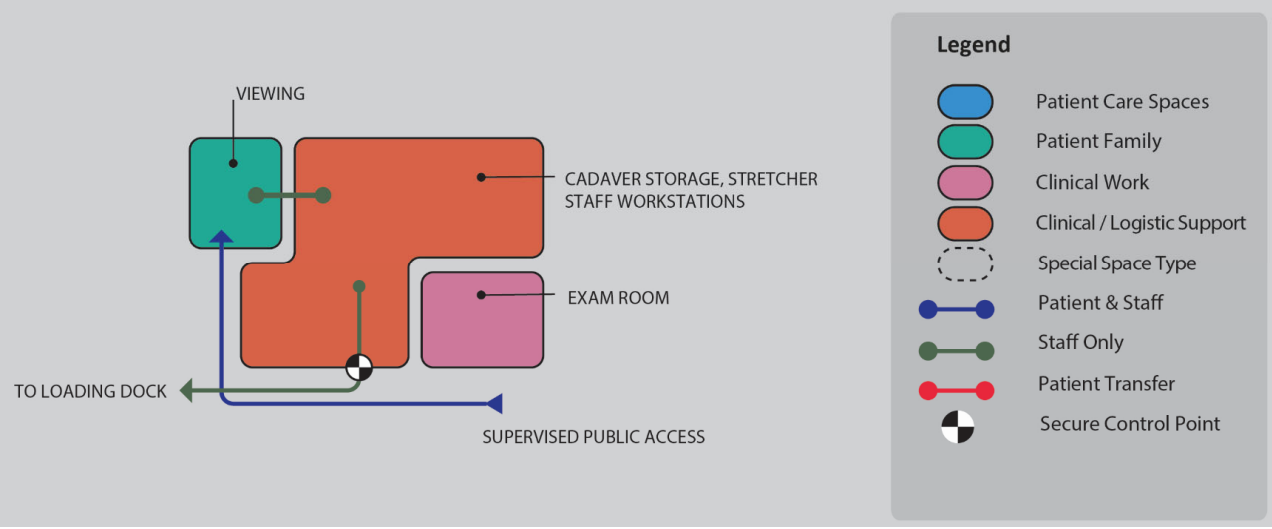
1A.25.4.1(2) Cadavers will be transported to the Morgue from the loading dock and via controlled Facility circulation. Cadavers arriving to the site will not access the Facility through the Emergency Entrance.

1A.25.4.1(3) Cadavers will be transported from the Morgue to the loading dock (typically by funeral home staff) via controlled Facility circulation for movement of cadavers to funeral homes.

1A.25.4.1(4) Families / visitors will access the Morgue via controlled Facility circulation and always will be escorted by Staff. No public access to the Morgue will be provided.

1A.25.4.2 Functional Relationship Diagram

1A.25.4.2(1) Functional relationships between key areas will be generally as illustrated in the following diagram. Please note that the diagram is not to scale, not all rooms may be illustrated, and arrows do not indicate all required connections. Deviations will be identified by the Design-Builder and reviewed by the Authority.



1A.25.4.3 Internal Design Criteria

1A.25.4.3(1) For a description of general design criteria applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.25.4.3(2) The Morgue must follow the diagnostic accreditation program (DAP) standards for all Morgue components. Should any conflicts arise, the DAP standards will take precedence. This includes, but is not limited to, monitoring the crypt temperature, registration of the cadaver, and specifically section (10.3.1 and 10.3.2).

1A.25.4.3(3) **Internal Circulation**

1A.25.4.3(3)(a) The viewing room will be physically, visually, and acoustically separate from but adjacent to the cadaver storage area.

1A.25.4.3(3)(a)(i) Provide dedicated access to the Viewing Room from a controlled circulation corridor.

1A.25.4.3(3)(a)(ii) Provide Secure access so that family/visitors cannot access any areas in the Morgue other than the Viewing Room.

1A.25.4.3(3)(b) A Secure doorway will be provided enabling movement of cadavers from the cadaver storage area to the Viewing Room.

1A.25.4.3(3)(c) The cadaver storage, Workstation, and exam room will be grouped together, and this area will have access from a controlled circulation corridor.

1A.25.4.3(4) **Viewing Area**

1A.25.4.3(4)(a) The Viewing Room will:

1A.25.4.3(4)(a)(i) Accommodate space to locate the stretcher in a respectful manner.

1A.25.4.3(4)(a)(ii) Accommodate four (4) chairs for families / visitors while in this space.

1A.25.4.3(4)(a)(iii) Be adjacent and with access from the cadaver storage for movement of the cadavers.

1A.25.4.3(4)(a)(iv) Be provided with consistent temperature that is separate from that of the cadaver storage area.

1A.25.4.3(4)(a)(v) Be provided with acoustic privacy so families / visitors are not disturbed while grieving.

1A.25.4.3(5) **Cadaver Storage Area**

1A.25.4.3(5)(a) The cadaver storage area will

1A.25.4.3(5)(a)(i) Be provided with crypt storage with capacity to store six (6) cadavers, including two (2) Bariatric cadavers.

1A.25.4.3(5)(a)(i)A Crypt storage will be single tray units with security capacity for forensic/coroner cases.

1A.25.4.3(5)(a)(ii) Be provided with a ceiling mounted lift system to assist in moving cadavers to/from refrigerated storage to/from the stretcher. Lifts will be rated to accommodate Bariatric cadavers and be fully operable by a single person.

1A.25.4.3(5)(a)(iii) Be adjacent and with Secure access between the Viewing Room and the stretcher holding area.

1A.25.4.3(5)(a)(iv) Provide one (1) Secure storage cubby for personal belongings that cannot fit with in the crypt with the cadavers.

1A.25.4.3(5)(a)(v) Be provided with a hand hygiene sink.

1A.25.4.3(5)(a)(vi) Be provided with odour / vapour control to manage cadavers that are in various stages of decay.

1A.25.4.3(5)(a)(vi)A Air exchanges will prevent the buildup of offensive odours and harmful vapours.

1A.25.4.3(5)(a)(vi)B Airflow patterns will provide for air flows that move away from visitors and towards the cadaver.

1A.25.4.3(6) **Exam Room**

1A.25.4.3(6)(a) The cadaver storage area will:

1A.25.4.3(6)(a)(i) Be a Secured room, in addition to the general Morgue security.

1A.25.4.3(6)(a)(ii) Accommodate a stretcher.

1A.25.4.3(6)(a)(iii) Provide a ceiling mounted exam light, Workstation, and desk for charting, and ceiling mounted lift system that covers whole room.

1A.25.4.3(6)(a)(iv) Provide a hand hygiene sink and double kitchen-style sink.

1A.25.4.3(6)(a)(v) Provide a floor drain.

1A.25.4.3(7) **Stretcher Holding and Workstation**

1A.25.4.3(7)(a) The stretcher holding area will:

1A.25.4.3(7)(a)(i) Hold cadavers waiting for transport off site.

1A.25.4.3(7)(a)(ii) Be provided with a coroner Workstation (modular) that will include one (1) Secure personal storage for the coroner. The funeral home Staff will also utilize this space as required.

1A.25.4.3(8) **Equipment Management**

1A.25.4.3(8)(a) Stretchers will include fully enclosed body bags and covered transport carts for the discreet transportation of cadavers.

1A.25.5 SCHEDULE OF ACCOMMODATION

1A.25.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

29.0 Morgue: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
29.1.0	**Family Area**					
29.1.01	Viewing Room	1	12.0	12.0	- 1 stretcher position; seating for family	- Adjacent to a Staff only corridor - Adjacent to the cadaver storage
29.1.02	Public Washroom	1	4.6	4.6	- Accessible 2-piece washroom (toilet, sink)	
Morgue: Family Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				16.6	**1.35**	**22.4**
29.2.0	**Cadaver Storage Area**					
29.2.01	Workstation: Staff	1	5.0	5.0	- Workstation (computer, data, phone, storage, printer); locker space for coroner and for any belongings that accompany the cadaver	-
29.2.02	Cadaver Storage	1	18.0	18.0	- Storage for 6 body holding spaces including 2 Bariatric spaces on the bottom of the crypt storage; provide crypt storage; lift system; hand hygiene sink	-
29.2.03	Stretcher Holding	1	11.0	11.0	- Storage area for 2 stretchers waiting for transport off site	-
29.2.04	Exam room	1	15.0	15.0	- Provide a Secure area for a stretcher, ceiling mounted exam light, a hand hygiene sink, double sink	-
29.2.05	Cart Storage Alcove	2	1.0	2.0	- Accommodates clean laundry cart in one and soiled laundry carts in the other.	-
Morgue: Cadaver Storage Area				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				51.0	**1.35**	**68.9**
Total Morgue Area				**67.6**	-	**91.3**

1A.26 STAFF SUPPORT

This specification outlines the functional, operational, and physical requirements for the Staff Support component.

1A.26.1 FUNCTIONAL DESCRIPTION

1A.26.1.1 Statement of Purpose

1A.26.1.1(1) The Staff support component provides general Staff areas including Change Rooms, Lockers, Staff Lounge, and Meeting Rooms.

1A.26.1.1(2) The Staff support component will support the Facility that provides services for residents of the Peace River South LHA and surrounding northeast region and their families, based on a person and family-centered model of care.

1A.26.1.2 Scope of Services

1A.26.1.2(1) **Functional Content**

1A.26.1.2(1)(a) Shared Meeting Rooms and Shared Staff Lounge space

1A.26.1.2(1)(a)(i) Shared Meeting Rooms and Shared Staff Lounge space will be provided for non-clinical areas.

1A.26.1.2(1)(a)(i)A In clinical areas, inter-departmental meeting room and Staff Lounge space is provided.

1A.26.1.2(1)(b) Physician Lounge

1A.26.1.2(1)(b)(i) A dedicated physician lounge will be provided close to the on-call room (reference 9.6.03) in the Maternal/Newborn IPU

1A.26.1.2(1)(c) Lockers and change rooms

1A.26.1.2(1)(c)(i) One male and one female Change Room with Lockers will be provided to accommodate general support Staff.

1A.26.1.2(1)(c)(ii) Provide a change area for non-binary / transgender Staff.

1A.26.1.2(1)(c)(iii) Provides Secure storage of personal belongings for Staff.

1A.26.1.2(2) **Planning Assumptions**

1A.26.1.2(2)(a) The amenities provided to Staff are critical to Staff wellbeing, morale, and recruitment and retention strategies. Therefore, ensuring that Staff Support areas reflect an environment that is conducive to teamwork, fosters Staff cohesion, and Staff satisfaction will be reflected strongly at the Facility.

1A.26.1.2(3) **Excluded**

1A.26.1.2(3)(a) In clinical areas, lockers and change rooms are provided within the respective area, separated from the Staff Lockers and Change Rooms. These requirements are documented within those departments.

1A.26.1.2(3)(b) In clinical areas, some meeting rooms and Staff Lounge space are provided within the department and are documented within those departments.

1A.26.2 OPERATIONAL DESCRIPTION

1A.26.2.1 Hours of Operation

1A.26.2.1(1) All Staff Support spaces will be available 24 hours per day, 7 days per week.

1A.26.2.2 Organization & Management

1A.26.2.2(1) Staff Support will be managed by the Building Maintenance Supervisor.

1A.26.2.3 Workflow

1A.26.2.3(1) **Shared Staff meeting rooms and lounge space**

1A.26.2.3(1)(a) Staff will have access to the Meeting Rooms for scheduled meetings with either Facility Staff or visitors to the Facility (i.e. contractors, vendors, etc.).

1A.26.2.3(1)(b) Staff will schedule meetings through the Administration area.

1A.26.2.3(1)(c) If an unscheduled meeting is required, booking these spaces with little notice or walking-in will be accommodated.

1A.26.2.3(2) **Physician Lounge**

1A.26.2.3(2)(a) A Physician Lounge will be shared by all physicians in the Facility. It will be located close to the on-call room (reference 9.6.03) in the Maternal/Newborn IPU and provide respite and educational opportunities for physicians.

1A.26.2.3(3) **Lockers and Change Areas**

1A.26.2.3(3)(a) Staff will access the Lockers and Change area upon entering the Building.

1A.26.2.3(3)(b) Staff will change out of non-Facility clothing into appropriate Facility clothing before proceeding to their department.

1A.26.2.4 Support Activities

1A.26.2.4(1) For a description of general support activities applicable to this component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.26.3 STAFFING

1A.26.3.1 No dedicated Staffing is required for Support Services.

1A.26.4 DESIGN CRITERIA

1A.26.4.1 External Relationships

1A.26.4.1(1) **Shared Staff Meeting Rooms and Staff Lounge**

1A.26.4.1(1)(a) Staff will access Meeting rooms via general Facility circulation as there may be both in-Facility and public persons who will attend meetings.

1A.26.4.1(1)(b) Staff will access the Staff Lounge via general Facility circulation.

1A.26.4.1(2) **Physician Lounge**

1A.26.4.1(2)(a) Physicians will access the Physician Lounge via general Facility circulation.

1A.26.4.1(2)(b) The Physician Lounge will be closely located to the on-call room (reference 9.6.03) in Maternal / Newborn IPU.

1A.26.4.1(3) **Lockers and Change Areas**

1A.26.4.1(3)(a) Staff will access the Lockers and Change Area through controlled Facility circulation from the Staff Entrance.

1A.26.4.1(3)(b) Staff will have access to the rest of the Building from the Lockers and Change Area via general Facility circulation.

1A.26.4.2 Internal Design Criteria

1A.26.4.2(1) For a description of general design criteria applicable to this Component, see section 1A.0 General Building Clinical Requirements. These two sections must be read together.

1A.26.4.2(2) **Staff Meeting Rooms**

1A.26.4.2(2)(a) All Meeting Rooms will:

1A.26.4.2(2)(a)(i) accommodate lightweight and movable tables chairs.

1A.26.4.2(2)(a)(ii) be provided with full multi-media capable services and requirements (e.g. equipment, lighting, sound, etc.).

1A.26.4.2(2)(b) Not used.

1A.26.4.2(3) **Shared Staff Lounge**

1A.26.4.2(3)(a) Provide soft seating (i.e. mix of couches and recliners) for 10 people in view of a tv, coffee table, shelving for resource materials, and wall mounted white board / bulletin boards.

1A.26.4.2(3)(b) Provide general seating for 25 people using lightweight and movable tables and chairs.

1A.26.4.2(3)(c) Provide kitchenette that accommodates two (2) refrigerators, two (2) microwaves, one (1) dishwasher, and two (2) sets of double sinks.

1A.26.4.2(3)(d) Provide counter space, cabinets (above and under the counter), garbage collection, etc.

1A.26.4.2(3)(e) Access to the Staff Lounge will be restricted to authorized Staff.

1A.26.4.2(4) **Physician Lounge**

1A.26.4.2(4)(a) Refer to 1A.26.4.1(2)(b).

1A.26.4.2(4)(b) Provide soft seating (i.e. mix of couches and recliners) for eight (8) physicians in view of a tv, coffee table, and shelving for resource materials.

1A.26.4.2(4)(c) Provide kitchenette space that accommodates a refrigerator, microwave, sink, counter space, and cabinets.

1A.26.4.2(4)(d) Accommodate a small meeting space (does not have to be an enclosed space but will be located away from the tv area) with six (6) lightweight and movable chairs and a table.

1A.26.4.2(4)(e) Provide touchdown Workstations with privacy to enable electronic chart completion.

1A.26.4.2(4)(f) Provide ability to charge personal devices.

1A.26.4.2(4)(g) Access to the Physician Lounge will be restricted to authorized Staff.

1A.26.4.2(5) **Staff Lockers and Change Areas**

1A.26.4.2(5)(a) Provide a male Locker and Change Room and a female Locker and Change Room.

1A.26.4.2(5)(b) Provide a dedicated Change Area for non-binary / transgender Staff.

1A.26.4.2(5)(c) Accommodate the following in each Locker and Change Room:

1A.26.4.2(5)(c)(i) Foyer

1A.26.4.2(5)(c)(ii) “Z” lockers

1A.26.4.2(5)(c)(ii)A All lockers could be located in a Staff dedicated corridor outside of the Change rooms.

1A.26.4.2(5)(c)(iii) Provide change cubicles with hard partitions on three (3) sides and a curtain.

1A.26.4.2(5)(c)(iv) Provide stalls, urinals, and showers as identified.

1A.26.4.2(5)(c)(v) Provide space for laundered scrubs storage (e.g. rack or cubbies).

1A.26.4.2(5)(c)(vi) Provide wall hooks, coat and boot racks to accommodate winter items, and benches.

1A.26.4.2(5)(d) Access and Security to the Lockers and Change Rooms

1A.26.4.2(5)(d)(i) Locate the Locker and Change Rooms along a non-public corridor.

1A.26.4.2(5)(d)(ii) Access to the Lockers and Change Areas will be restricted to authorized Staff.

1A.26.5 SCHEDULE OF ACCOMMODATION

1A.26.5.1 Space requirements for this component are identified in the table below in terms of net square metres (NSM). Space identified is assumed to meet 2040/41 needs.

1A.26.5.1(1) **Lockers and Change Areas**

30.0 Staff Support - Lockers and Change Areas: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
30.1.0	**Male Locker Room**					
30.1.01	Lockers	25	0.7	17.5	- "Z" lockers	-
30.1.02	Change Area	1	4.0	4.0	- Enclosed area separated by walls	-
30.1.03	Urinals	1	1.4	1.4	- Provide plumbing and drainage requirements	-
30.1.04	Sink	1	2.0	2.0	- Provide plumbing and drainage requirements	-
30.1.05	Handicap Stall	1	3.6	3.6	- Provide plumbing and drainage requirements	-
30.1.06	Shower	1	2.5	2.5	- Provide plumbing and drainage requirements	
30.1.07	Foyer	1	5.0	5.0	- open area at the entrance of the Locker room	-
Staff Support - Lockers and Change Areas: Male Locker Room				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				36.0	**1.35**	**48.6**

1A.26 STAFF SUPPORT

30.0 Staff Support - Lockers and Change Areas: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
30.2.0	**Female Locker Room**					
30.2.01	Lockers	40.0	0.7	28.0	- "Z" lockers	-
30.2.02	Change Area	3	4.0	12.0	- Enclosed area separated by walls	-
30.2.03	Sink	2	2.0	4.0	- Provide plumbing and drainage requirements	-
30.2.04	Washroom Stall	2	2.7	5.4	- Provide plumbing and drainage requirements	-
30.2.05	Handicap Stall	1	3.6	3.6	- Provide plumbing and drainage requirements	-
30.2.06	Shower	1	2.5	2.5	- Provide plumbing and drainage requirements	
30.2.07	Foyer	1	5.0	5.0	- Open area at the entrance of the Locker Room	-
30.3.0	**Other Locker/Change Room**					
30.3.01	Staff Change Room/Washroom	1	9.2	9.2	- Change cubicle with small millwork bench for seating, washroom stall, sink, shower, hooks on the wall, lockers	Adjacent to corridor with 30.1.0 and 30.2.0 locker rooms
Staff Support - Lockers and Change Areas: Female Locker Room				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				69.7	**1.35**	**94.1**
Total Staff Support - Lockers and Change Areas				**105.7**	-	**142.7**

1A.26.5.1(2) **Staff Lounge and Meeting Rooms**

31.0 Staff Support- Staff Lounge and Meeting Rooms: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
31.1.0	**Shared Staff Lounge**					
31.1.01	Shared Staff Lounge	1	72.5	72.5	- Accommodates 35 Staff; soft seating for 10; tables and chairs for 25 - Kitchenette with 2 refrigerators, 2 microwaves, 1 dishwasher, 2 sets of double sinks, counter space, cabinets - TV, whiteboard/bulletin board, shelving	- This could be sub-divided to create better access and adjacencies. This will be dependent on design and layout.
31.1.02	Washroom	2	4.6	9.2	- Accessible 2-piece washroom (sink, toilet)	-
Staff Support -Staff Lounge and Meeting Rooms: Shared Staff Lounge				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				81.7	**1.35**	**110.3**

31.0 Staff Support- Staff Lounge and Meeting Rooms: Schedule of Accommodation (Detailed Space List)						
Ref #	**Room Type**	**Quantity**	**NSM/ Space**	**Total NSM**	**Room Description**	**Ratio and Distribution**
31.2.0	**Shared Meeting Rooms**					
31.2.01	Meeting Room (6 people)	2	15.0	30.0	- Accommodates 6 people; lightweight and movable tables & chairs (easy to clean, no fabric); multi-media capable	- Locate all 4 Meeting Rooms contiguously
31.2.02	Meeting Room (12-15 people)	1	30.0	30.0	- Accommodates 12-15 people; lightweight and movable tables & chairs (easy to clean, no fabric); multi-media capable	-
31.2.03	Meeting Room (20-24 people)	1	50.0	50.0	- Accommodates 20-24 people; lightweight and movable tables & chairs (easy to clean, no fabric); multi-media capable; shared with Academic and Teaching so to be designed in accordance with UBC Design Guidelines	-
31.2.04	Washroom	1	4.6	4.6	- Accessible 2-piece washroom (sink, toilet)	-
Staff Support - Staff Lounge and Meeting Rooms: Shared Meeting Rooms				**Total NSM**	**Planning Factor (CGSM)**	**Total CGSM**
				114.6	**1.35**	**154.7**
Total Staff Support - Lounge and Meeting Room Areas				**196.3**	-	**265.0**

APPENDIX 1B(I)

EQUIPMENT & FURNITURE RESPONSIBILITY CATEGORIES

APPENDIX 1B (I) EQUIPMENT & FURNITURE RESPONSIBILITY CATEGORIES

1.1 DEFINITIONS

In this Schedule:

"Acceptance Protocol" has the meaning set out in Section 1.7.9 of this Schedule;

"Category 1 Equipment" means the equipment described and listed as "Category 1" in the Equipment Lists (or similar equipment); further defined in Section 1.2 below.

"Category 2 Equipment" means the equipment described and listed as "Category 2" in the Equipment Lists (or similar equipment); further defined in Section 1.3 below.

"Category 3 Equipment" means the equipment described and listed as "Category 3" in the Equipment Lists (or similar equipment); further defined in Section 1.4 below.

"Category 4 Equipment" means the equipment described and listed as "Category 4" in the Equipment Lists (or similar equipment); further defined in Section 1.5 below.

"Category 5 Equipment" means the equipment described and listed as "Category 5" in the Equipment Lists (or similar equipment); further defined in Section 1.6 below.

"Commission" means to assemble, install and test and commission the equipment or system in accordance with any commissioning requirements set out in this Agreement, and applicable standards and good industry practice, including to ensure that the Equipment is operating in accordance with the manufacturer's requirements and specifications, and "Commissioned" and "Commissioning" have a corresponding meaning;

"Deliver" means to deliver Equipment to the Facility, and "Delivered" and "Delivery" have corresponding meanings;

"Equipment" means the Category 1 Equipment, the Category 2 Equipment, the Category 3 Equipment, the Category 4 Equipment and the Category 5 Equipment as described in Appendix 1B(I) and 1B(II);

"Equipment Committee" means the committee established pursuant to Section 1.7.6 of this Schedule;

"Equipment Cut Sheets" means the equipment data sheets set out in the Equipment List containing specifications for items of equipment on the Equipment List, as those cut sheets may be updated in accordance with this Agreement;

"Equipment Lists" means Appendix 1B(II): EQUIPMENT LIST, attached to the Statement of Requirements;

"Equipment Logistics Schedule" has the meaning set out in Section 1.7.10 of this Schedule;

"Expediting" means communicating with Equipment vendors, and ensuring deliveries arrive at the appointed time outlined in the Design-Builder's Equipment Logistics Schedule;

"Install" means to place, set-up, and connect Equipment in the Facility, including making connections to necessary building services (including plumbing, heating, cooling, ventilation and electricity) and connections to necessary communication or network interfaces or devices. "Installed" and "Installation" have corresponding meanings;

"Receive" means the provision of equipment and staff to accept Delivery and provide an appropriate and secure staging and storage area to be used prior to Setup, and "Received" and "Receiving" have corresponding meanings;

"Setup" includes:

a) transportation and movement within the Facility from the Delivery or storage location to the final installation location;
b) assembly;
c) placement in the final location within the Facility; and
d) any necessary unwrapping, unpacking, disposing and/or recycling all wrapping and packaging materials

"Storage" means the provision of secure space with the appropriate environment to allow received Equipment to be set, placed, loaded, unloaded or otherwise warehoused without damage while awaiting Setup, and "Store", "Stored" and "Storing" have corresponding meanings.

"Supply" means the management and completion of procurement processes, up to and including purchase/purchase order verification notification delivered to the Design-Builder, for Equipment, including the payment to vendors, and "Supplied" has a corresponding meaning.

1.2 CATEGORY 1 EQUIPMENT (AUTHORITY SUPPLIED, DESIGN-BUILDER INSTALLED)

1.2.1. Responsibilities For Category 1 Equipment

The Authority intends to but is not obligated to Supply the Category 1 Equipment. The Design-Builder will Expedite, Receive, Setup, Install and Commission all Category 1 Equipment. The Design-Builder will be responsible for notifying the Authority of any Category 1 Equipment that is Delivered damaged or short of the complete quantities on the weigh bill/bill of lading. Such discrepancy will be noted on the weigh bill/bill of lading provided to the shipper.

1.2.2. Timing of Delivery and Installation of Category 1 Equipment

The Design-Builder will:

(a) as early as practicable provide on the Equipment Logistics Schedule the dates by which each item of Category 1 Equipment must be Delivered, Installed and Commissioned so as not to delay the Design, the Construction, Substantial Completion of the Building or the Authority's use and occupation of the Facility; and:

(b) as required from time to time until Substantial Completion of the Building, but no less than once per calendar month, update the information in Section 1.2.2(a) above so that at all times it is an accurate, reasonable and realistic representation of the Design-Builder's plans for the completion of the Design and Construction of the

Facility. The Authority will cause the relevant item of Category 1 Equipment the Authority wishes to have Installed in the Facility to be Supplied by the date specified by the Design-Builder under Section 1.2.2(a) above.

1.2.3. Timing of Delivery and Installation of Category 1 Equipment

Subject to Section 1.2.2(a) above and unless otherwise noted on the Equipment List or the Equipment Logistics Schedule, no Category 1 Equipment will be Delivered prior to Substantial Completion of the Building. Delivery after Substantial Completion of the Building will not relieve the Design-Builder of its obligations under the Design-Build Agreement to complete the Design and Construction to accommodate the Equipment in the Facility and the obligations under this Schedule.

1.3 CATEGORY 2 EQUIPMENT (AUTHORITY SUPPLIED, DESIGN-BUILDER INSTALLED)

1.3.1. Responsibilities For Category 2 Equipment

The Authority intends to, but is not obligated to, Supply the Category 2 Equipment. The Design-Builder will Expedite, Receive, Setup, Install and Commission all Category 2 Equipment. The Design-Builder will be responsible for notifying the Authority of any Category 2 Equipment that is Delivered damaged or short of the complete quantities on the weigh bill/bill of lading. Such discrepancy will be noted on the weigh bill/bill of lading provided to the shipper.

1.3.2. Timing of Delivery and Installation of Category 2 Equipment

The Design-Builder will:

(a) as early as practicable provide on the Equipment Logistics Schedule the dates by which each item of Category 2 Equipment must be Delivered, Installed and Commissioned so as not to delay the Design, the Construction, Substantial Completion of the Building or the Authority's use and occupation of the Facility; and

(b) as required from time to time until Substantial Completion of the Building, but no less than once per calendar month, update the information in Section 1.3.2(a) above so that at all times it is an accurate, reasonable and realistic representation of the Design-Builder's plans for the completion of the Design and Construction of the Facility. The Authority will cause each item of Category 2 Equipment to be Supplied by the date specified by the Design-Builder under Section 1.3.2(a) above.

1.4 CATEGORY 3 EQUIPMENT (AUTHORITY SUPPLIED, VENDOR INSTALLED, DESIGN-BUILDER COORDINATED)

1.4.1. Responsibilities For Category 3 Equipment

The Authority intends to, but is not obligated to, Supply the Category 3 Equipment. The Design-Builder will Expedite, Receive and Commission all Category 3 Equipment and will coordinate the Setup, Installation, and Testing with the Vendor. The Design-Builder will be responsible for notifying the Authority of any Category 3 Equipment that is Delivered damaged or short of the complete quantities on the weigh bill/bill of lading. Such discrepancy will be noted on the weigh bill/bill of lading provided to the shipper.

1.4.2. Timing of Delivery and Installation of Category 3 Equipment

The Design-Builder will:

(a) as early as practicable provide on the Equipment Logistics Schedule the dates by which each item of Category 3 Equipment must be Delivered, Installed and Commissioned so as not to delay the Design, the Construction, Substantial Completion of the Building or the Authority's use and occupation of the Facility; and

(b) as required from time to time until Substantial Completion of the Building, but no less than once per calendar month, update the information in Section 1.4.2(a) above so that at all times it is an accurate, reasonable and realistic representation of the Design-Builder's plans for the completion of the Design and Construction of the Facility. The Authority will cause each item of Category 3 Equipment to be Supplied by the date specified by the Design-Builder under Section 1.4.2(a) above.

1.5 CATEGORY 4 EQUIPMENT (DESIGN-BUILDER SUPPLIED, DESIGN-BUILDER INSTALLED)

1.5.1. Responsibilities for Category 4 Equipment

The Design-Builder will Expedite, Supply, Deliver, Receive, Setup, Install and Commission all Category 4 Equipment.

1.5.2. Standards for Equipment

The Design-Builder will cause all Category 4 Equipment to be:

(a) new;

(b) of good quality and in a safe, serviceable and clean condition in accordance with the Equipment List;

(c) of the type specified in Appendix IB(III) and the Statement of Requirements, if applicable;

(d) in compliance with all Laws; and

(e) in compliance with all certifications or standards that would be reasonable for similar equipment in a similar application if Supplied and Installed by the Authority. The Design-Builder will, as soon as practicable after receiving a request from the Authority, supply to the Authority evidence demonstrating its compliance with this Section 1.5.2.

1.5.3. Warranties

The Design-Builder will ensure that all manufacturer's and vendor's warranties for all Category 4 Equipment:

(a) commence no earlier than the date of first clinical use of the relevant item of Category 4 Equipment; and

(b) are in the Authority's name.

1.5.4. Training

The Design-Builder will include the Authority staff and other representatives to be notified and included in all stages of the Receiving, Setup, Installation and Commissioning to ensure there is a comprehensive overview of the

Equipment, including its features, calibration, and interfaces. The Design-Builder will be knowledgeable on the proper use and maintenance of all Category 4 Equipment and will provide sufficient training and education of the Authority and persons designated by the Authority to enable proper use and maintenance of the Category 4 Equipment. The Design-Builder will not be responsible for providing the Authority with training and education in respect of Category 1 Equipment, Category 2 Equipment, and Category 3 Equipment, and Category 5 Equipment. On or before the Target Building Substantial Completion Date, the Design-Builder will transfer and deliver to the Authority all guidance material and manuals relating to Category 4 Equipment items as produced and provided by the manufacturer or the vendor of such items.

1.6 CATEGORY 5 EQUIPMENT (AUTHORITY RELOCATED)

1.6.1. Responsibilities for Category 5 Equipment

The Authority intends to, but is not obligated to, relocate the Category 5 Equipment from its existing location to the new Facility. The Authority may, at its discretion, supply new Category 5 Equipment in lieu of relocating existing Category 5 Equipment and may designate it for purposes of this Appendix 1B – Equipment as Category 5 Equipment or alternatively as Category 1 Equipment, Category 2 Equipment, Category 3 Equipment or Category 4 Equipment. A change to the Design-Builder's obligations by a re-designation as Category 1 Equipment, Category 2 Equipment, Category 3 Equipment or Category 4 Equipment will be implemented as a Change.

1.6.2. Timing of Delivery and Installation of Category 5 Equipment

Unless otherwise noted on the Equipment List or the Equipment Logistics Schedule, no Category 5 Equipment will be Delivered prior to Substantial Completion of the Building. Delivery after Substantial Completion of the Building will not relieve the Design-Builder of its obligations under the Design-Build Agreement to complete the Design and Construction to accommodate the Equipment in the Facility and the obligations under this Schedule.

1.7 GENERAL

1.7.1. Integration of Equipment with Design of Facility

The Design-Builder will ensure that all Equipment is integrated with the overall Design of the Facility and will include such Equipment as part of the development of Design under this Agreement. To the extent practicable, any required changes to the Design of the Facility as a result of changes to Equipment requirements will be resolved as part of the Design Development process.

1.7.2. Changes Affecting Design or Construction

If the Authority increases or decreases the quantities of Equipment described in Appendix 1B(II), procures other items in substitution for those identified in Appendix 1B(II), or otherwise changes the items to be procured and there is an effect on the Design or Construction, then such increase, decrease, procurement or change, and any effects thereof, will constitute a Change. The parties will endeavour to agree to an expedited Change process to deal with Equipment changes.

1.7.3. Staging and Storage

The Design-Builder will:

(a) provide a secure, dry space to accommodate staging and storage of Equipment;

(b) allow Authority representatives to access and work within the space;

(c) will ensure that the space is able to maintain a reasonable temperature to store and work in; and

(d) provide power to the space and will notify the Authority, in advance, of any power interruptions.

1.7.4. Equipment Commissioning

The Design-Builder will incorporate its Commissioning responsibilities under this Schedule into its Commissioning activities for the Facility as contemplated in this Agreement. All Category 2 Equipment, Category 3 Equipment and Category 4 Equipment must be Commissioned, and the Acceptance Protocol completed where applicable, prior to Substantial Completion of the Building. All Category 1 Equipment shall be commissioned after Substantial Completion.

1.7.5. Addition of Additional Equipment or Replacement of Existing Equipment

If the Authority identifies Equipment that is in addition to, or in replacement of certain items of, the Equipment, the Authority may in its discretion:

(a) elect to have the Design-Builder Expedite, Supply, Deliver, Receive, Setup, Install and/or Commission such additional Equipment, in accordance with and subject to the procedures for Changes; or

(b) itself perform any of such activities.

1.7.6. Equipment Committee

The parties will establish an Equipment Committee (the Committee) comprised of four representatives of the Authority and two representatives of the Design-Builder (or any other reasonable number agreed between the parties) whose roles areto promote cooperation and communication between the parties and to ensure oversight, coordination, monitoring, input, and execution of the Equipment process according to the Equipment Logistics Schedule and applicable Equipment sub-plans. The Committee will meet regularly (and not less than once per month). Quorum is established with a minimum of 2 representatives of the Authority and 1 representative of the Design-Builder. Advisors and consultants may be invited to attend the Committee meetings, as required, to provide information and briefings to the Committee. The Design-Builder will be responsible for preparing and distributing, in a timely manner, the agenda and meeting minutes.

1.7.7. Title

The Design-Builder will ensure that procurement arrangements for Category 4 Equipment provide for a direct transfer of title to such Equipment from the vendors to the Authority. Title to Category 4 Equipment may be reserved by third party unpaid vendors until the earlier of the date of payment or the Substantial Completion Date. The Design-Builder will pay all such unpaid vendors prior to the Substantial Completion Date for amounts owing on outstanding invoices.

1.7.8. Damage and Loss

Any damage or loss occurring prior to the Building Substantial Completion Date to Category 2 Equipment, Category 3 Equipment or Category 4 Equipment after it has been Received is the responsibility of the Design-Builder.

1.7.9. Acceptance Protocol

The Design-Builder will provide a document to the Authority for each Category 1 Equipment, Category 2 Equipment, Category 3 Equipment and Category 4 Equipment that certifies that all testing of the relevant Equipment has been completed to demonstrate that it has been installed in accordance with the manufacturer's requirements and is functioning in accordance with the specifications included in the relevant equipment purchase contract or purchase order (the "Acceptance Protocol").

Without limiting the Design-Builder's obligation to Commission the relevant Equipment, the Design-Builder will, to the Authority's reasonable satisfaction, complete all the aspects of the Acceptance Protocol for each item of Category 1 Equipment, Category 2 Equipment, Category 3 Equipment and Category 4 Equipment.

If prior to the Building Substantial Completion Date:

(a) the Design-Builder fails to complete any aspect of an Acceptance Protocol for any item of Category 1, Category 2 Equipment, Category 3 Equipment or Category 4 Equipment, and d

(b) the Authority does not waive the requirement for the Design-Builder to complete the relevant Acceptance Protocol;

Then, subject to meeting the other requirements for Substantial Completion of the Building, each such failure will be deemed a deficiency and the Authority may make the withholding described in the Design-Build Agreement.

1.7.10. Equipment Logistics Schedule

The Design-Builder will propose a draft schedule (the "Equipment Logistics Schedule") within 30 days after the Effective Date which will identify the key procurement and installation dates for each item in Appendix 1B(II) identified by their equipment bundle (i.e. Diagnostic Imaging equipment). The parties will seek to finalize the Equipment Logistics Schedule as an outcome of the Equipment Committee process, each party acting reasonably, within 90 days after the Effective Date, in accordance with the following principles:

(a) in order to take advantage of the most recent technological advances, final decisions on the selection of Equipment sensitive to or anticipated to be revised with newer technology prior to the Substantial Completion Date, together with any training or service requirements, will not be made by the Authority until as late as possible in the period for Construction;

(b) the Authority will require adequate time to issue competitive bidding documents, receive proposals, clarify aspects of proposals, and issue purchase orders;

(c) the Authority will require the ability to take advantage of bulk or other purchase opportunities advantageous to it; and

(d) the Design-Builder will undertake the precautions set out by Equipment vendors to protect any Equipment that is required to be Delivered or Installed while construction is still underway; however, as an additional precaution some sensitive Equipment (such as medical devices and equipment with electronic components) may require Delivery, Installation and Commissioning dates that are late in the period for Construction. The parties may modify the Equipment Logistics Schedule by mutual agreement, each acting reasonably.

1.7.12 Procurement:

Promptly following the completion of procurement activities for Category 1, Category 2, or Category 3 Equipment, the Authority shall provide ("Supply") the Design-Builder with all relevant information (including Purchase Order details, vendor contact information) required to complete its obligations under this Appendix.

1.7.13 Appendix 1B(II) Updates

The Design-Builder is to update Appendix 1B(II) reflecting all revisions and modifications arising from User Consultation Meetings and any other Authority requirements, effective upon execution of the Design-Build Agreement. The revisions will be separately identified via the addition of a new tracking column within Appendix 1B(II) to the satisfaction of the Authority. The updated Appendix 1B(II) list shall be made available to the Authority on a monthly basis or as requested. Upon completion of the design, the management of the list would revert back to the Authority.

1.7.14 Vendor Default

The Design-Builder will make all reasonable and best efforts to ensure that both sole-source and sole-source multi-vendor equipment procured by the Design-Builder is delivered by the dates specified in the Schedule. If such equipment is not delivered by the required dates and the Design-Builder has notified the Authority of all attempts made to subsequently secure delivery of the equipment, the Authority will not hold the Design-Builder liable for the delay by its vendor. The Authority will be responsible for vendor follow up in such a situation and will advise the Design-Builder of the outcome.

1.7.15 Equipment Responsibility Matrix

The following responsibility matrix is included as a guideline to the equipment categories and responsibilities for each by the Authority and Design-Builder, as outlined in Appendix 1B(II) and this Appendix 1B(I).

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LEGEND *(Simplified - Refer to Appendix 1B(I))*
CATEGORY 1 - Authority Purchase, Design-Builder Install (after Substantial Completion)
CATEGORY 2 - Authority Purchase, Design-Builder Install (prior to Substantial Completion)
CATEGORY 3 - Authority Purchase, Vendor Install, Design-Builder Coordinate
CATEGORY 4 - Design-Builder Purchase, Design-Builder Install
CATEGORY 5 - Authority Transfer

		EQUIPMENT CATEGORY					
PHASE	**SCOPE ELEMENT**	**CATEGORY 1**	**CATEGORY 2**	**CATEGORY 3**	**CATEGORY 4**	**CATEGORY 5**	**NOTES:**
Planning	Design	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	
Planning	Scheduling	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Led by Design-Builder, Approved by Equipment Committee.
Planning	Updating Equipment List	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Refer to Appendix 1B(II)
Planning	Coordination	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	
Planning	Budgeting	Authority	Authority	Authority	Design-Builder	NA	
Planning	Existing FF&E Inventory / Reconciliation	Authority	Authority	Authority	Authority	Authority	
Procurement	Tender Package Bundling	Authority	Authority	Authority	Design-Builder	NA	
Procurement	Front End	Authority	Authority	Authority	Design-Builder	NA	Category 1-3; Supplemented by Design-Builder requirements (e.g. site safety protocols).
Procurement	Specifications	Authority	Authority	Authority	Design-Builder	NA	
Procurement	Tender	Authority	Authority	Authority	Design-Builder	NA	
Procurement	Bid Analysis	Authority	Authority	Authority	Design-Builder	NA	
Procurement	Recommendations	Authority	Authority	Authority	Design-Builder	NA	Category 4 - Requires approval by Equipment Committee.
Procurement	Contract	Authority	Authority	Authority	Design-Builder	NA	
Procurement	Purchase Order	Authority	Authority	Authority	Design-Builder	NA	
Procurement	Updating Equipment List	Authority	Authority	Authority	Authority	Authority	Refer to Appendix 1B(II)
Procurement	Budget Updates	Authority	Authority	Authority	Design-Builder	NA	
Installation	Expediting	Design-Builder	Design-Builder	Design-Builder	Design-Builder	NA	
Installation	Shop Drawing Coordination	Design-Builder	Design-Builder	Design-Builder	Design-Builder	NA	
Installation	Scheduling - Delivery/Installation etc.	Design-Builder	Design-Builder	Design-Builder	Design-Builder	NA	
Installation	Receiving/ Unloading	Design-Builder	Design-Builder	Design-Builder	Design-Builder	NA	
Installation	Dismantling of Existing	NA	NA	NA	NA	Authority	
Installation	Disassembly of Existing	NA	NA	NA	NA	Authority	
Installation	Packing of Existing	NA	NA	NA	NA	Authority	
Installation	Relocation of Existing	NA	NA	NA	NA	Authority	
Installation	Interim Storage	Design-Builder	Design-Builder	Design-Builder	Design-Builder	NA	
Installation	Unpacking	Design-Builder	Design-Builder	Vendor	Design-Builder	Authority	
Installation	Assembly	Design-Builder	Design-Builder	Vendor	Design-Builder	Authority	
Installation	Handling	Design-Builder	Design-Builder	Vendor	Design-Builder	Authority	
Installation	Installation	Design-Builder	Design-Builder	Vendor	Design-Builder	Authority	
Installation	Connections (M/P/E)	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	
Installation	Cleaning	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	
Commissioning	Technical Acceptance	Design-Builder	Design-Builder	Vendor	Design-Builder	Authority	
Commissioning	Clinical Acceptance	Authority	Authority	Authority	Authority	Authority	
Commissioning	Testing/ Certification	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	
Commissioning	Training (Develop/Execute Plan)	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	
Commissioning	Biomed Registration	Authority	Authority	Authority	Authority	Authority	
Commissioning	Final Acceptance	Authority	Authority	Authority	Authority	Authority	

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Appendix 1B(II) - Furniture Equipment List

General Information

* Distributed items will be counted as a general allowance (i.e. Garbage/Recycling bin, Regulator, Flowmeter, Sharps Container, etc.)

* List includes Furniture and Equipment items and does not cover: IT (computer, printer, phone, etc.), AV (TV, video monitors (except medical use), security cameras, etc.), Sinks/Eye Wash/Showers, Washroom Accessories (grab bars, soap dispenser, etc.), Patient Ceiling Tracks, Equipment Ceiling Tracks & Cranes/Hoist etc., third party or retailer equipment (ATM, vending machines), Nurse Call Systems, Laundry and Kitchen Equipment, Millwork, Casework and any other Systems Furniture

Responsibility Code (PC)	Responsibility Code Description
1	AA: Authority Supplied - Design Builder Installed (After Substantial Completion)
2	AD: Authority Supplied - Design-Builder Installed
3	AV: Authority Supplied - Vendor Installed - Design-Builder Coordinated
4	DD: Design-Builder Supplied - Design Builder Installed
5	T: Authority Relocated (Transfer)

FE Code	Furniture-Equipment (F/E) Code Description
A	Allowance
E	Equipment
F	Furniture

CONSTR#	Description
Starting with letter "A"	Allowance item on the list
Starting with letter "E"	Equipment item on the list
Starting with letter "F"	Furniture item on the list
Starting with letter "T"	Transfer (Inventory) item on the list

PLACEMENT Code	Description
C	Ceiling Mounted
F	Floor/Mobile/Freestanding
H	Headwall Mounted
O	On a Cart/On Other Equipment/On Others
T	Tabletop/Countertop
W	Wall Mounted
X	No footprint

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
General	00.00.01	Distributed	A001	2471209	0940446	ALLOWANCE, HOUSEKEEPING	toilet bowl swab and caddy; putty knife; safety googles; cleaning bucket; mop hand and mop heads; wall mop unit; dust mop; dust pan; broom; wet floor signs; PPE	15	1	A		Generic					
General	00.00.01	Distributed	A006	1848353	0942663	ALLOWANCE, IMAGING, APRONS	Allowance for Lead aprons	1	1	A	ZZZ - Generic Descriptions	ZZZ					
General	00.00.01	Distributed	A005	1847845	0948036	ALLOWANCE, PATIENT LIFT ACCESSORIES, SLINGS	Assorted sizes and models of slings for ceiling patient lifts.	1	1	A		Guldmann					
General	00.00.01	Distributed	A002	1847851	0940432	ALLOWANCE, RECEPTACLE, RECYCLING	Estimated quantity. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings and provide wall-backing where wall-mounted types will be required.	200	1	A		Generic					
General	00.00.01	Distributed	A003	1847852	0940433	ALLOWANCE, RECEPTACLE, WASTE	Estimated quantity. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings and provide wall-backing where wall-mounted types will be required.	200	1	A		Generic					
General	00.00.01	Distributed	A004	1847854	0940435	ALLOWANCE, RECEPTACLE, WASTE, BIOHAZARD	Estimated quantity. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings and provide wall-backing where wall-mounted types will be required.	100	1	A		Generic					
General	00.00.01	Distributed	E306	1847848	0934870	BLENDER, AIR/OXYGEN	Two pressure compensated flowmeters mounted on either side for delivery of air and oxygen.	25	1	E	Bird Products Corporation	ULTRABLENDER	10040A	3.50	3.40	3.60	89
General	00.00.01	Distributed	E315	1867991	0940883	CHAIR, EVACUATION	Wall mounted holder. One person operation. Stair-TREAD system for stair descent. Buckles chest and thigh restraints. Extendable head end & foot end lift handles. Capacity: 500 lb. Dual wheel locks.	10	2	E	Stryker	6254		20.50	28.00	45.00	521
General	00.00.01	Distributed	E309	1847856	0931485	CONTAINER, SHARPS	Wall mounted. Capacity: 3.1 L (3.28 quart). Funnel-shaped opening with safety neck. Yellow inner liner. Clear top. Secure cap closure for safe transport. Dimensions provided are for the container only. Wall cabinet dimensions have been provided in Architectural notes	100	2	E	Becton Dickinson Canada Inc.	300450/305475		8.00	6.50	12.00	203
General	00.00.01	Distributed	E088	2341088	0946118	EVACUATION PATIENT SLED	Emergency patient evacuation sled. Built-in spinal boards and wheels. Storage pouch 20" W x 38" D x 4" H (508 x 965 x 102 mm) when filled with one sled.	3	1	E	Evacusled	Sled2Go	ESGO	24.00	26.00	4.00	610
General	00.00.01	Distributed	E307	1847850	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	194	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
General	00.00.01	Distributed	E104	1847847	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	150	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
General	00.00.01	Distributed	E227	1847844	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 Ibs Load Capacity.	30	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
General	00.00.01	Distributed	E475	2557343	0948625	MONITOR, TELEMETRY, NETWORK REQUIRMENTS	Network requirements for telemetry system including ceiling mounted access points, access point controller, POE switch, and sync unit. Patient worn telemetry units (monitor, physiological, telemetry) is separate. Telemetry coverage for Emergency, CDU, HAU, Gift Shop, Cafeteria, and Inpatient Unit.	1	3	E	Philips Healthcare	Various		23.75	3.00	23.75	603

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
				X																								
				X																								
				X																								
				X																								
				X																								
				X																								
86	91	4.0	1.8	W																								
711	1,143	34.0	15.5	W	Wall backing required. Folded height 45" (1143mm) Folded depth 11" (280mm)																								
165	305	7.0	3.2	W	Wall mounted. Mounting accessories to be included. Dimensions for container only (wxdxh): 5.4x5.4x9.4", not including wall mounted cabinet. wall cabinet 305475 : Dimension- 12" x 8" x 6.5" Weight 7lbs (3.18kg)																								
660	102	16.0	7.3	X	Weight: 16 lbs / 7.25 kg Folded and stored: 24”x 26”x 4”																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																								
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
76	603	16.0	7.3	C	Height: 23.75 in Width: 23.75 in Depth: 3 in Weight: 16 lbs Includes: (1) Dual Cable Egress Firestop Kit (1” trade size conduit connector and firestop grommet) (2) Keys for lock (4) Hanger wires Intellivue Wireless Access Points - 2.4GHz: Dimensions: 1.2 in x 8.0 in x 9.6 in 30mm x 203mm x 244mm Antenna Only: 8 in Weight: 1.8 lbs. with antennas Access Point Controller Unit (865346): Dimensions: 17.5" W x 1.75" H x 8.1" D 444.5mm W x 44.5mm H x 206mm D Rack Size: 1U Weight: 1.9 lbs 0.86kg Cisco Catalyst WS-C2960-24PC-S (866426): Dimensions: 19.0" W x 1.73" H x 13.0" D 483mm W x 44mm H x 330mm D Rack Size: 1U Weight: 8.0 lbs. (3.6 kg) Smart-hopping Synchronization Unit (866212): Dimensions: 19.0" W x 1.73" H x 8.7" D 483mm W x 43.9mm H x 221mm D Rack Size: 1U Weight: 4.8 lbs. (2.18 kg)	120	1	5.0			Plug		Yes	120	1	5.0			Plug		Yes	Power over ethernet through the Cisco 2960 POE Switch Power: 287mA @ 48 VDC Network Requirements: Ethernet 100 base T cable run from Intellivue Sync Unit to Core Access Point. All network drops are to be category 5e or higher certified.Remote Access Point is connected to Core Access Point via UTP and 75 Ohm Coaxial Cable. Access Point Controller Unit (865346): 15 Amp dedicated quad outlet within 3' of the rear of unit(s). All components except for Access Point(s) are powered through the Watchdog UPS. Rack Size: 1U Dissipation: 30 Btu/hr. (aprox.) Power: 10 Watts @ 117VAC Network Requirements: Ethernet 10/100 base T outlet within 3' of the rear of the computer(s). All network drops are to be category 5e or higher certified. Cisco Catalyst 2960 Switch available with multimode LC fiber optic connections. Cisco Catalyst WS-C2960-24PC-S (866426): 15 Amp dedicated quad outlet within 3' of the rear of unit(s).All components except for Access Point(s) are powered through the Watchdog UPS. Rack Size: 1U Heat Dissipation: 102 Btu/hr. Power: 1.3A @ 115VAC Network Requirements: Ethernet 10/100 base T outlet within 3' of the rear of the computer(s). All network drops are to be category 5e or higher certified. Cisco Catalyst 2960 Switch available with multimode LC fiber optic connections. Smart-hopping Synchronization Unit (866212):						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
		Supply pressure 30 to 75 PSIG/ 2.1 to 5/3 kg/cm2.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
General	00.00.01	Distributed	E040	1847846	0940356	PATIENT TRANSFER UNIT, CART	Storage for air supply mattress. Capacity: up to 10 single-patient use mats and slings. Push handle on rear.	5	1	E	Hovertech International	Universal Cart		19.00	19.00	38.50	483
General	00.00.01	Distributed	E308	1847855	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	97	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
General	00.00.01	Distributed	T112		00N0031220	VENTILATOR ACCESSORY, HUMIDIFIER		1	5	E		MR850					
Emergency	01.1.01.01	Triage / Interview Station	F005	1847857	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.1.01.01	Triage / Interview Station	F020	1847858	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.1.01.01	Triage / Interview Station	F026	2118418	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Emergency	01.1.01.01	Triage / Interview Station	E161	1847859	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Emergency	01.1.01.01	Triage / Interview Station	E209	1847861	0945282	SCALE, CLINICAL, BARIATRIC	Bariatric. Digital stand-on scale with side handrails. Maximum capacity: 1000 lb (454 kg).	1	1	E	Health-O-Meter (div of Pelstar)	1100KL	130-1100KL	31.75	31.25	49.50	806
Emergency	01.1.01.01	Triage / Interview Station	E206	1847860	0939188	SCALE, INFANT/PEDIATRIC	With cart. Built-in digital readout for weighing of neonates, infants and toddlers. Capacity: 45 lb (20 kg). Accuracy: 2/10 oz (5 g). Includes standard cradle.	1	1	E	Welch Allyn Inc.	4802D-AX-XB	412490 Cart	33.50	23.50	46.50	851
Emergency	01.1.02.01	Registration Station	F005	1847863	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.1.02.01	Registration Station	F020	1847864	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.1.03.01	Remote Registration Room	F066	1847866	0943450	CHAIR, FOLDING	Steel Seat/back, double riveted, u-braced legs for maximum support. 4 legged, Armless. 300 lb weight capacity. Folds to 2 1/2" thickness for easy storage. Comes in package of 4.	1	3	F	Uline Canada	Deluxe	H-2227BL	16.00	16.00	17.00	406
Emergency	01.1.03.01	Remote Registration Room	F067	1847867	0943451	CHAIR, FOLDING, BARIATRIC	Steel Seat/back, non-marring leg caps. 4 legged, Armless. 400 lb weight capacity. Comes in package of 4.	1	3	F	Uline Canada	Steel	H-9135	19.00	17.00	18.00	483
Emergency	01.1.05.01	Wheelchair Alcove	E291	1847869	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	2	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Emergency	01.1.05.01	Wheelchair Alcove	E292	1847870	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Emergency	01.1.05.02	Wheelchair Alcove	E291	1849787	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	2	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Emergency	01.1.05.02	Wheelchair Alcove	E292	1849786	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Emergency	01.1.05.03	Wheelchair Alcove	E291	1849789	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	2	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Emergency	01.1.05.03	Wheelchair Alcove	E292	1849788	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Emergency	01.1.06.01	Stretcher Alcove	E245	1847871	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.1.07.01	Public Waiting	F006	1847873	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	3	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Emergency	01.1.07.01	Public Waiting	F005	1847872	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	10	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.1.07.01	Public Waiting	F037	1847874	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
483	978	37.8	17.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
				O																								
546	838			F																								
610	1,016			F																								
610	737			F																								
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
794	1,257	50.0	22.7	F	180 degree swivel display.	120	1	0.3	60		Plug	5-15P										Includes AC adaptor. Operable using 6 AA batteries. Data Transfer: EMR/EHR Connectivity Featuring USB Port or optional wireless technology						
597	1,181	63.0	28.6	F	Approximate dimensions (wxdxh): Scale: 27.50x16x7" (699x406x178 mm). Cart, base: 23.50x23.50" (597x597 mm). Cart, shelf: 33.50x17.50" (851x445 mm). Cart height: 39.50" (1,003 mm). Standard Cradle: 25x14" (635x356 mm).	120	1		60		Plug											6 D sized alkaline batteries. USB port.						
546	838			F																								
610	1,016			F																								
406	432			F																								
432	457			F																								
810	864			F	shipping weight 43lbs (19.45kg).																							
1,067	914	70.0	31.8	F	Dimensions are approximate only.																							
810	864			F	shipping weight 43lbs (19.45kg).																							
1,067	914	70.0	31.8	F	Dimensions are approximate only.																							
810	864			F	shipping weight 43lbs (19.45kg).																							
1,067	914	70.0	31.8	F	Dimensions are approximate only.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
559	838			F																								
546	838			F																								
508	432			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E412	2477630	0946682	ARTICULATING ARM	For Trauma/Emerg - Contractor to install: Dimensions (approx.) provided are for the ceiling mounting plate. Vendor to install: Arm & Service Head dimensions are provided in the architectural note. Ceiling mounted tandem articulating arm system with two service heads. Electric brake.	2	3	E	Olympus Canada	Truport		30.00	30.00	6.00	762
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E306	2074090	0934870	BLENDER, AIR/OXYGEN	Two pressure compensated flowmeters mounted on either side for delivery of air and oxygen.	2	1	E	Bird Products Corporation	ULTRABLENDER	10040A	3.50	3.40	3.60	89
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E279	1847887	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E043	2074267	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	2	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E038	2074147	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E047	2074272	0945169	CART, RESUSCITATION, PAEDIATRIC	Fully stocked colour coded resuscitation cart w/ push handle. 9 drawers. 30" locking bar, stabilizing frame system. Plastic top. Soft grip push handles. Swivel casters, 2 lockings and one swivel fixed	1	1	E	Armstrong Medical	BROSELOW	V24UXGLA9PEDS	34.05	25.03	46.05	865
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E337	2195949	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	2	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E069	2074153	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E342	2074099	0939205	DRILL, INTRAOSSEOUS	For neonates and larger. Battery operated. Luer lock catheter.	1	1	E	Vidacare	EZ-IO		6.50	4.49	2.52	165
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E307	2118420	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	2	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E368	2118419	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	2	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
762	152			C	Service head Dimensions 12" x 12" (310 x 310 mm), Lengths Vertical: up to 59" (1500 mm), Horizontal: 19" or 29" (500 or 750 mm) Support Arm reach: single 51", dual 126 Hieght Adjustable Arm: reach 38.4", max height adjustment 27.6" list speed 1.2"/s Swivel range: 330 deg. on all joints Mounting plate to be tandem capable of supporting 2 articulating arms and an exam light extending from one ceiling structural point. Height from floor to bottom of service head of approx. 24" All pre-installation materials, including junction box, medical gas bracket, ceiling gas terminal unit, DISS fittings for medical gases terminations above the ceiling, and anchor plate with mounting hardware to be supplied by General Contractor. Approximate ceiling cutout: 25.6" x 25.6" (650 x 650 mm) Mounting hole pattern to be provided by vendor. Design Loads: Fmax: 9200 N (2067 lbf). Mbmax: 12,500 Nm (9,220 ft-lbs.). Vendor to identify component requirements and bolt hole patterns as applicable. Vendor to supply and install articulating arm with pre-fabricated housing conduits and cabling for desired services included in the center post and horizontal articulating arm. Fixed horizontal/horizontal articulating arm of approximately 63" (1600 mm) effective length. Arm should rotate 330 degrees with adjustable rotation stops. Each arm (respiratory & nursing) to have a payload of at least 100 kg (220.45 lbs.)	120	1	5.0	60		Hard		Yes									120V/5amp circuit for powering the articulating arm brakes and accessories Nursing arm : Eight (8) duplex receptacles, 20 amps; Six (6) on emergency power Eight (8) data cables with RJ-45 jacks Six (6) single gang cutouts for Data, A/V and other low voltage cabling Two (2) USB charging outlet/cables with 5V D.C. with 1A electrical supply. Respiratory Arm: Eight (8) duplex receptacles, 20 amps; Six (6) on emergency power Six (6) single gang cutouts for data, A/V and other low voltage cabling Eight (8) data cables with RJ-45 jacks 2 USB charging outlets with 5 VDC / 1 amp electrical supply Proponent to supply the following: a) Electrical junction box with riser plate. b) Conduit with pull strings to be provided in the arms for all low voltage devices. c) All conduit and wiring related to the data outlets, telephone outlets, and CAT 6A networking.						
86	91	4.0	1.8	W																							
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
636	1,170	128.0	58.1	F	Overall Dimentions: 451/2'' H x 25'' D x 33 1/2 W (Includes bumper, handles, and casters) Drawer Configuration: 3" (8), 6" (1)																						
660	1,981			F																							
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
114	64	0.7	0.3	X																		Battery operated.						
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Nursing Arm: 2 ea medical air DISS medical gas outlet 2 ea medical vacuum DISS medical gas outlets 2 ea oxygen DISS medical gas outlets Respiratory Arm: 2 ea medical air DISS medical gas outlet 2 ea medical vacuum DISS medical gas outlets 2 ea oxygen DISS medical gas outlets											
		Supply pressure 30 to 75 PSIG/ 2.1 to 5/3 kg/cm2.											
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E282	2074113	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	2	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E343	2074114	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	3	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E383	2483760	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	4	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E227	1847883	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	4	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E136	1847875	0938548	IMAGING, LEAD SHIELD	Barrier, Mobile, Clear-Lead, Full Window, For ionizing radiation, 0.5 mm LE Window size 30" w x 54.5" h (76 x 138.4 cm)	1	1	E	Biodex Medical Systems	042-582 Clear-Lead		30.00	10.50	73.62	762
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E139	1847879	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E145	1847880	0939198	LIGHT, SURGICAL, DUAL HEAD	Contractor to Install: Structural support, mounting plate pattern size (d10) at 1 m: 6.3"/ 9.1" (16/23 cm). Vendor to Install: Double-head TruLight, Illumination level Ec at 1 m (lx): 160,000	2	2	E	Trumpf	TruLight 5500		197.24	197.00	12.00	5,010
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E153	1847881	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	2	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E165	2074089	0944169	OPHTHALMOSCOPE/ OTOSCOPE, PORTABLE	Countertop charger. Constant automatic charging. complete w/ two rechargeable NiCa handles, 3.5 V coaxial ophthalmoscope, 3.5 V diagnostic otoscope and specula tray.	2	1	E	Welch Allyn Inc.	71641-M / 71310		7.00	3.25	9.25	178
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E179	1847882	0941224	PUMP, I.V., RAPID INFUSER	Blood and Fluid Warming System. Range of Fluid Bag Sizes, From 250 mL to 1000 mL. Maximum Dynamic Operating Pressure of 300 mmHg. Dual Clamp Mounting.	2	1	E	3M	Ranger	14500	20.00	7.75	15.75	508
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E308	2471702	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	2	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																	
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
267	1,870	97.9	44.5	F	Leg Depth: 10.5" (26.7 cm)																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
5,004	305	240.0	109.1	C	Ceiling mounted. Weight of light head (incl. cardanic): 2.4kg (5.29lbs) Light head size: 300mm (11.81") Max. distance from ceiling to central arm joint: 1287mm (51") Distance from central arm to secondary arm: 800mm (31.5") Distance from secondnary arm to light head: 718mm (28.27") Light head arm articulation: +35 to -45 degrees	120	1		60	65	Hard		Yes									Power Pack Supply Voltage 22-32 V DC DC-DC Box 22-26.4 V AC Maximum Power Consumption (total system) (VA) 65 Power consumption of light heads (W) 65 Ethernet cable is recommended as a backup for Wireless option.						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
83	235	3.0	1.4	T	Overall dimensions includes ophthalmoscope and otoscope. Dimensions (wxdxh): charger: 7x3.25x4.5" (178x83x114 mm). Specula tray: 5x8x3" (127x203x76 mm).	110	1	0.1	60		Plug																	
197	400	17.0	7.7	O		120	1	1.0	60		Plug											Power Cord: 15 feet (4.6m).						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH										AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Storage/Transport temperature: -20 to 45 deg C (-4 to 113 deg F)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E345	2074117	0943288	SCOPE, GLIDESCOPE	Video laryngoscope with colour monitor on 5-wheeel base mobile stand. Three reusable blades: small to morbidly obese patients. LED light source, video output/recording features.	1	1	E	Verathon Medical Canada	GVL Glidescope,Reusa	0270-858A	24.00	0.00	53.50	610
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E341	2074050	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	2	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E223	2074109	0938394	SPHYGMOMANOMETER, ANEROID	Sphygmomanometer To be mounted to headwall or articulating arm as applicable. Includes one-piece adult cuff. Height adjustable and 360 deg swivel. Mercury and latex free. Built-in cuff storage basket.	2	1	E	Welch Allyn Inc.	7670-01		8.07	6.81	7.17	205
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E228	2074052	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	2	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E432	2474832	0947731	STRETCHER, IMAGING	X-ray stretcher with dual deck design allows cassette positioning under the patient from head to toe offering similar results as an x-ray table. Red color scheme makes x-ray stretcher easily identifiable. Electric powered base and lift. Integrated scale. Weight capacity 700 lbs.	2	1	E	Stryker Canada Inc	Prime X	1115X	38.00	85.00	36.50	965
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E013	2074136	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E255	1847885	0935281	TABLE, INSTRUMENT	With undershelf and casters. 2" (51 mm) diameter casters. Framework 1" (25 mm) diameter. 18 gauge polished stainless steel tubing. All stainless 18 gauge tops and shelves.	2	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E157	2074053	0939150	TABLE, PREP	Mobile. Stainless steel. Flat top shelf. With lower shelf. Four 3" (76 mm) swivel casters.	1	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E029	1847876	0918274	TRANSFER BOARD W/WALL HANGER	Warp-resistant, polyethylene, carbon-filled plastic board with built in handles. Antistatic, and conductive. With vertical wall hanger.	2	2	E	Alimed	PATIENT SHIFTERS	9-719000000/RD9-704	22.00	72.00	0.19	559
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E276	2074112	0945296	VENTILATION/BIPAP UNIT	With mobile stand. Includes standard & enhanced alarm package. With disposable bacteria filter, disposable circuit, support arm, humidifier and mount. Patient types: adult & pediatric.	1	1	E	Respironics Inc	V60		20.13	24.37	51.67	511
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E277	1847886	0945298	VENTILATOR, TRANSPORT	Fully intensive care unit ventilator. Certified to use in ambulances, helicopters and airplanes. Adult, pediatric, and neonates ventilator. Non-invasive and integrated high flow oxygen therapy.	1	1	E	Hamilton Medical	T-1		12.20	8.60	11.70	310
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E280	1847888	0935034	WARMER, BLOOD/FLUID	Blood/fluid warming unit. Flow rates: 150 ml to 30,000 ml/hr. Output temperatures: 33 to 41 deg C (91 to 106 deg F).	1	1	E	Augustine Medical, Inc	RANGER	24500	7.50	10.00	4.50	191
Emergency	01.2.03.01	Charting Area	E399	2470147	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	2	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Emergency	01.2.04.01	Crash Cart Alcove		2194428	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Emergency	01.2.05.01	Storage Alcove	E043	1952226	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.2.05.01	Storage Alcove	E213	1847895	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.2.05.02	Storage Alcove	E043	1952227	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.2.05.02	Storage Alcove	E213	1849790	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.2.06.01	Quiet / Bereavement Room	F010	1847896	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	2	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Emergency	01.2.06.01	Quiet / Bereavement Room	F012	1847897	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	1	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Emergency	01.2.06.01	Quiet / Bereavement Room	F032	1847898	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	1	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Emergency	01.2.06.01	Quiet / Bereavement Room	F037	1847899	0939738	TABLE, END	Laminate Rectangular table top. Metal base	1	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
	1,359	5.5	2.5	F	Monitor (wxdxh): 8x3.26x6.57" (207x83x167 mm): Weigth: 3.1 lb (1.4 kg). Mobile stand: 24x0x47", 1.5 kg.	120	1	0.5	60		Plug		Yes									1 dataline required: video output cable for external monitor. Battery type: 12V Li Ion rechargeable.						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
173	182	2.6	1.2	H	Wall mounted. Mounting bracket included.																							
330	1,473	30.0	13.6	F																								
2,159	927	700.0	317.5	F	Overall width (siderails up): 38" (96.5cm) (Siderails down): 30.5" (77.5cm) Height range: 23.25 to 36.5" (59.1 to 92.7cm) Caster Diameter: 8" (20cm)	120	1	8.0			Plug	5-15P																	
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
508	864	70.0	31.8	F																								
508	864	70.0	31.8	F																								
1,829	5	9.0	4.1	W	Vertical wall hanger dimension (wxdxh): 18x5x0.75" (457x127x19 mm). Wall mounted. Mounting hardware to be included.																							
619	1,312	61.0	27.7	F	Dimensions (wxdxh) & weight: Main unit: 15.5x16.5x13.3" (394x429x337 mm). Weight: 24 lb (10.9 kg) with optional battery; 22 lb (10 kg) without battery. Stand: 20.13x24.37x38.37" (511x619x975 mm). Weight: 37 lb (16.78 kg). Acoustic noise: <45 dBA at 1 m (3.28 ft).	120	1		60		Plug		Yes									300 VA. Plug: 3-wire, right angle, 10 A circuit. Battery: 14.4 V, 11.5 Ah capacity, +16.9 V maximum charge voltage. Battery: 6 hours operating time in normal conditions. Dataline: 1 Ethernet, 1 nurse call.	O2					
218	297	14.3	6.5	O	Sound power level 51dBA +/- 3dBA Sound pressure level 43dBA +/- 3dBA	120	1		60		Plug											Power 50 VA typical, 150 VA maximum. Lithium-ion rechargeable battery. 10.8VDC, 6.7 Ah, 72 Wh, 50 W typical, 150 W maximum.						
254	114	7.0	3.2	O		120	1		60	900	Plug											Fuse: 2xT10A-H (250 V)						
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
				NA																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
457	1,753	92.0	41.7	F																								
800	927			F																								
737	838	116.0	52.7	F																								
1,067	457	60.0	27.3	F																								
508	432			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
					40	276.0	87	600.3																								

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 0 to 95%. Atmospheric pressure: 440 - 1060 hPa. Storage temperature: 0 to 45 deg C (32 to 113 deg F). Humidity: 10 to 95%. Atmospheric pressure: 800 - 1060 hPa.
		Oxygen inlet connectors: DISS (male or female), NIST (male), SIS (male). Medical gas to be supplied by facility.											Operating Conditions: Temperature: +5 to +40 deg. C (+41 to +104 deg F). Relative humidity 15 to 95% non-condensing. Storage Conditions: Temperature -20 to +50 deg. C (-4 to +122 deg F). Relative humidity 10 to 95% non-condensing. Operating and Storage Conditions, Barometric pressure: 79.9 to 101.1 kPa (600 to 765 mmHg).
		High pressure oxygen inlet 2.8 to 6 bar (41 psi to 87 psi), flow max 200l/min, connector DISS (CGA 1240) or NIST Low pressure oxygen inlet pressure maximum 6 bar (87 psi), flow <=15l/min, connector Quick coupling system, compatible with Colder Products Company (CPC) PMC series											Storage -20°C to 60°C, <= 85% relative humidity. The storage location should be free from vibration, dust, direct sunlight, moisture, and corrosive gases, and with a recommended temperature range < 21°C. Extended exposure to temperatures above 45°C can degrade battery performance and life.
													Operating Conditions: Temperature: 15 to 40 deg C (59 to 104 deg F). Humidity: 10 to 85% relative humidity, noncondensing. Atmospheric pressure: 50 to 106 kPa. Storage Temperature: -20 to 45 deg C (-4 to 113 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.01	Exam/Treatment Room	E043	2470148	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.01.01	Exam/Treatment Room	F005	1847900	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.3.01.01	Exam/Treatment Room	E307	2118433	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.01.01	Exam/Treatment Room	E368	2118439	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.01.01	Exam/Treatment Room	E104	1847908	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.01.01	Exam/Treatment Room	E343	2074115	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.3.01.01	Exam/Treatment Room	E383	1952237	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.01.01	Exam/Treatment Room	E227	1952236	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.01.01	Exam/Treatment Room	E138	1847903	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Emergency	01.3.01.01	Exam/Treatment Room	E142	1952228	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.01.01	Exam/Treatment Room	E153	1847904	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
140	226	2.5	1.1	O																	Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes								Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard										Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard										100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes								Power Consumption> 200 W Average.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.01	Exam/Treatment Room	E166	1847905	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.3.01.01	Exam/Treatment Room	E233	2192202	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.01.01	Exam/Treatment Room	E245	1847906	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.3.01.01	Exam/Treatment Room	F040	2471703	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.01.01	Exam/Treatment Room	F062	2074116	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.01.02	Exam/Treatment Room	E043	2470149	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.01.02	Exam/Treatment Room	F005	1849792	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.3.01.02	Exam/Treatment Room	E307	2118434	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.01.02	Exam/Treatment Room	E368	2118440	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.01.02	Exam/Treatment Room	E104	1849797	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.01.02	Exam/Treatment Room	E343	2472863	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.3.01.02	Exam/Treatment Room	E383	1952239	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.01.02	Exam/Treatment Room	E227	1952238	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.01.02	Exam/Treatment Room	E139	1849799	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																								
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.02	Exam/Treatment Room	E142	1952229	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.01.02	Exam/Treatment Room	E153	1849795	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.01.02	Exam/Treatment Room	E166	1849791	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.3.01.02	Exam/Treatment Room	E233	2192203	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.01.02	Exam/Treatment Room	E246	1849794	0931900	STRETCHER, ADULT, BARIATRIC	Bariatric. Weight capacity: 700 lb (318 kg).5th Wheel Steering. Scale and Exit System. 30" wide patient surface w/3" mattress.< 21" low height.	1	1	E	Stryker	1105	Prime Series	38.00	85.00	38.00	965
Emergency	01.3.01.02	Exam/Treatment Room	F040	2471704	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.01.02	Exam/Treatment Room	F062	2118424	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.01.03	Exam/Treatment Room	E043	2470150	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.01.03	Exam/Treatment Room	F005	1849808	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.3.01.03	Exam/Treatment Room	E307	2118435	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.01.03	Exam/Treatment Room	E368	2118441	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.01.03	Exam/Treatment Room	E104	1849805	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.01.03	Exam/Treatment Room	E343	2472864	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	965	0.0	0.0	F	Overall width w/ siderails up/down: 38"/30.50" (965/775 mm). Height Range (high): 34" Height Range (low): 20.75"	120	1	10.0	60		Plug											Note: electric lifter is optional.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.03	Exam/Treatment Room	E383	1952241	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.01.03	Exam/Treatment Room	E227	1952240	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.01.03	Exam/Treatment Room	E138	1849800	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Emergency	01.3.01.03	Exam/Treatment Room	E142	1952230	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.01.03	Exam/Treatment Room	E153	1849801	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.01.03	Exam/Treatment Room	E166	1849806	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.3.01.03	Exam/Treatment Room	E233	2192204	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.01.03	Exam/Treatment Room	E245	1849807	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.3.01.03	Exam/Treatment Room	F040	2471705	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.01.03	Exam/Treatment Room	F062	2118425	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.01.04	Exam/Treatment Room	E043	2470151	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.01.04	Exam/Treatment Room	F005	1849814	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.04	Exam/Treatment Room	E307	2118436	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.01.04	Exam/Treatment Room	E368	2118442	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.01.04	Exam/Treatment Room	E104	1849812	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.01.04	Exam/Treatment Room	E343	2472865	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.3.01.04	Exam/Treatment Room	E383	1952243	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.01.04	Exam/Treatment Room	E227	1952242	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.01.04	Exam/Treatment Room	E139	1849813	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Emergency	01.3.01.04	Exam/Treatment Room	E142	1952231	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.01.04	Exam/Treatment Room	E153	1849811	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.01.04	Exam/Treatment Room	E166	1849815	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.04	Exam/Treatment Room	E233	2192205	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.01.04	Exam/Treatment Room	E246	1849817	0931900	STRETCHER, ADULT, BARIATRIC	Bariatric. Weight capacity: 700 lb (318 kg).5th Wheel Steering. Scale and Exit System. 30" wide patient surface w/3" mattress.< 21" low height.	1	1	E	Stryker	1105	Prime Series	38.00	85.00	38.00	965
Emergency	01.3.01.04	Exam/Treatment Room	F040	2471706	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.01.04	Exam/Treatment Room	F062	2118426	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.01.05	Exam/Treatment Room	E043	2470152	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.01.05	Exam/Treatment Room	F005	1849822	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.3.01.05	Exam/Treatment Room	E307	2118437	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.01.05	Exam/Treatment Room	E368	2118443	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.01.05	Exam/Treatment Room	E104	1849825	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.01.05	Exam/Treatment Room	E343	2472866	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.3.01.05	Exam/Treatment Room	E383	1952245	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.01.05	Exam/Treatment Room	E227	1952244	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.01.05	Exam/Treatment Room	E138	1946200	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Emergency	01.3.01.05	Exam/Treatment Room	E142	1952232	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
584	699	0.0	0.0	F																							
2,159	965	0.0	0.0	F	Overall width w/ siderails up/down: 38"/30.50" (965/775 mm). Height Range (high): 34" Height Range (low): 20.75"	120	1	10.0	60		Plug											Note: electric lifter is optional.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.05	Exam/Treatment Room	E153	1849818	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.01.05	Exam/Treatment Room	E166	1849826	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.3.01.05	Exam/Treatment Room	E233	2192206	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.01.05	Exam/Treatment Room	E245	1946198	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.3.01.05	Exam/Treatment Room	F040	2471707	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.01.05	Exam/Treatment Room	F062	2118427	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.01.06	Exam/Treatment Room	E043	2470153	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.01.06	Exam/Treatment Room	F005	1849833	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.3.01.06	Exam/Treatment Room	E307	2118438	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.01.06	Exam/Treatment Room	E368	2118444	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.01.06	Exam/Treatment Room	E104	1849831	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.01.06	Exam/Treatment Room	E343	2472867	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.01.06	Exam/Treatment Room	E383	1952235	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.01.06	Exam/Treatment Room	E227	1952234	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.01.06	Exam/Treatment Room	E139	1946201	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Emergency	01.3.01.06	Exam/Treatment Room	E142	1952233	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.01.06	Exam/Treatment Room	E153	1849827	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.01.06	Exam/Treatment Room	E166	1849834	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.3.01.06	Exam/Treatment Room	E233	2192207	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.01.06	Exam/Treatment Room	E246	1946199	0931900	STRETCHER, ADULT, BARIATRIC	Bariatric. Weight capacity: 700 lb (318 kg).5th Wheel Steering. Scale and Exit System. 30" wide patient surface w/3" mattress.< 21" low height.	1	1	E	Stryker	1105	Prime Series	38.00	85.00	38.00	965
Emergency	01.3.01.06	Exam/Treatment Room	F040	2471708	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.01.06	Exam/Treatment Room	F062	2118428	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E043	2470154	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	F005	1847909	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	965	0.0	0.0	F	Overall width w/ siderails up/down: 38"/30.50" (965/775 mm). Height Range (high): 34" Height Range (low): 20.75"	120	1	10.0	60		Plug											Note: electric lifter is optional.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E307	2118445	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E368	2118446	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E104	2471709	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E343	2472868	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E383	1952248	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E227	1952247	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E138	1847911	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E142	1952246	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E153	1847912	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E166	1847913	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E233	2192208	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	E247	1847914	0931839	STRETCHER, OB/GYN	Hydraulic hi-low. Dual side-mounted foot control. Thermoformed ABS base with integrated storage tray. Weight capacity: 500 lb (228 kg).	1	1	E	Stryker Canada Inc	1061	GYNNIE OB/GYN	31.50	81.50	36.00	800
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	F040	2471710	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	F062	2118432	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E043	2470155	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	F005	1847916	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E307	2118448	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E368	2118449	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E104	1847922	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E343	2472869	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E383	1952251	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E227	1952250	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E138	1847918	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
584	699	0.0	0.0	F																								
2,070	914			F	Siderails Up: 31.5"" Siderails Down: 26.75"" Height Range (high): 36"" Height Range (low): 22.5"" Litter Positioning Backrest: 0° - 90°. Foot Section: 0° - 90°. Trend./Reverse Trend.: ±18°.																							
813	1,118			F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.							
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				LOW		HIGH												AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E142	1952249	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E153	1847919	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E166	1847920	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E233	2192209	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	E245	1847921	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	F040	2471711	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	F062	2118447	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.3.07.01	Isolation Anteroom	E041	1847923	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
Emergency	01.3.07.01	Isolation Anteroom	E104	2471712	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.3.09.01	Crash Cart Alcove	E038	1847925	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Emergency	01.3.09.01	Crash Cart Alcove	E069	1847926	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.09.01	Crash Cart Alcove	E013	1847924	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Emergency	01.3.11.01	Workstation: Unit Clerk	F020	1847927	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.12.01	Clinical Workstation	F020	1847930	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.12.01	Clinical Workstation	F026	1847934	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Emergency	01.3.12.01	Clinical Workstation	F028	1847931	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Emergency	01.3.12.01	Clinical Workstation	E011	1847929	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Emergency	01.3.12.01	Clinical Workstation	E154	1847932	0939180	MONITOR, CENTRAL STATION	32 channels for patient central monitoring w/dual displays, two-channel recorder/rack, laser printer, telemetry. 96 hour full disclosure 19" (533 mm) flat panel colour touch displays w/desk top mount.	1	1	E	Philips Healthcare	Center iX	INTELLIVUE INFO	60.00	7.60	16.70	1,524
Emergency	01.3.12.01	Clinical Workstation	E158	2477549	0947817	MONITOR, PHYSIOLOGICAL, TELEMETRY	Portable telemetry pack w/ECG and Sp02. 2.4 GHz, 3,5,6 or derived 12 lead ECG. Transmits for display, processing and storage to central station. Includes finger probe, cables & pouches.	6	3	E	Philips Healthcare	MX40	862231	2.75	1.24	4.99	70
Emergency	01.3.12.02	Clinical Workstation	F020	1849842	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
610	1,016			F																							
610	1,016			F																							
610	737			F																							
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																						
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
193	424	38.8	17.6	T	HP Engage Flex Pro Dimensions: 13.27" W x 3.94" H x 15.12" D 337mm x 100mm x 384mm Weight: 14.2 lbs. (6.44 kg) Heat Dissipation: 132 Btu/hr. (max.) Power: Operating Voltage Range 90-264 VAC 240 Rated Watts Watchdog UPS (862123) Dimensions: 17.5" W x 1.75" H x 11.75" D 445mm W x 45mm H x 295mm D Weight: 19 lbs. (8.62 kg) Heat Dissipation: 65 Btu/hr. (Nominal) 437Btu/hr (Max) Power: 5.6A @ 115VAC Rackmount option available ELO 24" Flat Panel Touch Display Dimensions without Stand: 23.9" W x 14.6" H x 7.6" D 606mm W x 373mm H x 61mm D Weight: 19.4 lbs. (8.8 kg) Heat Dissipation: 109.1 Btu/hr. Output Capacity: 32W Alarm Speaker Dimensions: 5.0" W x 3.0" H x 2.3" D 172mm W x 76mm H x 54mm D Weight: --- lbs. Heat Dissipation: --- Btu/hr. Power: ---	120	1	15.0	60	125	Plug		Yes									15 Amp dedicated quad outlet within 3' of the rear of unit(s). twork Requirements: Ethernet 10/100 base T outlet within only 3' of the rear of the computer(s). All network drops are to be Category 5e or higher certified. Input voltages - Processing unit: 100 - 127 VAC, 50 - 60 Hz, 125 Watts maximum. Dual flat screen display (each unit): 81 - 264 VAC, 48 - 62 Hz, 1 Amp. 2-channel recorder: 60 VDC, 26 Watts maximum. 2-channel recorder power supply: 100 - 240V, 50/60Hz, 72 Watts max. Laser printer: 100 - 127 VAC, 50 - 60 Hz, 72 Watts maximum.						
31	127	0.7	0.3	X	Alarm Signal Sound Pressure Level: 40dB(A) - 70dB(A)																	Powered by 3 each AA batteries						
610	1,016			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity
													Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 62 to 82 degrees Fahrenheit and non-condensing relative humidity at 30 to 60%.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.12.02	Clinical Workstation	E011	1849840	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Emergency	01.3.12.03	Clinical Workstation	F020	1849846	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.12.03	Clinical Workstation	F026	2194542	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Emergency	01.3.12.04	Clinical Workstation	F020	1849851	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.12.05	Clinical Workstation	F020	1849861	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.12.05	Clinical Workstation	F026	2194545	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Emergency	01.3.13.01	Physician Workstation	F020	1847936	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.13.01	Physician Workstation	F071	1847937	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Emergency	01.3.13.01	Physician Workstation	E213	1952254	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.3.13.02	Physician Workstation	F020	1849865	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.3.13.02	Physician Workstation	F071	1849864	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Emergency	01.3.14.01	Patient Nutrition Station	E290	1847939	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Emergency	01.3.14.01	Patient Nutrition Station	E151	1952255	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Emergency	01.3.14.01	Patient Nutrition Station	E192	1847938	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Emergency	01.3.15.01	Linen Alcove	E347	2194981	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Emergency	01.3.15.02	Linen Alcove	E347	2119058	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Emergency	01.3.16.01	Blanket Warmer	T279		00N0020225	CABINET, WARMING		1	5	E		SWC-2B-24					
Emergency	01.3.16.02	Blanket Warmer	T279		00N0004956	CABINET, WARMING		1	5	E		775 BAIR HUGGER					
Emergency	01.3.17.01	Cart Alcove	T076		00N0040526	ELECTROCARDIOGRAPH		1	5	E		2030360-001 MAC VU360					
Emergency	01.3.17.02	Cart Alcove	E213	1849867	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.3.17.03	Cart Alcove	E043	1946204	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.3.17.03	Cart Alcove	E213	1849869	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.3.17.04	Cart Alcove	E043	1946205	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
610	1,016			F																								
610	737			F																								
610	1,016			F																								
610	1,016			F																								
610	737			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
457	1,753	92.0	41.7	F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
610	1,753	112.0	50.9	F																								
610	1,753	112.0	50.9	F																								
				F																								
				F																								
				T																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.3.17.04	Cart Alcove	E213	1849872	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.3.17.05	Cart Alcove		2471935	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Emergency	01.3.17.06	Cart Alcove	E213	1849875	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.3.17.07	Cart Alcove		2471926	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Emergency	01.3.17.08	Cart Alcove		2471928	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Emergency	01.3.17.09	Cart Alcove	E076	1849868	0947275	ELECTROCARDIOGRAPH	With height adjustable (56-62") mobile workstation. 15.6" LED, full HD monitor touch screen.	1	1	E	GE Healthcare Clinical Systems	MAC VU360		19.00	28.00	62.00	483
Emergency	01.3.17.09	Cart Alcove	E213	1952260	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.3.18.01	Imaging / Ultrasound Machine Alcove	T126		00N0030359	IMAGING, ULTRASOUND SYSTEM		1	5	E		LOGIQ7					
Emergency	01.3.18.01	Imaging / Ultrasound Machine Alcove	E118	1847944	0933265	IMAGING, X-RAY UNIT, DIGITAL, MOBILE	Mobile. Radiographic X-ray system. Wireless connectivity from detector to system. Fully digital with flashpad digital detector. 360 deg turn with one hand. 2 touch-screen displays. Battery operated.	1	3	E	Carestream Health Canada	DRX-Revolution		22.70	48.00	77.00	577
Emergency	01.3.18.01	Imaging / Ultrasound Machine Alcove	E187	1952262	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Emergency	01.4.01.01	Exam/Treatment Room	E043	2470156	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.4.01.01	Exam/Treatment Room	F005	2197289	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.4.01.01	Exam/Treatment Room	E307	2197293	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.4.01.01	Exam/Treatment Room	E368	2197286	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.4.01.01	Exam/Treatment Room	E104	2197298	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.4.01.01	Exam/Treatment Room	E343	2472898	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.4.01.01	Exam/Treatment Room	E383	2197292	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.4.01.01	Exam/Treatment Room	E227	2197291	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.4.01.01	Exam/Treatment Room	E138	2197297	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,753	92.0	41.7	F																								
				NA																								
457	1,753	92.0	41.7	F																								
				NA																								
				NA																								
711	1,575	75.3	34.2	F	Weight 75.3 lbs max with adjustable height premium trolley and one battery Basic trolley 20.5 x 23.5 x 57 in (52 x 60 x 145 cm) Easy Clean trolley 19 x 28 x 56-58 in (48 x 71 x 142-147 cm) Easy Clean trolley 19 x 28 x 56-62 in (48 x 71 x 142-158 cm) with adjustable height 6 in (16 cm) of height adjustability	120	1		60		Plug		Yes									Powered by AC adapter or replaceable and rechargeable internal battery (hot swappable).						
457	1,753	92.0	41.7	F																								
				F																								
1,219	1,956	1,268.0	576.4	F	Dimensions (wxdxh) and weight, approximate: Width: 22.7" (577 mm). Depth: 48" (1219 mm). Weight: 1268 lb (575 kg). Height with column extended: 77" (1956 mm). Height with column collapsed: 51" (1295 mm).	120	1		60		Plug		Yes									Battery operated. Lead acid. 12 Amp-hr energy capacity. Generator power rating: 32 kW at 100 kvp.						
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature: Operating: 10 to 40 deg C (50 - 104 deg F). Transport/Storage: -40 to 70 deg C (-40 to 158 deg F). Humidity: Operating: 20% - 95% RH non-condensing. Transport/Storage: 15% - 95% non-condensing.
													Heat capacity, hu: 300,000 Cooling, hu/min: 60,000
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.4.01.01	Exam/Treatment Room	E142	2197299	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.4.01.01	Exam/Treatment Room	E153	2197295	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.4.01.01	Exam/Treatment Room	E166	2197288	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.4.01.01	Exam/Treatment Room	E233	2197285	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.4.01.01	Exam/Treatment Room	E245	2197294	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.4.01.01	Exam/Treatment Room	F040	2471713	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.4.01.01	Exam/Treatment Room	F062	2197287	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.4.01.02	Exam/Treatment Room	E043	2470157	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.4.01.02	Exam/Treatment Room	F005	2197304	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.4.01.02	Exam/Treatment Room	E307	2197308	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Emergency	01.4.01.02	Exam/Treatment Room	E368	2197301	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Emergency	01.4.01.02	Exam/Treatment Room	E104	2197313	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.4.01.02	Exam/Treatment Room	E343	2472899	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
546	838			F																							
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.4.01.02	Exam/Treatment Room	E383	2197307	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.4.01.02	Exam/Treatment Room	E227	2197306	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.4.01.02	Exam/Treatment Room	E138	2197312	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Emergency	01.4.01.02	Exam/Treatment Room	E142	2197314	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Emergency	01.4.01.02	Exam/Treatment Room	E153	2197310	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Emergency	01.4.01.02	Exam/Treatment Room	E166	2197303	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Emergency	01.4.01.02	Exam/Treatment Room	E233	2197300	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.4.01.02	Exam/Treatment Room	E245	2197309	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Emergency	01.4.01.02	Exam/Treatment Room	F040	2471714	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.4.01.02	Exam/Treatment Room	F062	2197302	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.4.02.01	Storage Alcove: ENT	E346	2074217	0945471	CABINET, EXAM/TREATMENT, E.N.T.	Laminate low voltage treatment ENT cabinet. Full-extension 6 drawers: 1 top 12.8x10x1.75", 2 middle 28.5x12.5x3", 1 bottom 28.5x12.5x4". Hold two Welch Allyn instruments.	1	1	E	Reliance Medical Products	410		33.00	20.44	48.00	838

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
519	1,219			F	shipping weight 245lbs.	120	1	10.0	60		Plug											Power cord put in 120V outlet capable of supplying at least 13.0 AMPS. Fuses T10A 250V.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													TRANSPORTATION / STORAGE CONDITIONS Temperature: Operating: 59 to 104º F 15 to 40º C Storage: -22 to +140º F (-30 to +60º C) Relative Humidity: Operating: 5% RH to 95% RH without condensation Storage: 10% RH to 100% RH, including condensation

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.4.02.01	Storage Alcove: ENT	E043	1946208	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Emergency	01.4.02.01	Storage Alcove: ENT	T135		00N0010227	OPHTHALMIC, LAMP, SLIT		1	5	E		SL-2G					
Emergency	01.4.02.01	Storage Alcove: ENT	E164	1847955	0934894	OPHTHALMIC, TONOMETER	Applanation tonometer. Handheld, portable. LCD readout on both sides. Battery powered.	1	1	E	Reichert Ophthalmic Instr Div Leica	Tono-Pen Avia		6.25	0.75	1.75	159
Emergency	01.4.03.01	Imaging / Equipment Alcove	E399	2470158	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Emergency	01.4.04.01	Active Waiting Recliner	F016	1847956	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Emergency	01.4.04.01	Active Waiting Recliner	E343	2471716	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Emergency	01.4.04.01	Active Waiting Recliner	E383	2471715	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.4.04.01	Active Waiting Recliner	E227	2074271	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.4.04.01	Active Waiting Recliner	E233	2473146	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.4.04.01	Active Waiting Recliner	F040	1847957	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.4.04.02	Active Waiting Recliner	F016	2113246	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Emergency	01.4.04.02	Active Waiting Recliner	E343	2471717	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
				O																							
19	44	0.2	0.1	X																		Battery operated.						
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
832	1,092			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						
584	699	0.0	0.0	F																								
813	1,118			F																								
832	1,092			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.4.04.02	Active Waiting Recliner	E383	2471718	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.4.04.02	Active Waiting Recliner	E227	2113248	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.4.04.02	Active Waiting Recliner	E233	2473147	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Emergency	01.4.04.02	Active Waiting Recliner	F040	2113247	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Emergency	01.4.05.01	Streaming Waiting Area	F006	1847959	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	2	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Emergency	01.4.05.01	Streaming Waiting Area	F005	1847958	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	13	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.4.05.01	Streaming Waiting Area	F037	1847960	0939738	TABLE, END	Laminate Rectangular table top. Metal base	4	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Emergency	01.4.06.01	Charting Area	F020	1847961	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.4.06.01	Charting Area	F046	1847962	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Emergency	01.5.01.01	Exam - Secure Room	F084	2475222	0947811	MATTRESS	Seclusion Mattress. 3 Foam layered. Waterproof cover. Latex free. Weight capacity: 300 lbs	1	1	F	North American Mattress Corp	Assure II	42-MH-V-72366	72.00	36.00	6.00	1,829
Emergency	01.5.01.01	Exam - Secure Room	E013	2074098	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Emergency	01.5.02.01	Crisis Interview Room	F009	1847964	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	3	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Emergency	01.5.02.01	Crisis Interview Room	F020	2119031	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.5.02.01	Crisis Interview Room	F050	2194533	0939740	DESK, STRAIGHT	Freestanding desk, full gables, with no storage.	1	3	F	Steelcase	TS5ARS3060	Payback	60.00	30.00	29.00	1,524
Emergency	01.5.02.01	Crisis Interview Room	F033	1847965	0940200	TABLE, COFFEE, WEIGHTED	Laminate top and sides. No exposed hardware.	1	3	F	Spec Furniture	OVALHD	Behavioral Health	30.00	48.00	20.00	762
Emergency	01.5.03.01	Isolation Anteroom	E041	1847967	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
Emergency	01.5.03.01	Isolation Anteroom	E104	2074078	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.6.01.01	Medication Room	E337	2197315	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Emergency	01.6.01.01	Medication Room	E419	2483737	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
584	699	0.0	0.0	F																							
813	1,118			F																							
559	838			F																							
546	838			F																							
508	432			F																							
610	1,016			F																							
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P															
914	152	37.0	16.8	F																							
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
660	914	48.0	21.8	F																							
610	1,016			F																							
762	737			F		120	1		60		Plug											Integrated power and data in desks and tables to connect to power source 120V/1P/60Hz, 15A circuits.						
1,219	508	148.0	67.3	F																							
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
660	1,981			F																							
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			355										Approximately 355 BTU/hr, 0.9amp at 117V

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.6.01.01	Medication Room	E437	2483739	0947894	MEDICATION DISPENSING SYSTEM, AUXILIARY CABINET	7-drawer auxiliary unit must be used in conjunction to main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		22.80	27.00	47.00	579
Emergency	01.6.01.01	Medication Room	E439	2483738	0947883	MEDICATION DISPENSING SYSTEM, DOUBLE COLUMN	Double Column Auxiliary. 8 doors. must be used in conjunction with main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		52.00	28.00	79.50	1,321
Emergency	01.6.01.01	Medication Room	E393	2470897	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Emergency	01.6.01.01	Medication Room	E191	1847971	0945280	REFRIGERATOR, MEDICATION DISPENSING, 13 CU FT	Used for storing refrigerated medication. Capacity: 13 cu ft. Remotely access via medication system. Auto defrost. Key lockable.	1	3	E	Becton Dickinson	BD Pyxis ES		24.25	29.50	70.50	616
Emergency	01.6.01.01	Medication Room	F082	2480517	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Emergency	01.6.01.01	Medication Room	F062	2470159	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Emergency	01.6.02.01	Equipment Storage	E338	2484914	0939168	CART, CAST	Drawers: 3x 3" (76 mm), 2x 6" (152 mm), 1x 9" (229 mm). Side bin. 28 quart (26 L) waste basket with holder. Pull out side shelf. Two tier shelving. Four 5" (127 mm) casters, all lockable.	1	1	E	Metro	FLCAST		32.25	22.38	41.50	819
Emergency	01.6.02.01	Equipment Storage	E472	2553339	0948575	CART, CYLINDER, MEDICAL GAS (1)	Size E or D cylinder cart dolly. 2 casters, 2 rubber stops. Rugged construction.	4	1	E	SaftCart	MDE-8		12.00	12.00	40.00	305
Emergency	01.6.02.01	Equipment Storage	E467	2553340	0948524	CART, CYLINDER, MEDICAL GAS (6)	For D or E sized cylinders. 6 cylinder capacity. On mobile dolly with casters.	1	1	E	Acart Equipment Ltd.	MC06-4		21.00	16.00	42.50	533
Emergency	01.6.02.01	Equipment Storage	E316	2471719	0942007	CHAIR, COMMODE, BARIATRIC	Capacity: 700 lb. Extra-large, heavy duty. Toilet seat snaps on, and toilet paper holder. Seat:14-3/4"W x 19"D; Width between arms: 24"; Floor to Seat:17-7/8"- 20-7/8"H; Seat Opening: 8"W x 10"D	1	1	E	Performance Health	081261767	9950 BARIATRIC	28.50	24.00	29.88	724
Emergency	01.6.02.01	Equipment Storage	E379	2471720	0943519	CHAIR, COMMODE/SHOWER	Mobile, for reusable and disposable bedpan commode use, over toilet use and as shower chair. Weight capacity: 350 lb (159 kg), maximum.	3	1	E	Vernacare	V65-1ZA	600ZA001	23.62	25.00	42.50	600
Emergency	01.6.02.01	Equipment Storage	E201	2338950	0945711	CUTTER, CAST REMOVAL SYSTEM	Cast cutter w/ vacuum on 5-wheel, lockable extraction stand and vacuum nozzle. Three different blade designs: 64mm diameter fully round, 64mm diameter segmented, and 80mm diameter segmented. The dimensions provided are for the canister only. Handpiece dimensions have been provided in Architectural notes	1	1	E	Desoutter Medical	CLEANCAST CC7	CC7A-120US / CC7-ext	38.60	38.60	17.30	980
Emergency	01.6.02.01	Equipment Storage	E070	1847975	0938351	DOPPLER, FETAL PULSE DETECTOR	Fetal pocket doppler. Integral probe protection and storage. Waterproof 2MHz probe. Built-in loudspeaker. Obstetrical application.	1	1	E	Huntleigh Diagnostics	Sonicaid FD2		2.91	1.06	5.51	74
Emergency	01.6.02.01	Equipment Storage	T184		00N0030998	I.V. INFUSION PUMP		1	5	E		8100					
Emergency	01.6.02.01	Equipment Storage	T184		00N0031003	I.V. INFUSION PUMP		1	5	E		8100					
Emergency	01.6.02.01	Equipment Storage	T184		00N0031016	I.V. INFUSION PUMP		1	5	E		8100					
Emergency	01.6.02.01	Equipment Storage	T184		00N0031021	I.V. INFUSION PUMP		1	5	E		8100					
Emergency	01.6.02.01	Equipment Storage	T184		00N0031026	I.V. INFUSION PUMP		1	5	E		8100					
Emergency	01.6.02.01	Equipment Storage	E383	2483761	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	5	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Emergency	01.6.02.01	Equipment Storage	E183	2471721	0938361	I.V. INFUSION PUMP, P.C.A.	PCA module for BD Carefusion IV infusion system. Ability to automatically pause the PCA infusion and deactivate dose request.	1	1	E	Becton Dickinson	Alaris 8120		4.50	7.50	15.00	114

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
686	1,194	133.0	60.3	F	Clearances: 1" either side 2" back side Drawer opening clearance 23" Additional clearances required if return bin included																	Power supplied via PyxiBus bus cables from main unit						
711	2,019	470.5	213.4	F	1" either side 2" back side Door opening clearance: 25" Additional clearances required if return bin present	120	1	3.0	60		Plug	5-15P										Emergency power recommended.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
749	1,791	382.0	173.3	F	Clearance: Minimum of 3" (76 mm) behind unit. 8" top clearance for ventilation Front clearance for door opening (at least 24.25" recommended.	115	1	1.4	60		Plug	5-15	Yes									Requires 15 Amps dedicated cricuit Power Cord Length: 8 - 10 ft Remote alarm connected to central building alarm system by contractor.						
	610	10.0	4.5	W																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	1,054			F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Back - 3" (76.2 mm)																								
305	1,016	12.0	5.4	F																								
406	1,080	16.4	7.5	F																								
610	759			F																								
635	1,080	350.0	159.1	F																								
980	439			F	Handpiece specification: Dimensions: 10.12" W x 2.72 D x 3.11" H (257 x 69 x 79mm) Weight: 1.47 lb (0.670 Kg) Extractor dimension: Diameter 17.3" (440mm) Height 38.6"(980mm) Sound level 79.4dBa.	120	1		60	800	Plug											Handpiece specification: PS8 Power supply (the power supply is integrated within the dust extraction unit on CC7) power supply 120V/ 1 phase, 60Hz, plug, 138W. Output voltage 12 Vdc Extractor power supply : 120V/ 1 phase/ 60Hz/ 800W. plug.						
27	140	0.7	0.3	O	Weight includes battery and one probe.																	Runs on rechargeable 9V battery						
				O																								
				O																								
				O																								
				O																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
191	381	5.5	2.5	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			21										
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F)
													Instrument has a single use thermal safety device which operates as 100 deg C (212 deg F).
													Relative humidity: 20-90% (non condensing) Temperature range: 5-40 deg Celcius

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.6.02.01	Equipment Storage	E227	1847979	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	5	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Emergency	01.6.02.01	Equipment Storage	E030	2484915	0940450	KICKBUCKET	Capacity: 12 qt (11.4 L). Stainless steel. Seamless welded frame. All around bumper. Includes pail, with dimensions (dxh): 12x11" (305x279 mm).	1	1	E	Imperial Surgical Company	OR-3631		14.50	0.00	15.00	368
Emergency	01.6.02.01	Equipment Storage	E140	1847976	0938554	LIFTER, PATIENT	Mobile electric patient lifter. Lifting speed: 36mm/sec. Emergency stop and lowering. Battery switches off at low voltage. 50 lifts per battery charge. Lift Capacity, Max: 205 KG	1	1	E	Guldmann	GL5.1		55.51	54.02	78.27	1,410
Emergency	01.6.02.01	Equipment Storage	E143	1847977	0938558	LIGHT, EXAM/TREATMENT, MOBILE	Mobile on portable stand. 12x13" (305x336 mm) single head LED exam light. Intensity: 51,200 LUX at 1 m. Total reach: 42" (1067 mm). Colour temperature: 4317 deg K.	1	1	E	Skytron	Spectra		17.25	42.13	80.00	438
Emergency	01.6.02.01	Equipment Storage	T125		00N0031202	SCANNER, BLADDER		1	5	E		0570-0190 BladderScan BVI 9400					
Emergency	01.6.02.01	Equipment Storage	E065	1847974	0945265	SEQUENTIAL COMPRESSION UNIT	Portable vascular therapy. Compresses leg or foot, or both simultaneously. Tubing set of two individual assemblies included. Continuous operation. 3.2" LCD colour screen. One-touch operation. Patient detection. Adjustable bed hook. USB port for software upgrades.	1	1	E	Cardinal Health	SCD 700	Kendall	7.70	7.30	6.80	196
Emergency	01.6.02.01	Equipment Storage	E213	1847978	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.6.02.01	Equipment Storage	E276	1847980	0945296	VENTILATION/BIPAP UNIT	With mobile stand. Includes standard & enhanced alarm package. With disposable bacteria filter, disposable circuit, support arm, humidifier and mount. Patient types: adult & pediatric.	2	1	E	Respironics Inc	V60		20.13	24.37	51.67	511
Emergency	01.6.02.01	Equipment Storage	T112		00N0004953	VENTILATOR ACCESSORY, HUMIDIFIER		1	5	E		MR850JHU					
Emergency	01.6.02.01	Equipment Storage	T112		00N0015035	VENTILATOR ACCESSORY, HUMIDIFIER		1	5	E		PT101US AIRVO 2					
Emergency	01.6.03.01	Clean Utility	E337	2074289	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	10	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Emergency	01.6.04.01	Soiled Utility	E392	2241665	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Emergency	01.6.04.01	Soiled Utility	E147	1847983	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	2	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Emergency	01.6.04.01	Soiled Utility	E393	2241677	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Emergency	01.6.04.01	Soiled Utility	E218	1872244	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Emergency	01.6.04.01	Soiled Utility	E400	2197612	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Emergency	01.6.05.01	Housekeeping Closet	E039	1847985	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Emergency	01.6.05.01	Housekeeping Closet	E339	2470160	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Emergency	01.6.05.01	Housekeeping Closet	E272	2267169	0945191	FLOOR MACHINE, VACUUM, UPRIGHT	4 L dust bag capacity. 5 stage filtration. Working width: 15" (380 mm). Brush speed: 5000 rpm.	1	1	E	Taski of Switzerland	Jet 38		14.96	10.24	47.24	380
Emergency	01.6.05.01	Housekeeping Closet	E215	1847986	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Emergency	01.6.05.01	Housekeeping Closet	F082	2480728	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Emergency	01.6.06.01	BioMed Workroom	F021	1847987	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Emergency	01.6.06.01	BioMed Workroom	F045	2480518	0947788	WHITEBOARD, STEEL, LARGE	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880013	96.00		48.00	2,438
Emergency	01.6.06.01	BioMed Workroom	E294	1847989	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Emergency	01.7.02.01	EMS Workstation	E347	2471723	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
	381	1.2	0.5	F																								
1,372	1,988	101.2	46.0	F		120	1		60	53	Plug											Battery, replaceable: 25.9 V/2.25Ah Consumption/power of actuator: 24V, max 8A.						
1,070	2,032	35.8	16.3	F	-12" (305mm) LED exam light. -Mobile floor stand mounted with total reach of 42" (1067mm) and 13' (4m) removable power cord. -50° upward and 30° downward movement of arm; -355° pitch and 360° roll rotation of lighthead.	110	1	0.4	60		Plug		No															
				O																								
185	173	5.0	2.3	O		120	1		60	50	Plug		Yes									Rechargeable Battery: 10.8V, 2200mAh, Lithium Ion. Power cord: 13 ft (3.96 m) long. USB port.						
457	1,753	92.0	41.7	F																								
619	1,312	61.0	27.7	F	Dimensions (wxdxh) & weight: Main unit: 15.5x16.5x13.3" (394x429x337 mm). Weight: 24 lb (10.9 kg) with optional battery; 22 lb (10 kg) without battery. Stand: 20.13x24.37x38.37" (511x619x975 mm). Weight: 37 lb (16.78 kg). Acoustic noise: <45 dBA at 1 m (3.28 ft).	120	1		60		Plug		Yes									300 VA. Plug: 3-wire, right angle, 10 A circuit. Battery: 14.4 V, 11.5 Ah capacity, +16.9 V maximum charge voltage. Battery: 6 hours operating time in normal conditions. Dataline: 1 Ethernet, 1 nurse call.	O2					
				O																								
				O																								
660	1,981			F																								
737	851	29.0	13.2	F																								
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																								
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																								
260	1,200	17.2	7.8	F	Sound level: 69 dBA.	120	1		60	900	Plug											Cable length: 10 m.						
457	1,880	18.0	8.2	F																								
	610	10.0	4.5	W																								
711	1,219	50.0	22.7	F																								
	1,219	20.0	9.1	W																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
610	1,753	112.0	50.9	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
					40	276.0	87	600.3																								

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Relative humidity: 85% max, non-condensing. Atmospheric pressure: 700 to 1060 mbar.
		Oxygen inlet connectors: DISS (male or female), NIST (male), SIS (male). Medical gas to be supplied by facility.											Operating Conditions: Temperature: +5 to +40 deg. C (+41 to +104 deg F). Relative humidity 15 to 95% non-condensing. Storage Conditions: Temperature -20 to +50 deg. C (-4 to +122 deg F). Relative humidity 10 to 95% non-condensing. Operating and Storage Conditions, Barometric pressure: 79.9 to 101.1 kPa (600 to 765 mmHg).
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.7.02.01	EMS Workstation	F020	1847991	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.7.02.01	EMS Workstation	F048	2192210	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Emergency	01.7.02.01	EMS Workstation	E104	2471724	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.7.03.01	Security Office	F020	2119034	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.7.03.01	Security Office	F053	2119033	0940215	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal.	1	3	F	Globalcare	FOLI	1200 SERIES	72.00	72.00	68.00	1,829
Emergency	01.7.03.01	Security Office	E213	1847993	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Emergency	01.7.04	Ante Room	E347	2471805	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Emergency	01.7.04	Ante Room	E046	2471806	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Emergency	01.8.01.01	Office: Manager	F069	1847996	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Emergency	01.8.01.01	Office: Manager	F005	1847994	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Emergency	01.8.01.01	Office: Manager	F020	1847995	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.8.01.01	Office: Manager	F063	1847998	0942326	DESK, L-SHAPE, W/HUTCH	L-Shaped, laminate finish, o/h hutch at return w/ storage below. Non-powered, includes grommets and wire management.	1	3	F	Global Furniture	Ionic		72.00	84.00	65.00	1,829
Emergency	01.8.01.01	Office: Manager	F082	2480519	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Emergency	01.8.02.01	Workstation: Clinical Pharmacist	F020	1847999	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.8.03.01	Workstation: IPC Advisor	F020	1848001	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Emergency	01.8.04.01	Business Centre	F029	1848003	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Emergency	01.8.04.01	Business Centre	F065	1952267	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Emergency	01.8.04.01	Business Centre	F041	2485731	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Emergency	01.8.04.01	Business Centre	F043	2480520	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Emergency	01.8.05.01	Staff Lounge	F010	1848007	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Emergency	01.8.05.01	Staff Lounge	F012	1848008	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Emergency	01.8.05.01	Staff Lounge	F005	1848006	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																								
610	1,016			F																								
1,829	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P																		
457	1,753	92.0	41.7	F																								
610	1,753	112.0	50.9	F																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
2,134	1,651			F																								
	610	10.0	4.5	W																								
610	1,016			F																								
610	1,016			F																								
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																						
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Emergency	01.8.05.01	Staff Lounge	E072	2119035	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Emergency	01.8.05.01	Staff Lounge	E151	1848009	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Emergency	01.8.05.01	Staff Lounge	E372	1848010	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Emergency	01.8.05.01	Staff Lounge	F034	1848011	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Emergency	01.8.05.01	Staff Lounge	F043	2480521	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Emergency	01.8.06.01	Locker Room with Change Areas	F002	1848013	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	2	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Emergency	01.8.06.01	Locker Room with Change Areas	E104	2074079	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Emergency	01.8.06.01	Locker Room with Change Areas	E185	1848014	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	2	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Emergency	01.8.06.01	Locker Room with Change Areas	E186	1848015	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	2	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Emergency	01.9.01.01	Ambulance Bay		1848016	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	F005	1848896	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E343	2472900	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
914	737			F																							
	914	10.0	4.5	W																							
610	457	75.0	34.1	F																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
349	521	23.0	10.5	F																							
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
				NA																							
546	838			F																							
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E383	1952270	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E227	1952269	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E138	1848899	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E142	1952268	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E153	1848900	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E166	1848901	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	E245	1848902	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	F040	2471725	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	F083	2480522	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	F062	2470161	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	F005	1849901	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
	610	25.0	11.3	W																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
546	838			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E343	2472901	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E383	1952273	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E227	1952272	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E138	1849902	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E142	1952271	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E153	1849903	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E166	1849899	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	E245	1849900	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	F040	2471726	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	F083	2480523	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	F062	2470162	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
140	226	2.5	1.1	O																	Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes								Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard										Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard										100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes								Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug										Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
	610	25.0	11.3	W																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug										All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	F005	1849913	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E343	2472902	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E383	1952276	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E227	1952275	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E138	1849906	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E142	1952274	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E153	1849909	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E166	1849908	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	E245	1849905	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	F040	2471727	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	F083	2480524	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
546	838			F																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
	610	25.0	11.3	W																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	F062	2470163	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	F005	1849918	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E343	2472903	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E383	1952279	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E227	1952278	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E139	1849917	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E142	1952277	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E153	1849914	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E166	1849920	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	E246	1849921	0931900	STRETCHER, ADULT, BARIATRIC	Bariatric. Weight capacity: 700 lb (318 kg).5th Wheel Steering. Scale and Exit System. 30" wide patient surface w/3" mattress.< 21" low height.	1	1	E	Stryker	1105	Prime Series	38.00	85.00	38.00	965
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	F040	2471728	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
546	838			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																		
2,159	965	0.0	0.0	F	Overall width w/ siderails up/down: 38"/30.50" (965/775 mm). Height Range (high): 34" Height Range (low): 20.75"	120	1	10.0	60		Plug											Note: electric lifter is optional.						
813	1,118			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

Appendix 1B(II) - Furniture Equipment List

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	F083	2480525	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	F062	2470164	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Visiting Specialists	03.1.01.01	Reception Desk	F020	1849180	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.1.02.01	Waiting Area	F006	1849184	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Visiting Specialists	03.1.02.01	Waiting Area	F005	1849183	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	7	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Visiting Specialists	03.1.02.01	Waiting Area	F037	1849185	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Visiting Specialists	03.1.04.01	Storage Alcove: Wheelchairs	E291	1849186	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	1	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Visiting Specialists	03.1.04.01	Storage Alcove: Wheelchairs	E292	2074107	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Visiting Specialists	03.1.04.02	Storage Alcove: Wheelchairs	E291	1849924	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	1	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Visiting Specialists	03.1.04.02	Storage Alcove: Wheelchairs	E292	2074108	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Visiting Specialists	03.1.04.03	Storage Alcove: Wheelchairs	E291	1849926	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	1	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Visiting Specialists	03.1.04.04	Storage Alcove: Wheelchairs	E292	1849927	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Visiting Specialists	03.2.01.01	Exam/Treatment Room	F005	1849188	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E368	2471729	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E142	1849189	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E161	2471730	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E166	1849190	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E308	2471731	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
	610	25.0	11.3	W																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	1,016			F																							
559	838			F																							
546	838			F																							
508	432			F																							
810	864			F	shipping weight 43lbs (19.45kg).																						
1,067	914	70.0	31.8	F	Dimensions are approximate only.																						
810	864			F	shipping weight 43lbs (19.45kg).																						
1,067	914	70.0	31.8	F	Dimensions are approximate only.																						
810	864			F	shipping weight 43lbs (19.45kg).																						
1,067	914	70.0	31.8	F	Dimensions are approximate only.																						
546	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E233	1849192	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Visiting Specialists	03.2.01.01	Exam/Treatment Room	E254	2337735	0945935	TABLE, EXAM, ADULT	Power height adjustable: 18 to 37" (457 to 940 mm). Patient weight capacity: 500 lb (227 kg). Gas assist back section. Seamless upholstery top. Heated drawer. Foot switch.	1	1	E	Midmark Corporation	224-002	Ritter	28.00	76.00	37.00	711
Visiting Specialists	03.2.01.01	Exam/Treatment Room	F082	2480526	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Visiting Specialists	03.2.01.02	Exam/Treatment Room	F005	1849931	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Visiting Specialists	03.2.01.02	Exam/Treatment Room	E368	2471732	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Visiting Specialists	03.2.01.02	Exam/Treatment Room	E142	1849932	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Visiting Specialists	03.2.01.02	Exam/Treatment Room	E166	1849929	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Visiting Specialists	03.2.01.02	Exam/Treatment Room	E308	2471733	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Visiting Specialists	03.2.01.02	Exam/Treatment Room	E233	1849933	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Visiting Specialists	03.2.01.02	Exam/Treatment Room	E254	2337736	0945935	TABLE, EXAM, ADULT	Power height adjustable: 18 to 37" (457 to 940 mm). Patient weight capacity: 500 lb (227 kg). Gas assist back section. Seamless upholstery top. Heated drawer. Foot switch.	1	1	E	Midmark Corporation	224-002	Ritter	28.00	76.00	37.00	711
Visiting Specialists	03.2.01.02	Exam/Treatment Room	F082	2480527	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Visiting Specialists	03.2.02.01	Exam/Treatment Room	F005	1849196	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E201	2338951	0945711	CUTTER, CAST REMOVAL SYSTEM	Cast cutter w/ vacuum on 5-wheel, lockable extraction stand and vacuum nozzle. Three different blade designs: 64mm diameter fully round, 64mm diameter segmented, and 80mm diameter segmented. The dimensions provided are for the canister only. Handpiece dimensions have been provided in Architectural notes	1	1	E	Desoutter Medical	CLEANCAST CC7	CC7A-120US / CC7-ext	38.60	38.60	17.30	980
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E368	2471734	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E142	1849197	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
584	699	0.0	0.0	F																								
1,930	940	409.0	185.5	F	Length with footrest extended: 76" (1,930mm).	115	1	11.5	60		Plug											Heated drawer: 115 VAC, 24.6 W.						
	610	10.0	4.5	W																								
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
584	699	0.0	0.0	F																								
1,930	940	409.0	185.5	F	Length with footrest extended: 76" (1,930mm).	115	1	11.5	60		Plug											Heated drawer: 115 VAC, 24.6 W.						
	610	10.0	4.5	W																								
546	838			F																								
980	439			F	Handpiece specification: Dimensions: 10.12" W x 2.72 D x 3.11" H (257 x 69 x 79mm) Weight: 1.47 lb (0.670 Kg) Extractor dimension: Diameter 17.3" (440mm) Height 38.6"(980mm) Sound level 79.4dBa.	120	1		60	800	Plug											Handpiece specification: PS8 Power supply (the power supply is integrated within the dust extraction unit on CC7) power supply 120V/ 1 phase, 60Hz, plug, 138W. Output voltage 12 Vdc Extractor power supply : 120V/ 1 phase/ 60Hz/ 800W. plug.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Instrument has a single use thermal safety device which operates as 100 deg C (212 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E166	1849198	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E308	2471735	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E053	1849195	0935210	STAND, BASIN, SINGLE	Stainless steel. Single bowl stand. Complete with 7 qt (6.6 L) basin. Fully welded frame.	1	1	E	Imperial Surgical Company	NEW # OR3651	F-3651/F-3654 W/BOWL	16.00	15.00	34.00	406
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E233	1849200	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Visiting Specialists	03.2.02.01	Exam/Treatment Room	E254	2337737	0945935	TABLE, EXAM, ADULT	Power height adjustable: 18 to 37" (457 to 940 mm). Patient weight capacity: 500 lb (227 kg). Gas assist back section. Seamless upholstery top. Heated drawer. Foot switch.	1	1	E	Midmark Corporation	224-002	Ritter	28.00	76.00	37.00	711
Visiting Specialists	03.2.02.01	Exam/Treatment Room	F082	2480528	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	F006	1849203	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	2	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	E368	2471736	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	E142	1849204	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	E166	1849205	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	E308	2471737	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	E233	1849207	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	E252	1849208	0940445	TABLE, EXAM/TREATMENT, BARIATRIC	Power height adjustable: 18 to 37" (457 to 940 mm). Patient weight capacity: 500 lb (227 kg). Gas assist back section. Seamless upholstery top. Heated drawer. Foot switch.	1	1	E	Midmark Corporation	224	Ritter	28.00	76.00	37.00	711
Visiting Specialists	03.2.04.01	Exam/Treatment Room - Bariatric	F082	2480529	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Visiting Specialists	03.2.06.01	Charting Area	F020	1849210	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.2.06.01	Charting Area	F062	1849211	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Visiting Specialists	03.2.06.02	Charting Area	F020	1849937	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.2.06.02	Charting Area	F062	1849936	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
381	864	13.0	5.9	F																							
584	699	0.0	0.0	F																							
1,930	940	409.0	185.5	F	Length with footrest extended: 76" (1,930mm).	115	1	11.5	60		Plug											Heated drawer: 115 VAC, 24.6 W.						
	610	10.0	4.5	W																							
559	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
584	699	0.0	0.0	F																							
1,930	940	409.0	185.9	F	Length with footrest extended: 76" (1,930mm).	120	1	11.5	60		Plug											Heated drawer: 115 VAC, 24.6 W. Electrical receptacle draw: 4 A.						
	610	10.0	4.5	W																							
610	1,016			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	1,016			F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Visiting Specialists	03.2.07.01	Group Counselling Room	F015	1849212	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	10	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Visiting Specialists	03.2.07.01	Group Counselling Room	F042	1849213	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	3	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Visiting Specialists	03.2.07.01	Group Counselling Room	F080	2480530	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Visiting Specialists	03.2.08.01	Phototherapy Booth	F005	1849215	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Visiting Specialists	03.2.08.01	Phototherapy Booth	E173	1849216	0945207	PHOTOTHERAPY BOOTH	High-output phototherapy system with Dermasense. UV light therapy. Non-UV transmitting viewing window, hand rails, optional open top or sealed unit, integrated removable sensors.	1	1	E	National Biological Corporation	HOUVA 4		46.00	49.00	85.00	1,168
Visiting Specialists	03.2.09.01	Alcove: Vital Signs and Blood Pressure Monitor	E161	1849217	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Visiting Specialists	03.2.09.02	Alcove: Vital Signs and Blood Pressure Monitor	E161	1849938	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Visiting Specialists	03.2.09.02	Alcove: Vital Signs and Blood Pressure Monitor	E213	1946210	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Visiting Specialists	03.2.10.01	Procedure Cart Storage Alcove	E043	1849218	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.10.02	Procedure Cart Storage Alcove	E043	1849939	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.10.03	Procedure Cart Storage Alcove	E043	1849940	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.10.04	Procedure Cart Storage Alcove	E043	1849941	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.10.05	Procedure Cart Storage Alcove	E043	1849942	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.10.06	Procedure Cart Storage Alcove	E043	1849943	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.10.07	Procedure Cart Storage Alcove	E043	1849944	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Visiting Specialists	03.2.11.01	Alcove: Floor Scale	E209	1849219	0945282	SCALE, CLINICAL, BARIATRIC	Bariatric. Digital stand-on scale with side handrails. Maximum capacity: 1000 lb (454 kg).	1	1	E	Health-O-Meter (div of Pelstar)	1100KL	130-1100KL	31.75	31.25	49.50	806
Visiting Specialists	03.2.11.01	Alcove: Floor Scale	E206	1946211	0939188	SCALE, INFANT/PEDIATRIC	With cart. Built-in digital readout for weighing of neonates, infants and toddlers. Capacity: 45 lb (20 kg). Accuracy: 2/10 oz (5 g). Includes standard cradle.	1	1	E	Welch Allyn Inc.	4802D-AX-XB	412490 Cart	33.50	23.50	46.50	851

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
546	838			F																								
1,245	2,159	700.0	318.2	F	Approx. width with door open is 70" (1778mm)	120	1	30.0	60		Plug											30 Amperes per leg 10-ft, 4 conductor						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
794	1,257	50.0	22.7	F	180 degree swivel display.	120	1	0.3	60		Plug	5-15P										Includes AC adaptor. Operable using 6 AA batteries. Data Transfer: EMR/EHR Connectivity Featuring USB Port or optional wireless technology						
597	1,181	63.0	28.6	F	Approximate dimensions (wxdxh): Scale: 27.50x16x7" (699x406x178 mm). Cart, base: 23.50x23.50" (597x597 mm). Cart, shelf: 33.50x17.50" (851x445 mm). Cart height: 39.50" (1,003 mm). Standard Cradle: 25x14" (635x356 mm).	120	1		60		Plug											6 D sized alkaline batteries. USB port.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Visiting Specialists	03.3.01.01	Equipment Storage	E140	1849221	0938554	LIFTER, PATIENT	Mobile electric patient lifter. Lifting speed: 36mm/sec. Emergency stop and lowering. Battery switches off at low voltage. 50 lifts per battery charge. Lift Capacity, Max: 205 KG	1	1	E	Guldmann	GL5.1		55.51	54.02	78.27	1,410
Visiting Specialists	03.3.01.01	Equipment Storage	E213	1849222	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Visiting Specialists	03.3.02.01	Clean Utility	E337	2195952	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	6	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Visiting Specialists	03.3.03.01	Soiled Utility	E392	2241666	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Visiting Specialists	03.3.03.01	Soiled Utility	E147	1849224	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Visiting Specialists	03.3.03.01	Soiled Utility	E393	2241678	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Visiting Specialists	03.3.03.01	Soiled Utility	E218	1872245	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Visiting Specialists	03.3.03.01	Soiled Utility	E400	2197613	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Visiting Specialists	03.3.05.01	Housekeeping Closet	E039	1849228	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Visiting Specialists	03.3.05.01	Housekeeping Closet	E339	2119049	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Visiting Specialists	03.3.05.01	Housekeeping Closet	E215	1849229	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Visiting Specialists	03.3.05.01	Housekeeping Closet	E234	2119045	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Visiting Specialists	03.3.05.01	Housekeeping Closet	F082	2480531	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Visiting Specialists	03.4.01.01	Clinical Workstation	F020	1849230	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.4.01.01	Clinical Workstation	E213	2195542	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Visiting Specialists	03.4.01.02	Clinical Workstation	F020	1849947	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.4.01.02	Clinical Workstation	E213	2195541	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Visiting Specialists	03.4.02.01	Physician Work Area	F020	1849234	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.4.02.02	Physician Work Area	F020	1849949	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Visiting Specialists	03.4.03.01	Business Centre	F029	1849236	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Visiting Specialists	03.4.03.01	Business Centre	F065	1952280	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Visiting Specialists	03.4.03.01	Business Centre	F043	2480532	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Visiting Specialists	03.4.04.01	Breakout Room	F015	1849239	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	4	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Visiting Specialists	03.4.04.01	Breakout Room	F042	1849240	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	1	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Visiting Specialists	03.4.04.01	Breakout Room	F044	2480533	0947789	WHITEBOARD, STEEL, MEDIUM	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 72x48 IN (1829x1220 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880012	72.00		48.00	1,829
Visiting Specialists	03.4.05.01	Meeting / Education Room	F015	1849242	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	8	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Visiting Specialists	03.4.05.01	Meeting / Education Room	F042	1849243	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,372	1,988	101.2	46.0	F		120	1		60	53	Plug											Battery, replaceable: 25.9 V/2.25Ah Consumption/power of actuator: 24V, max 8A.						
457	1,753	92.0	41.7	F																								
660	1,981			F																								
737	851	29.0	13.2	F																								
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																							
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																							
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
	610	10.0	4.5	W																								
610	1,016			F																								
457	1,753	92.0	41.7	F																								
610	1,016			F																								
457	1,753	92.0	41.7	F																								
610	1,016			F																								
610	1,016			F																								
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
	914	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	15.0	6.8	W																								
432	980			F																								
610	737	88.0	40.0	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Visiting Specialists	03.4.05.01	Meeting / Education Room	F080	2480534	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Visiting Specialists	03.4.06.01	Staff Lounge	F010	1849246	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Visiting Specialists	03.4.06.01	Staff Lounge	F012	1849247	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Visiting Specialists	03.4.06.01	Staff Lounge	F005	1849245	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Visiting Specialists	03.4.06.01	Staff Lounge	E151	1849248	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Visiting Specialists	03.4.06.01	Staff Lounge	E372	1849249	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Visiting Specialists	03.4.06.01	Staff Lounge	F034	1849250	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	2	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Visiting Specialists	03.4.06.01	Staff Lounge	F043	2480535	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Visiting Specialists	03.4.07.01	Locker Room with Change Areas	F002	1849252	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	2	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Visiting Specialists	03.4.07.01	Locker Room with Change Areas	E104	2074080	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Visiting Specialists	03.4.07.01	Locker Room with Change Areas	E185	1849253	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	2	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Visiting Specialists	03.4.07.01	Locker Room with Change Areas	E186	1849254	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	2	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Cancer Clinic	04.1.01.01	Sub-Waiting	F006	1849287	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Cancer Clinic	04.1.01.01	Sub-Waiting	F005	1849286	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	5	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.1.01.01	Sub-Waiting	F037	1849288	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	F016	1849290	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	F005	1849289	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E368	2471739	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	T184		00N0031108	I.V. INFUSION PUMP		1	5	E		8100					
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E383	2483762	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E227	1849291	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E161	2074059	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E308	2074269	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E341	2471740	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
	1,219	74.8	33.9	W																								
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
914	737			F																								
	914	10.0	4.5	W																								
610	457	75.0	34.1	F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
559	838			F																								
546	838			F																								
508	432			F																								
832	1,092			F																								
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	E233	1849292	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Cancer Clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open	F040	1849294	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	F016	1849953	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	F005	1849955	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E368	2471741	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	T184		00N0031110	I.V. INFUSION PUMP		1	5	E		8100					
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E383	2483763	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E227	1849954	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E161	2197317	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E308	2197321	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E341	2471742	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	E233	1849952	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Cancer Clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open	F040	1849951	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	F016	1849958	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	F005	1849962	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E368	2471743	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	T184		00N0031111	I.V. INFUSION PUMP		1	5	E		8100					
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E383	2483764	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
584	699	0.0	0.0	F																							
813	1,118			F																							
832	1,092			F																							
546	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
584	699	0.0	0.0	F																							
813	1,118			F																							
832	1,092			F																							
546	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E227	1849960	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E161	2197318	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E308	2197322	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E341	2471744	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	E233	1946212	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Cancer Clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open	F040	1849957	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	F016	1849964	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	F005	1849963	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E368	2471745	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	T184		00N0031107	I.V. INFUSION PUMP		1	5	E		8100					
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E383	2483765	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E227	1849967	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E161	2197319	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E308	2197323	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E341	2471746	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	E233	1946213	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Cancer Clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open	F040	1849966	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	F016	1849969	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	F005	1849972	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E368	2471747	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
584	699	0.0	0.0	F																							
813	1,118			F																							
832	1,092			F																							
546	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
584	699	0.0	0.0	F																							
813	1,118			F																							
832	1,092			F																							
546	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	T184		00N0031109	I.V. INFUSION PUMP		1	5	E		8100					
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E383	2483766	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E227	1849974	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 Ibs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E161	2197320	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E308	2197324	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E341	2471748	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	E233	1946214	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Cancer Clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open	F040	1849973	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	F030	1849300	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	F005	1849295	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E368	2471749	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	T184		00N0031112	I.V. INFUSION PUMP		1	5	E		8100					
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E383	2483767	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E227	1849297	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 Ibs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
584	699	0.0	0.0	F																							
813	1,118			F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																						
546	838			F																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E161	2471750	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E308	2197325	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E233	1849298	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	E245	1849299	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Cancer Clinic	04.2.02.01	Chemotherapy Exam/Treatment Room - Enclosed Room	F040	1849301	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Cancer Clinic	04.2.03.01	Isolation Anteroom	E041	1849302	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
Cancer Clinic	04.2.03.01	Isolation Anteroom	E104	1952281	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Cancer Clinic	04.2.08.01	Charting Area	E399	1849304	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Cancer Clinic	04.2.08.02	Charting Area	E399	1849976	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Cancer Clinic	04.2.08.03	Charting Area	E399	1849978	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Cancer Clinic	04.2.09.01	Nourishment Alcove	E290	1849307	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Cancer Clinic	04.2.09.01	Nourishment Alcove	E151	1849305	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Cancer Clinic	04.2.09.01	Nourishment Alcove	E372	2074207	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Cancer Clinic	04.2.10.01	Interview Room	F006	2472910	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Cancer Clinic	04.2.10.01	Interview Room	F005	1849308	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Cancer Clinic	04.2.10.01	Interview Room	F020	1849309	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Cancer Clinic	04.2.10.01	Interview Room	F050	2194534	0939740	DESK, STRAIGHT	Freestanding desk, full gables, with no storage.	1	3	F	Steelcase	TS5ARS3060	Payback	60.00	30.00	29.00	1,524
Cancer Clinic	04.2.10.01	Interview Room	F038	1849310	0939672	TABLE, ROUND	Standard Seating height. X-base. Laminate top	1	3	F	Spec Furniture	Manhattan	MNX36	36.00	36.00	29.00	914
Cancer Clinic	04.3.01.01	Equipment Storage	E213	1849312	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																							
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1															
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1															
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1															
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																
559	838			F																							
546	838			F																							
610	1,016			F																							
762	737			F		120	1		60		Plug											Integrated power and data in desks and tables to connect to power source 120V/1P/60Hz, 15A circuits.						
914	737	55.0	25.0	F																							
457	1,753	92.0	41.7	F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Cancer Clinic	04.3.02.01	Alcove: Floor Scale	E209	1849313	0945282	SCALE, CLINICAL, BARIATRIC	Bariatric. Digital stand-on scale with side handrails. Maximum capacity: 1000 lb (454 kg).	1	1	E	Health-O-Meter (div of Pelstar)	1100KL	130-1100KL	31.75	31.25	49.50	806
Cancer Clinic	04.3.03.01	Alcove: Vital Signs and Blood Pressure Monitor	T161		00N0031165	MONITOR, VITAL SIGNS, MOBILE		1	5	E		64NTPX CONNEX 6000 SERIES					
Cancer Clinic	04.3.03.01	Alcove: Vital Signs and Blood Pressure Monitor	T161		00N0031199	MONITOR, VITAL SIGNS, MOBILE		1	5	E		67NXTP CONNEX 6000 SERIES					
Cancer Clinic	04.3.03.01	Alcove: Vital Signs and Blood Pressure Monitor	E213	1946215	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Cancer Clinic	04.3.03.02	Alcove: Vital Signs and Blood Pressure Monitor		2197328	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Cancer Clinic	04.3.04.01	Cart / Storage Alcoves	E043	1946216	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Cancer Clinic	04.3.04.01	Cart / Storage Alcoves	E343	2119056	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Cancer Clinic	04.3.04.01	Cart / Storage Alcoves	E383	2483768	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.3.04.01	Cart / Storage Alcoves	E227	2471751	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.3.04.01	Cart / Storage Alcoves	E213	1849314	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Cancer Clinic	04.3.04.02	Cart / Storage Alcoves	E043	1946217	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Cancer Clinic	04.3.04.02	Cart / Storage Alcoves	E343	2119057	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	2	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
794	1,257	50.0	22.7	F	180 degree swivel display.	120	1	0.3	60		Plug	5-15P										Includes AC adaptor. Operable using 6 AA batteries. Data Transfer: EMR/EHR Connectivity Featuring USB Port or optional wireless technology						
				F																								
				F																								
457	1,753	92.0	41.7	F																								
				NA																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Cancer Clinic	04.3.04.02	Cart / Storage Alcoves	E383	2483769	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Cancer Clinic	04.3.04.02	Cart / Storage Alcoves	E227	2471752	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Cancer Clinic	04.3.04.02	Cart / Storage Alcoves	E213	1849979	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Cancer Clinic	04.3.05.01	Linen Alcoves	E347	2074105	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Cancer Clinic	04.3.06.01	Warming Cupboard	E279	1849315	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Cancer Clinic	04.4.01.01	Workstation: Cancer Care Navigator	F020	1849316	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Cancer Clinic	04.4.02.01	Clinical Workstation	F020	1849318	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Cancer Clinic	04.4.02.01	Clinical Workstation	F082	2480536	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Cancer Clinic	04.4.03.01	Physician Work Area	F020	1849322	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Cancer Clinic	04.4.03.01	Physician Work Area	F048	1849323	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Cancer Clinic	04.4.04.01	Office: Pharmacist	F020	1849325	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Cancer Clinic	04.4.04.01	Office: Pharmacist	F048	1849324	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	F016	1849327	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	F005	1849326	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	T184		00N0031116	I.V. INFUSION PUMP		1	5	E		8100					
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	E383	2483770	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	E227	1849328	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
457	1,753	92.0	41.7	F																							
610	1,753	112.0	50.9	F																							
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
610	1,016			F																							
610	1,016			F																							
	610	10.0	4.5	W																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
832	1,092			F																							
546	838			F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	E161	2472890	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	E341	2471753	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	E233	1849329	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
IV Therapy	05.2.01.01	IV Therapy Exam/Treatment Area - Open	F040	1849332	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	F016	1849980	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	F005	1849983	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	T184		00N0031113	I.V. INFUSION PUMP		1	5	E		8100					
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	E383	2483771	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	E227	1849986	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	E341	2471754	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	E233	1849982	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
IV Therapy	05.2.01.02	IV Therapy Exam/Treatment Area - Open	F040	1849984	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	F016	1849992	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	F005	1849989	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	T184		00N0031114	I.V. INFUSION PUMP		1	5	E		8100					
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	E383	2483772	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	E227	1849988	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	E341	2471755	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
813	1,118			F																								
832	1,092			F																								
546	838			F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
813	1,118			F																								
832	1,092			F																								
546	838			F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	E233	1946218	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
IV Therapy	05.2.01.03	IV Therapy Exam/Treatment Area - Open	F040	1849991	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	F016	1850000	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	F005	1849998	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	T184		00N0031115	I.V. INFUSION PUMP		1	5	E		8100					
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	E383	2483773	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	E227	1849995	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	E341	2471756	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	E233	1946219	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
IV Therapy	05.2.01.04	IV Therapy Exam/Treatment Area - Open	F040	1849997	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	F005	1946223	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	E343	2483821	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	E383	2483774	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	E227	1946226	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	E341	2471757	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
584	699	0.0	0.0	F																								
813	1,118			F																								
832	1,092			F																								
546	838			F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
813	1,118			F																								
546	838			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	E233	1946222	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	E245	1946225	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
IV Therapy	05.2.01.05	IV Therapy Exam/Treatment Area - Open	F040	1946224	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	F016	1946227	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	F005	1946230	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	E343	2483822	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	E383	2483775	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	E227	1946233	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	E341	2471758	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	E233	1946229	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
IV Therapy	05.2.01.06	IV Therapy Exam/Treatment Area - Open	F040	1946231	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
IV Therapy	05.2.04.01	Charting Area	F020	1849333	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
IV Therapy	05.2.04.01	Charting Area	E218	2119060	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
IV Therapy	05.2.04.01	Charting Area	E399	1849334	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
IV Therapy	05.2.04.02	Charting Area	F020	1850016	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
IV Therapy	05.2.04.02	Charting Area	E399	1850015	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
IV Therapy	05.2.04.03	Charting Area	F020	1850018	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
584	699	0.0	0.0	F																								
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																								
832	1,092			F																								
546	838			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																								
584	699	0.0	0.0	F																								
813	1,118			F																								
610	1,016			F																								
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
610	1,016			F																								
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS			
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA		

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
IV Therapy	05.2.04.03	Charting Area	E399	1850017	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
IV Therapy	05.3.01.01	Medication Room	E426	2473843	0947708	CABINET, PASS THROUGH, SS	Stainless steel pass through cabinet. Eliminate foot traffic and reduce contamination. Easy cleaning, adjustable shelves, durable 16-gauge stainless steel construction.	1	4	E	Clean Air Products Inc.	CAP18W	CAP18W-SST-24W-24H-2	28.75	24.00	26.00	730
IV Therapy	05.3.01.01	Medication Room	E359	1849336	0928963	CART, MEDICATION	Formed steel and aluminum construction. Two 3" (76 mm), one 10" (254 mm) high full width drawers. 8 half-width bins. Auto relock. Proximity card reader. 2 handles. 4 swivel casters w/ 1 locking.	1	1	E	Capsa Solutions	Avalo ACS		26.00	24.00	39.50	660
IV Therapy	05.3.01.01	Medication Room	E337	2195954	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
IV Therapy	05.3.01.01	Medication Room	E101	2473148	0940627	LAB FREEZER, UNDERCOUNTER	5.3 cu.ft (150L) capacity . Temp range -15 to -30oC; Lockable door, password protected settings, optional PIN access; Alarms: door ajar, power failure, condenser temp; Downloadable event log	1	2	E	Helmer Labs Inc.	ILF 105-GX		24.30	28.40	31.90	617
IV Therapy	05.3.01.01	Medication Room	E419	2483740	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
IV Therapy	05.3.01.01	Medication Room	E438	2483741	0947884	MEDICATION DISPENSING SYSTEM, COLUMN	Single column auxiliary unit with 4 doors, must be used in conjunction with a main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	79.50	787
IV Therapy	05.3.01.01	Medication Room	E394	2470898	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
IV Therapy	05.3.01.01	Medication Room	E191	1848154	0945280	REFRIGERATOR, MEDICATION DISPENSING, 13 CU FT	Used for storing refrigerated medication. Capacity: 13 cu ft. Remotely access via medication system. Auto defrost. Key lockable.	1	3	E	Becton Dickinson	BD Pyxis ES		24.25	29.50	70.50	616
IV Therapy	05.3.01.01	Medication Room	F082	2480537	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
IV Therapy	05.3.02.01	Equipment Storage	E213	1849341	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
IV Therapy	05.3.02.01	Equipment Storage	T273		00N0031198	TRANSILLUMINATOR		1	5	E		134-003104-01 VEINVIEWER 4.0 VISION2					
IV Therapy	05.3.03.01	Cart / Storage Alcoves	E213	1849342	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
IV Therapy	05.3.03.02	Cart / Storage Alcoves	E213	1850019	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
IV Therapy	05.4.01.01	Clinical Workstation	F029	2074192	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
IV Therapy	05.4.01.01	Clinical Workstation	F020	1849343	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
IV Therapy	05.4.01.01	Clinical Workstation	F071	1849345	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
IV Therapy	05.4.01.01	Clinical Workstation	F082	2480538	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
IV Therapy	05.4.02.01	Physician Work Area	E046	2119063	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
IV Therapy	05.4.02.01	Physician Work Area	F020	1849347	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
IV Therapy	05.4.02.01	Physician Work Area	F048	1849348	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E473	2557340	0948622	CABINET, STORAGE, MOBILE	Single wide, mobile storage unit. Clear windows, manual lock. Adjustable shelves. 300lb (136kg) weight capacity.	1	1	E	Metro	Starsys XD	SXRS76MXD1	22.70	28.00	78.00	577

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
610	660			W	Recommended wall cutout is 29.25W x 26.5H																							
610	1,003			F																								
660	1,981			F																								
721	810	179.0	81.2	F	Exterior (w x h x d) : 24 x 31.5 x 26.7" (610 x 798 x 678 mm). Minimum of 3"" (76mm) behind unit for clearance and feature access. Front ventilation eliminates the need for top or side clearance. Add 2.5" to the height if choosing optional casters. Overall Exterior: Add 0.3" to width if choosing optional access control. Includes leveling feet, door handle, user interface, and access panels. The maximum height added with leveling feet at highest level or casters installed is 2" (51 mm). Depth when door opening 48.8". Noise emission 46 dB.	115	1	4.1	60		Plug	NEMA 5-15	Yes								15 A (minimum) dedicated circuit with earth grounding. Hospital grade plug, power cord length: 8 - 10 ft (2.4 - 3.0 m).						
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
711	2,019	314.0	142.4	F	1" either side 2" back side Door opening clearance: 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P	Yes									Data required Emergency power recommended						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							
749	1,791	382.0	173.3	F	Clearance: Minimum of 3" (76 mm) behind unit. 8" top clearance for ventilation Front clearance for door opening (at least 24.25" recommended.	115	1	1.4	60		Plug	5-15	Yes									Requires 15 Amps dedicated cricuit Power Cord Length: 8 - 10 ft Remote alarm connected to central building alarm system by contractor.						
	610	10.0	4.5	W																								
457	1,753	92.0	41.7	F																								
				T																								
457	1,753	92.0	41.7	F																								
457	1,753	92.0	41.7	F																								
457	1,829	133.0	60.5	F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
	610	10.0	4.5	W																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
711	1,981	0.0	0.0	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			1,701										Ambient Operating Temperature: 15 to 32 deg C (59 to 90 deg F).
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E043	1950505	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	F005	1849349	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	F020	1849350	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	F048	1849356	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E307	2471760	0945228	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E368	2471761	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E156	1849352	0938496	PC-BASED EXERCISE ECG SYSTEM WITH TREADMILL	PC based exercise ECG (Case V6.7) test system on cart with printer and treadmill T2100ST2. DICOM and EMR connectivity.	1	3	E	GE Healthcare Clinical Systems	PC-Based Exercis ECG	CASE	33.00	88.00	36.00	838
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E308	2471759	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E370	2074165	0934711	SPIROMETER	Colour display, built-in thermal printer. Measure FVC, VC, IVC, MVV w/real time curves. Pre&post bronchial response. W/Windows-based software, Bluetooth adapter for external printer, bacteria filters.	1	1	E	Medical International Research (MIR)	SPIROLAB-III		12.20	8.07	2.56	310
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E233	1849353	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	E245	1849354	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Respiratory Services	06.2.01.01	Exercise / Stress Testing Room	F083	2480539	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Respiratory Services	06.2.02.01	Crash Cart Alcove	E038	1849358	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Respiratory Services	06.2.02.01	Crash Cart Alcove	E069	1849359	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Respiratory Services	06.2.02.01	Crash Cart Alcove	E013	1849357	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Respiratory Services	06.2.03.01	PFT Room	E062	1849361	0938515	CHAIR, PHLEBOTOMY	Three position recliner w/ infinite back adjustments. Trendelenburg. Drop-down armrests. Locking casters. Two flip-up 11.5" w x 18" d side tables. Weight Capacity: 275 lbs	1	1	E	Winco Inc.	6530		32.25	39.00	49.00	819
Respiratory Services	06.2.03.01	PFT Room	F005	1849360	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
58	152	0.2	0.1	H	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
2,235	914	225.0	102.3	F	Dimensions (w x d x h): ECG acquisition module: 4.1 x 5.3 x 1.4" (105 x 135 x 35 mm). 135 g (4.8 oz). Cart: approximately 24 x 24 x 32" (600 x 600 x 810 mm). Computer and printer within cart footprint. Treadmill: footprint (w x l) 33 x 88" (838 x 2235 mm).	220	1	15.0	60		Plug		Yes									Computer: 120 V, 60 Hz, data required. Printer: 120 V, 60 Hz. Treadmill: 220 V, split phase, 60 Hz, 15 A, NEMA 6-15R wall receptacle , dedicated circuit required.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
205	65	4.2	1.9	F		120	1	0.5	60		Plug		Yes									Unit with built-in rechargeable battery.						
584	699	0.0	0.0	F																								
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
	610	25.0	11.3	W																								
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
991	1,245	93.7	42.6	F	Overall length, reclined: 76.50" (194.3 cm). Add: 9.25" (235 mm), each side for foldable side trays.																							
546	838			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Respiratory Services	06.2.03.01	PFT Room	F020	1849362	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Respiratory Services	06.2.03.01	PFT Room	F048	1849368	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Respiratory Services	06.2.03.01	PFT Room	E307	2471762	0945228	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Respiratory Services	06.2.03.01	PFT Room	E368	2471763	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Respiratory Services	06.2.03.01	PFT Room	E161	1849363	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Respiratory Services	06.2.03.01	PFT Room	E308	2471764	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Respiratory Services	06.2.03.01	PFT Room	E381	1849364	0944256	SCALE, FLOOR, CLINICAL	Digital stand-on scale with 3-sided handrail and height bar. Maximum capacity 1000 lb (454.5 kg). Memory recall. Solid cast aluminum construction. Platform dimensions (wxd): 15.75x22" (400x559 mm).	1	1	E	S.R. Instruments	SR555i	SR555i/SR3086/SR3070	22.50	22.00	79.00	572
Respiratory Services	06.2.03.01	PFT Room	T224		00N0040469	SPIROMETER	Diagnostic Spirometer	1	5	E		762042-905 CPFS/D-USB					
Respiratory Services	06.2.03.01	PFT Room	E233	1849366	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Respiratory Services	06.2.03.01	PFT Room	F040	2074298	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Respiratory Services	06.2.03.01	PFT Room	F082	2480540	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Respiratory Services	06.3.01.01	Respiratory Therapy Storage / Workroom	E468	2544716	0948527	CART, CYLINDER, MEDICAL GAS (12)	12 cylinder capacity, wire cart. Holds any combination of D and E cylinders. Mobile with casters.	1	1	E	Metro	ITC12C		20.50	26.00	39.00	521
Respiratory Services	06.3.01.01	Respiratory Therapy Storage / Workroom	E467	2553372	0948524	CART, CYLINDER, MEDICAL GAS (6)	For D or E sized cylinders. 6 cylinder capacity. On mobile dolly with casters.	1	1	E	Acart Equipment Ltd.	MC06-4		21.00	16.00	42.50	533
Respiratory Services	06.3.01.01	Respiratory Therapy Storage / Workroom	E046	2471765	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	2	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Respiratory Services	06.3.01.01	Respiratory Therapy Storage / Workroom	T288		00N0033657	VENTILATION/CPAP UNIT		1	5	E		37090 AIRSENSE 10					
Respiratory Services	06.3.01.01	Respiratory Therapy Storage / Workroom	E274	2115056	0945297	VENTILATOR	Mobile. With stand. With humidifier. Without air compressor. Pressure and volume based delivery and pressure or flow triggering. For infant, pediatric, & adult patients. With 15" (381 mm) LCD display.	4	1	E	Covidien	Puritan Bennett 980	PB980	22.50	26.00	58.00	572
Respiratory Services	06.3.02.01	Cart / Storage Alcoves	T289		00N0040523	NEBULIZER		1	5	E		AEROGEN PRO-X					
Respiratory Services	06.3.02.01	Cart / Storage Alcoves	T289		00N0040524	NEBULIZER		1	5	E		AEROGEN PRO-X					
Respiratory Services	06.3.02.01	Cart / Storage Alcoves	E213	1849370	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Respiratory Services	06.3.03.01	Linen Storage	E347	2115057	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Respiratory Services	06.4.01.01	Clinical Workstation	F029	2074193	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Respiratory Services	06.4.01.01	Clinical Workstation	F020	1849371	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Respiratory Services	06.4.01.01	Clinical Workstation	F048	1849372	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Respiratory Services	06.4.01.01	Clinical Workstation	E213	2074200	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Respiratory Services	06.4.02.01	Physician Work Area	F020	1849374	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
58	152	0.2	0.1	H	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
559	2,007	62.0	28.2	F	Height rod: 79" (2,007 mm) maximum; 43" (1,092 mm) minimum. Scale dimensions (wxdxh), with handrail: 22.5x22x40" (572x559x1,016 mm). Shipping weight: 62 lb (28.2 kg).																6 "C" cell alkaline batteries.						
				F																							
584	699	0.0	0.0	F																							
813	1,118			F																							
	610	10.0	4.5	W																							
660	991	39.6	18.0	F																							
406	1,080	16.4	7.5	F																							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
				T																							
660	1,473	113.0	51.4	F	Dimensions (wxdxh): Ventilator: 12.5x11.5x43.5" (318x292x1105 mm), without GUI (graphical user interface) screen. Overall height with GUI screen: 58" (1473 mm). Standard base (wxd): 22.50x26" (572x660 mm). Weight: 113 lb (51.40 kg) includes BDU (breath delivery unit), GUI (graphical user interface), standard base & primary battery. BDU only: 69 lb (31.3 kg). Sound power level: Does not exceed 61dBA at 5L/min.	120	1	1.5	60		Plug		Yes									180 VA. Ratings without air compressor.						
				O																							
				O																							
457	1,753	92.0	41.7	F																							
610	1,753	112.0	50.9	F																							
457	1,829	133.0	60.5	F																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
457	1,753	92.0	41.7	F																							
610	1,016			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
		Oxygen and air inlet supply: pressure 35psi to 87 psi (241 to 600kPa) Flow maximum of 200L/min.											Ventilator: Operating temperature: 10 to 40 deg C (50 to 104 deg F). Internal battery charger: 10 to 35oC (50 to 95oF). Storage -20oC to 70oC (-68oF to 158oF) Relative humidity: Operating and storage 10 to 95%, non-condensing. Atmospheric pressure: Operating 70 to 106 kPa (10.15 to 15.37 psi). Storage 50 to 106 kPa (7.25 to 15.37 psi). Altitude Operating -411.5m to 3048m (-1350ft to 10,000ft) Storage 6096m max (20,000ft max)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Respiratory Services	06.4.02.01	Physician Work Area	F048	1849375	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Inpatient	07.1.1.01.01	Workstation: Reception/Unit Clerk	F020	1849376	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.1.2.01.01	Inpatient Bedroom	T019		00N0036189	BED, ELECTRIC		1	5	E		3005S3 EX					
Inpatient	07.1.2.01.01	Inpatient Bedroom	F030	1849388	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.01	Inpatient Bedroom	F013	1849380	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.01	Inpatient Bedroom	F019	1849381	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.01	Inpatient Bedroom	T184		00N0031132	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.01	Inpatient Bedroom	E383	2483776	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.01	Inpatient Bedroom	E227	1849386	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.01	Inpatient Bedroom	E138	1849383	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.01	Inpatient Bedroom	E162	1849384	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.01	Inpatient Bedroom	E166	2341894	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.01	Inpatient Bedroom	F040	1849389	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.01	Inpatient Bedroom	F083	2480541	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.02	Inpatient Bedroom	T019		00N0036202	BED, ELECTRIC		1	5	E		3005S3 EX					
Inpatient	07.1.2.01.02	Inpatient Bedroom	F030	1850031	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.02	Inpatient Bedroom	F013	1850025	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.02	Inpatient Bedroom	F019	1850030	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.02	Inpatient Bedroom	T184		00N0031127	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
				F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																								
	610	25.0	11.3	W																								
				F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.02	Inpatient Bedroom	E383	2483777	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.02	Inpatient Bedroom	E227	1850029	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.02	Inpatient Bedroom	E138	1850026	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.02	Inpatient Bedroom	E162	1850023	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.02	Inpatient Bedroom	E166	2341895	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.02	Inpatient Bedroom	F040	1850032	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.02	Inpatient Bedroom	F083	2480542	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.03	Inpatient Bedroom	E019	1959858	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.03	Inpatient Bedroom	F030	1850037	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.03	Inpatient Bedroom	F013	1850041	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.03	Inpatient Bedroom	F019	1850039	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.03	Inpatient Bedroom	T184		00N0031136	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.03	Inpatient Bedroom	E383	2483778	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.03	Inpatient Bedroom	E227	1850034	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.03	Inpatient Bedroom	E138	1850038	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.03	Inpatient Bedroom	E162	1850033	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.03	Inpatient Bedroom	E166	2341896	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.03	Inpatient Bedroom	F040	1850044	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.03	Inpatient Bedroom	F083	2480543	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.04	Inpatient Bedroom	E019	2077963	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.04	Inpatient Bedroom	F030	1850048	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.04	Inpatient Bedroom	F013	1850045	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.04	Inpatient Bedroom	F019	1850052	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.04	Inpatient Bedroom	T184		00N0031144	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.04	Inpatient Bedroom	E383	2483779	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.04	Inpatient Bedroom	E227	1850056	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.04	Inpatient Bedroom	E138	1850047	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.04	Inpatient Bedroom	E162	1850046	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.04	Inpatient Bedroom	E166	2341897	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.04	Inpatient Bedroom	F040	1850049	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.04	Inpatient Bedroom	F083	2480544	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.05	Inpatient Bedroom	T019		00N0036056	BED, ELECTRIC		1	5	E		5700					
Inpatient	07.1.2.01.05	Inpatient Bedroom	F030	1850062	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.05	Inpatient Bedroom	F013	1850067	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.05	Inpatient Bedroom	F019	1850061	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.05	Inpatient Bedroom	T184		00N0031122	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.05	Inpatient Bedroom	E383	2483780	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.05	Inpatient Bedroom	E227	1850059	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.05	Inpatient Bedroom	E138	1850063	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.05	Inpatient Bedroom	E162	1850064	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.05	Inpatient Bedroom	E166	2341898	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.05	Inpatient Bedroom	F040	1850057	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.05	Inpatient Bedroom	F083	2480545	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.06	Inpatient Bedroom	T019		00N0036057	BED, ELECTRIC		1	5	E		5700					
Inpatient	07.1.2.01.06	Inpatient Bedroom	F030	1850072	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.06	Inpatient Bedroom	F013	1850080	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.06	Inpatient Bedroom	F019	1850069	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.06	Inpatient Bedroom	T184		00N0031126	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.06	Inpatient Bedroom	E383	2483781	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.06	Inpatient Bedroom	E227	1850077	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.06	Inpatient Bedroom	E138	1850074	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.06	Inpatient Bedroom	E162	1850070	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.06	Inpatient Bedroom	E166	2341899	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.06	Inpatient Bedroom	F040	1850076	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.06	Inpatient Bedroom	F083	2480546	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.07	Inpatient Bedroom	T019		00N0036058	BED, ELECTRIC		1	5	E		5700					
Inpatient	07.1.2.01.07	Inpatient Bedroom	F030	1850087	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.07	Inpatient Bedroom	F013	1850091	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.07	Inpatient Bedroom	F019	1850088	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.07	Inpatient Bedroom	T184		00N0031119	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.07	Inpatient Bedroom	E383	2483782	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.07	Inpatient Bedroom	E227	1850081	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.07	Inpatient Bedroom	E138	1850084	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																		
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																								
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.07	Inpatient Bedroom	E162	1850089	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.07	Inpatient Bedroom	E166	2341900	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.07	Inpatient Bedroom	F040	1850085	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.07	Inpatient Bedroom	F083	2480547	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.08	Inpatient Bedroom	T019		00N0036069	BED, ELECTRIC		1	5	E		5700					
Inpatient	07.1.2.01.08	Inpatient Bedroom	F030	1850095	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.08	Inpatient Bedroom	F013	1850094	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.08	Inpatient Bedroom	F019	1850102	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.08	Inpatient Bedroom	T184		00N0031117	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.08	Inpatient Bedroom	E383	2483783	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.08	Inpatient Bedroom	E227	1850093	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.08	Inpatient Bedroom	E138	1850096	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.08	Inpatient Bedroom	E162	1850097	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.08	Inpatient Bedroom	E166	2341901	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.08	Inpatient Bedroom	F040	1850104	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.08	Inpatient Bedroom	F083	2480548	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.09	Inpatient Bedroom	T019		00N0036081	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.09	Inpatient Bedroom	F030	1850114	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.09	Inpatient Bedroom	F013	1850113	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.09	Inpatient Bedroom	F019	1850111	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.09	Inpatient Bedroom	T184		00N0031124	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.09	Inpatient Bedroom	E383	2483784	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.09	Inpatient Bedroom	E227	1850116	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.09	Inpatient Bedroom	E138	1850107	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.09	Inpatient Bedroom	E162	1850105	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.09	Inpatient Bedroom	E166	2341902	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.09	Inpatient Bedroom	F040	1850108	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.09	Inpatient Bedroom	F083	2480549	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.10	Inpatient Bedroom	T019		00N0036082	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.10	Inpatient Bedroom	F030	1850125	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.10	Inpatient Bedroom	F013	1850119	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.10	Inpatient Bedroom	F019	1850127	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.10	Inpatient Bedroom	T184		00N0031135	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.10	Inpatient Bedroom	E383	2483785	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																								
	610	25.0	11.3	W																								
				F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.10	Inpatient Bedroom	E227	1850128	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.10	Inpatient Bedroom	E138	1850118	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.10	Inpatient Bedroom	E162	1850123	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.10	Inpatient Bedroom	E166	2341903	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.10	Inpatient Bedroom	F040	1850120	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.10	Inpatient Bedroom	F083	2480550	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.11	Inpatient Bedroom	T019		00N0036083	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.11	Inpatient Bedroom	F030	1850130	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.11	Inpatient Bedroom	F013	1850135	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.11	Inpatient Bedroom	F019	1850137	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.11	Inpatient Bedroom	T184		00N0031120	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.11	Inpatient Bedroom	E383	2483786	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.11	Inpatient Bedroom	E227	1850140	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.11	Inpatient Bedroom	E138	1850134	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.11	Inpatient Bedroom	E162	1850139	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.11	Inpatient Bedroom	E166	2341904	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.11	Inpatient Bedroom	F040	1850129	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.11	Inpatient Bedroom	F083	2480551	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.12	Inpatient Bedroom	T019		00N0036084	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.12	Inpatient Bedroom	F030	1850144	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.12	Inpatient Bedroom	F013	1850152	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.12	Inpatient Bedroom	F019	1850141	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.12	Inpatient Bedroom	T184		00N0031138	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.12	Inpatient Bedroom	E383	2483787	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.12	Inpatient Bedroom	E227	1850143	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.12	Inpatient Bedroom	E138	1850147	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.12	Inpatient Bedroom	E162	1850146	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.12	Inpatient Bedroom	E166	2341905	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.12	Inpatient Bedroom	F040	1850150	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.12	Inpatient Bedroom	F083	2480552	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.13	Inpatient Bedroom	T019		00N0036093	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.13	Inpatient Bedroom	F030	1850154	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.13	Inpatient Bedroom	F013	1850160	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.13	Inpatient Bedroom	F019	1850155	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.13	Inpatient Bedroom	T184		00N0031129	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.13	Inpatient Bedroom	E383	2483788	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.13	Inpatient Bedroom	E227	1850159	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.13	Inpatient Bedroom	E138	1850163	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.13	Inpatient Bedroom	E162	1850157	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.13	Inpatient Bedroom	E166	2341906	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.13	Inpatient Bedroom	F040	1850162	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.13	Inpatient Bedroom	F083	2480553	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.14	Inpatient Bedroom	T019		00N0036094	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.14	Inpatient Bedroom	F030	1850171	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.14	Inpatient Bedroom	F013	1850176	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.14	Inpatient Bedroom	F019	1850175	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.14	Inpatient Bedroom	T184		00N0031128	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.14	Inpatient Bedroom	E383	2483789	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.14	Inpatient Bedroom	E227	1850165	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.14	Inpatient Bedroom	E138	1850166	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																		
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																								
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.14	Inpatient Bedroom	E162	1850170	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.14	Inpatient Bedroom	E166	2341907	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.14	Inpatient Bedroom	F040	1850172	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.14	Inpatient Bedroom	F083	2480554	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.15	Inpatient Bedroom	T019		00N0036096	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.15	Inpatient Bedroom	F030	1850188	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.15	Inpatient Bedroom	F013	1850184	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.15	Inpatient Bedroom	F019	1850181	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.15	Inpatient Bedroom	T184		00N0031137	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.15	Inpatient Bedroom	E383	2483790	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.15	Inpatient Bedroom	E227	1850187	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.15	Inpatient Bedroom	E138	1850180	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.15	Inpatient Bedroom	E162	1850186	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.15	Inpatient Bedroom	E166	2341908	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.15	Inpatient Bedroom	F040	1850179	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.15	Inpatient Bedroom	F083	2480555	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.16	Inpatient Bedroom	T019		00N0036097	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.16	Inpatient Bedroom	F030	1850198	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.16	Inpatient Bedroom	F013	1850189	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.16	Inpatient Bedroom	F019	1850197	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.16	Inpatient Bedroom	T184		00N0031130	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.16	Inpatient Bedroom	E383	2483791	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.16	Inpatient Bedroom	E227	1850193	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.16	Inpatient Bedroom	E138	1850196	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.16	Inpatient Bedroom	E162	1850192	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.16	Inpatient Bedroom	E166	2341909	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.16	Inpatient Bedroom	F040	1850190	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.16	Inpatient Bedroom	F083	2480556	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.17	Inpatient Bedroom	T019		00N0036106	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.17	Inpatient Bedroom	F030	1850206	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.17	Inpatient Bedroom	F013	1850212	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.17	Inpatient Bedroom	F019	1850211	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.17	Inpatient Bedroom	T184		00N0031133	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.17	Inpatient Bedroom	E383	2483792	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.17	Inpatient Bedroom	E227	1850207	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.17	Inpatient Bedroom	E138	1850208	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.17	Inpatient Bedroom	E162	1850203	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.17	Inpatient Bedroom	E166	2341910	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.17	Inpatient Bedroom	F040	1850210	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.17	Inpatient Bedroom	F083	2480557	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.18	Inpatient Bedroom	T019		00N0036109	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.18	Inpatient Bedroom	F030	1850220	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.18	Inpatient Bedroom	F013	1850222	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.18	Inpatient Bedroom	F019	1850223	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.18	Inpatient Bedroom	T184		00N0031134	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.18	Inpatient Bedroom	E383	2483793	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.18	Inpatient Bedroom	E227	1850219	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.18	Inpatient Bedroom	E138	1850221	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.18	Inpatient Bedroom	E162	1850218	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.18	Inpatient Bedroom	E166	2341911	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.18	Inpatient Bedroom	F040	1850215	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.18	Inpatient Bedroom	F083	2480558	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.19	Inpatient Bedroom	T019		00N0036110	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.19	Inpatient Bedroom	F030	1850233	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.19	Inpatient Bedroom	F013	1850235	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.19	Inpatient Bedroom	F019	1850236	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.19	Inpatient Bedroom	T184		00N0031125	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.19	Inpatient Bedroom	E383	2483794	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.19	Inpatient Bedroom	E227	1850225	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.19	Inpatient Bedroom	E138	1850232	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.19	Inpatient Bedroom	E162	1850230	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.19	Inpatient Bedroom	E166	2341912	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.19	Inpatient Bedroom	F040	1850228	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.19	Inpatient Bedroom	F083	2480559	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.20	Inpatient Bedroom	T019		00N0039095	BED, ELECTRIC		1	5	E		Resident					
Inpatient	07.1.2.01.20	Inpatient Bedroom	F030	1850242	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.20	Inpatient Bedroom	F013	1850237	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.20	Inpatient Bedroom	F019	1850238	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.20	Inpatient Bedroom	T184		00N0031142	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.20	Inpatient Bedroom	E383	2483795	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.20	Inpatient Bedroom	E227	1850245	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.20	Inpatient Bedroom	E138	1850247	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.20	Inpatient Bedroom	E162	1850243	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.20	Inpatient Bedroom	E166	2341913	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.20	Inpatient Bedroom	F040	1850248	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.20	Inpatient Bedroom	F083	2480560	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.21	Inpatient Bedroom	E019	1850251	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.21	Inpatient Bedroom	F030	1850255	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.21	Inpatient Bedroom	F013	1850260	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.21	Inpatient Bedroom	F019	1850257	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.21	Inpatient Bedroom	T184		00N0031118	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.21	Inpatient Bedroom	E383	2483796	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.21	Inpatient Bedroom	E227	1850253	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.21	Inpatient Bedroom	E138	1850252	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.21	Inpatient Bedroom	E162	1850249	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.21	Inpatient Bedroom	E166	2341914	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.21	Inpatient Bedroom	F040	1850250	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.21	Inpatient Bedroom	F083	2480561	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.22	Inpatient Bedroom	E019	1850267	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.22	Inpatient Bedroom	F030	1850270	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.22	Inpatient Bedroom	F013	1850263	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.22	Inpatient Bedroom	F019	1850262	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.22	Inpatient Bedroom	T184		00N0031123	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.22	Inpatient Bedroom	E383	2483797	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.22	Inpatient Bedroom	E227	1850264	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.22	Inpatient Bedroom	E138	1850268	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.22	Inpatient Bedroom	E162	1850271	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.22	Inpatient Bedroom	E166	2341915	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.22	Inpatient Bedroom	F040	1850265	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.22	Inpatient Bedroom	F083	2480562	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.23	Inpatient Bedroom	E019	1850273	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.23	Inpatient Bedroom	F030	1850284	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.23	Inpatient Bedroom	F013	1850277	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.23	Inpatient Bedroom	F019	1850276	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.23	Inpatient Bedroom	T184		00N0040471	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.23	Inpatient Bedroom	E383	2483798	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.23	Inpatient Bedroom	E227	1850280	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.23	Inpatient Bedroom	E138	1850274	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.23	Inpatient Bedroom	E162	1850281	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.23	Inpatient Bedroom	E166	2341916	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.23	Inpatient Bedroom	F040	1850278	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.23	Inpatient Bedroom	F083	2480563	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.24	Inpatient Bedroom	E019	1850286	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.24	Inpatient Bedroom	F030	1850294	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.24	Inpatient Bedroom	F013	1850287	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.24	Inpatient Bedroom	F019	1850290	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.24	Inpatient Bedroom	T184		00N0031121	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.24	Inpatient Bedroom	E383	2483799	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.24	Inpatient Bedroom	E227	1850293	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 Ibs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.24	Inpatient Bedroom	E138	1850292	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.24	Inpatient Bedroom	E162	1850289	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.24	Inpatient Bedroom	E166	2341917	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.24	Inpatient Bedroom	F040	1850296	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.24	Inpatient Bedroom	F083	2480564	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.25	Inpatient Bedroom	E019	1850303	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.25	Inpatient Bedroom	F030	1850305	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.25	Inpatient Bedroom	F013	1850308	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.25	Inpatient Bedroom	F019	1850297	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.25	Inpatient Bedroom	T184		00N0031141	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																								
	610	25.0	11.3	W																								
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.25	Inpatient Bedroom	E383	2483800	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.25	Inpatient Bedroom	E227	1850299	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.25	Inpatient Bedroom	E138	1850301	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.25	Inpatient Bedroom	E162	1850306	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.25	Inpatient Bedroom	E166	2341918	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.25	Inpatient Bedroom	F040	1850298	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.25	Inpatient Bedroom	F083	2480565	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.26	Inpatient Bedroom	E019	1850317	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.26	Inpatient Bedroom	F030	1850315	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.26	Inpatient Bedroom	F013	1850320	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.26	Inpatient Bedroom	F019	1850311	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.26	Inpatient Bedroom	T184		00N0031139	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.26	Inpatient Bedroom	E383	2483801	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.26	Inpatient Bedroom	E227	1850310	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.26	Inpatient Bedroom	E138	1850313	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.26	Inpatient Bedroom	E162	1850316	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.26	Inpatient Bedroom	E166	2341919	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.26	Inpatient Bedroom	F040	1850309	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.26	Inpatient Bedroom	F083	2480566	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.27	Inpatient Bedroom	E019	1850327	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.27	Inpatient Bedroom	F030	1850325	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.27	Inpatient Bedroom	F013	1850323	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.27	Inpatient Bedroom	F019	1850322	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.27	Inpatient Bedroom	T184		00N0031143	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.27	Inpatient Bedroom	E383	2483802	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.27	Inpatient Bedroom	E227	1850324	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.27	Inpatient Bedroom	E138	1850329	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.27	Inpatient Bedroom	E162	1850330	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.27	Inpatient Bedroom	E166	2341920	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.27	Inpatient Bedroom	F040	1850331	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.27	Inpatient Bedroom	F083	2480567	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.28	Inpatient Bedroom	E019	1850339	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.28	Inpatient Bedroom	F030	1850337	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.28	Inpatient Bedroom	F013	1850333	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.28	Inpatient Bedroom	F019	1850341	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.28	Inpatient Bedroom	T184		00N0040472	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.28	Inpatient Bedroom	E383	2483803	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.28	Inpatient Bedroom	E227	1850338	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.28	Inpatient Bedroom	E138	1850334	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.28	Inpatient Bedroom	E162	1850343	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.28	Inpatient Bedroom	E166	2341921	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.28	Inpatient Bedroom	F040	1850335	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.28	Inpatient Bedroom	F083	2480568	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.29	Inpatient Bedroom	E019	1850347	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																								
	610	25.0	11.3	W																								
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																								
	610	25.0	11.3	W																								
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.29	Inpatient Bedroom	F030	1850356	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.29	Inpatient Bedroom	F013	1850345	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.29	Inpatient Bedroom	F019	1850346	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.29	Inpatient Bedroom	T184		00N0031131	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.01.29	Inpatient Bedroom	E383	2483804	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.29	Inpatient Bedroom	E227	1850348	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.29	Inpatient Bedroom	E138	1850350	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.29	Inpatient Bedroom	E162	1850349	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.29	Inpatient Bedroom	E166	2341922	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.29	Inpatient Bedroom	F040	1850351	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.29	Inpatient Bedroom	F083	2480569	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.01.30	Inpatient Bedroom	E019	1850358	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.2.01.30	Inpatient Bedroom	F030	1850361	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.01.30	Inpatient Bedroom	F013	1850360	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.1.2.01.30	Inpatient Bedroom	F019	1850363	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.01.30	Inpatient Bedroom	T184		00N0031140	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																								
	610	25.0	11.3	W																								
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
				O																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.01.30	Inpatient Bedroom	E383	2483805	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.01.30	Inpatient Bedroom	E227	1850357	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.01.30	Inpatient Bedroom	E138	1850367	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.1.2.01.30	Inpatient Bedroom	E162	1850362	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.01.30	Inpatient Bedroom	E166	2341923	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.01.30	Inpatient Bedroom	F040	1850366	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.01.30	Inpatient Bedroom	F083	2480570	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.02.01	Inpatient Washroom		2470129	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.02	Inpatient Washroom		2470104	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.03	Inpatient Washroom		2470132	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.04	Inpatient Washroom		2470111	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.05	Inpatient Washroom		2470102	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.06	Inpatient Washroom		2470119	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.07	Inpatient Washroom		2470127	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.08	Inpatient Washroom		2470103	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.09	Inpatient Washroom		2470124	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.10	Inpatient Washroom		2470128	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.11	Inpatient Washroom		2470098	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.12	Inpatient Washroom		2470142	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.13	Inpatient Washroom		2470118	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.14	Inpatient Washroom		2470131	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.15	Inpatient Washroom		2470121	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.16	Inpatient Washroom		2470141	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				NA																							
				NA																							
				NA																							
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CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.02.17	Inpatient Washroom		2470146	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.18	Inpatient Washroom		2470136	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.19	Inpatient Washroom		2470133	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.20	Inpatient Washroom		2470116	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.21	Inpatient Washroom		2470145	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.22	Inpatient Washroom		2470130	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.23	Inpatient Washroom		2470100	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.24	Inpatient Washroom		2470106	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.25	Inpatient Washroom		2470123	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.26	Inpatient Washroom		2470108	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.27	Inpatient Washroom		2470115	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.28	Inpatient Washroom		2470134	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.29	Inpatient Washroom		2470105	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.02.30	Inpatient Washroom		2470125	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.03.01	Isolation Ante-Room	E041	1849391	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
Inpatient	07.1.2.03.01	Isolation Ante-Room	E104	1952283	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Inpatient	07.1.2.03.02	Isolation Ante-Room	E041	1850369	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
Inpatient	07.1.2.03.02	Isolation Ante-Room	E104	1952284	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	T025		00N0036080	BED, ELECTRIC, BARIATRIC		1	5	E	Stryker Canada Inc	Bari10A					
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	F030	1849401	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	F014	1849393	0940191	CHAIR, PATIENT, HIGH BACK, BARIATRIC	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3656	PRIMACARE HT	35.00	27.00	48.50	889
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	F019	1849394	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	T184		00N0041184	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	E383	2483806	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	E227	1849399	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	E139	1849396	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
				NA																								
				NA																								
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				NA																								
				NA																								
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
				F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.0	28.2	F																								
762	902	240.0	109.1	F																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	E162	1849397	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	E166	2341924	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	F040	1849402	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	F083	2480571	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	T025		00N0036079	BED, ELECTRIC, BARIATRIC		1	5	E	Stryker Canada Inc	Bari10A					
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	F030	1850370	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	F014	1850376	0940191	CHAIR, PATIENT, HIGH BACK, BARIATRIC	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3656	PRIMACARE HT	35.00	27.00	48.50	889
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	F019	1850375	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	T184		00N0041185	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	E383	2483807	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	E227	1850380	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	E139	1850374	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	E162	1850378	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	E166	1850379	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	F040	1850379	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	F083	2480572	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.1.2.05.01	Inpatient Washroom (Bariatric)		2470117	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.05.02	Inpatient Washroom (Bariatric)		2470101	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.0	28.2	F																							
762	902	240.0	109.1	F																							
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				NA																							
				NA																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.06.01	Charting Area	F077	2245550	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.01	Charting Area	F062	1849405	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.02	Charting Area	F077	1850382	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.02	Charting Area	F062	1850383	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.03	Charting Area	F077	1850384	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.03	Charting Area	F062	1850385	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.04	Charting Area	F077	1850387	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.04	Charting Area	F062	1850386	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.05	Charting Area	F077	1850388	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.05	Charting Area	F062	1850389	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.06	Charting Area	F077	1850390	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.06	Charting Area	F062	1850391	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.07	Charting Area	F077	1850393	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.07	Charting Area	F062	1850392	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.08	Charting Area	F077	1850394	0940460	CHAIR, STOOL, HIGH BASE	Without casters. W/backrest and arms. Spinal support backrest. Seat height: 22 to 32", w/ 6-way articulating control. Weight capacity 350lbs.	1	3	F	Biofit Engineered Seating	AEA-H-HG-T-AFP-ARS-0	Avenue series	23.00	25.60	32.00	584
Inpatient	07.1.2.06.08	Charting Area	F062	1850395	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.09	Charting Area	F062	1850397	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.10	Charting Area	F062	1850399	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.11	Charting Area	F062	1850400	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.12	Charting Area	F062	1850403	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.13	Charting Area	F062	1850404	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
650	813	30.0	13.6	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.06.14	Charting Area	F062	1850406	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.15	Charting Area	F062	1850408	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.06.16	Charting Area	F062	1850411	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.2.07.01	Collaboration Station	E046	1952285	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Inpatient	07.1.2.07.01	Collaboration Station	E011	1849406	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Inpatient	07.1.2.07.01	Collaboration Station	F079	2480573	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Inpatient	07.1.2.07.02	Collaboration Station		2485719	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.03	Collaboration Station		2485715	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.04	Collaboration Station		2485718	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.05	Collaboration Station	E046	1952291	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Inpatient	07.1.2.07.05	Collaboration Station	F048	1952293	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Inpatient	07.1.2.07.05	Collaboration Station	E011	1952292	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Inpatient	07.1.2.07.05	Collaboration Station	F079	2480574	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
	914	34.5	15.7	W																								
				NA																								
				NA																								
				NA																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
	914	34.5	15.7	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.07.06	Collaboration Station	E154	2477550	0939180	MONITOR, CENTRAL STATION	32 channels for patient central monitoring w/dual displays, two-channel recorder/rack, laser printer, telemetry. 96 hour full disclosure 19" (533 mm) flat panel colour touch displays w/desk top mount.	1	1	E	Philips Healthcare	Center iX	INTELLIVUE INFO	60.00	7.60	16.70	1,524
Inpatient	07.1.2.07.06	Collaboration Station	E158	2477551	0947817	MONITOR, PHYSIOLOGICAL, TELEMETRY	Portable telemetry pack w/ECG and Sp02. 2.4 GHz, 3,5,6 or derived 12 lead ECG. Transmits for display, processing and storage to central station. Includes finger probe, cables & pouches.	8	3	E	Philips Healthcare	MX40	862231	2.75	1.24	4.99	70
Inpatient	07.1.2.07.07	Collaboration Station		2485712	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.08	Collaboration Station	F048	1850446	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Inpatient	07.1.2.07.09	Collaboration Station	E046	1952295	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Inpatient	07.1.2.07.09	Collaboration Station	E011	1952298	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Inpatient	07.1.2.07.09	Collaboration Station	F079	2480575	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Inpatient	07.1.2.07.10	Collaboration Station		2485711	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.11	Collaboration Station		2485717	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.12	Collaboration Station		2485714	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.13	Collaboration Station	E046	1952301	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
193	424	38.8	17.6	T	HP Engage Flex Pro Dimensions: 13.27" W x 3.94" H x 15.12" D 337mm x 100mm x 384mm Weight: 14.2 lbs. (6.44 kg) Heat Dissipation: 132 Btu/hr. (max.) Power: Operating Voltage Range 90-264 VAC 240 Rated Watts Watchdog UPS (862123) Dimensions: 17.5" W x 1.75" H x 11.75" D 445mm W x 45mm H x 295mm D Weight: 19 lbs. (8.62 kg) Heat Dissipation: 65 Btu/hr. (Nominal) 437Btu/hr (Max) Power: 5.6A @ 115VAC Rackmount option available ELO 24" Flat Panel Touch Display Dimensions without Stand: 23.9" W x 14.6" H x 7.6" D 606mm W x 373mm H x 61mm D Weight: 19.4 lbs. (8.8 kg) Heat Dissipation: 109.1 Btu/hr. Output Capacity: 32W Alarm Speaker Dimensions: 5.0" W x 3.0" H x 2.3" D 172mm W x 76mm H x 54mm D Weight: --- lbs. Heat Dissipation: --- Btu/hr. Power: ---	120	1	15.0	60	125	Plug		Yes									15 Amp dedicated quad outlet within 3' of the rear of unit(s). twork Requirements: Ethernet 10/100 base T outlet within only 3' of the rear of the computer(s). All network drops are to be Category 5e or higher certified. Input voltages - Processing unit: 100 - 127 VAC, 50 - 60 Hz, 125 Watts maximum. Dual flat screen display (each unit): 81 - 264 VAC, 48 - 62 Hz, 1 Amp. 2-channel recorder: 60 VDC, 26 Watts maximum. 2-channel recorder power supply: 100 - 240V, 50/60Hz, 72 Watts max. Laser printer: 100 - 127 VAC, 50 - 60 Hz, 72 Watts maximum.						
31	127	0.7	0.3	X	Alarm Signal Sound Pressure Level: 40dB(A) - 70dB(A)																	Powered by 3 each AA batteries						
				NA																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
	914	34.5	15.7	W																								
				NA																								
				NA																								
				NA																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
													Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 62 to 82 degrees Fahrenheit and non-condensing relative humidity at 30 to 60%.
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.07.13	Collaboration Station	E011	1952302	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Inpatient	07.1.2.07.13	Collaboration Station	F079	2480576	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Inpatient	07.1.2.07.14	Collaboration Station		2485713	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.15	Collaboration Station		2485720	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.1.2.07.16	Collaboration Station	E154	2485885	0939180	MONITOR, CENTRAL STATION	32 channels for patient central monitoring w/dual displays, two-channel recorder/rack, laser printer, telemetry. 96 hour full disclosure 19" (533 mm) flat panel colour touch displays w/desk top mount.	1	1	E	Philips Healthcare	Center iX	INTELLIVUE INFO	60.00	7.60	16.70	1,524
Inpatient	07.1.2.08.01	Business Centre	F029	1849411	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Inpatient	07.1.2.08.01	Business Centre	F065	1952305	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Inpatient	07.1.2.08.01	Business Centre	F041	1849412	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Inpatient	07.1.2.08.01	Business Centre	F043	2480577	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Inpatient	07.1.2.09.01	Family Lounge / Dining Area	F010	1849414	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	7	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Inpatient	07.1.2.09.01	Family Lounge / Dining Area	F012	1849415	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Inpatient	07.1.2.09.01	Family Lounge / Dining Area	F032	1849416	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	1	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Inpatient	07.1.2.09.01	Family Lounge / Dining Area	F037	1849417	0939738	TABLE, END	Laminate Rectangular table top. Metal base	3	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Inpatient	07.1.2.09.02	Family Lounge / Dining Area	F010	1850489	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	7	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Inpatient	07.1.2.09.02	Family Lounge / Dining Area	F012	1850490	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Inpatient	07.1.2.09.02	Family Lounge / Dining Area	F032	1850488	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	1	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Inpatient	07.1.2.09.02	Family Lounge / Dining Area	F037	1850487	0939738	TABLE, END	Laminate Rectangular table top. Metal base	3	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
	914	34.5	15.7	W																								
				NA																								
				NA																								
193	424	38.8	17.6	T	HP Engage Flex Pro Dimensions: 13.27" W x 3.94" H x 15.12" D 337mm x 100mm x 384mm Weight: 14.2 lbs. (6.44 kg) Heat Dissipation: 132 Btu/hr. (max.) Power: Operating Voltage Range 90-264 VAC 240 Rated Watts Watchdog UPS (862123) Dimensions: 17.5" W x 1.75" H x 11.75" D 445mm W x 45mm H x 295mm D Weight: 19 lbs. (8.62 kg) Heat Dissipation: 65 Btu/hr. (Nominal) 437Btu/hr (Max) Power: 5.6A @ 115VAC Rackmount option available ELO 24" Flat Panel Touch Display Dimensions without Stand: 23.9" W x 14.6" H x 7.6" D 606mm W x 373mm H x 61mm D Weight: 19.4 lbs. (8.8 kg) Heat Dissipation: 109.1 Btu/hr. Output Capacity: 32W Alarm Speaker Dimensions: 5.0" W x 3.0" H x 2.3" D 172mm W x 76mm H x 54mm D Weight: --- lbs. Heat Dissipation: --- Btu/hr. Power: ---	120	1	15.0	60	125	Plug		Yes								15 Amp dedicated quad outlet within 3' of the rear of unit(s). twork Requirements: Ethernet 10/100 base T outlet within only 3' of the rear of the computer(s). All network drops are to be Category 5e or higher certified. Input voltages - Processing unit: 100 - 127 VAC, 50 - 60 Hz, 125 Watts maximum. Dual flat screen display (each unit): 81 - 264 VAC, 48 - 62 Hz, 1 Amp. 2-channel recorder: 60 VDC, 26 Watts maximum. 2-channel recorder power supply: 100 - 240V, 50/60Hz, 72 Watts max. Laser printer: 100 - 127 VAC, 50 - 60 Hz, 72 Watts maximum.						
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
800	927			F																								
737	838	116.0	52.7	F																								
1,067	457	60.0	27.3	F																								
508	432			F																								
800	927			F																								
737	838	116.0	52.7	F																								
1,067	457	60.0	27.3	F																								
508	432			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity
													Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 62 to 82 degrees Fahrenheit and non-condensing relative humidity at 30 to 60%.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.2.11.01	Patient Nourishment Alcove	E290	1849420	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Inpatient	07.1.2.11.01	Patient Nourishment Alcove	E151	1849418	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Inpatient	07.1.2.11.01	Patient Nourishment Alcove	E372	1849419	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Inpatient	07.1.2.11.02	Patient Nourishment Alcove	E290	1850492	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Inpatient	07.1.2.11.02	Patient Nourishment Alcove	E151	1850493	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Inpatient	07.1.2.11.02	Patient Nourishment Alcove	E372	1850491	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Inpatient	07.1.3.01.01	Medication Room	E337	2188980	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Inpatient	07.1.3.01.01	Medication Room	E419	2483743	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
Inpatient	07.1.3.01.01	Medication Room	E437	2483742	0947894	MEDICATION DISPENSING SYSTEM, AUXILIARY CABINET	7-drawer auxiliary unit must be used in conjunction to main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		22.80	27.00	47.00	579
Inpatient	07.1.3.01.01	Medication Room	E438	2483759	0947884	MEDICATION DISPENSING SYSTEM, COLUMN	Single column auxiliary unit with 4 doors, must be used in conjunction with a main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	79.50	787
Inpatient	07.1.3.01.01	Medication Room	E395	2470899	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Inpatient	07.1.3.01.01	Medication Room	E191	1849425	0945280	REFRIGERATOR, MEDICATION DISPENSING, 13 CU FT	Used for storing refrigerated medication. Capacity: 13 cu ft. Remotely access via medication system. Auto defrost. Key lockable.	1	3	E	Becton Dickinson	BD Pyxis ES		24.25	29.50	70.50	616
Inpatient	07.1.3.01.01	Medication Room	F082	2480578	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Inpatient	07.1.3.01.01	Medication Room	F062	2470165	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.3.01.02	Medication Room	E337	2241660	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Inpatient	07.1.3.01.02	Medication Room	E419	2483745	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
Inpatient	07.1.3.01.02	Medication Room	E437	2483744	0947894	MEDICATION DISPENSING SYSTEM, AUXILIARY CABINET	7-drawer auxiliary unit must be used in conjunction to main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		22.80	27.00	47.00	579
Inpatient	07.1.3.01.02	Medication Room	E438	2483757	0947884	MEDICATION DISPENSING SYSTEM, COLUMN	Single column auxiliary unit with 4 doors, must be used in conjunction with a main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	79.50	787

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
660	1,981			F																							
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
686	1,194	133.0	60.3	F	Clearances: 1" either side 2" back side Drawer opening clearance 23" Additional clearances required if return bin included																	Power supplied via PyxiBus bus cables from main unit						
711	2,019	314.0	142.4	F	1" either side 2" back side Door opening clearance: 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P	Yes									Data required Emergency power recommended						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
749	1,791	382.0	173.3	F	Clearance: Minimum of 3" (76 mm) behind unit. 8" top clearance for ventilation Front clearance for door opening (at least 24.25" recommended.	115	1	1.4	60		Plug	5-15	Yes									Requires 15 Amps dedicated cricuit Power Cord Length: 8 - 10 ft Remote alarm connected to central building alarm system by contractor.						
	610	10.0	4.5	W																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
660	1,981			F																							
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
686	1,194	133.0	60.3	F	Clearances: 1" either side 2" back side Drawer opening clearance 23" Additional clearances required if return bin included																	Power supplied via PyxiBus bus cables from main unit						
711	2,019	314.0	142.4	F	1" either side 2" back side Door opening clearance: 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P	Yes									Data required Emergency power recommended						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F)
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
			21										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.3.01.02	Medication Room	E396	2470900	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Inpatient	07.1.3.01.02	Medication Room	E397	1850500	0947882	REFRIGERATOR, MEDICATION DISPENSING, 5 CU FT	5 cubic ft undercounter refrigerator for medication storage. On Casters (optional, height includes 1.5" casters). Compatible with main dispensing unit. Meets requirements for vaccine storage.	1	3	E	Becton Dickinson	PyxisES Refrig 5CF		24.00	29.00	33.50	610
Inpatient	07.1.3.01.02	Medication Room	F082	2480579	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Inpatient	07.1.3.01.02	Medication Room	F062	2470166	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.1.3.02.01	Equipment Storage	E019	1946235	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.1.3.02.01	Equipment Storage	E025	1946234	0938311	BED, ELECTRIC, BARIATRIC	With bed exit alarm, integrated scale, foam mattress. Weight capacity: 1050 lb. Expandable bed frame. Height range: 18.70 to 33.70" (47.50 to 85.60 cm).	1	1	E	Stryker Canada Inc	Bari10A	2230	52.00	98.00	33.70	1,321
Inpatient	07.1.3.02.01	Equipment Storage	E472	2553341	0948575	CART, CYLINDER, MEDICAL GAS (1)	Size E or D cylinder cart dolly. 2 casters, 2 rubber stops. Rugged construction.	4	1	E	SaftCart	MDE-8		12.00	12.00	40.00	305
Inpatient	07.1.3.02.01	Equipment Storage	E467	2553342	0948524	CART, CYLINDER, MEDICAL GAS (6)	For D or E sized cylinders. 6 cylinder capacity. On mobile dolly with casters.	1	1	E	Acart Equipment Ltd.	MC06-4		21.00	16.00	42.50	533
Inpatient	07.1.3.02.01	Equipment Storage	E316	1946236	0942007	CHAIR, COMMODE, BARIATRIC	Capacity: 700 lb. Extra-large, heavy duty. Toilet seat snaps on, and toilet paper holder. Seat:14-3/4"W x 19"D; Width between arms: 24"; Floor to Seat:17-7/8"- 20-7/8"H; Seat Opening: 8"W x 10"D	2	1	E	Performance Health	081261767	9950 BARIATRIC	28.50	24.00	29.88	724
Inpatient	07.1.3.02.01	Equipment Storage	E379	2471767	0943519	CHAIR, COMMODE/SHOWER	Mobile, for reusable and disposable bedpan commode use, over toilet use and as shower chair. Weight capacity: 350 lb (159 kg), maximum.	2	1	E	Vernacare	V65-1ZA	600ZA001	23.62	25.00	42.50	600
Inpatient	07.1.3.02.01	Equipment Storage	E061	2074051	0937225	CHAIR, GERIATRIC	Adjustable up to 40 deg seat tilt and 90 deg recline. 20" (508mm) seat width. 17" (432mm) seat depth, 20.5" (521mm) seat height and 32" (813mm) back length. Seat capacity: 350 lb (159kg).	5	1	E	Broda Seating	785 ELITE		30.00	31.00	51.00	762
Inpatient	07.1.3.02.01	Equipment Storage	E070	1849429	0938351	DOPPLER, FETAL PULSE DETECTOR	Fetal pocket doppler. Integral probe protection and storage. Waterproof 2MHz probe. Built-in loudspeaker. Obstetrical application.	1	1	E	Huntleigh Diagnostics	Sonicaid FD2		2.91	1.06	5.51	74
Inpatient	07.1.3.02.01	Equipment Storage	E282	1849439	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	1	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0030101	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0030989	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0030990	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0030995	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0030997	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031002	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031008	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031015	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031020	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031022	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031023	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031024	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031025	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031028	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031036	I.V. INFUSION PUMP		1	5	E		8110					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031037	I.V. INFUSION PUMP		1	5	E		8110					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031074	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031075	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031076	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031083	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031085	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031089	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031091	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031093	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031094	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
737	851	206.0	93.6	F	Clearance requirements: Minimum of 3 in. behind unit for clearance and feature access Casters are 1.5", can be ordered without to accommodate 32" height fridge with levelling feet only Shelf weight capacity: 100 lbs max capacity/shelf Interior shelves: 18 in. x 18 in.	115	1	1.4	60		Plug	5-15	No									Requires 15 Amps dedicated circuit Power Cord Length: 8 - 10 ft Power plug/power cord length NEMA 5-15 hospital grade plug (115 V) 8-10 ft Remote alarm connected to central building alarm system by contractor							
	610	10.0	4.5	W																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.							
2,489	856	700.0	318.2	F	Height range: 18.70 to 33.70" (47.50 to 85.60 cm).	115	1	5.8	60		Plug		Yes																
305	1,016	12.0	5.4	F																								
406	1,080	16.4	7.5	F																								
610	759			F																								
635	1,080	350.0	159.1	F																								
787	1,295	115.0	52.3	F	Depth when fully reclined: 69.5" (1765 mm).																								
27	140	0.7	0.3	O	Weight includes battery and one probe.																	Runs on rechargeable 9V battery							
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																			
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CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: 2*C to 10*C (36*F to 50*F) Set point :40°F (4.4°C) Temperature probe:+/-1°F (+/-0.5°C)
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031095	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031096	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031097	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031098	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031101	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031102	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031103	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0031104	I.V. INFUSION PUMP		1	5	E		8100					
Inpatient	07.1.3.02.01	Equipment Storage	T184		00N0041625	I.V. INFUSION PUMP		1	5	E		8015					
Inpatient	07.1.3.02.01	Equipment Storage	E183	2471766	0938361	I.V. INFUSION PUMP, P.C.A.	PCA module for BD Carefusion IV infusion system. Ability to automatically pause the PCA infusion and deactivate dose request.	3	1	E	Becton Dickinson	Alaris 8120		4.50	7.50	15.00	114
Inpatient	07.1.3.02.01	Equipment Storage	E140	1849430	0938554	LIFTER, PATIENT	Mobile electric patient lifter. Lifting speed: 36mm/sec. Emergency stop and lowering. Battery switches off at low voltage. 50 lifts per battery charge. Lift Capacity, Max: 205 KG	1	1	E	Guldmann	GL5.1		55.51	54.02	78.27	1,410
Inpatient	07.1.3.02.01	Equipment Storage	T141		00N0020934	LIFTER, PATIENT, STAND ASSIST		1	5	E		Golvo 7007 ES					
Inpatient	07.1.3.02.01	Equipment Storage	E143	1849432	0938558	LIGHT, EXAM/TREATMENT, MOBILE	Mobile on portable stand. 12x13" (305x336 mm) single head LED exam light. Intensity: 51,200 LUX at 1 m. Total reach: 42" (1067 mm). Colour temperature: 4317 deg K.	1	1	E	Skytron	Spectra		17.25	42.13	80.00	438
Inpatient	07.1.3.02.01	Equipment Storage	T182		00N0033082	PUMP, FEEDING		1	5	E		ENTERALITE INFINITY					
Inpatient	07.1.3.02.01	Equipment Storage	T182		00N0033095	PUMP, FEEDING		1	5	E		ENTERALITE INFINITY					
Inpatient	07.1.3.02.01	Equipment Storage	E210	1849434	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Inpatient	07.1.3.02.01	Equipment Storage	E125	2339676	0939202	SCANNER, BLADDER	The unit includes probe, Display 1280 x 800 pixels, Battery type Lithium Ion (Li-Ion)	1	1	E	Verathon Medical Canada	0270-0959 Prime Plus		8.94	10.20	4.92	227
Inpatient	07.1.3.02.01	Equipment Storage	E341	2471768	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	2	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Inpatient	07.1.3.02.01	Equipment Storage	E213	1849436	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.1.3.02.01	Equipment Storage	E234	1849437	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	2	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Inpatient	07.1.3.02.01	Equipment Storage	E026	1849428	0938402	STRETCHER/CRIB, PEDIATRIC	Hydraulic. Weight capacity: 400 lb (181 kg). Thermoformed ABS base w/ integrated storage tray. Includes oxygen bottle holder & I.V. pole.	1	1	E	Stryker Canada Inc	FL19H		37.50	72.25	40.00	953
Inpatient	07.1.3.02.01	Equipment Storage	E273	1849438	0763522	TRANSILLUMINATOR	Handheld vein locator. Battery operated. Non-invasive, with high intensity light to reduce multiple sticks. Includes protective covers.	1	1	E	Venoscope LLC	433-VT03	VENOSCOPE II	2.50	0.50	6.50	64
Inpatient	07.1.3.02.01	Equipment Storage	E291	1946237	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	1	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Inpatient	07.1.3.02.01	Equipment Storage	E292	1946238	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Inpatient	07.1.3.02.01	Equipment Storage	T271		00N0031163	WOUND THERAPY UNIT		1	5	E		ACTIVAC ACTIV.A.C.					
Inpatient	07.1.3.02.01	Equipment Storage	E271	1849433	0940419	WOUND THERAPY UNIT	Portable. Negative pressure wound therapy system. Touch screen controls. LCD screen. Single touch: on/off.	1	1	E	KCI Medical Inc	ACTIV.A.C		7.60	2.50	6.00	193
Inpatient	07.1.3.02.02	Equipment Storage	E183	2471769	0938361	I.V. INFUSION PUMP, P.C.A.	PCA module for BD Carefusion IV infusion system. Ability to automatically pause the PCA infusion and deactivate dose request.	3	1	E	Becton Dickinson	Alaris 8120		4.50	7.50	15.00	114
Inpatient	07.1.3.02.02	Equipment Storage	E118	1946239	0933265	IMAGING, X-RAY UNIT, DIGITAL, MOBILE	Mobile. Radiographic X-ray system. Wireless connectivity from detector to system. Fully digital with flashpad digital detector. 360 deg turn with one hand. 2 touch-screen displays. Battery operated.	1	3	E	Carestream Health Canada	DRX-Revolution		22.70	48.00	77.00	577

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
				O																							
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191	381	5.5	2.5	O																	Powered from main PC unit.						
1,372	1,988	101.2	46.0	F		120	1		60	53	Plug										Battery, replaceable: 25.9 V/2.25Ah Consumption/power of actuator: 24V, max 8A.						
				F																							
1,070	2,032	35.8	16.3	F	-12" (305mm) LED exam light. -Mobile floor stand mounted with total reach of 42" (1067mm) and 13' (4m) removable power cord. -50° upward and 30° downward movement of arm; -355° pitch and 360° roll rotation of lighthead.	110	1	0.4	60		Plug		No															
				O																							
				O																							
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P									Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
259	125	3.9	1.8	F	prob Specifications:Height 196 mm (7.70 in) Width 62 mm (2.43 in) Depth 62 mm (2.43 in) Weight 580 g (1.28 lbs) Display 144 x 168 pixels Cable 1.8 m (6.0 ft)	120	1	1.4	60		Plug										Input voltage 24 V DC Input frequency DC Input current 2.5 A Input connection 2.5 mm (0.1 in), center positive Output 18 V DC max, 4 A max Insulation Protection Class III Fuses No user replaceable fuses Input Verathon® Supplied Battery, 11.1 V DC Output USB Ports, 5 V DC at 100 mA maximum from each port Insulation Type BF						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
457	1,753	92.0	41.7	F																							
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																						
1,835	1,016	375.0	170.5	F	Height range: 33 to 40" (840 - 1020 mm).																						
13	165	0.4	0.2	O	Weight does not include the weight of the cart.																4.5 V, 50 mA. 3 x AA alkaline batteries. 6 LED.						
810	864			F	shipping weight 43lbs (19.45kg).																						
1,067	914	70.0	31.8	F	Dimensions are approximate only.																						
				O																							
64	152	2.4	1.1	T		120	1	0.8	60		Plug										Output: 12V, 3.3Amp. Lithium ion rechargeable battery.						
191	381	5.5	2.5	O																	Powered from main PC unit.						
1,219	1,956	1,268.0	576.4	F	Dimensions (wxdxh) and weight, approximate: Width: 22.7" (577 mm). Depth: 48" (1219 mm). Weight: 1268 lb (575 kg). Height with column extended: 77" (1956 mm). Height with column collapsed: 51" (1295 mm).	120	1		60		Plug		Yes									Battery operated. Lead acid. 12 Amp-hr energy capacity. Generator power rating: 32 kW at 100 kvp.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Relative humidity: 20-90% (non condensing) Temperature range: 5-40 deg Celcius

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.3.02.02	Equipment Storage	E210	1850510	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Inpatient	07.1.3.02.02	Equipment Storage	E213	1850505	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.1.3.02.02	Equipment Storage	E234	1850507	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	2	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Inpatient	07.1.3.03.01	Clean Utility	E337	2074291	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	7	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Inpatient	07.1.3.03.02	Clean Utility	E337	2074292	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	6	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Inpatient	07.1.3.04.01	Blanket Warmer	E279	1849441	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Inpatient	07.1.3.04.02	Blanket Warmer	E279	1850514	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Inpatient	07.1.3.05.01	Crash Cart Alcove	E038	1849443	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Inpatient	07.1.3.05.01	Crash Cart Alcove	E069	1849444	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Inpatient	07.1.3.05.01	Crash Cart Alcove	E013	1849442	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Inpatient	07.1.3.05.02	Crash Cart Alcove	E038	1850516	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Inpatient	07.1.3.05.02	Crash Cart Alcove	E069	1850515	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Inpatient	07.1.3.05.02	Crash Cart Alcove	E013	1850517	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
457	1,753	92.0	41.7	F																							
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																						
660	1,981			F																							
660	1,981			F																							
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug												Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug												Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.3.05.03	Crash Cart Alcove	E047	1850519	0945169	CART, RESUSCITATION, PAEDIATRIC	Fully stocked colour coded resuscitation cart w/ push handle. 9 drawers. 30" locking bar, stabilizing frame system. Plastic top. Soft grip push handles. Swivel casters, 2 lockings and one swivel fixed	1	1	E	Armstrong Medical	BROSELOW	V24UXGLA9PEDS	34.05	25.03	46.05	865
Inpatient	07.1.3.05.03	Crash Cart Alcove	E069	1850518	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Inpatient	07.1.3.05.03	Crash Cart Alcove	E013	1850520	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Inpatient	07.1.3.06.01	Cart / Storage Alcoves	E043	1946240	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.1.3.06.01	Cart / Storage Alcoves	E213	1849445	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.1.3.06.02	Cart / Storage Alcoves	E043	1850521	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.1.3.06.02	Cart / Storage Alcoves	E213	1946241	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.1.3.06.03	Cart / Storage Alcoves	E043	1850522	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.1.3.06.03	Cart / Storage Alcoves	E213	1946242	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.1.3.06.04	Cart / Storage Alcoves	E043	1850523	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.1.3.06.04	Cart / Storage Alcoves	E213	1946243	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.1.3.07.01	Linen Alcove	E347	2114112	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Inpatient	07.1.3.07.02	Linen Alcove	E347	2471770	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Inpatient	07.1.3.09.01	Soiled Utility	E392	2241667	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Inpatient	07.1.3.09.01	Soiled Utility	E147	1849446	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Inpatient	07.1.3.09.01	Soiled Utility	E393	2241679	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Inpatient	07.1.3.09.01	Soiled Utility	E218	1872246	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Inpatient	07.1.3.09.01	Soiled Utility	E400	2197614	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Inpatient	07.1.3.09.02	Soiled Utility	E392	2241668	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Inpatient	07.1.3.09.02	Soiled Utility	E147	1850524	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Inpatient	07.1.3.09.02	Soiled Utility	E393	2241680	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Inpatient	07.1.3.09.02	Soiled Utility	E218	1872247	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
636	1,170	128.0	58.1	F	Overall Dimentions: 451/2'' H x 25'' D x 33 1/2 W (Includes bumper, handles, and casters) Drawer Configuration: 3" (8), 6" (1)																								
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																									
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																									
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																									
610	1,753	112.0	50.9	F																									
610	1,753	112.0	50.9	F																									
737	851	29.0	13.2	F																									
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																								
737	851	29.0	13.2	F																									
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.3.09.02	Soiled Utility	E400	2197615	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Inpatient	07.1.3.10.01	Housekeeping Closet	E039	2189027	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Inpatient	07.1.3.10.01	Housekeeping Closet	E339	2189025	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Inpatient	07.1.3.10.01	Housekeeping Closet	E215	2189026	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Inpatient	07.1.3.10.01	Housekeeping Closet	E234	2189020	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Inpatient	07.1.3.10.01	Housekeeping Closet	F082	2480580	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Inpatient	07.1.3.11.01	Housekeeping Room	E031	1849450	0945189	FLOOR MACHINE, BURNISHER	20" (508 mm) working width. 1200 rpm. Electrical spray unit. Front steer wheel to allow maneuverability and straight line action. Foldable handle. Floating pad drive gives constant working pressure.	1	1	E	Taski of Switzerland	ERGODISC 1200		20.47	37.40	46.46	520
Inpatient	07.1.3.11.01	Housekeeping Room	E207	1946244	0942667	FLOOR MACHINE, SCRUBBER	Auto scrubber with battery and charger.	1	1	E	Taski of Switzerland	SWINGO 755B		19.00	46.00	47.00	483
Inpatient	07.1.3.11.01	Housekeeping Room	E215	1849451	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Inpatient	07.1.4.01.01	Office: Manager	F005	1849453	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Inpatient	07.1.4.01.01	Office: Manager	F020	1849454	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.1.4.01.01	Office: Manager	F071	1849457	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Inpatient	07.1.4.01.01	Office: Manager	F027	1849455	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Inpatient	07.1.4.01.01	Office: Manager	F082	2480581	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Inpatient	07.1.4.02.01	Office: Clinical Pharmacist	F069	1849460	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Inpatient	07.1.4.02.01	Office: Clinical Pharmacist	F005	1849458	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Inpatient	07.1.4.02.01	Office: Clinical Pharmacist	F020	1849459	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.1.4.02.01	Office: Clinical Pharmacist	F053	1849462	0940215	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal.	1	3	F	Globalcare	FOLI	1200 SERIES	72.00	72.00	68.00	1,829
Inpatient	07.1.4.03.01	Workstation: Clinical Practice Lead	F020	1849463	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.1.4.04.01	Touchdown Workstation	F020	1849465	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.1.4.04.02	Touchdown Workstation	F020	1850526	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.1.4.04.03	Touchdown Workstation	F020	1850527	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																							
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
	610	10.0	4.5	W																								
950	1,180	92.4	42.0	F	Noise level: 64 dBA. Working width: 20" (510mm)	120	1		60	1,300	Plug	5-15P										82' (25 m) power cord length.						
1,168	1,194	342.0	155.1	F	Sound level 58 dB(A). Turning circle: 3 feet (1 m). Working width: 17 inch (43 cm). Squeegee width: 27 inch (69 cm).	120	1		60	900	Plug		No									22" Battery-powered auto scrubber Rated voltage: 24 V. Cable length of integrated battery charger: 2.5 m.						
457	1,880	18.0	8.2	F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								
	610	10.0	4.5	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,829	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P																	
610	1,016			F																								
610	1,016			F																								
610	1,016			F																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.1.4.05.01	Meeting / Education Room	F015	1849470	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	14	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Inpatient	07.1.4.05.01	Meeting / Education Room	F042	1849471	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	5	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Inpatient	07.1.4.05.01	Meeting / Education Room	F080	2480582	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Inpatient	07.1.4.06.01	Staff Lounge	F012	1849475	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	1	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Inpatient	07.1.4.06.01	Staff Lounge	F005	1849473	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	8	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Inpatient	07.1.4.06.01	Staff Lounge	E072	2267136	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Inpatient	07.1.4.06.01	Staff Lounge	E151	1849476	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Inpatient	07.1.4.06.01	Staff Lounge	E372	1849477	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Inpatient	07.1.4.06.01	Staff Lounge	F034	1849478	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	2	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Inpatient	07.1.4.07.01	Locker Room with Change Areas	F002	1849479	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	2	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Inpatient	07.1.4.07.01	Locker Room with Change Areas	E104	2074081	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Inpatient	07.1.4.07.01	Locker Room with Change Areas	E185	1849480	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	2	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Inpatient	07.1.4.07.01	Locker Room with Change Areas	E186	1849481	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	2	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Inpatient	07.2.2.01.01	Inpatient Bedroom	E025	1849482	0938311	BED, ELECTRIC, BARIATRIC	With bed exit alarm, integrated scale, foam mattress. Weight capacity: 1050 lb. Expandable bed frame. Height range: 18.70 to 33.70" (47.50 to 85.60 cm).	1	1	E	Stryker Canada Inc	Bari10A	2230	52.00	98.00	33.70	1,321
Inpatient	07.2.2.01.01	Inpatient Bedroom	F030	1849490	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.01	Inpatient Bedroom	F014	1849483	0940191	CHAIR, PATIENT, HIGH BACK, BARIATRIC	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3656	PRIMACARE HT	35.00	27.00	48.50	889
Inpatient	07.2.2.01.01	Inpatient Bedroom	F019	1849484	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.01	Inpatient Bedroom	E139	1849486	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Inpatient	07.2.2.01.01	Inpatient Bedroom	E162	1849487	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
737	838	116.0	52.7	F																								
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
914	737			F																								
610	457	75.0	34.1	F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
2,489	856	700.0	318.2	F	Height range: 18.70 to 33.70" (47.50 to 85.60 cm).	115	1	5.8	60		Plug		Yes															
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.0	28.2	F																								
762	902	240.0	109.1	F																								
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes											Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.2.01.01	Inpatient Bedroom	E166	2341926	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.01	Inpatient Bedroom	F040	1849491	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.01	Inpatient Bedroom	F083	2480583	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.02	Inpatient Bedroom	E019	1850537	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.02	Inpatient Bedroom	F030	1850539	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.02	Inpatient Bedroom	F013	1850536	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.02	Inpatient Bedroom	F019	1850532	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.02	Inpatient Bedroom	E138	1850534	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.02	Inpatient Bedroom	E162	1850535	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.2.2.01.02	Inpatient Bedroom	E166	2341927	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.02	Inpatient Bedroom	F040	1850530	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.02	Inpatient Bedroom	F083	2480584	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.03	Inpatient Bedroom	E019	1850544	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.03	Inpatient Bedroom	F030	1850550	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.03	Inpatient Bedroom	F013	1850549	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.03	Inpatient Bedroom	F019	1850542	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.03	Inpatient Bedroom	E138	1850541	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.03	Inpatient Bedroom	E162	1850543	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.2.01.03	Inpatient Bedroom	E166	2341928	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.03	Inpatient Bedroom	F040	1850540	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.03	Inpatient Bedroom	F083	2480585	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.04	Inpatient Bedroom	E019	1850561	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.04	Inpatient Bedroom	F030	1850552	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.04	Inpatient Bedroom	F013	1850558	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.04	Inpatient Bedroom	F019	1850559	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.04	Inpatient Bedroom	E138	1850557	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.04	Inpatient Bedroom	E162	1850556	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.2.2.01.04	Inpatient Bedroom	E166	2341929	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.04	Inpatient Bedroom	F040	1850553	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.04	Inpatient Bedroom	F083	2480586	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.05	Inpatient Bedroom	E019	1850566	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.05	Inpatient Bedroom	F030	1850562	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.05	Inpatient Bedroom	F013	1850565	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.05	Inpatient Bedroom	F019	1850568	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.05	Inpatient Bedroom	E138	1850571	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.05	Inpatient Bedroom	E162	1850570	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE						PEAK		LOW		HIGH										AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.2.01.05	Inpatient Bedroom	E166	2341930	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.05	Inpatient Bedroom	F040	1850572	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.05	Inpatient Bedroom	F083	2480587	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.06	Inpatient Bedroom	E019	1850576	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.06	Inpatient Bedroom	F030	1850574	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.06	Inpatient Bedroom	F013	1850578	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.06	Inpatient Bedroom	F019	1850583	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.06	Inpatient Bedroom	E138	1850577	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.06	Inpatient Bedroom	E162	1850575	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.2.2.01.06	Inpatient Bedroom	E166	2341931	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.06	Inpatient Bedroom	F040	1850579	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.06	Inpatient Bedroom	F083	2480588	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.07	Inpatient Bedroom	E019	1850594	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.07	Inpatient Bedroom	F030	1850592	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.07	Inpatient Bedroom	F013	1850586	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.07	Inpatient Bedroom	F019	1850591	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.07	Inpatient Bedroom	E138	1850584	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.07	Inpatient Bedroom	E162	1850590	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.2.01.07	Inpatient Bedroom	E166	2341932	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.07	Inpatient Bedroom	F040	1850588	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.07	Inpatient Bedroom	F083	2480589	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.08	Inpatient Bedroom	E019	1850600	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.08	Inpatient Bedroom	F030	1850604	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.08	Inpatient Bedroom	F013	1850602	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.08	Inpatient Bedroom	F019	1850603	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.08	Inpatient Bedroom	E138	1850598	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.08	Inpatient Bedroom	E162	1850601	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.2.2.01.08	Inpatient Bedroom	E166	2341933	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.08	Inpatient Bedroom	F040	1850605	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.08	Inpatient Bedroom	F083	2480590	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.09	Inpatient Bedroom	E019	1850615	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.09	Inpatient Bedroom	F030	1850608	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.09	Inpatient Bedroom	F013	1850610	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.09	Inpatient Bedroom	F019	1850614	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.09	Inpatient Bedroom	E138	1850606	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.09	Inpatient Bedroom	E162	1850613	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.2.01.09	Inpatient Bedroom	E166	2341934	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.09	Inpatient Bedroom	F040	1850616	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.09	Inpatient Bedroom	F083	2480591	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.01.10	Inpatient Bedroom	E019	1850617	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.2.01.10	Inpatient Bedroom	F030	1850620	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Inpatient	07.2.2.01.10	Inpatient Bedroom	F013	1850624	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
Inpatient	07.2.2.01.10	Inpatient Bedroom	F019	1850627	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Inpatient	07.2.2.01.10	Inpatient Bedroom	E138	1850619	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Inpatient	07.2.2.01.10	Inpatient Bedroom	E162	1850618	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Inpatient	07.2.2.01.10	Inpatient Bedroom	E166	2341935	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Inpatient	07.2.2.01.10	Inpatient Bedroom	F040	1850622	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Inpatient	07.2.2.01.10	Inpatient Bedroom	F083	2480592	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Inpatient	07.2.2.02.01	Inpatient Washroom		2470144	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.02	Inpatient Washroom		2470140	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.03	Inpatient Washroom		2470139	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.04	Inpatient Washroom		2470138	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.05	Inpatient Washroom		2470126	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.06	Inpatient Washroom		2470137	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.07	Inpatient Washroom		2470143	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.08	Inpatient Washroom		2470135	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.09	Inpatient Washroom		2470107	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.02.10	Inpatient Washroom		2470120	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Inpatient	07.2.2.06.01	Charting Area	E218	2188979	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Inpatient	07.2.2.06.01	Charting Area	F062	1849494	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.2.2.06.02	Charting Area	F021	1850629	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
813	1,118			F																							
	610	25.0	11.3	W																							
				NA																							
				NA																							
				NA																							
				NA																							
				NA																							
				NA																							
				NA																							
				NA																							
				NA																							
				NA																							
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
711	1,219	50.0	22.7	F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE						PEAK		LOW		HIGH										AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.2.06.02	Charting Area	F062	1850628	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.2.2.06.03	Charting Area	F021	1850631	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Inpatient	07.2.2.06.03	Charting Area	F062	1850630	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.2.2.06.04	Charting Area	F062	1850633	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.2.3.01.01	Patient Lounge	F010	1849495	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	6	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Inpatient	07.2.3.01.01	Patient Lounge	F012	1849496	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	3	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Inpatient	07.2.3.01.01	Patient Lounge	F032	1849497	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	1	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Inpatient	07.2.3.01.01	Patient Lounge	F037	1849498	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Inpatient	07.2.3.01.01	Patient Lounge	F043	2480593	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Inpatient	07.2.3.02.01	Patient Dining	F005	1849500	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	10	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Inpatient	07.2.3.02.01	Patient Dining	E151	1849501	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Inpatient	07.2.3.02.01	Patient Dining	E372	1849502	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Inpatient	07.2.3.02.01	Patient Dining	F034	1849503	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	4	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Inpatient	07.2.3.02.01	Patient Dining	F045	2480594	0947788	WHITEBOARD, STEEL, LARGE	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880013	96.00		48.00	2,438
Inpatient	07.2.3.03.01	Activity Room	F005	1849505	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	8	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Inpatient	07.2.3.03.01	Activity Room	F042	1849506	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Inpatient	07.2.3.03.01	Activity Room	F045	2480595	0947788	WHITEBOARD, STEEL, LARGE	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880013	96.00		48.00	2,438
Inpatient	07.2.3.04.01	Medication Room	E337	2189005	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Inpatient	07.2.3.04.01	Medication Room	E419	2483747	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
Inpatient	07.2.3.04.01	Medication Room	E437	2483746	0947894	MEDICATION DISPENSING SYSTEM, AUXILIARY CABINET	7-drawer auxiliary unit must be used in conjunction to main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		22.80	27.00	47.00	579
Inpatient	07.2.3.04.01	Medication Room	E438	2483758	0947884	MEDICATION DISPENSING SYSTEM, COLUMN	Single column auxiliary unit with 4 doors, must be used in conjunction with a main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	79.50	787
Inpatient	07.2.3.04.01	Medication Room	E397	2470901	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Inpatient	07.2.3.04.01	Medication Room	E397	1849512	0947882	REFRIGERATOR, MEDICATION DISPENSING, 5 CU FT	5 cubic ft undercounter refrigerator for medication storage. On Casters (optional, height includes 1.5" casters). Compatible with main dispensing unit. Meets requirements for vaccine storage.	1	3	E	Becton Dickinson	PyxisES Refrig 5CF		24.00	29.00	33.50	610
Inpatient	07.2.3.04.01	Medication Room	F082	2480596	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Inpatient	07.2.3.04.01	Medication Room	F062	2470167	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Inpatient	07.2.3.05.01	Tub / Shower Room	E139	2074159	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
711	1,219	50.0	22.7	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
800	927			F																								
737	838	116.0	52.7	F																								
1,067	457	60.0	27.3	F																								
508	432			F																								
	914	10.0	4.5	W																								
546	838			F																								
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																		
914	737			F																								
	1,219	20.0	9.1	W																								
546	838			F																								
610	737	88.0	40.0	F																								
	1,219	20.0	9.1	W																								
660	1,981			F																								
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
686	1,194	133.0	60.3	F	Clearances: 1" either side 2" back side Drawer opening clearance 23" Additional clearances required if return bin included																	Power supplied via PyxiBus bus cables from main unit						
711	2,019	314.0	142.4	F	1" either side 2" back side Door opening clearance: 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P	Yes									Data required Emergency power recommended						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
737	851	206.0	93.6	F	Clearance requirements: Minimum of 3 in. behind unit for clearance and feature access Casters are 1.5", can be ordered without to accommodate 32" height fridge with levelling feet only Shelf weight capacity: 100 lbs max capacity/shelf Interior shelves: 18 in. x 18 in.	115	1	1.4	60		Plug	5-15	No									Requires 15 Amps dedicated circuit Power Cord Length: 8 - 10 ft Power plug/power cord length NEMA 5-15 hospital grade plug (115 V) 8-10 ft Remote alarm connected to central building alarm system by contractor						
	610	10.0	4.5	W																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.3.05.01	Tub / Shower Room	E248	1849515	0945290	SHOWER TROLLEY	Height adjustable. Weight capacity: 400 lb (182 kg), patient. Dual drainage holders. Includes mattress, head pillow and foldable side supports. Four 5" (125 mm) casters, all with brakes.	1	1	E	Arjo Canada Inc.	Carevo	BAC1111-01	35.00	79.00	37.60	889
Inpatient	07.2.3.05.01	Tub / Shower Room	E270	1849516	0945399	TUB, TREATMENT	Recumbent Bathing System with still bath. 1900mm fiberglass keyhole shape tubshell. 400lbs. patient capacity. Height Adjustable with emergency lowering function. Control panel with auto-fill, integrated liquid dispensing & disinfection system, thermostatic mixing valve with digital readout for water temp.	1	4	E	Arjo Canada Inc.	RHAPSODY 23 w/P200		38.19	89.37	62.38	970
Inpatient	07.2.3.05.01	Tub / Shower Room	E456	2488820	0948016	TUB, TREATMENT, ACCESSORY, CHAIR LIFT	Height adjustable bath lift chair. Mobile with casters and central (single button) brakes. 400lb (182 kg) capacity. Immersible, height adjustable seat with scale. Dual Controls (Chassis and handset) Battery-powered, with external battery charger.	1	4	E	Arjo Canada Inc.	Alenti	CBD 81XX	25.25	39.75	65.00	641
Inpatient	07.2.3.06.01	Equipment Storage	E019	1849517	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	2	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Inpatient	07.2.3.06.01	Equipment Storage	E316	2189016	0942007	CHAIR, COMMODE, BARIATRIC	Capacity: 700 lb. Extra-large, heavy duty. Toilet seat snaps on, and toilet paper holder. Seat:14-3/4"W x 19"D; Width between arms: 24"; Floor to Seat:17-7/8"- 20-7/8"H; Seat Opening: 8"W x 10"D	1	1	E	Performance Health	081261767	9950 BARIATRIC	28.50	24.00	29.88	724
Inpatient	07.2.3.06.01	Equipment Storage	E379	1952308	0943519	CHAIR, COMMODE/SHOWER	Mobile, for reusable and disposable bedpan commode use, over toilet use and as shower chair. Weight capacity: 350 lb (159 kg), maximum.	3	1	E	Vernacare	V65-1ZA	600ZA001	23.62	25.00	42.50	600
Inpatient	07.2.3.06.01	Equipment Storage	E341	2471771	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Inpatient	07.2.3.06.01	Equipment Storage	E213	1849518	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.2.3.06.01	Equipment Storage	E291	1849519	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	2	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Inpatient	07.2.3.07.01	Clean Utility	E337	2195957	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	7	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Inpatient	07.2.3.08.01	Cart and Storage Alcoves	E043	1946245	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.2.3.08.01	Cart and Storage Alcoves	E213	1849521	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.2.3.08.02	Cart and Storage Alcoves	E043	1850634	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.2.3.08.02	Cart and Storage Alcoves	E213	1946246	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.2.3.08.03	Cart and Storage Alcoves	E043	1850635	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.2.3.08.03	Cart and Storage Alcoves	E213	1946247	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Inpatient	07.2.3.08.04	Cart and Storage Alcoves	E043	1850636	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Inpatient	07.2.3.08.04	Cart and Storage Alcoves	E213	1946248	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
2,007	955	180.4	82.0	F	Weight with mattress: 180.4 lb (82 kg). Total width including side supports: 30 to 35" (759 to 889 mm). Stretcher width: 23" (586 mm). Total length: 79" (2007 mm). Length of chassis including wheel frame: 47-1/2" (1203 mm). Space requirement (wxd): 138x118" (3505x2997 mm).	115	1		60		Plug											Two sets removable batteries, NiMH, 24 V DC, 2.5 Ah capacity. Battery charger. Motor power Actuator Raise/Lower: 216 VA, Motor power Actuator adjustable back rest: 72 VA.						
2,270	1,584	1,100.0	499.0	F	Room space requirements: 3,195 x 2,750 mm (114" x 108-1/4"). Clearance between rear of tub control panel and wall: 150 mm (6") Minimum of 1100mm (44") required on side of tub to be used for patient entry/exit Footpads must be bolted to the floor when rigid pipe connections are used. Max total weight (resident + water): 500 kg (1100 lb). Maximum floor loading: 3250 N (731 lbs)/foot pad; 60N/cm2 (87 psi). Height range to top of tub: 620 to 1120 mm (24 3/8" to 44 1/8"). Height range to top of control panel: 1085 to 1585 mm (42 6/8" to 62 3/8").	120	1		60	1,200	Hard											Requires dedicated circuit with 10A slow blow circuit breaker and a ground-fault-circuit interrupter (10 mA), Unit must be earth bonded, connected from the bonding point on the unit to the equipotential bonding point of the room. **Final location of Services to be determined per Vendor Supplied Shop Drawing**	CW	0.790	20			
1,010	1,651	159.0	72.1	F	Seat height, lowest position: 18-1/4" (470 mm). Seat height, highest position: 42-1/8" (1070 mm). Maximum width of bathtub edge: 4.37" (111 mm). Turning radius 43-3/4" (1110mm) sound level 65 dBA. Battery charger to be wall mounted in dry area or room Dimensions (lxw): 25.5x4" (647.7x102 mm).	120	1		60	55	Plug	5-15P										Battery powered. Battery charger: (To be located in dry area or room) Lift Battery: 2 swappable Sealed lead-acid: 24 V, 4 Ah Scale Battery: 4 "AA" batteries.						
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
610	759			F																							
635	1,080	350.0	159.1	F																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
457	1,753	92.0	41.7	F																							
810	864			F	shipping weight 43lbs (19.45kg).																						
660	1,981			F																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
457	1,753	92.0	41.7	F																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
457	1,753	92.0	41.7	F																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
457	1,753	92.0	41.7	F																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
457	1,753	92.0	41.7	F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
					15	103.4	87	599.8	HW	0.787	20									15	103.4	87	599.8	DR			3.000	76			26	1.64

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Drain hose length: 1 m (3.28 ft). Drainage hose diameter: 1-1/2" (40 mm). Drain directly to facility floor drain or tub.											
		Coupling (HW/CW): G19.05 mm (3/4")/DN 20 mm (0.8"). Cold water temperature: 2- 25 deg C (36 to 77 deg F). Hot water temperature: 38 to 80 deg C (104 to 176 deg F). Recommended hot water temperature: >60 deg C (140 deg F). Minimum flow/supply pipe: 25lml/min (5.5gal/min), 50l/min (11gal/min) CW+HW Main inlets, both hot and cold water must include a shut-off valve. Unit equipped with waste trap. **Final location of Services to be determined per Vendor Supplied Shop Drawing**										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Inpatient	07.2.3.09.01	Linen Alcove	E347	2195030	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Inpatient	07.2.3.09.02	Linen Alcove	E347	2195032	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Inpatient	07.2.3.10.01	Soiled Utility	E392	2241669	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Inpatient	07.2.3.10.01	Soiled Utility	E147	1849522	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Inpatient	07.2.3.10.01	Soiled Utility	E393	2241681	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Inpatient	07.2.3.10.01	Soiled Utility	E218	1872248	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Inpatient	07.2.3.10.01	Soiled Utility	E400	2197616	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Inpatient	07.2.3.11.01	Housekeeping Closet	E039	2189036	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Inpatient	07.2.3.11.01	Housekeeping Closet	E339	2189034	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Inpatient	07.2.3.11.01	Housekeeping Closet	E215	2189035	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Inpatient	07.2.3.11.01	Housekeeping Closet	E234	2189029	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Inpatient	07.2.3.11.01	Housekeeping Closet	F082	2480597	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Inpatient	07.2.4.01.01	Clinical Workstation	F020	1849526	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.2.4.01.02	Clinical Workstation	E046	1952309	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Inpatient	07.2.4.01.02	Clinical Workstation	F020	1850639	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Inpatient	07.2.4.02.01	Business Centre	F029	1849529	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Inpatient	07.2.4.02.01	Business Centre	F065	1952310	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Inpatient	07.2.4.02.01	Business Centre	F041	1849530	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Inpatient	07.2.4.02.01	Business Centre	F043	2480598	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
High Acuity Unit	08.2.01.01	Patient Room	T019		00N0040172	BED, ELECTRIC		1	5	E		3005S3EX					
High Acuity Unit	08.2.01.01	Patient Room	F030	1849544	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
High Acuity Unit	08.2.01.01	Patient Room	E043	2074141	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
High Acuity Unit	08.2.01.01	Patient Room	F013	1946255	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
High Acuity Unit	08.2.01.01	Patient Room	F019	1849535	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
High Acuity Unit	08.2.01.01	Patient Room	F005	1849534	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,753	112.0	50.9	F																							
610	1,753	112.0	50.9	F																							
737	851	29.0	13.2	F																							
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																						
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																						
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																						
1,226	1,359	70.0	31.8	F																							
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																						
457	1,880	18.0	8.2	F																							
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																						
	610	10.0	4.5	W																							
610	1,016			F																							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
610	1,016			F																							
457	1,829	133.0	60.5	F																							
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																						
610	762	88.0	40.0	F																							
	914	10.0	4.5	W																							
				F																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
546	838			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.2.01.01	Patient Room	E307	2074197	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
High Acuity Unit	08.2.01.01	Patient Room	E368	2095964	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
High Acuity Unit	08.2.01.01	Patient Room	T184		00N0031035	I.V. INFUSION PUMP		1	5	E		8110					
High Acuity Unit	08.2.01.01	Patient Room	E383	2483808	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	2	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
High Acuity Unit	08.2.01.01	Patient Room	E227	1849542	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	2	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
High Acuity Unit	08.2.01.01	Patient Room	E138	1849538	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
High Acuity Unit	08.2.01.01	Patient Room	E142	1849539	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
High Acuity Unit	08.2.01.01	Patient Room	E153	1849540	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
High Acuity Unit	08.2.01.01	Patient Room	E166	1849541	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
High Acuity Unit	08.2.01.01	Patient Room	E308	2074130	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
High Acuity Unit	08.2.01.01	Patient Room	E341	2074178	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
High Acuity Unit	08.2.01.01	Patient Room	F037	2074195	0939738	TABLE, END	Laminate Rectangular table top. Metal base	1	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
High Acuity Unit	08.2.01.01	Patient Room	F040	1849545	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
High Acuity Unit	08.2.01.01	Patient Room	F083	2480599	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
High Acuity Unit	08.2.01.01	Patient Room	F060	2074204	0940858	WORKSURFACE, CLINICAL MOBILE	Surface is curved on one side (Left or Right) Durawrap 3D laminate surface which is 99.9% PVC-free. 2 locking and 2 non-locking casters. Height adjustment range from 29" to 46"	1	3	F	Herman Miller	CF100HM	Intent	24.00	24.00	46.00	610
High Acuity Unit	08.2.01.02	Patient Room	T019		00N0040174	BED, ELECTRIC		1	5	E		3005S3EX					
High Acuity Unit	08.2.01.02	Patient Room	F030	2095936	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
508	432			F																								
813	1,118			F																								
	610	25.0	11.3	W																								
610	1,168	33.0	15.0	F																								
				F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS			
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA		

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.2.01.02	Patient Room	E043	2095937	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
High Acuity Unit	08.2.01.02	Patient Room	F013	2095935	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
High Acuity Unit	08.2.01.02	Patient Room	F019	2095938	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
High Acuity Unit	08.2.01.02	Patient Room	F005	2095940	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
High Acuity Unit	08.2.01.02	Patient Room	E307	2095944	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
High Acuity Unit	08.2.01.02	Patient Room	E368	2095965	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
High Acuity Unit	08.2.01.02	Patient Room	T184		00N0041186	I.V. INFUSION PUMP		1	5	E		8100					
High Acuity Unit	08.2.01.02	Patient Room	E383	2483809	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	2	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
High Acuity Unit	08.2.01.02	Patient Room	E227	2095942	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	2	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
High Acuity Unit	08.2.01.02	Patient Room	E138	2095932	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
High Acuity Unit	08.2.01.02	Patient Room	E142	2095928	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
High Acuity Unit	08.2.01.02	Patient Room	E153	2095941	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
High Acuity Unit	08.2.01.02	Patient Room	E166	2095945	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
High Acuity Unit	08.2.01.02	Patient Room	E308	2095943	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
686	1,232	62.1	28.2	F																							
762	902	240.0	109.1	F																							
546	838			F																							
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.2.01.02	Patient Room	E341	2095939	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
High Acuity Unit	08.2.01.02	Patient Room	F037	2095931	0939738	TABLE, END	Laminate Rectangular table top. Metal base	1	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
High Acuity Unit	08.2.01.02	Patient Room	F040	2095934	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
High Acuity Unit	08.2.01.02	Patient Room	F083	2480600	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
High Acuity Unit	08.2.01.02	Patient Room	F060	2095929	0940858	WORKSURFACE, CLINICAL MOBILE	Surface is curved on one side (Left or Right) Durawrap 3D laminate surface which is 99.9% PVC-free. 2 locking and 2 non-locking casters. Height adjustment range from 29" to 46"	1	3	F	Herman Miller	CF100HM	Intent	24.00	24.00	46.00	610
High Acuity Unit	08.2.01.03	Patient Room	E025	1952189	0938311	BED, ELECTRIC, BARIATRIC	With bed exit alarm, integrated scale, foam mattress. Weight capacity: 1050 lb. Expandable bed frame. Height range: 18.70 to 33.70" (47.50 to 85.60 cm).	1	1	E	Stryker Canada Inc	Bari10A	2230	52.00	98.00	33.70	1,321
High Acuity Unit	08.2.01.03	Patient Room	F030	2095963	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
High Acuity Unit	08.2.01.03	Patient Room	E043	2095962	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
High Acuity Unit	08.2.01.03	Patient Room	F013	2095956	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635
High Acuity Unit	08.2.01.03	Patient Room	F019	2095954	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
High Acuity Unit	08.2.01.03	Patient Room	F005	2095951	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
High Acuity Unit	08.2.01.03	Patient Room	E307	2095961	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
High Acuity Unit	08.2.01.03	Patient Room	E368	2098012	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
High Acuity Unit	08.2.01.03	Patient Room	T184		00N0041187	I.V. INFUSION PUMP		1	5	E		8100					
High Acuity Unit	08.2.01.03	Patient Room	E383	2483810	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	2	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
High Acuity Unit	08.2.01.03	Patient Room	E227	2095960	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	2	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
High Acuity Unit	08.2.01.03	Patient Room	E139	1850661	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
High Acuity Unit	08.2.01.03	Patient Room	E142	2095952	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
508	432			F																								
813	1,118			F																								
	610	25.0	11.3	W																								
610	1,168	33.0	15.0	F																								
2,489	856	700.0	318.2	F	Height range: 18.70 to 33.70" (47.50 to 85.60 cm).	115	1	5.8	60		Plug		Yes															
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
686	1,232	62.1	28.2	F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.2.01.03	Patient Room	E153	2095949	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
High Acuity Unit	08.2.01.03	Patient Room	E166	2095947	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
High Acuity Unit	08.2.01.03	Patient Room	E308	2095955	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
High Acuity Unit	08.2.01.03	Patient Room	E341	2095953	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
High Acuity Unit	08.2.01.03	Patient Room	F037	2095957	0939738	TABLE, END	Laminate Rectangular table top. Metal base	1	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
High Acuity Unit	08.2.01.03	Patient Room	F040	2095946	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
High Acuity Unit	08.2.01.03	Patient Room	F083	2480601	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
High Acuity Unit	08.2.01.03	Patient Room	F060	2095959	0940858	WORKSURFACE, CLINICAL MOBILE	Surface is curved on one side (Left or Right) Durawrap 3D laminate surface which is 99.9% PVC-free. 2 locking and 2 non-locking casters. Height adjustment range from 29" to 46"	1	3	F	Herman Miller	CF100HM	Intent	24.00	24.00	46.00	610
High Acuity Unit	08.2.02.01	Isolation Anteroom	E041	1849547	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
High Acuity Unit	08.2.02.01	Isolation Anteroom	E104	1952311	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
High Acuity Unit	08.2.04.01	Touchdown Workstation	F020	1849549	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
High Acuity Unit	08.2.04.01	Touchdown Workstation	E011	1849548	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																						
508	432			F																							
813	1,118			F																							
	610	25.0	11.3	W																							
610	1,168	33.0	15.0	F																							
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
610	1,016			F																							
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS			
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA		

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.2.04.01	Touchdown Workstation	E154	1849550	0939180	MONITOR, CENTRAL STATION	32 channels for patient central monitoring w/dual displays, two-channel recorder/rack, laser printer, telemetry. 96 hour full disclosure 19" (533 mm) flat panel colour touch displays w/desk top mount.	1	1	E	Philips Healthcare	Center iX	INTELLIVUE INFO	60.00	7.60	16.70	1,524
High Acuity Unit	08.2.04.01	Touchdown Workstation	E158	2477548	0947817	MONITOR, PHYSIOLOGICAL, TELEMETRY	Portable telemetry pack w/ECG and Sp02. 2.4 GHz, 3,5,6 or derived 12 lead ECG. Transmits for display, processing and storage to central station. Includes finger probe, cables & pouches.	2	3	E	Philips Healthcare	MX40	862231	2.75	1.24	4.99	70
High Acuity Unit	08.2.04.01	Touchdown Workstation	F082	2480602	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
High Acuity Unit	08.2.04.02	Touchdown Workstation	F020	1850674	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
High Acuity Unit	08.2.05.01	Patient Nutrition Station	E290	1849555	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
High Acuity Unit	08.2.05.01	Patient Nutrition Station	E151	2267162	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
High Acuity Unit	08.2.05.01	Patient Nutrition Station	E192	1849554	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
High Acuity Unit	08.2.06.01	Crash Cart Alcove	E038	1849557	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
193	424	38.8	17.6	T	HP Engage Flex Pro Dimensions: 13.27" W x 3.94" H x 15.12" D 337mm x 100mm x 384mm Weight: 14.2 lbs. (6.44 kg) Heat Dissipation: 132 Btu/hr. (max.) Power: Operating Voltage Range 90-264 VAC 240 Rated Watts Watchdog UPS (862123) Dimensions: 17.5" W x 1.75" H x 11.75" D 445mm W x 45mm H x 295mm D Weight: 19 lbs. (8.62 kg) Heat Dissipation: 65 Btu/hr. (Nominal) 437Btu/hr (Max) Power: 5.6A @ 115VAC Rackmount option available ELO 24" Flat Panel Touch Display Dimensions without Stand: 23.9" W x 14.6" H x 7.6" D 606mm W x 373mm H x 61mm D Weight: 19.4 lbs. (8.8 kg) Heat Dissipation: 109.1 Btu/hr. Output Capacity: 32W Alarm Speaker Dimensions: 5.0" W x 3.0" H x 2.3" D 172mm W x 76mm H x 54mm D Weight: --- lbs. Heat Dissipation: --- Btu/hr. Power: ---	120	1	15.0	60	125	Plug		Yes									15 Amp dedicated quad outlet within 3' of the rear of unit(s). twork Requirements: Ethernet 10/100 base T outlet within only 3' of the rear of the computer(s). All network drops are to be Category 5e or higher certified. Input voltages - Processing unit: 100 - 127 VAC, 50 - 60 Hz, 125 Watts maximum. Dual flat screen display (each unit): 81 - 264 VAC, 48 - 62 Hz, 1 Amp. 2-channel recorder: 60 VDC, 26 Watts maximum. 2-channel recorder power supply: 100 - 240V, 50/60Hz, 72 Watts max. Laser printer: 100 - 127 VAC, 50 - 60 Hz, 72 Watts maximum.						
31	127	0.7	0.3	X	Alarm Signal Sound Pressure Level: 40dB(A) - 70dB(A)																	Powered by 3 each AA batteries						
	610	10.0	4.5	W																								
610	1,016			F																								
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 62 to 82 degrees Fahrenheit and non-condensing relative humidity at 30 to 60%.
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.2.06.01	Crash Cart Alcove	E069	1849558	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
High Acuity Unit	08.2.06.01	Crash Cart Alcove	E013	1849556	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
High Acuity Unit	08.2.07.01	Imaging Equipment Alcove	E076	1849559	0947275	ELECTROCARDIOGRAPH	With height adjustable (56-62") mobile workstation. 15.6" LED, full HD monitor touch screen.	1	1	E	GE Healthcare Clinical Systems	MAC VU360		19.00	28.00	62.00	483
High Acuity Unit	08.2.07.01	Imaging Equipment Alcove	E213	1946261	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
High Acuity Unit	08.2.08.01	Linen Alcove	E347	2113941	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
High Acuity Unit	08.2.09.01	Cart / Storage Alcove	E213	1946262	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
High Acuity Unit	08.2.09.01	Cart / Storage Alcove	F060	1946263	0940858	WORKSURFACE, CLINICAL MOBILE	Surface is curved on one side (Left or Right) Durawrap 3D laminate surface which is 99.9% PVC-free. 2 locking and 2 non-locking casters. Height adjustment range from 29" to 46"	1	3	F	Herman Miller	CF100HM	Intent	24.00	24.00	46.00	610
High Acuity Unit	08.2.09.02	Cart / Storage Alcove	E213	1946264	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
High Acuity Unit	08.2.09.02	Cart / Storage Alcove	F060	1946265	0940858	WORKSURFACE, CLINICAL MOBILE	Surface is curved on one side (Left or Right) Durawrap 3D laminate surface which is 99.9% PVC-free. 2 locking and 2 non-locking casters. Height adjustment range from 29" to 46"	1	3	F	Herman Miller	CF100HM	Intent	24.00	24.00	46.00	610
High Acuity Unit	08.2.11.01	Blanket Warmer	E279	2241642	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
High Acuity Unit	08.3.01.01	Equipment Storage	E383	2483811	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	6	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
High Acuity Unit	08.3.01.01	Equipment Storage	E227	1952312	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	6	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
High Acuity Unit	08.3.01.01	Equipment Storage	T182		00N0040442	PUMP, FEEDING		1	5	E		ENTERALITE INFINITY					
High Acuity Unit	08.3.01.01	Equipment Storage	E210	1849562	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
711	1,575	75.3	34.2	F	Weight 75.3 lbs max with adjustable height premium trolley and one battery Basic trolley 20.5 x 23.5 x 57 in (52 x 60 x 145 cm) Easy Clean trolley 19 x 28 x 56-58 in (48 x 71 x 142-147 cm) Easy Clean trolley 19 x 28 x 56-62 in (48 x 71 x 142-158 cm) with adjustable height 6 in (16 cm) of height adjustability	120	1		60		Plug		Yes									Powered by AC adapter or replaceable and rechargeable internal battery (hot swappable).						
457	1,753	92.0	41.7	F																								
610	1,753	112.0	50.9	F																								
457	1,753	92.0	41.7	F																								
610	1,168	33.0	15.0	F																								
457	1,753	92.0	41.7	F																								
610	1,168	33.0	15.0	F																								
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
				O																								
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				LOW		HIGH												AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
													Temperature: Operating: 10 to 40 deg C (50 - 104 deg F). Transport/Storage: -40 to 70 deg C (-40 to 158 deg F). Humidity: Operating: 20% - 95% RH non-condensing. Transport/Storage: 15% - 95% non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
High Acuity Unit	08.3.01.01	Equipment Storage	E065	1849561	0945265	SEQUENTIAL COMPRESSION UNIT	Portable vascular therapy. Compresses leg or foot, or both simultaneously. Tubing set of two individual assemblies included. Continuous operation. 3.2" LCD colour screen. One-touch operation. Patient detection. Adjustable bed hook. USB port for software upgrades.	1	1	E	Cardinal Health	SCD 700	Kendall	7.70	7.30	6.80	196
High Acuity Unit	08.3.01.01	Equipment Storage	E213	1849563	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
High Acuity Unit	08.3.01.01	Equipment Storage	T274		00N0040436	VENTILATOR		1	5	E		159002 HAMILTON-G5					
High Acuity Unit	08.3.01.01	Equipment Storage	E274	1849564	0945297	VENTILATOR	Mobile. With stand. With humidifier. Without air compressor. Pressure and volume based delivery and pressure or flow triggering. For infant, pediatric, & adult patients. With 15" (381 mm) LCD display.	1	1	E	Covidien	Puritan Bennett 980	PB980	22.50	26.00	58.00	572
High Acuity Unit	08.3.01.01	Equipment Storage	T112		00N0004679	VENTILATOR ACCESSORY, HUMIDIFIER		1	5	E		PT101US AIRVO 2					
High Acuity Unit	08.3.02.01	Clean Utility (satellite)	E337	2195958	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	3	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
High Acuity Unit	08.3.03.01	Medication Room	E337	2241644	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
High Acuity Unit	08.3.03.01	Medication Room	E419	2483748	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
High Acuity Unit	08.3.03.01	Medication Room	E440	2483749	0947895	MEDICATION DISPENSING SYSTEM, HALF COLUMN	2 door half height column auxiliary, must be used in addition to main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	43.00	787
High Acuity Unit	08.3.03.01	Medication Room	E398	2470902	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
High Acuity Unit	08.3.03.01	Medication Room	E397	2241646	0947882	REFRIGERATOR, MEDICATION DISPENSING, 5 CU FT	5 cubic ft undercounter refrigerator for medication storage. On Casters (optional, height includes 1.5" casters). Compatible with main dispensing unit. Meets requirements for vaccine storage.	1	3	E	Becton Dickinson	PyxisES Refrig 5CF		24.00	29.00	33.50	610
High Acuity Unit	08.3.03.01	Medication Room	F082	2480603	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
High Acuity Unit	08.3.03.01	Medication Room	F062	2470168	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Maternal and Newborn Inpatient Unit	09.1.01.01	Waiting Area	F006	1849567	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	2	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Maternal and Newborn Inpatient Unit	09.1.01.01	Waiting Area	F005	1849566	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	6	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.1.01.01	Waiting Area	F037	1849568	0939738	TABLE, END	Laminate Rectangular table top. Metal base	3	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	F030	2470169	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	F016	1849571	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	F005	1849570	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E343	2471773	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
185	173	5.0	2.3	O		120	1		60	50	Plug		Yes									Rechargeable Battery: 10.8V, 2200mAh, Lithium Ion. Power cord: 13 ft (3.96 m) long. USB port.						
457	1,753	92.0	41.7	F																								
				T																								
660	1,473	113.0	51.4	F	Dimensions (wxdxh): Ventilator: 12.5x11.5x43.5" (318x292x1105 mm), without GUI (graphical user interface) screen. Overall height with GUI screen: 58" (1473 mm). Standard base (wxd): 22.50x26" (572x660 mm). Weight: 113 lb (51.40 kg) includes BDU (breath delivery unit), GUI (graphical user interface), standard base & primary battery. BDU only: 69 lb (31.3 kg). Sound power level: Does not exceed 61dBA at 5L/min.	120	1	1.5	60		Plug		Yes									180 VA. Ratings without air compressor.						
				O																								
660	1,981			F																								
660	1,981			F																								
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
711	1,092	260.0	117.9	F	Clearances: 1" either side 2" back side Door opening clearance 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P										Emergency power recommended.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
737	851	206.0	93.6	F	Clearance requirements: Minimum of 3 in. behind unit for clearance and feature access Casters are 1.5", can be ordered without to accommodate 32" height fridge with levelling feet only Shelf weight capacity: 100 lbs max capacity/shelf Interior shelves: 18 in. x 18 in.	115	1	1.4	60		Plug	5-15	No									Requires 15 Amps dedicated circuit Power Cord Length: 8 - 10 ft Power plug/power cord length NEMA 5-15 hospital grade plug (115 V) 8-10 ft Remote alarm connected to central building alarm system by contractor						
	610	10.0	4.5	W																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
559	838			F																								
546	838			F																								
508	432			F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																								
832	1,092			F																								
546	838			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Relative humidity: 85% max, non-condensing. Atmospheric pressure: 700 to 1060 mbar.
		Oxygen and air inlet supply: pressure 35psi to 87 psi (241 to 600kPa) Flow maximum of 200L/min.											Ventilator: Operating temperature: 10 to 40 deg C (50 to 104 deg F). Internal battery charger: 10 to 35oC (50 to 95oF). Storage -20oC to 70oC (-68oF to 158oF) Relative humidity: Operating and storage 10 to 95%, non-condensing. Atmospheric pressure: Operating 70 to 106 kPa (10.15 to 15.37 psi). Storage 50 to 106 kPa (7.25 to 15.37 psi). Altitude Operating -411.5m to 3048m (-1350ft to 10,000ft) Storage 6096m max (20,000ft max)
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F) Set point :40°F (4.4°C) Temperature probe:+/-1°F (+/-0.5°C)
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E383	2471774	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E227	1849576	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E143	1849572	0938558	LIGHT, EXAM/TREATMENT, MOBILE	Mobile on portable stand. 12x13" (305x336 mm) single head LED exam light. Intensity: 51,200 LUX at 1 m. Total reach: 42" (1067 mm). Colour temperature: 4317 deg K.	1	1	E	Skytron	Spectra		17.25	42.13	80.00	438
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E155	1849573	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E161	2074173	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E341	2074179	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	E233	1849577	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Maternal and Newborn Inpatient Unit	09.2.01.01	Triage/Assessment Bays	F040	1849579	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	F030	1850681	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	F016	1850682	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	F005	1850685	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	E343	2471776	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
1,070	2,032	35.8	16.3	F	-12" (305mm) LED exam light. -Mobile floor stand mounted with total reach of 42" (1067mm) and 13' (4m) removable power cord. -50° upward and 30° downward movement of arm; -355° pitch and 360° roll rotation of lighthead.	110	1	0.4	60		Plug		No															
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
813	1,118			F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
832	1,092			F																								
546	838			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	E383	2471775	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	E227	1850683	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	E155	1850680	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.2.01.02	Triage/Assessment Bays	F040	1850688	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	F030	1849591	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E043	2074142	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	F005	1849582	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E343	2471778	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E383	2471777	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E227	1849588	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
813	1,118			F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
546	838			F																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E155	1849585	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E341	2074180	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E233	1849589	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Maternal and Newborn Inpatient Unit	09.2.02.01	Triage/Assessment Room	E247	1849590	0931839	STRETCHER, OB/GYN	Hydraulic hi-low. Dual side-mounted foot control. Thermoformed ABS base with integrated storage tray. Weight capacity: 500 lb (228 kg).	1	1	E	Stryker Canada Inc	1061	GYNNIE OB/GYN	31.50	81.50	36.00	800
Maternal and Newborn Inpatient Unit	09.2.03.01	Cart / Storage Alcove	E213	1849594	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.2.04.01	Delivery Cart Alcove	E043	1849595	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E017	1849596	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	T018		00N0020815	BED, BIRTHING		1	5	E		LD304 BIRTHING BED					
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F030	1849611	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F064	1952315	0941087	CABINET, WARDROBE	Single door wardrobe, high pressure laminate case with 3mm pvc edging. 1 top shelf with hanger rail	1	3	F	Stance Healthcare Inc.	Royale	SR330	24.00	24.75	68.50	610
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E348	2074157	0942767	CART, DELIVERY	2- Drawer Delivery Cart, 4x thicker than standard thermofilm, Mobile, 5" casters,2 locking and 2 non-locking.	1	1	E	MedViron	Gaurdian	M70-0011-K	44.00	22.00	36.00	1,118
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F016	2471779	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F019	1849601	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F005	1849599	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E307	2074101	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E368	2192211	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E104	1952313	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	2	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E343	2471781	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
2,070	914			F	Siderails Up: 31.5"" Siderails Down: 26.75"" Height Range (high): 36"" Height Range (low): 22.5"" Litter Positioning Backrest: 0° - 90°. Foot Section: 0° - 90°. Trend./Reverse Trend.: ±18°.																					
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
				F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
629	1,740	145.0	65.9	F																								
559	914			F	Surface Width: 29in (66cm) Drop leaf extended width: 44in (1.1m) Surface Depth: 22in (61cm) Surface height: 36in (91cm) Top drawer on 2-drawer unit: 24in W x 18in L x 5in D Bottom drawer on 2-drawer unit: 24in W x 18in L x 13.5" D																							
832	1,092			F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E383	2471780	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E183	1849606	0938361	I.V. INFUSION PUMP, P.C.A.	PCA module for BD Carefusion IV infusion system. Ability to automatically pause the PCA infusion and deactivate dose request.	1	1	E	Becton Dickinson	Alaris 8120		4.50	7.50	15.00	114
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E227	1849608	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E388	1849604	0945248	LIGHT, BIRTHING	Ceiling mounted dual lightheads with rechargeable remote control wand & wall mounted intensity control.	1	4	E	Skytron	LUCINA 4-LCN4-PKG-2		24.00	24.00	12.00	610
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E155	1849605	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E192	1849607	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E308	2074131	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E341	2074181	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E233	1849609	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E234	1849610	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F040	1849613	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	E283	1849614	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	1	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Maternal and Newborn Inpatient Unit	09.3.01.01	LDRP	F083	2480604	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E017	1850694	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E018	1850707	0938309	BED, BIRTHING	Capacity: 500lbs. Height range from 17.5" (44cm) to 35.5" (90cm). Slide-off foot section, self-standing foot section, glide away foot supports with six-way adjustability, single-button trend, three-position side rails, CPR release, manual backup.	1	1	E	Stryker Canada Inc	4701	LD304	41.00	93.00	35.50	1,041
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F030	1850691	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F064	1952317	0941087	CABINET, WARDROBE	Single door wardrobe, high pressure laminate case with 3mm pvc edging. 1 top shelf with hanger rail	1	3	F	Stance Healthcare Inc.	Royale	SR330	24.00	24.75	68.50	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
191	381	5.5	2.5	O																		Powered from main PC unit.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
610	305	25.0	11.3	C	Unit to be recessed and flush mounted in ceiling Wall control dimensions approximately (W x D x H): 247 x 200 x 112 mm. Light heads (W x D x H): 24x24x12" (610x610x305 mm) (quantity 2). Weight per light head: 25 lbs (11.4 kg). Ceiling height: 8-10 ft(2438.4 - 3048 mm). Weight per light head: 25 lbs (11.4 kg)	120	1		60		Hard											Approximate power consumption: Dual head 91-163 VA						
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
813	1,118			F																								
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																	
	610	25.0	11.3	W																								
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
2,362	902	460.0	209.1	F		120	1	10.0	60		Plug		Yes									Hospital grade plug. Current leakage < 300 microamperes.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
629	1,740	145.0	65.9	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE						PEAK		LOW		HIGH										AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Relative humidity: 20-90% (non condensing) Temperature range: 5-40 deg Celcius
			310	556									
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F016	2471782	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F019	1850692	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F005	1850690	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E307	2192212	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E368	2192213	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E104	1952316	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	T184		00N0031084	I.V. INFUSION PUMP		1	5	E		8015					
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E383	2483812	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E227	1850706	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E388	1850700	0945248	LIGHT, BIRTHING	Ceiling mounted dual lightheads with rechargeable remote control wand & wall mounted intensity control.	1	4	E	Skytron	LUCINA 4-LCN4-PKG-2		24.00	24.00	12.00	610
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E155	1850697	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E192	1850708	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E308	2471783	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E233	1850695	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E234	1850696	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F040	1850704	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	E283	1850703	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	1	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Maternal and Newborn Inpatient Unit	09.3.01.02	LDRP	F083	2480605	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
832	1,092			F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
610	305	25.0	11.3	C	Unit to be recessed and flush mounted in ceiling Wall control dimensions approximately (W x D x H): 247 x 200 x 112 mm. Light heads (W x D x H): 24x24x12" (610x610x305 mm) (quantity 2). Weight per light head: 25 lbs (11.4 kg). Ceiling height: 8-10 ft(2438.4 - 3048 mm). Weight per light head: 25 lbs (11.4 kg)	120	1		60		Hard											Approximate power consumption: Dual head 91-163 VA						
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
584	699	0.0	0.0	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
813	1,118			F																								
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																	
	610	25.0	11.3	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
			310	556									
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E017	1850716	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E018	1850711	0938309	BED, BIRTHING	Capacity: 500lbs. Height range from 17.5" (44cm) to 35.5" (90cm). Slide-off foot section, self-standing foot section, glide away foot supports with six-way adjustability, single-button trend, three-position side rails, CPR release, manual backup.	1	1	E	Stryker Canada Inc	4701	LD304	41.00	93.00	35.50	1,041
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F030	1850715	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F064	1952319	0941087	CABINET, WARDROBE	Single door wardrobe, high pressure laminate case with 3mm pvc edging. 1 top shelf with hanger rail	1	3	F	Stance Healthcare Inc.	Royale	SR330	24.00	24.75	68.50	610
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F016	2471784	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	1	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F019	1850719	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F005	1850712	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E307	2192214	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E368	2192215	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E104	1952318	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	T184		00N0031086	I.V. INFUSION PUMP		1	5	E		8015					
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E383	2483813	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E227	1850717	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E388	1850724	0945248	LIGHT, BIRTHING	Ceiling mounted dual lightheads with rechargeable remote control wand & wall mounted intensity control.	1	4	E	Skytron	LUCINA 4-LCN4-PKG-2		24.00	24.00	12.00	610
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E155	1850723	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E192	1850720	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E308	2471785	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E233	1850714	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
2,362	902	460.0	209.1	F		120	1	10.0	60		Plug		Yes									Hospital grade plug. Current leakage < 300 microamperes.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
629	1,740	145.0	65.9	F																								
832	1,092			F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
610	305	25.0	11.3	C	Unit to be recessed and flush mounted in ceiling Wall control dimensions approximately (W x D x H): 247 x 200 x 112 mm. Light heads (W x D x H): 24x24x12" (610x610x305 mm) (quantity 2). Weight per light head: 25 lbs (11.4 kg). Ceiling height: 8-10 ft(2438.4 - 3048 mm). Weight per light head: 25 lbs (11.4 kg)	120	1		60		Hard											Approximate power consumption: Dual head 91-163 VA						
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
584	699	0.0	0.0	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			310	556									
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E234	1850722	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F040	1850718	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	E283	1850709	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	1	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Maternal and Newborn Inpatient Unit	09.3.01.03	LDRP	F083	2480606	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.3.02.01	LDRP Washroom (shower)	E379	2114187	0943519	CHAIR, COMMODE/SHOWER	Mobile, for reusable and disposable bedpan commode use, over toilet use and as shower chair. Weight capacity: 350 lb (159 kg), maximum.	1	1	E	Vernacare	V65-1ZA	600ZA001	23.62	25.00	42.50	600
Maternal and Newborn Inpatient Unit	09.3.03.01	LDRP Washroom (tub)		2114188	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E017	1849616	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E018	1849617	0938309	BED, BIRTHING	Capacity: 500lbs. Height range from 17.5" (44cm) to 35.5" (90cm). Slide-off foot section, self-standing foot section, glide away foot supports with six-way adjustability, single-button trend, three-position side rails, CPR release, manual backup.	1	1	E	Stryker Canada Inc	4701	LD304	41.00	93.00	35.50	1,041
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F030	1849631	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F064	2470170	0941087	CABINET, WARDROBE	Single door wardrobe, high pressure laminate case with 3mm pvc edging. 1 top shelf with hanger rail	1	3	F	Stance Healthcare Inc.	Royale	SR330	24.00	24.75	68.50	610
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F018	1849620	0940237	CHAIR, GLIDER	Full upholstered arms, wall saver edge, clean-out design	1	3	F	Herman Miller	862-50SNR1FU	Brava	26.50	26.25	42.50	673
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F019	1849621	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F005	1849619	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E307	2192216	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E368	2192217	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E104	2471786	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	T184		00N0031087	I.V. INFUSION PUMP		1	5	E		8015					
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E383	2483814	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E183	1849626	0938361	I.V. INFUSION PUMP, P.C.A.	PCA module for BD Carefusion IV infusion system. Ability to automatically pause the PCA infusion and deactivate dose request.	1	1	E	Becton Dickinson	Alaris 8120		4.50	7.50	15.00	114
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E227	1849628	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E139	1849623	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
813	1,118			F																								
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																	
	610	25.0	11.3	W																								
635	1,080	350.0	159.1	F																								
				NA																								
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
2,362	902	460.0	209.1	F		120	1	10.0	60		Plug		Yes									Hospital grade plug. Current leakage < 300 microamperes.							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
629	1,740	145.0	65.9	F																								
667	1,080	73.0	33.2	F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.							
191	381	5.5	2.5	O																		Powered from main PC unit.							
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E388	1849624	0945248	LIGHT, BIRTHING	Ceiling mounted dual lightheads with rechargeable remote control wand & wall mounted intensity control.	1	4	E	Skytron	LUCINA 4-LCN4-PKG-2		24.00	24.00	12.00	610
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E155	1849625	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E192	1849627	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E308	2471787	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E233	1849629	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E234	1849630	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E255	1849632	0935281	TABLE, INSTRUMENT	With undershelf and casters. 2" (51 mm) diameter casters. Framework 1" (25 mm) diameter. 18 gauge polished stainless steel tubing. All stainless 18 gauge tops and shelves.	1	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F040	1849633	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	E283	1849634	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	1	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Maternal and Newborn Inpatient Unit	09.3.04.01	LDRP (Bariatric)	F083	2480607	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.3.05.01	LDRP Bariatric Washroom (shower)		2470112	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Maternal and Newborn Inpatient Unit	09.3.06.01	Ice Machine	E290	1849636	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Maternal and Newborn Inpatient Unit	09.3.07.01	Crash Cart Alcoves	E038	1849638	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Maternal and Newborn Inpatient Unit	09.3.07.01	Crash Cart Alcoves	E069	1849639	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
610	305	25.0	11.3	C	Unit to be recessed and flush mounted in ceiling Wall control dimensions approximately (W x D x H): 247 x 200 x 112 mm. Light heads (W x D x H): 24x24x12" (610x610x305 mm) (quantity 2). Weight per light head: 25 lbs (11.4 kg). Ceiling height: 8-10 ft(2438.4 - 3048 mm). Weight per light head: 25 lbs (11.4 kg)	120	1		60		Hard											Approximate power consumption: Dual head 91-163 VA						
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
584	699	0.0	0.0	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
508	864	70.0	31.8	F																								
813	1,118			F																								
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																		
	610	25.0	11.3	W																								
				NA																								
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			310	556									
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.07.01	Crash Cart Alcoves	E213	1946266	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.3.07.01	Crash Cart Alcoves	E013	1849637	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Maternal and Newborn Inpatient Unit	09.3.07.02	Crash Cart Alcoves	E349	2074205	0941021	CART, RESUSCITATION, NEONATAL	For neonate use. Colour coded. 6"-drawer cart with accessory package. Cart features additional 2 ea 3", 1 ea 6" and 1ea 9" drawers, oxygen tank holder, IV pole, defibrillator swing arm.	2	1	E	Metropolitan Wire (Canada) Ltd	LECCRP3		38.00	22.64	38.74	965
Maternal and Newborn Inpatient Unit	09.3.07.02	Crash Cart Alcoves	E213	1946267	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.3.07.02	Crash Cart Alcoves	E013	1850729	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Maternal and Newborn Inpatient Unit	09.3.07.03	Crash Cart Alcoves	E349	2074206	0941021	CART, RESUSCITATION, NEONATAL	For neonate use. Colour coded. 6"-drawer cart with accessory package. Cart features additional 2 ea 3", 1 ea 6" and 1ea 9" drawers, oxygen tank holder, IV pole, defibrillator swing arm.	1	1	E	Metropolitan Wire (Canada) Ltd	LECCRP3		38.00	22.64	38.74	965
Maternal and Newborn Inpatient Unit	09.3.07.03	Crash Cart Alcoves	E213	1946268	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.3.07.03	Crash Cart Alcoves	E013	1850734	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Maternal and Newborn Inpatient Unit	09.3.08.01	Alcove, Clean	E347	2114212	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Maternal and Newborn Inpatient Unit	09.3.08.02	Alcove: Clean & Soiled Linen	E347	2114221	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E017	1849641	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E019	1849642	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	F030	1849648	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	F017	1849644	0940209	CHAIR, ROCKER	Upholstered seat and back with clean out design. Solid maple frame.. Wall saver edge.	1	3	F	Nemschoff Chairs, Inc.	288-60	Avery Rocker	25.25	35.00	40.50	641
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	F019	1849645	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	F005	1849643	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E368	2471788	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E282	2074191	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	1	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E161	2074174	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E192	2470171	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E308	2471789	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	E341	2074182	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	F040	1849649	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.10.01	Ante/Post-partum Room	F083	2480608	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,753	92.0	41.7	F																								
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
575	984	215.0	97.7	F	Clearance: Left - 3" (76 mm). Right - 3" (76 mm). Rear - 3" (76 mm).																							
457	1,753	92.0	41.7	F																								
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
575	984	215.0	97.7	F	Clearance: Left - 3" (76 mm). Right - 3" (76 mm). Rear - 3" (76 mm).																							
457	1,753	92.0	41.7	F																								
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
610	1,753	112.0	50.9	F																								
610	1,753	112.0	50.9	F																								
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
889	1,029	32.0	14.6	F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																		
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
813	1,118			F																								
	610	25.0	11.3	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E017	2192227	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E019	2192230	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	F030	2192220	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	F017	2192221	0940209	CHAIR, ROCKER	Upholstered seat and back with clean out design. Solid maple frame.. Wall saver edge.	1	3	F	Nemschoff Chairs, Inc.	288-60	Avery Rocker	25.25	35.00	40.50	641
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	F019	2192228	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	F005	2192226	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E368	2471790	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E282	2192218	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	1	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E161	2192219	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E192	2470172	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E308	2471791	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	E341	2192224	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	F040	2192229	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.10.02	Ante/Post-partum Room	F083	2480609	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E017	2192240	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E019	2192243	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	F030	2192233	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	F017	2192234	0940209	CHAIR, ROCKER	Upholstered seat and back with clean out design. Solid maple frame.. Wall saver edge.	1	3	F	Nemschoff Chairs, Inc.	288-60	Avery Rocker	25.25	35.00	40.50	641
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	F019	2192241	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	F005	2192239	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E368	2471793	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
889	1,029	32.0	14.6	F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																		
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
813	1,118			F																								
	610	25.0	11.3	W																								
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
889	1,029	32.0	14.6	F																								
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E282	2192231	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	1	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E161	2192232	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E192	2470173	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E308	2471792	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	E341	2192237	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	F040	2192242	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Maternal and Newborn Inpatient Unit	09.3.10.03	Ante/Post-partum Room	F083	2480610	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.3.11.01	Ante/Post-Partum Washroom		2470114	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Maternal and Newborn Inpatient Unit	09.3.11.02	Ante/Post-Partum Washroom		2470113	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Maternal and Newborn Inpatient Unit	09.3.11.03	Ante/Post-Partum Washroom		2470110	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E017	1849653	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E349	2194429	0941021	CART, RESUSCITATION, NEONATAL	For neonate use. Colour coded. 6"-drawer cart with accessory package. Cart features additional 2 ea 3", 1 ea 6" and 1ea 9" drawers, oxygen tank holder, IV pole, defibrillator swing arm.	1	1	E	Metropolitan Wire (Canada) Ltd	LECCRP3		38.00	22.64	38.74	965
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	F019	1849656	0939548	CHAIR, SLEEPER	Side Sleeper. Grade 4 vinyl, laminate front, vinyl arms. Full width of 80"	1	3	F	Stance Healthcare Inc.	Oasis	SL800	46.00	30.00	35.50	1,168
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	F005	1849655	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E307	2074198	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E129	1849658	0940441	INCUBATOR, INFANT	Enclosed neonatal intensive care unit. Dual access doors and portholes. Integrated X-ray cassette tray. Mattress size: 26x19" (660x483 mm). 4 locking casters, w/ elevating base, servo-humidifier.	1	1	E	GE Healthcare Clinical Systems	Giraffe Incubator		45.00	26.00	70.00	1,143
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E028	2337730	0945028	LAB ANALYZER, BILIRUBIN	Neonatal non-invasive bilirubin meter. Measures and monitor level of bilirubin. Only requires single measurement per test. LED. Memory up to 40 measurements. Includes charging cradle and ten (10) infection control tips.	1	1	E	Mennen Medical	BiliCare		2.24	0.91	5.91	57
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E175	1849661	0945249	LIGHT, PHOTOTHERAPY	Mobile with stand. High intensity phototherapy, 45 uW at distance from baby of 15" (38 mm) with spot diameter of 14" (355 mm).	1	1	E	GE Healthcare Clinical Systems	Blue Spot PT Lite	Giraffe	20.00	20.00	54.00	508

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																	
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug												Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P											Dedicated Circuit 15A or 20A Required						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
813	1,118			F																								
	610	25.0	11.3	W																								
				NA																								
				NA																								
				NA																								
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																							
575	984	215.0	97.7	F	Clearance: Left - 3" (76 mm). Right - 3" (76 mm). Rear - 3" (76 mm).																							
762	902	240.0	109.1	F																								
546	838			F																								
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
660	1,778	304.0	138.2	F	Dimensions are approximate: Maximum height : 70" (1778 mm), minimum height : 60" (1520 mm). Floor to mattress height: 33 to 43" (840 to 1090 mm).	115	1	9.5	60		Plug												8.4V NiMH Battery						
23	150	0.4	0.2	O	Docking station (wxdxh): 3x3x3" (76x76x76 mm).	115	1		60		Plug												Rechargeable battery, Lithium Ion 3.7V.						
508	1,372	8.8	4.0	F	Dimensions (w x d x h): Light box: 7 x 4.5 x 12" (178 x 114 x 305 mm). 8.8 lb (4 kg). Overall dimensions with stand: DIAMETER 20" (508MM), HEIGHT 54" (1372 mm). Noise level: <50 dBA (measured 1 meter from the unit).	115	1	1.0	60		Plug																		

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													"Operating environment temperature: 20 to 30 deg C (68 to 86 deg F). Humidity: 5 to 85%, (non condensing). Air velocity: up to 0.3 m/sec. Storage/Shipping Information: Temperature: -25 to 60 deg C. Humidity: =85% RH (non-condensing). Pressure: 50–106 kPa."
													Operating temperature: 64.4 to 86 deg F (18 to 30 deg C). Humidity: 10 to 95% non-condensing. Storage temperature: -4 to 140 deg F (-20 to 60 deg C). Humidity: 0-95% non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E153	1849659	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E192	1849662	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E013	2074168	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E274	1849663	0945297	VENTILATOR	Mobile. With stand. With humidifier. Without air compressor. Pressure and volume based delivery and pressure or flow triggering. For infant, pediatric, & adult patients. With 15" (381 mm) LCD display.	1	1	E	Covidien	Puritan Bennett 980	PB980	22.50	26.00	58.00	572
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	T112		00N0030340	VENTILATOR ACCESSORY, HUMIDIFIER		1	5	E		PT101US AIRVO 2					
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	E283	1849664	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	1	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	F083	2480611	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.3.13.01	Holding Nursery	F062	2485737	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	2	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Maternal and Newborn Inpatient Unit	09.3.13.02	Holding Nursery	F005	1850770	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.3.13.02	Holding Nursery	E129	1850766	0940441	INCUBATOR, INFANT	Enclosed neonatal intensive care unit. Dual access doors and portholes. Integrated X-ray cassette tray. Mattress size: 26x19" (660x483 mm). 4 locking casters, w/ elevating base, servo-humidifier.	1	1	E	GE Healthcare Clinical Systems	Giraffe Incubator		45.00	26.00	70.00	1,143
Maternal and Newborn Inpatient Unit	09.3.13.02	Holding Nursery	E175	1850771	0945249	LIGHT, PHOTOTHERAPY	Mobile with stand. High intensity phototherapy, 45 uW at distance from baby of 15" (38 mm) with spot diameter of 14" (355 mm).	1	1	E	GE Healthcare Clinical Systems	Blue Spot PT Lite	Giraffe	20.00	20.00	54.00	508
Maternal and Newborn Inpatient Unit	09.3.13.02	Holding Nursery	E153	1850772	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Maternal and Newborn Inpatient Unit	09.3.14.01	Holding Nursery Charting	E399	1849666	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Maternal and Newborn Inpatient Unit	09.3.15.01	Alcove: Transport Incubator	E277	1946270	0945298	VENTILATOR, TRANSPORT	Fully intensive care unit ventilator. Certified to use in ambulances, helicopters and airplanes. Adult, pediatric, and neonates ventilator. Non-invasive and integrated high flow oxygen therapy.	1	1	E	Hamilton Medical	T-1		12.20	8.60	11.70	310

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
660	1,473	113.0	51.4	F	Dimensions (wxdxh): Ventilator: 12.5x11.5x43.5" (318x292x1105 mm), without GUI (graphical user interface) screen. Overall height with GUI screen: 58" (1473 mm). Standard base (wxd): 22.50x26" (572x660 mm). Weight: 113 lb (51.40 kg) includes BDU (breath delivery unit), GUI (graphical user interface), standard base & primary battery. BDU only: 69 lb (31.3 kg). Sound power level: Does not exceed 61dBA at 5L/min.	120	1	1.5	60		Plug		Yes									180 VA. Ratings without air compressor.						
				O																								
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																	
	610	25.0	11.3	W																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
546	838			F																								
660	1,778	304.0	138.2	F	Dimensions are approximate: Maximum height : 70" (1778 mm), minimum height : 60" (1520 mm). Floor to mattress height: 33 to 43" (840 to 1090 mm).	115	1	9.5	60		Plug											8.4V NiMH Battery						
508	1,372	8.8	4.0	F	Dimensions (w x d x h): Light box: 7 x 4.5 x 12" (178 x 114 x 305 mm). 8.8 lb (4 kg). Overall dimensions with stand: DIAMETER 20" (508MM), HEIGHT 54" (1372 mm). Noise level: <50 dBA (measured 1 meter from the unit).	115	1	1.0	60		Plug																	
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
218	297	14.3	6.5	O	Sound power level 51dBA +/- 3dBA Sound pressure level 43dBA +/- 3dBA	120	1		60		Plug											Power 50 VA typical, 150 VA maximum. Lithium-ion rechargeable battery. 10.8VDC, 6.7 Ah, 72 Wh, 50 W typical, 150 W maximum.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
		Oxygen and air inlet supply: pressure 35psi to 87 psi (241 to 600kPa) Flow maximum of 200L/min.											Ventilator: Operating temperature: 10 to 40 deg C (50 to 104 deg F). Internal battery charger: 10 to 35oC (50 to 95oF). Storage -20oC to 70oC (-68oF to 158oF) Relative humidity: Operating and storage 10 to 95%, non-condensing. Atmospheric pressure: Operating 70 to 106 kPa (10.15 to 15.37 psi). Storage 50 to 106 kPa (7.25 to 15.37 psi). Altitude Operating -411.5m to 3048m (-1350ft to 10,000ft) Storage 6096m max (20,000ft max)
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale
													"Operating environment temperature: 20 to 30 deg C (68 to 86 deg F). Humidity: 5 to 85%, (non condensing). Air velocity: up to 0.3 m/sec. Storage/Shipping Information: Temperature: -25 to 60 deg C. Humidity: =85% RH (non-condensing). Pressure: 50–106 kPa."
													Operating temperature: 64.4 to 86 deg F (18 to 30 deg C). Humidity: 10 to 95% non-condensing. Storage temperature: -4 to 140 deg F (-20 to 60 deg C). Humidity: 0-95% non-condensing.
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
		High pressure oxygen inlet 2.8 to 6 bar (41 psi to 87 psi), flow max 200l/min, connector DISS (CGA 1240) or NIST Low pressure oxygen inlet pressure maximum 6 bar (87 psi), flow <=15l/min, connector Quick coupling system, compatible with Colder Products Company (CPC) PMC series											Storage -20°C to 60°C, <= 85% relative humidity. The storage location should be free from vibration, dust, direct sunlight, moisture, and corrosive gases, and with a recommended temperature range < 21°C. Extended exposure to temperatures above 45°C can degrade battery performance and life.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.4.01.01	Quiet / Bereavement Room	F010	1849668	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	2	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Maternal and Newborn Inpatient Unit	09.4.01.01	Quiet / Bereavement Room	F012	1849669	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	1	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Maternal and Newborn Inpatient Unit	09.4.01.01	Quiet / Bereavement Room	F005	2471794	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.4.01.01	Quiet / Bereavement Room	F032	1849670	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	1	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Maternal and Newborn Inpatient Unit	09.4.01.01	Quiet / Bereavement Room	F037	1849671	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Maternal and Newborn Inpatient Unit	09.4.02.01	Patient Nourishment Alcove	E290	1849674	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Maternal and Newborn Inpatient Unit	09.4.02.01	Patient Nourishment Alcove	E151	1849672	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Maternal and Newborn Inpatient Unit	09.4.02.01	Patient Nourishment Alcove	E372	1849673	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	E337	1849676	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	E101	2074209	0940627	LAB FREEZER, UNDERCOUNTER	5.3 cu.ft (150L) capacity . Temp range -15 to -30oC; Lockable door, password protected settings, optional PIN access; Alarms: door ajar, power failure, condenser temp; Downloadable event log	1	2	E	Helmer Labs Inc.	ILF 105-GX		24.30	28.40	31.90	617
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	E419	2483750	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	E440	2483751	0947895	MEDICATION DISPENSING SYSTEM, HALF COLUMN	2 door half height column auxiliary, must be used in addition to main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	43.00	787
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	E399	2470903	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	E191	1849678	0945280	REFRIGERATOR, MEDICATION DISPENSING, 13 CU FT	Used for storing refrigerated medication. Capacity: 13 cu ft. Remotely access via medication system. Auto defrost. Key lockable.	1	3	E	Becton Dickinson	BD Pyxis ES		24.25	29.50	70.50	616
Maternal and Newborn Inpatient Unit	09.4.03.01	Medication Room	F082	2480612	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E017	1849683	0938308	BASSINET, INFANT	Stainless steel. Modular tubular frame. Clear PVC infant basket with card holder. Includes mattress. Four 3" (76.2 mm) non-marking casters, 2 swivel and 2 with brakes.	1	1	E	Imperial Surgical Company	PH-2655/2657/2659		33.00	17.00	42.75	838
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E019	1849684	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E023	1849685	0944163	COOLING UNIT	Cooling system used with any size moses basket, crib, or cot. Contains a cooling unit, drain key, hose, 2x plastic cooling pads, bottle of biocide, silver insulation foil, and optional cover.	1	1	E	Flexible Mortuary Solutions	CuddleCot		10.63	9.06	5.12	270
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E071	1849686	0938351	DOPPLER, FETAL PULSE DETECTOR	Fetal pocket doppler. Integral probe protection and storage. Waterproof 2MHz probe. Built-in loudspeaker. Obstetrical application.	3	1	E	Huntleigh Diagnostics	Sonicaid FD2		2.91	1.06	5.51	74

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
1,067	457	60.0	27.3	F																								
508	432			F																								
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
660	1,981			F																								
721	810	179.0	81.2	F	Exterior (w x h x d) : 24 x 31.5 x 26.7" (610 x 798 x 678 mm). Minimum of 3"" (76mm) behind unit for clearance and feature access. Front ventilation eliminates the need for top or side clearance. Add 2.5" to the height if choosing optional casters. Overall Exterior: Add 0.3" to width if choosing optional access control. Includes leveling feet, door handle, user interface, and access panels. The maximum height added with leveling feet at highest level or casters installed is 2" (51 mm). Depth when door opening 48.8". Noise emission 46 dB.	115	1	4.1	60		Plug	NEMA 5-15	Yes									15 A (minimum) dedicated circuit with earth grounding. Hospital grade plug, power cord length: 8 - 10 ft (2.4 - 3.0 m).						
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
711	1,092	260.0	117.9	F	Clearances: 1" either side 2" back side Door opening clearance 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P										Emergency power recommended.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
749	1,791	382.0	173.3	F	Clearance: Minimum of 3" (76 mm) behind unit. 8" top clearance for ventilation Front clearance for door opening (at least 24.25" recommended.	115	1	1.4	60		Plug	5-15	Yes									Requires 15 Amps dedicated cricuit Power Cord Length: 8 - 10 ft Remote alarm connected to central building alarm system by contractor.						
	610	10.0	4.5	W																								
432	1,086	70.0	31.8	F	Dimensions: Bassinet cart: 33x17x38" (838x432x965 mm). Basket: 27.5x13.50x9.5" (698.5x342.9x241.3 mm). Overall height: 42.75" (1086 mm).																								
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
230	130	8.4	3.8	O	Clearance: 5.9" (15 cm) on all sides	115	1		60	200	Plug											Fuse Rating: 4A/250V quick blow.						
27	140	0.7	0.3	O	Weight includes battery and one probe.																	Runs on rechargeable 9V battery						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
			1,701										Ambient Operating Temperature: 15 to 32 deg C (59 to 90 deg F).
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F)
		The cooling system should be filled with distilled water.											Operating temperature range: 9 to 13 deg C (48 to 55 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E175	1952322	0945249	LIGHT, PHOTOTHERAPY	Mobile with stand. High intensity phototherapy, 45 uW at distance from baby of 15" (38 mm) with spot diameter of 14" (355 mm).	2	1	E	GE Healthcare Clinical Systems	Blue Spot PT Lite	Giraffe	20.00	20.00	54.00	508
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E180	1849687	0938388	PUMP, BREAST	With stand and battery. Microprocessor controlled with infinitely adjustable suction levels and cycle speeds. Piston driven. Bottle holders. Variable suction: 0 to 250 mmHg.	2	1	E	Egnell-Ameda Medical Inc.	ELITE		28.75	28.75	35.50	730
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E210	1849682	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E206	1849681	0939188	SCALE, INFANT/PEDIATRIC	With cart. Built-in digital readout for weighing of neonates, infants and toddlers. Capacity: 45 lb (20 kg). Accuracy: 2/10 oz (5 g). Includes standard cradle.	1	1	E	Welch Allyn Inc.	4802D-AX-XB	412490 Cart	33.50	23.50	46.50	851
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E213	1849688	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.4.04.01	Equipment Storage	E283	1952321	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	2	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Maternal and Newborn Inpatient Unit	09.4.05.01	C-Section Stretcher Alcove	E245	1849689	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Maternal and Newborn Inpatient Unit	09.4.06.01	Clean Utility Room	E337	2074295	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	8	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Maternal and Newborn Inpatient Unit	09.4.07.01	Cart / Storage Alcoves	E043	1849691	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Maternal and Newborn Inpatient Unit	09.4.07.01	Cart / Storage Alcoves	E213	1946272	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.4.07.02	Cart / Storage Alcoves	E043	1850775	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Maternal and Newborn Inpatient Unit	09.4.07.02	Cart / Storage Alcoves	E213	1946273	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.4.07.03	Cart / Storage Alcoves	E043	1850776	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Maternal and Newborn Inpatient Unit	09.4.07.03	Cart / Storage Alcoves	E213	1946274	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Maternal and Newborn Inpatient Unit	09.4.08.01	Imaging / Equipment Alcove	T290		00N0010109	IMAGING, ULTRASOUND, PORTABLE		1	5	E		VENUE 40 REF 5487523					
Maternal and Newborn Inpatient Unit	09.4.08.01	Imaging / Equipment Alcove	E155	1946325	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.4.08.02	Imaging / Equipment Alcove	E155	1946326	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
508	1,372	8.8	4.0	F	Dimensions (w x d x h): Light box: 7 x 4.5 x 12" (178 x 114 x 305 mm). 8.8 lb (4 kg). Overall dimensions with stand: DIAMETER 20" (508MM), HEIGHT 54" (1372 mm). Noise level: <50 dBA (measured 1 meter from the unit).	115	1	1.0	60		Plug																		
730	902	20.4	9.3	F	Dimensions (wxdxh) & weight are approximate only: Pump unit: 9x10x7.5 (229x254x191 mm). Weight: 6.4 lb (2.9 kg). Trolley stand, dia: 28.75x28" (730x711 mm). Weight: 14 lb (6.35 kg).	120	1	1.6	60		Plug		No										30 VA. Battery: NiCad 0.7 Ah. 9' power cord						
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
597	1,181	63.0	28.6	F	Approximate dimensions (wxdxh): Scale: 27.50x16x7" (699x406x178 mm). Cart, base: 23.50x23.50" (597x597 mm). Cart, shelf: 33.50x17.50" (851x445 mm). Cart height: 39.50" (1,003 mm). Standard Cradle: 25x14" (635x356 mm).	120	1		60		Plug												6 D sized alkaline batteries. USB port.						
457	1,753	92.0	41.7	F																								
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																		
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
660	1,981			F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																								
				F																								
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 64.4 to 86 deg F (18 to 30 deg C). Humidity: 10 to 95% non-condensing. Storage temperature: -4 to 140 deg F (-20 to 60 deg C). Humidity: 0-95% non-condensing.
													Operating conditions: 12 to 34 deg C (53 to 93 deg F). Humidity: 20 to 70% relative humidity. Transport and storage conditions: -23 to 54 deg C (-10 to 130 deg F). Humidity: 20 to 90% relative humidity. The ambient temperature range at the location must be 15 to 32°C (59 to 90°F).
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.4.08.03	Imaging / Equipment Alcove	E155	1946327	0938383	MONITOR, FETAL	Measure up to three fetal heart rates, uterine activity and intrauterine pressure. ECG waveform display. Blood pressure and oximetry. Touchscreen. Recorder. Mobile with accessory cart	1	1	E	Philips Healthcare	Avalon FM50		16.50	14.60	6.80	419
Maternal and Newborn Inpatient Unit	09.4.09.01	Blanket Warmer	E279	1849692	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Maternal and Newborn Inpatient Unit	09.4.09.02	Blanket Warmer	E279	1850777	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Maternal and Newborn Inpatient Unit	09.4.10.01	Soiled Utility Room	E392	2241670	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Maternal and Newborn Inpatient Unit	09.4.10.01	Soiled Utility Room	E147	1849693	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Maternal and Newborn Inpatient Unit	09.4.10.01	Soiled Utility Room	E393	2241682	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Maternal and Newborn Inpatient Unit	09.4.10.01	Soiled Utility Room	E218	1872249	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Maternal and Newborn Inpatient Unit	09.4.10.01	Soiled Utility Room	E400	2197617	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Maternal and Newborn Inpatient Unit	09.4.11.01	Housekeeping Closet	E039	2189045	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Maternal and Newborn Inpatient Unit	09.4.11.01	Housekeeping Closet	E339	2189043	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Maternal and Newborn Inpatient Unit	09.4.11.01	Housekeeping Closet	E215	2189044	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Maternal and Newborn Inpatient Unit	09.4.11.01	Housekeeping Closet	E234	2189038	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Maternal and Newborn Inpatient Unit	09.4.11.01	Housekeeping Closet	F082	2480613	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.4.13.01	Probe Storage	E320	1849698	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	1	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610
Maternal and Newborn Inpatient Unit	09.5.01.01	Office: Nurse Manager	F005	1849699	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.5.01.01	Office: Nurse Manager	F020	1849700	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.01.01	Office: Nurse Manager	F026	1849703	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Maternal and Newborn Inpatient Unit	09.5.01.01	Office: Nurse Manager	F027	1849701	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Maternal and Newborn Inpatient Unit	09.5.01.01	Office: Nurse Manager	F082	2480614	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.5.02.01	Clinical Workstations	F020	1849705	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
371	173	19.8	9.0	O		120	1	1.3	60		Plug		Yes									Requires 2 data connections						
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
737	851	29.0	13.2	F																								
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																							
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																							
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
	610	10.0	4.5	W																								
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								
	610	10.0	4.5	W																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Operating: Temperature: 0 to 45 C (32 to 113 deg F). Relative humidity: <95% RH at 40 deg C (104 deg F). Altitude range: -1,640 to 9,840 ft (-500 to 3,000 m). Storage: Temperature: -20 to 60 C (-4 to 140 deg F). Relative humidity: <90% RH at 60 deg C (140 deg F). Altitude range: -1,640 to 43,000 ft (-500 to 13,100 m).
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.5.02.01	Clinical Workstations	E011	1849704	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Maternal and Newborn Inpatient Unit	09.5.02.01	Clinical Workstations	E154	2485884	0939180	MONITOR, CENTRAL STATION	32 channels for patient central monitoring w/dual displays, two-channel recorder/rack, laser printer, telemetry. 96 hour full disclosure 19" (533 mm) flat panel colour touch displays w/desk top mount.	1	1	E	Philips Healthcare	Center iX	INTELLIVUE INFO	60.00	7.60	16.70	1,524
Maternal and Newborn Inpatient Unit	09.5.02.01	Clinical Workstations	F082	2480615	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Maternal and Newborn Inpatient Unit	09.5.02.02	Clinical Workstations	F020	1850781	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.02.03	Clinical Workstations	F020	1850784	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.02.03	Clinical Workstations	F071	1850785	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Maternal and Newborn Inpatient Unit	09.5.03.01	Physician Work Area	F020	1849709	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.03.02	Physician Work Area	F020	1850788	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.03.02	Physician Work Area	F048	1850789	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Maternal and Newborn Inpatient Unit	09.5.04.01	Business Centre	F029	1849711	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Maternal and Newborn Inpatient Unit	09.5.04.01	Business Centre	F065	1952323	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Maternal and Newborn Inpatient Unit	09.5.04.01	Business Centre	F041	1849712	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
30	147	0.5	0.2	T	HP Engage Flex Pro	115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
193	424	38.8	17.6	T	Dimensions: 13.27" W x 3.94" H x 15.12" D 337mm x 100mm x 384mm Weight: 14.2 lbs. (6.44 kg) Heat Dissipation: 132 Btu/hr. (max.) Power: Operating Voltage Range 90-264 VAC 240 Rated Watts Watchdog UPS (862123) Dimensions: 17.5" W x 1.75" H x 11.75" D 445mm W x 45mm H x 295mm D Weight: 19 lbs. (8.62 kg) Heat Dissipation: 65 Btu/hr. (Nominal) 437Btu/hr (Max) Power: 5.6A @ 115VAC Rackmount option available ELO 24" Flat Panel Touch Display Dimensions without Stand: 23.9" W x 14.6" H x 7.6" D 606mm W x 373mm H x 61mm D Weight: 19.4 lbs. (8.8 kg) Heat Dissipation: 109.1 Btu/hr. Output Capacity: 32W Alarm Speaker Dimensions: 5.0" W x 3.0" H x 2.3" D 172mm W x 76mm H x 54mm D Weight: --- lbs. Heat Dissipation: --- Btu/hr. Power: ---	120	1	15.0	60	125	Plug		Yes									15 Amp dedicated quad outlet within 3' of the rear of unit(s). twork Requirements: Ethernet 10/100 base T outlet within only 3' of the rear of the computer(s). All network drops are to be Category 5e or higher certified. Input voltages - Processing unit: 100 - 127 VAC, 50 - 60 Hz, 125 Watts maximum. Dual flat screen display (each unit): 81 - 264 VAC, 48 - 62 Hz, 1 Amp. 2-channel recorder: 60 VDC, 26 Watts maximum. 2-channel recorder power supply: 100 - 240V, 50/60Hz, 72 Watts max. Laser printer: 100 - 127 VAC, 50 - 60 Hz, 72 Watts maximum.						
	610	10.0	4.5	W																								
610	1,016			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
610	1,016			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity
													Heating, ventilation, air conditioning requirement for general equipment locations must maintain temperature at 62 to 82 degrees Fahrenheit and non-condensing relative humidity at 30 to 60%.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.5.04.01	Business Centre	F043	2480616	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Maternal and Newborn Inpatient Unit	09.5.05.01	Meeting / Education Room	F015	1849467	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	8	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Maternal and Newborn Inpatient Unit	09.5.05.01	Meeting / Education Room	F042	1849468	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Maternal and Newborn Inpatient Unit	09.5.05.01	Meeting / Education Room	F080	2480617	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	F010	1849715	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	2	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	F012	1849716	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	F005	1849714	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	E072	2267135	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	E151	1849717	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	E372	1849718	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	F037	1849720	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	F034	1849719	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Maternal and Newborn Inpatient Unit	09.5.06.01	Staff Lounge	F043	2480618	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Maternal and Newborn Inpatient Unit	09.5.07.01	Locker Room with Change Area	F002	1849722	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Maternal and Newborn Inpatient Unit	09.5.07.01	Locker Room with Change Area	E185	1849723	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	1	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Maternal and Newborn Inpatient Unit	09.5.07.01	Locker Room with Change Area	E186	1849724	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	1	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Maternal and Newborn Inpatient Unit	09.5.08.01	Charting Area	F020	1849651	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.08.01	Charting Area	F062	1849652	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Maternal and Newborn Inpatient Unit	09.5.08.02	Charting Area	F020	1850758	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.08.02	Charting Area	F062	1850757	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
	914	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
508	432			F																								
914	737			F																								
	914	10.0	4.5	W																								
610	457	75.0	34.1	F																								
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
610	1,016			F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	1,016			F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Maternal and Newborn Inpatient Unit	09.5.08.03	Charting Area	F020	1850760	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.08.03	Charting Area	F062	1850759	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Maternal and Newborn Inpatient Unit	09.5.08.04	Charting Area	F020	1850762	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Maternal and Newborn Inpatient Unit	09.5.08.04	Charting Area	F062	1850761	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Maternal and Newborn Inpatient Unit	09.6.01.01	On Call Sleep Rooms	F058	2267485	0940058	BED, SINGLE	All laminate. Accommodate mattress size 36x80. Mattress is not included.	1	1	F	Stance Healthcare	SPB-8036-R	Royale	38.25	82.00	30.00	972
Maternal and Newborn Inpatient Unit	09.6.01.01	On Call Sleep Rooms	F030	2267486	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.6.01.01	On Call Sleep Rooms	F059	2267487	0943388	LAMP, TABLE	Knob switch. Warm white emitting colour. Base diameter: 5.91" (150 mm). LED bulb.	1	1	F	Nordic Nest	Designer Classic	466674237	7.09	7.09	12.99	180
Maternal and Newborn Inpatient Unit	09.6.03.01	On Call (UBC)	F058	1849728	0940058	BED, SINGLE	All laminate. Accommodate mattress size 36x80. Mattress is not included.	1	1	F	Stance Healthcare	SPB-8036-R	Royale	38.25	82.00	30.00	972
Maternal and Newborn Inpatient Unit	09.6.03.01	On Call (UBC)	F030	1849730	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Maternal and Newborn Inpatient Unit	09.6.03.01	On Call (UBC)	F059	1849729	0943388	LAMP, TABLE	Knob switch. Warm white emitting colour. Base diameter: 5.91" (150 mm). LED bulb.	1	1	F	Nordic Nest	Designer Classic	466674237	7.09	7.09	12.99	180
Mental Health	10.1.01.01	Workstation: Unit Clerk	F020	1848017	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.1.02.01	Waiting Area	F007	1848020	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.1.02.01	Waiting Area	F009	1848021	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	5	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.1.02.01	Waiting Area	F037	1848022	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Mental Health	10.2.01.01	Mental Health Inpatient Room	E98	2471937	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.01	Mental Health Inpatient Room	F031	1848026	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.01	Mental Health Inpatient Room	F009	2195039	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.01	Mental Health Inpatient Room	E368	2195033	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Mental Health	10.2.01.01	Mental Health Inpatient Room	E308	2195035	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Mental Health	10.2.01.02	Mental Health Inpatient Room	E398	2195045	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.02	Mental Health Inpatient Room	F031	2195042	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.02	Mental Health Inpatient Room	F009	2195041	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.02	Mental Health Inpatient Room	E368	2195044	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Mental Health	10.2.01.02	Mental Health Inpatient Room	E308	2195040	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Mental Health	10.2.01.03	Mental Health Inpatient Room	E398	1850797	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,016			F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	1,016			F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
2,083	762	220.0	100.0	F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
180	330	7.7	3.5	T		120	1		60	10	Plug																	
2,083	762	220.0	100.0	F																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
180	330	7.7	3.5	T		120	1		60	10	Plug																	
610	1,016			F																								
660	914	56.0	25.5	F																								
660	914	48.0	21.8	F																								
508	432			F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.2.01.03	Mental Health Inpatient Room	F031	1850795	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.03	Mental Health Inpatient Room	F009	1850794	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.04	Mental Health Inpatient Room	E398	1850799	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.04	Mental Health Inpatient Room	F031	1850800	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.04	Mental Health Inpatient Room	F009	1850801	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.05	Mental Health Inpatient Room	E398	1850802	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.05	Mental Health Inpatient Room	F031	1850805	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.05	Mental Health Inpatient Room	F009	1850803	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.06	Mental Health Inpatient Room	E398	1850808	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.06	Mental Health Inpatient Room	F031	1850806	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.06	Mental Health Inpatient Room	F009	1850809	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.07	Mental Health Inpatient Room	E398	1850813	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.07	Mental Health Inpatient Room	F031	1850811	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.07	Mental Health Inpatient Room	F009	1850814	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.08	Mental Health Inpatient Room	E398	1850817	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.08	Mental Health Inpatient Room	F031	1850816	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.08	Mental Health Inpatient Room	F009	1850815	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.09	Mental Health Inpatient Room	E398	1850820	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.09	Mental Health Inpatient Room	F031	1850819	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.09	Mental Health Inpatient Room	F009	1850821	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.10	Mental Health Inpatient Room	E398	1850826	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.10	Mental Health Inpatient Room	F031	1850825	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.10	Mental Health Inpatient Room	F009	1850823	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.2.01.11	Mental Health Inpatient Room	E398	1850828	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.11	Mental Health Inpatient Room	F031	1850829	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.11	Mental Health Inpatient Room	F009	1850830	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.12	Mental Health Inpatient Room	E398	1850832	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.12	Mental Health Inpatient Room	F031	1850833	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.12	Mental Health Inpatient Room	F009	1850831	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.13	Mental Health Inpatient Room	E398	1850837	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.13	Mental Health Inpatient Room	F031	1850835	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.13	Mental Health Inpatient Room	F009	1850836	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.14	Mental Health Inpatient Room	E398	1850840	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.14	Mental Health Inpatient Room	F031	1850839	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.14	Mental Health Inpatient Room	F009	1850841	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.15	Mental Health Inpatient Room	E398	1850844	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.15	Mental Health Inpatient Room	F031	1850845	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.15	Mental Health Inpatient Room	F009	1850846	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.16	Mental Health Inpatient Room	E398	1850849	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.16	Mental Health Inpatient Room	F031	1850848	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.16	Mental Health Inpatient Room	F009	1850847	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.01.17	Mental Health Inpatient Room	E398	1850854	0943110	BED, ELECTRIC, MENTAL HEALTH	Mental health bed with mattress. Weight capacity: 500 lb (227 kg). Height adjustable: 10.75 to 34" (273 to 864 mm).	1	1	E	Stryker Canada Inc	Spirit Plus Mental		40.00	91.75	34.00	1,016
Mental Health	10.2.01.17	Mental Health Inpatient Room	F031	1850853	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.01.17	Mental Health Inpatient Room	F009	1850852	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.2.03.01	Mental Health Isolation Anteroom	E041	1848027	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
Mental Health	10.2.03.01	Mental Health Isolation Anteroom	E104	2074082	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
2,330	864	410.0	186.4	F	Height range from 10.75 to 34" (273 to 864 mm).	120	1	4.0	60		Plug		Yes									Mains Input Current (Beds with Auxiliary Mains AC outlet): 9.0 Amps. Plug the three prong power supply cord ONLY into a properly grounded power outlet that is rated to at least 10 A.						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																							
660	914	48.0	21.8	F																								
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.2.04.01	Mental Health Inpatient Room - Bariatric	E427	2473844	0947709	BED, ELECTRIC, MENT HEALTH, BARI	Bariatric electric bed (1060lb weight capacity), with Pilot Drive option, and with MH options and accessories (tamper resistant, permanently attached/ligature free side rails, safe-lock braking system). Standard features include 11" low height, integrated scale, bed exit alarm, smart nightlight, CPR release, communication port. Various other options available.	1	1	E	Umano Medical	Ook Snow All		41.50	91.00	31.70	1,054
Mental Health	10.2.04.01	Mental Health Inpatient Room - Bariatric	F031	1848031	0940211	CABINET, BEDSIDE, BEHAVIORAL HEALTH	3 Drawer cabinet with integrated handles. Drawers are non-removable without a special tool. Softened corners/edges. Bolted to floor or wall.	1	2	F	Stance Healthcare Inc.	SL120	Liberty	19.00	17.50	30.00	483
Mental Health	10.2.04.01	Mental Health Inpatient Room - Bariatric	F007	1848029	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.2.04.01	Mental Health Inpatient Room - Bariatric	E368	2195046	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Mental Health	10.2.04.01	Mental Health Inpatient Room - Bariatric	E308	2195047	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Mental Health	10.2.05.01	Mental Health - Bariatric Washroom		2092854	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Mental Health	10.2.06.01	Collaboration Station	F020	1848032	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.2.06.01	Collaboration Station	F079	2480619	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Mental Health	10.2.06.02	Collaboration Station	F020	1850855	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.2.06.02	Collaboration Station	F048	1850856	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.2.06.02	Collaboration Station	F079	2480620	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Mental Health	10.2.06.03	Collaboration Station	F020	1850859	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.2.06.03	Collaboration Station	F079	2480621	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Mental Health	10.2.06.04	Collaboration Station	F020	1850861	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.2.06.04	Collaboration Station	F079	2480622	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Mental Health	10.2.07.01	Patient Storage	E213	2471807	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Mental Health	10.2.08.01	Business Centre	F029	1848035	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Mental Health	10.2.08.01	Business Centre	F065	1952324	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Mental Health	10.2.08.01	Business Centre	F041	2485732	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Mental Health	10.2.08.01	Business Centre	F043	2480623	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Mental Health	10.2.09.01	Crash Cart Alcove	E038	1848039	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
2,311	805	1,060.0	480.8	F		120	1	9.3	60		Plug	5-15P										Bed has communication ports, bed exit alarm, nurse call						
445	762			F	Can be bolted to floor or wall if required. Contractor to ensure item is fixed to floor or wall.																								
660	914	56.0	25.5	F																								
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
				NA																								
610	1,016			F																								
	914	34.5	15.7	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	914	34.5	15.7	W																								
610	1,016			F																								
	914	34.5	15.7	W																								
610	1,016			F																								
	914	34.5	15.7	W																								
457	1,753	92.0	41.7	F																								
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.2.09.01	Crash Cart Alcove	E069	1848040	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Mental Health	10.2.09.01	Crash Cart Alcove	E013	1848038	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Mental Health	10.2.10.01	Adolescent Holding Lounge	F004	1848041	0934520	CHAIR, DINING, NO ARMS, WEIGHTED	Mental Health weighted dining chair, no arms. One piece rotationally molded highly durable polyethylene. Tamper-proof	1	3	F	Spec Furniture	Hardi	8701	22.00	24.00	33.00	559
Mental Health	10.2.10.01	Adolescent Holding Lounge	F011	1848042	0939573	CHAIR, LOUNGE, 1 SEAT, WEIGHTED	Freestanding heavy duty, medium back lounge chair. Poly arms. Roto-moldeed Tamper-proof hardware and glides. Grade 3 vinyl	2	3	F	Spec Furniture	9101MHD	Tailor	29.50	30.00	33.00	749
Mental Health	10.2.10.01	Adolescent Holding Lounge	F033	1848043	0940200	TABLE, COFFEE, WEIGHTED	Laminate top and sides. No exposed hardware.	1	3	F	Spec Furniture	OVALHD	Behavioral Health	30.00	48.00	20.00	762
Mental Health	10.2.10.01	Adolescent Holding Lounge	F036	1848044	0940201	TABLE, SQUARE, WEIGHTED	Square laminate top. Weighted disc base. All fasteners are tamperproof.	1	3	F	Spec Furniture	36X36 SQ DISCHD	Behavioral Health	36.00	36.00	29.00	914
Mental Health	10.2.11.01	High Observation Room	F084	2475223	0947811	MATTRESS	Seclusion Mattress. 3 Foam layered. Waterproof cover. Latex free. Weight capacity: 300 lbs	1	1	F	North American Mattress Corp	Assure II	42-MH-V-72366	72.00	36.00	6.00	1,829
Mental Health	10.2.11.02	High Observation Room	F084	2475224	0947811	MATTRESS	Seclusion Mattress. 3 Foam layered. Waterproof cover. Latex free. Weight capacity: 300 lbs	1	1	F	North American Mattress Corp	Assure II	42-MH-V-72366	72.00	36.00	6.00	1,829
Mental Health	10.2.13.01	Patient Lounge	F011	1848046	0939573	CHAIR, LOUNGE, 1 SEAT, WEIGHTED	Freestanding heavy duty, medium back lounge chair. Poly arms. Roto-moldeed Tamper-proof hardware and glides. Grade 3 vinyl	2	3	F	Spec Furniture	9101MHD	Tailor	29.50	30.00	33.00	749
Mental Health	10.2.13.01	Patient Lounge	F033	1848047	0940200	TABLE, COFFEE, WEIGHTED	Laminate top and sides. No exposed hardware.	1	3	F	Spec Furniture	OVALHD	Behavioral Health	30.00	48.00	20.00	762
Mental Health	10.3.01.01	Patient Lounge	F007	1848048	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.3.01.01	Patient Lounge	F009	1848049	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.3.01.01	Patient Lounge	F011	1848050	0939573	CHAIR, LOUNGE, 1 SEAT, WEIGHTED	Freestanding heavy duty, medium back lounge chair. Poly arms. Roto-moldeed Tamper-proof hardware and glides. Grade 3 vinyl	4	3	F	Spec Furniture	9101MHD	Tailor	29.50	30.00	33.00	749
Mental Health	10.3.01.01	Patient Lounge	F061	1848051	0940813	CHAIR, LOUNGE, 2 SEAT, WEIGHTED	Polyurethane arm caps, roto-molded bottom inserts.	1	3	F	Spec Furniture	Tailor HD	9102MHD	52.50	30.00	33.00	1,334
Mental Health	10.3.01.01	Patient Lounge	F033	1848052	0940200	TABLE, COFFEE, WEIGHTED	Laminate top and sides. No exposed hardware.	2	3	F	Spec Furniture	OVALHD	Behavioral Health	30.00	48.00	20.00	762
Mental Health	10.3.01.02	Patient Lounge	F007	1850868	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.3.01.02	Patient Lounge	F009	1850870	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.3.01.02	Patient Lounge	F011	1850867	0939573	CHAIR, LOUNGE, 1 SEAT, WEIGHTED	Freestanding heavy duty, medium back lounge chair. Poly arms. Roto-moldeed Tamper-proof hardware and glides. Grade 3 vinyl	4	3	F	Spec Furniture	9101MHD	Tailor	29.50	30.00	33.00	749
Mental Health	10.3.01.02	Patient Lounge	F061	1850871	0940813	CHAIR, LOUNGE, 2 SEAT, WEIGHTED	Polyurethane arm caps, roto-molded bottom inserts.	1	3	F	Spec Furniture	Tailor HD	9102MHD	52.50	30.00	33.00	1,334
Mental Health	10.3.01.02	Patient Lounge	F033	1850869	0940200	TABLE, COFFEE, WEIGHTED	Laminate top and sides. No exposed hardware.	2	3	F	Spec Furniture	OVALHD	Behavioral Health	30.00	48.00	20.00	762
Mental Health	10.3.02.01	Dining Room	F004	1848053	0934520	CHAIR, DINING, NO ARMS, WEIGHTED	Mental Health weighted dining chair, no arms. One piece rotationally molded highly durable polyethylene. Tamper-proof	18	3	F	Spec Furniture	Hardi	8701	22.00	24.00	33.00	559
Mental Health	10.3.02.01	Dining Room	F036	1848054	0940201	TABLE, SQUARE, WEIGHTED	Square laminate top. Weighted disc base. All fasteners are tamperproof.	6	3	F	Spec Furniture	36X36 SQ DISCHD	Behavioral Health	36.00	36.00	29.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
610	838	0.0	0.0	F																							
762	838	119.0	54.1	F																							
1,219	508	148.0	67.3	F																							
914	737	147.0	66.8	F																							
914	152	37.0	16.8	F																							
914	152	37.0	16.8	F																							
762	838	119.0	54.1	F																							
1,219	508	148.0	67.3	F																							
660	914	56.0	25.5	F																							
660	914	48.0	21.8	F																							
762	838	119.0	54.1	F																							
762	838	175.0	79.6	F	Seat height 18" Seat width 23" Arm height 24.5"																						
1,219	508	148.0	67.3	F																							
660	914	56.0	25.5	F																							
660	914	48.0	21.8	F																							
762	838	119.0	54.1	F																							
762	838	175.0	79.6	F	Seat height 18" Seat width 23" Arm height 24.5"																						
1,219	508	148.0	67.3	F																							
610	838	0.0	0.0	F																							
914	737	147.0	66.8	F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.3.03.01	Patient Kitchen	E072	1848055	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Mental Health	10.3.03.01	Patient Kitchen	E151	1848056	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Mental Health	10.3.03.01	Patient Kitchen	E244	1848058	0948037	RANGE, INDUCTION, DOMESTIC	Rapid boil induction cooktop. Air fry. Fan convection. Wifi connectivity and voice control. Front dials/knobs. Front touchscreen control panel.	1	4	E	Samsung	NE63B8411SS		29.94	28.67	37.00	760
Mental Health	10.3.03.01	Patient Kitchen	E372	1848057	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Mental Health	10.3.04.01	Activity Room	F009	1848059	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	12	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.3.04.01	Activity Room	E103	1848060	0937251	GAME TABLE, FOOSBALL	Tempered glass playing surface. Multilayered plywood covered w/ plastic laminate w/ metal legs. Includes 10 foosball balls	1	1	E	F.G. Bradley's Games	ROBERTO SPORT	840600	30.00	53.00	30.00	762
Mental Health	10.3.04.01	Activity Room	F042	1848061	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	4	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Mental Health	10.3.04.01	Activity Room	F081	2480624	0947787	WHITEBOARD, GLASS, LARGE	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695469	96.00		48.00	2,438
Mental Health	10.3.05.01	Exercise Room	E091	1848062	0940401	EXERCISE UNIT, BICYCLE, RECUMBENT	Self-powered; 16 levels of resistance; ergonomic seat; heart rate monitoring; user weight 400 lbs	1	1	E	Circle Fitness USA	CIR-RB6000-C		25.00	61.00	52.00	635
Mental Health	10.3.05.01	Exercise Room	E336	1952325	0943063	EXERCISE UNIT, TOTAL GYM	4 weight stack, 5 station gym: leg extension/leg curl/ leg press; upper body; low swivel body.	1	1	E	True Fitness Technology Inc.	MP 4.0		108.00	123.00	83.75	2,743
Mental Health	10.3.05.01	Exercise Room	E095	1848063	0945188	EXERCISE UNIT, TREADMILL, MOTORIZED	Commercial grade treadmill with medical siderails. Low starting speed of 0.1 mph (0.16 kph), adjustable in 0.1 increments (0.16 kph).	1	1	E	Scifit	AC5000M	5607-29	34.00	83.00	63.00	864
Mental Health	10.3.05.01	Exercise Room	F081	2480625	0947787	WHITEBOARD, GLASS, LARGE	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695469	96.00		48.00	2,438
Mental Health	10.3.06.01	Group Therapy Room	F009	1848064	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	10	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.3.06.01	Group Therapy Room	F042	1848065	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Mental Health	10.3.06.01	Group Therapy Room	F081	2480626	0947787	WHITEBOARD, GLASS, LARGE	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695469	96.00		48.00	2,438
Mental Health	10.3.07.01	Individual Consult /Therapy Space	F007	1848066	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.3.07.01	Individual Consult /Therapy Space	F009	1848067	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	5	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.3.07.01	Individual Consult /Therapy Space	F072	1848068	0941258	TABLE, MEETING, ROUND, WEIGHTED	Laminate top. Weighted disc base with levelling glides. Tamper-proof.	1	3	F	Spec Furniture	48DISCHD	Manhattan	48.00	0.00	29.00	1,219
Mental Health	10.3.07.02	Individual Consult /Therapy Space	F007	1946330	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.3.07.02	Individual Consult /Therapy Space	F009	1946329	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	5	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
728	940	205.0	93.0	F	Required cabinet opening is 30"W Min. 30" between cooking top and underside of cabinet. Min 15" between adjacent countertop and underside of cabinet.	240	1	40.0	60	800	Plug											Dedicated 40amp or larger circuit breaker required.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
660	914	48.0	21.8	F																								
1,346	762			F																								
610	737	88.0	40.0	F																								
	1,219	115.0	52.2	W																								
1,549	1,321	130.0	59.1	F																								
3,124	2,127			F	PRODUCT WEIGHT 1424 lbs / 646 kgs: includes 4 x 170 lbs / 77 kgs weight stacks 1504 lbs / 682 kgs: includes 3 x 170 lbs / 77 kgs weight stacks and 1 x 250 lbs / 114 kgs weight stack 1584 lbs / 718 kgs: includes 2 x 170 lbs / 77 kgs weight stacks and 2 x 250 lbs / 114 kgs weight stacks 1664 lbs / 755 kgs: includes 1 x 170 lbs / 77 kgs weight stack and 3 x 250 lbs / 114 kgs weight stacks 1744 lbs / 791 kgs: includes 4 x 250 lbs / 114 kgs weight stacks																					
2,108	1,600	397.0	180.5	F		110	1		60		Plug											15A dedicated, ground circuit.						
	1,219	115.0	52.2	W																								
660	914	48.0	21.8	F																								
610	737	88.0	40.0	F																								
	1,219	115.0	52.2	W																								
660	914	56.0	25.5	F																								
660	914	48.0	21.8	F																								
	737	177.0	80.5	F																								
660	914	56.0	25.5	F																								
660	914	48.0	21.8	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.3.07.02	Individual Consult /Therapy Space	F072	1946328	0941258	TABLE, MEETING, ROUND, WEIGHTED	Laminate top. Weighted disc base with levelling glides. Tamper-proof.	1	3	F	Spec Furniture	48DISCHD	Manhattan	48.00	0.00	29.00	1,219
Mental Health	10.3.08.01	Family Visiting Room	F011	1848069	0939573	CHAIR, LOUNGE, 1 SEAT, WEIGHTED	Freestanding heavy duty, medium back lounge chair. Poly arms. Roto-moldeed Tamper-proof hardware and glides. Grade 3 vinyl	2	3	F	Spec Furniture	9101MHD	Tailor	29.50	30.00	33.00	749
Mental Health	10.3.08.01	Family Visiting Room	F061	1848070	0940813	CHAIR, LOUNGE, 2 SEAT, WEIGHTED	Polyurethane arm caps, roto-molded bottom inserts.	1	3	F	Spec Furniture	Tailor HD	9102MHD	52.50	30.00	33.00	1,334
Mental Health	10.3.08.01	Family Visiting Room	F033	1848071	0940200	TABLE, COFFEE, WEIGHTED	Laminate top and sides. No exposed hardware.	1	3	F	Spec Furniture	OVALHD	Behavioral Health	30.00	48.00	20.00	762
Mental Health	10.3.09.01	Patient Laundry Room	E259	2544016	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
Mental Health	10.3.09.01	Patient Laundry Room	e289	2475221	0946216	WASHER/DRYER, CLOTHES, DOMESTIC	Side by side configuration preferred. Front Load: Washer - 2.2 Cu. Ft. Dryer - Electric, 4.0 Cu. Ft. Energy Star Certified	1	2	E	Bosch	WAW285H1UC/WTW87NH1U		23.50	25.00	67.75	597
Mental Health	10.4.01.01	Medication Room	E337	1848074	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Mental Health	10.4.01.01	Medication Room	E419	2483753	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	2	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
Mental Health	10.4.01.01	Medication Room	E437	2483752	0947894	MEDICATION DISPENSING SYSTEM, AUXILIARY CABINET	7-drawer auxiliary unit must be used in conjunction to main unit.	2	3	E	Becton Dickinson	Pyxis ES Auxiliary		22.80	27.00	47.00	579
Mental Health	10.4.01.01	Medication Room	E400	2470904	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Mental Health	10.4.01.01	Medication Room	E397	1848076	0947882	REFRIGERATOR, MEDICATION DISPENSING, 5 CU FT	5 cubic ft undercounter refrigerator for medication storage. On Casters (optional, height includes 1.5" casters). Compatible with main dispensing unit. Meets requirements for vaccine storage.	1	3	E	Becton Dickinson	PyxisES Refrig 5CF		24.00	29.00	33.50	610
Mental Health	10.4.01.01	Medication Room	F082	2480627	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.4.01.01	Medication Room	F062	2470174	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Mental Health	10.4.02.01	Equipment Storage	E061	1848079	0937225	CHAIR, GERIATRIC	Adjustable up to 40 deg seat tilt and 90 deg recline. 20" (508mm) seat width. 17" (432mm) seat depth, 20.5" (521mm) seat height and 32" (813mm) back length. Seat capacity: 350 lb (159kg).	4	1	E	Broda Seating	785 ELITE		30.00	31.00	51.00	762
Mental Health	10.4.02.01	Equipment Storage	E140	2192640	0938554	LIFTER, PATIENT	Mobile electric patient lifter. Lifting speed: 36mm/sec. Emergency stop and lowering. Battery switches off at low voltage. 50 lifts per battery charge. Lift Capacity, Max: 205 KG	1	1	E	Guldmann	GL5.1		55.51	54.02	78.27	1,410
Mental Health	10.4.02.01	Equipment Storage	E161	1848081	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	2	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
	737	177.0	80.5	F																								
762	838	119.0	54.1	F																								
762	838	175.0	79.6	F	Seat height 18" Seat width 23" Arm height 24.5"																							
1,219	508	148.0	67.3	F																								
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																							
635	1,721	285.0	129.3	F	Washer: Door Hinge: Left Side (Not Reversible) Net Weight: 160 lbs Side Clearance (door open 180*): 15.8" (400 mm) Depth (door open 90*): 42.5" (1090 mm) Side Clearance: 0.625" Rear Clearance: 2.5" Silence level washing: 52 (dBA). Silence level spinning: 72 (dBA). Dryer: Door Hinge: Right Side (Reversible) Net Weight: 125 lbs Side Clearance (door open 180*): 16" (406 mm) Depth (door open 90*): 42.9" (1090 mm) Side Clearance: 0.625" Rear Clearance: 2.5" Silence level: 65 (dBA). Top clearance for stack system: 6.25"	208	1	10.5	60	2,520	Plug	6-15	No	208	1	3.5	60	900	Plug	6-15	No	Washer: Volts: 208V Power Cord Length: 63" Circuit Breaker: 15 Amps Dryer: Volts: 208V Power Cord Length: 63" Circuit Breaker: 15 Amps						
660	1,981			F																								
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
686	1,194	133.0	60.3	F	Clearances: 1" either side 2" back side Drawer opening clearance 23" Additional clearances required if return bin included																	Power supplied via PyxiBus bus cables from main unit						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							
737	851	206.0	93.6	F	Clearance requirements: Minimum of 3 in. behind unit for clearance and feature access Casters are 1.5", can be ordered without to accommodate 32" height fridge with levelling feet only Shelf weight capacity: 100 lbs max capacity/shelf Interior shelves: 18 in. x 18 in.	115	1	1.4	60		Plug	5-15	No									Requires 15 Amps dedicated circuit Power Cord Length: 8 - 10 ft Power plug/power cord length NEMA 5-15 hospital grade plug (115 V) 8-10 ft Remote alarm connected to central building alarm system by contractor						
	610	10.0	4.5	W																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
787	1,295	115.0	52.3	F	Depth when fully reclined: 69.5" (1765 mm).																							
1,372	1,988	101.2	46.0	F		120	1		60	53	Plug											Battery, replaceable: 25.9 V/2.25Ah Consumption/power of actuator: 24V, max 8A.						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		WASHER: The washing machine must only be operated with cold and hot (max. 140 °F/60 °C) tap water. Water Supply Pressure must be between 14.5 to 145 PSI (1 - 10 bar) with a minimum of 2.2 gallon (8 L) of flow per minute Water Supply Hose Length of 28" to the Right of Washer Water SUpply Hose lnegth of 43" to the Left of Washer Height difference between the floor and drainage point is maximum 39" (100 cm) Drain Hose Length of 57" DRYER: Drain Hose Length: 78" Maximum height of drain is 39 in. (100 cm).											
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F) Set point :40°F (4.4°C) Temperature probe:+/-1°F (+/-0.5°C)
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.4.02.01	Equipment Storage	E209	1848082	0945282	SCALE, CLINICAL, BARIATRIC	Bariatric. Digital stand-on scale with side handrails. Maximum capacity: 1000 lb (454 kg).	1	1	E	Health-O-Meter (div of Pelstar)	1100KL	130-1100KL	31.75	31.25	49.50	806
Mental Health	10.4.02.01	Equipment Storage	E216	2192642	0940411	SHELVING, WIRE	Wire shelving unit. 6 shelves. Mobile, with 4 casters. Enclosed cart with complete kit - wire grid on 3 sides, 2 brake casters, 2 swivel casters, 4 donut bumpers, bottom shelf cover, and full width label holder.	1	1	E	Acart Healthcare Storage Solutions	465CH	MEB465CH-6-CL	60.00	24.00	80.00	1,524
Mental Health	10.4.02.01	Equipment Storage	E291	1848083	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	2	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Mental Health	10.4.02.01	Equipment Storage	E292	1848084	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Mental Health	10.4.03.01	Clean Supply Utility	E337	1952326	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	8	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Mental Health	10.4.04.01	Alcove: Clean & Soiled Linen	E279	2483115	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Mental Health	10.4.04.01	Alcove: Clean & Soiled Linen	E347	2114226	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Mental Health	10.4.04.01	Alcove: Clean & Soiled Linen	E213	2114227	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Mental Health	10.4.05.01	Alcove: Cart Storage	E043	1848086	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Mental Health	10.4.05.01	Alcove: Cart Storage	E213	1946331	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Mental Health	10.4.05.02	Alcove: Cart Storage	E043	1850875	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Mental Health	10.4.05.02	Alcove: Cart Storage	E213	1946332	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Mental Health	10.4.06.01	Alcove: Ice Machine and Blanket Warmer	E279	1848087	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Mental Health	10.4.06.01	Alcove: Ice Machine and Blanket Warmer	E290	1848088	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Mental Health	10.4.06.02	Alcove: Ice Machine and Blanket Warmer	E279	1850877	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Mental Health	10.4.06.02	Alcove: Ice Machine and Blanket Warmer	E290	1850876	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Mental Health	10.4.07.01	Soiled Utility	E392	2241671	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Mental Health	10.4.07.01	Soiled Utility	E147	1848089	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Mental Health	10.4.07.01	Soiled Utility	E393	2241683	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
794	1,257	50.0	22.7	F	180 degree swivel display.	120	1	0.3	60		Plug	5-15P										Includes AC adaptor. Operable using 6 AA batteries. Data Transfer: EMR/EHR Connectivity Featuring USB Port or optional wireless technology						
610	2,032	195.0	88.5	F																								
810	864			F	shipping weight 43lbs (19.45kg).																								
1,067	914	70.0	31.8	F	Dimensions are approximate only.																								
660	1,981			F																								
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
610	1,753	112.0	50.9	F																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
457	1,753	92.0	41.7	F																								
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
737	851	29.0	13.2	F																								
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									
Hard									CW	0.250	6			C	Hard					10	69.0	113	779.7									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.4.07.01	Soiled Utility	E218	1872250	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Mental Health	10.4.07.01	Soiled Utility	E400	2197618	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Mental Health	10.4.07.02	Soiled Utility	E392	2241672	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Mental Health	10.4.07.02	Soiled Utility	E147	1850878	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Mental Health	10.4.07.02	Soiled Utility	E393	2241684	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Mental Health	10.4.07.02	Soiled Utility	E218	1872251	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Mental Health	10.4.07.02	Soiled Utility	E400	2197619	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Mental Health	10.4.08.01	Housekeeping Closet	E039	2189054	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Mental Health	10.4.08.01	Housekeeping Closet	E339	2189052	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Mental Health	10.4.08.01	Housekeeping Closet	E215	2189053	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Mental Health	10.4.08.01	Housekeeping Closet	E234	2189047	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Mental Health	10.4.08.01	Housekeeping Closet	F082	2480628	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.5.01.01	Office: Specialized Services Manager	F005	1848093	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Mental Health	10.5.01.01	Office: Specialized Services Manager	F020	1848094	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.01.01	Office: Specialized Services Manager	F046	1848097	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Mental Health	10.5.01.01	Office: Specialized Services Manager	F028	1848095	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Mental Health	10.5.01.01	Office: Specialized Services Manager	F082	2480629	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.5.02.01	Office: Team Lead	F005	1848098	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Mental Health	10.5.02.01	Office: Team Lead	F020	1848099	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.02.01	Office: Team Lead	F071	1848102	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Mental Health	10.5.02.01	Office: Team Lead	F028	1848100	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Mental Health	10.5.02.01	Office: Team Lead	F082	2480630	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.5.02.01.01	Office: Clinical Pharmacist	F005	1849731	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																								
737	851	29.0	13.2	F																									
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.							
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																								
1,226	1,359	70.0	31.8	F																									
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																								
457	1,880	18.0	8.2	F																									
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																								
	610	10.0	4.5	W																									
546	838			F																									
610	1,016			F																									
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																	
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																								
	610	10.0	4.5	W																									
546	838			F																									
610	1,016			F																									
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P											0.5 W power draw when not in use							
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																								
	610	10.0	4.5	W																									
546	838			F																									

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.5.02.01.01	Office: Clinical Pharmacist	F020	1849732	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.02.01.01	Office: Clinical Pharmacist	F048	1849735	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.5.02.01.01	Office: Clinical Pharmacist	F028	1849733	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Mental Health	10.5.02.01.01	Office: Clinical Pharmacist	F082	2480631	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.5.03.01	Clinical Workstation	E046	1952327	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Mental Health	10.5.03.01	Clinical Workstation	F020	1848103	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.03.01	Clinical Workstation	F082	2480632	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.5.03.02	Clinical Workstation	F020	1850881	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.04.01	Physician Work Area	F020	1848106	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.04.02	Physician Work Area	F020	1850883	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.5.05.01	Meeting / Education Room	F015	1848108	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	15	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Mental Health	10.5.05.01	Meeting / Education Room	F042	1848109	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	6	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Mental Health	10.5.05.01	Meeting / Education Room	F080	2480633	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Mental Health	10.5.06.01	Staff Lounge	F010	1848112	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	2	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Mental Health	10.5.06.01	Staff Lounge	F012	1848113	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	1	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Mental Health	10.5.06.01	Staff Lounge	F005	1848111	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Mental Health	10.5.06.01	Staff Lounge	E072	2267141	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Mental Health	10.5.06.01	Staff Lounge	E151	1848114	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
	610	10.0	4.5	W																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
610	1,016			F																								
	610	10.0	4.5	W																								
610	1,016			F																								
610	1,016			F																								
610	1,016			F																								
610	1,016			F																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.5.06.01	Staff Lounge	E372	1848115	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Mental Health	10.5.06.01	Staff Lounge	F034	1848116	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Mental Health	10.5.06.01	Staff Lounge	F043	2480634	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Mental Health	10.5.07.01	Locker Room with Change Areas	F002	1848118	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	2	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Mental Health	10.5.07.01	Locker Room with Change Areas	E185	1848119	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	2	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Mental Health	10.5.07.01	Locker Room with Change Areas	E186	1848120	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	2	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Mental Health	10.6.01.01	Waiting Alcove	F007	1848121	0940210	CHAIR, GUEST, BARIATRIC, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 750lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201GHD	Midway	32.75	26.00	36.00	832
Mental Health	10.6.01.01	Waiting Alcove	F009	1848122	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	3	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.6.03.01	Exam/Treatment Room	F009	1848123	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.6.03.01	Exam/Treatment Room	F026	2192651	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Mental Health	10.6.03.01	Exam/Treatment Room	E104	2074083	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Mental Health	10.6.03.01	Exam/Treatment Room	E143	2074188	0938558	LIGHT, EXAM/TREATMENT, MOBILE	Mobile on portable stand. 12x13" (305x336 mm) single head LED exam light. Intensity: 51,200 LUX at 1 m. Total reach: 42" (1067 mm). Colour temperature: 4317 deg K.	1	1	E	Skytron	Spectra		17.25	42.13	80.00	438
Mental Health	10.6.03.01	Exam/Treatment Room	E162	1848124	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Mental Health	10.6.03.01	Exam/Treatment Room	E341	2074183	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Mental Health	10.6.03.01	Exam/Treatment Room	E233	1848125	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Mental Health	10.6.03.01	Exam/Treatment Room	E254	2337731	0945935	TABLE, EXAM, ADULT	Power height adjustable: 18 to 37" (457 to 940 mm). Patient weight capacity: 500 lb (227 kg). Gas assist back section. Seamless upholstery top. Heated drawer. Foot switch.	1	1	E	Midmark Corporation	224-002	Ritter	28.00	76.00	37.00	711
Mental Health	10.6.04.01	Interview Room	F009	1848127	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	5	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.6.04.01	Interview Room	F020	1848128	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.04.01	Interview Room	F050	2194536	0939740	DESK, STRAIGHT	Freestanding desk, full gables, with no storage.	1	3	F	Steelcase	TS5ARS3060	Payback	60.00	30.00	29.00	1,524
Mental Health	10.6.04.01	Interview Room	F039	1848129	0939552	TABLE, ROUND, WEIGHTED	Heavy duty 36" round dining table. Laminate top. Disc weighted base.	1	3	F	Spec Furniture	Disc	36DIA DISCHD	36.00	0.00	29.00	914
Mental Health	10.6.05.01	Touchdown Workstation	F020	1848131	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.05.01	Touchdown Workstation	F048	1848133	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
914	737			F																								
	914	10.0	4.5	W																								
610	457	75.0	34.1	F																								
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
660	914	56.0	25.5	F																								
660	914	48.0	21.8	F																								
660	914	48.0	21.8	F																								
610	737			F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
1,070	2,032	35.8	16.3	F	-12" (305mm) LED exam light. -Mobile floor stand mounted with total reach of 42" (1067mm) and 13' (4m) removable power cord. -50° upward and 30° downward movement of arm; -355° pitch and 360° roll rotation of lighthead.	110	1	0.4	60		Plug		No															
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes										Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
584	699	0.0	0.0	F																								
1,930	940	409.0	185.5	F	Length with footrest extended: 76" (1,930mm).	115	1	11.5	60		Plug											Heated drawer: 115 VAC, 24.6 W.						
660	914	48.0	21.8	F																								
610	1,016			F																								
762	737			F		120	1		60		Plug											Integrated power and data in desks and tables to connect to power source 120V/1P/60Hz, 15A circuits.						
	737			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.6.05.01	Touchdown Workstation	F082	2480635	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.6.05.02	Touchdown Workstation	F020	1850885	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.05.02	Touchdown Workstation	F048	1850886	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.6.06.01	Workstation: ICMT	F020	1848134	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.06.01	Workstation: ICMT	F048	1848136	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.6.06.01	Workstation: ICMT	F082	2480636	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.6.06.02	Workstation: ICMT	F020	1850887	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.06.02	Workstation: ICMT	F048	1850888	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.6.06.03	Workstation: ICMT	F020	1850891	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.06.03	Workstation: ICMT	F048	1850892	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.6.07.01	Workstation: Tertiary Care (Vocational Rehab)	F020	1848137	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.07.01	Workstation: Tertiary Care (Vocational Rehab)	F048	1848139	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.6.07.01	Workstation: Tertiary Care (Vocational Rehab)	F082	2480637	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.6.07.02	Workstation: Tertiary Care (Vocational Rehab)	F020	1850894	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.07.02	Workstation: Tertiary Care (Vocational Rehab)	F048	1850895	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Mental Health	10.6.08.01	Exam/Treatment Room	F009	2241652	0940195	CHAIR, GUEST, WEIGHTED	Upholstered seat and back, metal frame and sled base, with arms. Weight capacty 500lbs. Weighted 60lbs added. Steel glides secured with loctite into welded inserts	1	3	F	Spec Furniture	3201UHD	Midway	23.75	26.00	36.00	603
Mental Health	10.6.08.01	Exam/Treatment Room	F026	2241655	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Mental Health	10.6.08.01	Exam/Treatment Room	E104	2241651	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Mental Health	10.6.08.01	Exam/Treatment Room	E143	2241656	0938558	LIGHT, EXAM/TREATMENT, MOBILE	Mobile on portable stand. 12x13" (305x336 mm) single head LED exam light. Intensity: 51,200 LUX at 1 m. Total reach: 42" (1067 mm). Colour temperature: 4317 deg K.	1	1	E	Skytron	Spectra		17.25	42.13	80.00	438
Mental Health	10.6.08.01	Exam/Treatment Room	E162	2241654	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Mental Health	10.6.08.01	Exam/Treatment Room	E341	2241649	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Mental Health	10.6.08.01	Exam/Treatment Room	E233	2241653	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								
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737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
660	914	48.0	21.8	F																								
610	737			F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																								
1,070	2,032	35.8	16.3	F	-12" (305mm) LED exam light. -Mobile floor stand mounted with total reach of 42" (1067mm) and 13' (4m) removable power cord. -50° upward and 30° downward movement of arm; -355° pitch and 360° roll rotation of lighthead.	110	1	0.4	60		Plug		No																
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes											Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																								
584	699	0.0	0.0	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Mental Health	10.6.08.01	Exam/Treatment Room	E254	2337732	0945935	TABLE, EXAM, ADULT	Power height adjustable: 18 to 37" (457 to 940 mm). Patient weight capacity: 500 lb (227 kg). Gas assist back section. Seamless upholstery top. Heated drawer. Foot switch.	1	1	E	Midmark Corporation	224-002	Ritter	28.00	76.00	37.00	711
Mental Health	10.6.09.01	Business Centre	F029	1848141	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Mental Health	10.6.09.01	Business Centre	F041	1848142	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Mental Health	10.6.09.01	Business Centre	F043	2480638	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Mental Health	10.6.10.01	Office: Team Lead	F005	1848144	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Mental Health	10.6.10.01	Office: Team Lead	F020	1848145	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Mental Health	10.6.10.01	Office: Team Lead	F071	1848148	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Mental Health	10.6.10.01	Office: Team Lead	F027	1848146	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Mental Health	10.6.10.01	Office: Team Lead	F082	2480639	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Mental Health	10.6.11.01	Meeting / Education Room	F015	1848149	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	12	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Mental Health	10.6.11.01	Meeting / Education Room	F042	1848150	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	4	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Mental Health	10.6.11.01	Meeting / Education Room	F080	2480640	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Mental Health	10.6.12.01	Medication Room	E337	2241661	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Mental Health	10.6.12.01	Medication Room	E011	2484913	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Mental Health	10.6.12.01	Medication Room	E199	1849338	0946230	REFRIGERATOR, UPRIGHT, PHARMACY	1 Glass Door, 5 Basket Drawers. 11.5 cu.ft Capacity. Four 2" casters for easy mobility; the front two are lockable. Remote alarm monitoring. Temperature Range 3-7°C (5°C). Bright, LED interior lighting. Heat-free defrost for maximum temperature uniformity. Energy Star certified.	1	2	E	Thermo Fisher Scientific	TSX1205PA		24.00	30.50	73.00	610
Mental Health	10.6.12.01	Medication Room	F082	2480641	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Surgical Services	11.1.01.01	Workstation: Reception	F020	1848157	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.1.02.01	Waiting Area	F006	1848161	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Surgical Services	11.1.02.01	Waiting Area	F005	1848160	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	11	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Surgical Services	11.1.02.01	Waiting Area	F037	1848162	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
1,930	940	409.0	185.5	F	Length with footrest extended: 76" (1,930mm).	115	1	11.5	60		Plug											Heated drawer: 115 VAC, 24.6 W.						
457	1,829	133.0	60.5	F																								
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								
	610	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
660	1,981			F																								
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
775	1,854	388.0	176.0	F	Exterior Dimensions: D x W x H In (cm) 30.5 x 24.0 x 73.0 (77.5 x 61.9 x 185.4) Interior Dimensions: D x W x H In (cm) 21.8 x 20.0 x 52.4 (55.4 x 50.8 x 133.1) Clearance: Minimum of eight inches (20 cm) of space on the top and sides, six inches (15 cm) in back. Allow enough clearance so that door can swing open at least 85°.	115	1		60		Plug	5-15										Requires dedicated 15A circuit.						
	610	10.0	4.5	W																								
610	1,016			F																								
559	838			F																								
546	838			F																								
508	432			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.01	Operating Room	E012	1848163	0939902	ANESTHESIA MACHINE	W/ 3 vaporizers, ventilator. Includes light, NIBP, 2-channel IP, respiration, 5/3/12 lead ECG, 2 temp & SpO2 w/ swing arm.	1	1	E	GE Healthcare Clinical Systems	Aisys CS2	W/ B850 Monitor	26.81	32.28	52.72	681
Surgical Services	11.3.01.01	Operating Room	E097	1848174	0946680	ARTICULATING ARM	Contractor to Install: Structural support, ceiling mounting plate aprx. dimensions provided. Vendor to Install: Ceiling mounted articulating arm, vertical service head with 4 shelves, and one arm for a 32" flat panel monitor mount. Electric brakes. Arm & Service Head dimensions are provided in the architectural note.	1	2	E	Olympus Canada	Truport		30.00	30.00	6.00	762

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
820	1,339	418.0	190.0	F	Height: 133.9 cm/52.7 in Height (with vertical arm): 190.5 cm/75.0 in 211 cm/83.1 in Top shelf Weight limit: 45 kg/100 lb Width: 55 cm/21.65 in Depth: 51.6 cm/20.31 in Upper shelf (optional) Weight limit: 23 kg/50 lb Width: 54.8 cm/21.57 in Depth: 44.4 cm/17.48 in Work surface Height: 87.5 cm/34.4 in Size: 2684.2 cm2 /416 in2 Folding side shelf (optional) Weight limit: 12 kg/25 lb Height: 88.17 cm/34.7 in Width: 27.7 cm/10.91 in Depth: 36.6 cm/14.41 in DIN rail (optional) Side of machine: 53.9 cm/21.22 in Drawers (internal dimensions) Small Height: 10.5 cm/4.13 in Width: 37.80 cm/14.88 in Depth: 37.64 cm/14.82 in Large	120	1	15.0	60		Plug		Yes											System circuit breakers: 15A Current leakage : < 300µA Outlets: 4 outlets on back, 3-2A, 1-3A individual breakers, isolation transformer Power cord: 16.4 ft (5 m). 4 Data drop required. B850 CPU: 120V/1~ 60hz/ 300W						
762	152			C	Service head Dimensions 12" x 12" (310 x 310 mm), Lengths Vertical: up to 59" (1500 mm), Horizontal: 19" or 29" (500 or 750 mm) Support Arm reach: single 51", dual 126 Hieght Adjustable Arm: reach 38.4", max height adjustment 27.6" list speed 1.2"/s Swivel range: 330 deg. on all joints Mounting plate to be tandem capable of supporting 2 articulating arms and an exam light extending from one ceiling structural point. Height from floor to bottom of service head of approx. 24" All pre-installation materials, including junction box, medical gas bracket, ceiling gas terminal unit, DISS fittings for medical gases terminations above the ceiling, and anchor plate with mounting hardware to be supplied by General Contractor. Approximate ceiling cutout: 25.6" x 25.6" (650 x 650 mm) Mounting hole pattern to be provided by vendor. Design Loads: Fmax: 9200 N (2067 lbf). Mbmax: 12,500 Nm (9,220 ft-lbs.). Vendor to identify component requirements and bolt hole patterns as applicable. Vendor to supply and install articulating arm with pre-fabricated housing conduits and cabling for desired services included in the center post and horizontal articulating arm. Fixed horizontal/horizontal articulating arm of approximately 63" (1600 mm) effective length. Arm should rotate 330 degrees with adjustable rotation stops. Each arm (respiratory & nursing) to have a payload of at least 100 kg (220.45 lbs.)	120	1	5.0	60		Hard													120V/5amp circuit for powering the articulating arm brakes and accessories Eight (8) duplex receptacles, 20 amps; Eight (8) on emergency power Eight (8) data cables with RJ-45 jacks Six (6) single gang cutouts for Data, A/V and other low voltage cabling Two (2) USB charging outlet/cables with 5V D.C. with 1A electrical supply. Proponent to supply the following: a) Electrical junction box with riser plate. b) Conduit with pull strings to be provided in the arms for all low voltage devices. c) All conduit and wiring related to the data outlets, telephone outlets, and CAT 6A networking.	O2					

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									MA															V							

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA
						N																												

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Gas supply: Pipeline input range: 280 to 600 kPa (41 to 88 psig). Pipeline connections: DISS-male, DISS-female, DIN 13252, AS4059, BSPP 3/8, S90-116 or NIST, all fittings available for O2, N2O and air and contain pipeline filter and check valve. Primary regulator diaphragm minimum burst pressure: 2758 kPa (400 psig). Primary regulator nominal output: </= 345 kPa (50 psig), Pin indexed cylinder and DIN cylinder connections.											Operating Temperature: 10 to 35 deg C (50 to 95 deg F). Storage/Transport temp :-25 to 60°C Oxygen cell storage is -15 to 50°C, 10 to 95% RH, 500 to 800 mmHg LCD display storage is -20 to 60°C Vapourizer cassette storage is -25 to 50°C Relative Humidity Operating/ Storage/Transport: 15 to 95%, non condensing. Altitude Operating : 537 to 800 mmHg (3000 to -440 meters) Storage and Transport: 425 to 800 mmHg (4880 to -440 meters)
		1 ea CO2 2 ea medical air DISS medical gas outlet. 3 ea oxygen DISS medical gas outlet. 4 ea medical vacuum DISS medical gas outlet. 1 ea nitrogen with control panel											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.01	Operating Room	E410	2378064	0946679	ARTICULATING ARM	For Anesthesia - Contractor to Install: Structural support, ceiling mounting plate aprx. dimensions provided. Vendor to Install: ceiling mounted dual articulating arm system, one for anesthesia boom, one for video monitor. Arm & Service Head dimensions are provided in the architectural note.	1	3	E	Olympus Canada	Truport		14.00	14.00	6.00	356
Surgical Services	11.3.01.01	Operating Room	E473	2553343	0948576	CABINET, STORAGE, STAINLESS STEEL	Versatile stainless steel storage cabinet. For linen storage, 5 shelves. Optional shelves, baskets, or trays. 5" casters	1	1	E	Harloff Manufacturing Company	MSSM82-20GK		42.00	29.60	76.00	1,067
Surgical Services	11.3.01.01	Operating Room	F020	2471795	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.3.01.01	Operating Room	E350	2074219	0943591	DESK/WORKSTATION, OR	L-shape OR documentation workstation. Integral AV rack cabinet under desk with minimum 16RU. Stainless steel finish. Standing height. Includes keyboard tray, drawer, monitor mount with vertical articulation for nursing and AV monitors, cable management and articulating task light.	1	3	E	Torvan Medical	TC-NRS-DSK-L-SP-1		72.00	48.00	42.00	1,829
Surgical Services	11.3.01.01	Operating Room	E078	1848168	0944484	ELECTROSURGICAL UNIT	To be mounted on articulating arm. For electrosurgical cutting and coagulation, bipolar functionality and tissue fusion.	1	1	E	Valleylab	FT10		14.50	18.20	7.00	368
Surgical Services	11.3.01.01	Operating Room	E307	2192673	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Surgical Services	11.3.01.01	Operating Room	E368	2192672	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.3.01.01	Operating Room	E104	2074084	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Surgical Services	11.3.01.01	Operating Room	E351	2074218	0943529	HEADLIGHT SYSTEM	Procedure system w/ portable power source. Includes battery charger and carrying case. Dimensions of equipment not available from the manufacturer.	1	1	E	Welch Allyn Inc.	49020/75260/49099		12.00	12.00	5.50	305
Surgical Services	11.3.01.01	Operating Room	T282		00N0005653	HYPERTHERMIA UNIT		1	5	E		775 BAIR HUGGER					
Surgical Services	11.3.01.01	Operating Room	E282	2472873	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	1	1	E	Bair Hugger	77500		14.00	13.00	13.00	356

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
356	152			C	finished ceiling. Equipment load: 450 lbf (2,001.7 N), approximate. Moment load: 1,925 ft-lb (2,609 Nm). Articulations: full for tracking and distal arm joints. Hardware for enclosure mounting to be provided by contractor. Transformer enclosure(s) must be mounted within 20 ft (6096 mm) of the light mount with 2 ft (610 mm) square access panel. Flat panel mounting plate (wxd): 13.78x13.78" (350x350 mm). Required cutout in finished ceiling: 14.5x14.5" (368x368 mm). Four, 3/4" (19.05 mm) ASTM-A307 hardware for attachment to light mounting plate to sub-structure thru 0.81" (20.5 mm) diameter corner holes. This hardware specifications needs to be approved by structural engineer of record for the project. Transformer supplied by vendor. Plate and mounting hardware to be supplied by contractor. Maximum horizontal deflection of anchor plate: 0.1" (2.5 mm) with horizontal load "H" of 100 lb (45.4 kg). Maximum angular deflection of substructure at attachment point must not exceed 1/3 deg from level when subjected to design loads. Wall control boxes will be flush mounted by contractor. This includes the rough-in and rigid conduit. All structural support and mounting requirements between structural and finished ceiling supplied and installed by contractor. Vendor to identify component requirements and bolt hole patterns as applicable. Installation of cabling from wall control to light to be completed by contractor. Vendor to install to finished ceiling. Pallet dimensions (wxdxh): 35x88x74" (889x2,235x1,880 mm). Clear path is required with acceptable turn radius. Elevator must be able to accommodate pallet size.	120	1		60		Hard		Yes											Total number of dedicated electrical duplexes required: 9. - 9 duplexe receptacles to be 20A dedicated circuits, all on UPS - 2 USB charging ports to be supplied with 5 VDC, 1 amp minimum current supply. - 12 ea Data points -2 Biomed, 4 Regular Data,Phome Line + 4 for bridging two sided - 1 Nurse Call - 1 Emergency code call on arm and main wall mounted control panel - 4 ea single gang viedo guest plates - 10 ea single gang cutouts for data, MSH HIS. Faceplates with 8 ethernet ports to be included - 2 ea single gang cutouts for dat, Biomed network. Faceplates with 4 ethernet ports to be included - 2 ea blank cover plates and back boxes for future capacity Constructor to provide: a) Junction box for termination of electrical circuits. b) All electrical, video, data, and communication cables with required junction boxes and conduits (at least 1 telephone & 2 data required). c) Connection of all electrical wires to the ceiling box and testing. Conduit with pull strings in the arm to be provided by vendor (at least 1 telephone & 2 data required).						
752	1,930	332.0	150.6	F																								
610	1,016			F																								
1,219	1,067	400.0	181.4	F		120	1		60		Plug		Yes									connect to 120V power and need 15A circuit.						
462	178	22.3	10.1	O		120	1		60		Plug		Yes									Maximum VA: 950 VA. Maximum mains current: 10 A. Power cord: NEMA 3-prong hospital grade connector. 15 ft (5 m) maximum length. Wireless capability for servicing and Ethernet.						
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
305	140	0.4	0.2	X	Dimensions of case: 6" (L) x 12" (W) x 1.8" (H)	120	1	0.2	60		Plug											Battery charger.						
				F																								
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																		

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Unit requires services for 2 medical air DISS, 4 oxygen DISS, 2 nitrous oxide DISS, 4 medical vacuum DISS, and active scavenging. Gas bracket and medical gas inlet tubes to be supplied by vendor, installed by constructor. Gas inlet tubes to be brazed into supply lines via a 1/2" OD copper connection. Nitrogen Gas for braking system to be supplied by constructor and locally regulated at 50-75 psi. Gas bracket and gas inlet tube for pneumatic braking system to be supplied by vendor.											No Smoke evacuation system for Anesthesia Dept. requested ariculating arm. 2 ea medical air DISS 4 ea Oxygen DISS 2 ea Nitrous Oxide DISS 4ea medical vacuume DISS Active scavenging system required.
													To include active ventilation and vent design to manage up to 5000 BTU/hr.
													Operating condition: Temperature: 10 to 40 deg C (50 - 104 deg F). Relative Humidity: 30% - 75%, non-condensing. If the unit has been stored or transported at temperature below 10 deg C (50 deg F), the unit requires approx. one hour to acclimate at room temperature. Transport and storage: Temperature: -10 to 60 deg C (14 to 140 deg F). Relative humidity: 25% to 85% non-condensing.
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.01	Operating Room	T184		00N0031090	I.V. INFUSION PUMP		1	5	E		8100					
Surgical Services	11.3.01.01	Operating Room	E383	2074061	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	4	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Surgical Services	11.3.01.01	Operating Room	E184	2074060	0938701	I.V. INFUSION PUMP, SYRINGE	Syringe module for BD Carefusion IV infusion system. Accepts syringe sizes from 1mL - 60mL. Flow rate: 0.01mL/hr to 999mL/hr +/- 2% accuracy.	2	1	E	Alaris Medical Systems	8110		4.50	7.50	15.00	114
Surgical Services	11.3.01.01	Operating Room	E227	1848180	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	2	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.3.01.01	Operating Room	E030	2074201	0940450	KICKBUCKET	Capacity: 12 qt (11.4 L). Stainless steel. Seamless welded frame. All around bumper. Includes pail, with dimensions (dxh): 12x11" (305x279 mm).	1	1	E	Imperial Surgical Company	OR-3631		14.50	0.00	15.00	368
Surgical Services	11.3.01.01	Operating Room	E140	2470175	0938554	LIFTER, PATIENT	Mobile electric patient lifter. Lifting speed: 36mm/sec. Emergency stop and lowering. Battery switches off at low voltage. 50 lifts per battery charge. Lift Capacity, Max: 205 KG	1	1	E	Guldmann	GL5.1		55.51	54.02	78.27	1,410
Surgical Services	11.3.01.01	Operating Room	E411	1848175	0946681	LIGHT, SURGICAL	Single surgical LED light head (160,000 lux) w/mount. In-light camera ready.	2	3	E	Trumpf	iLED7		69.25	0.00		1,759

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
191	381	4.5	2.1	O																							
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
	381	1.2	0.5	F																							
1,372	1,988	101.2	46.0	F		120	1		60	53	Plug											Battery, replaceable: 25.9 V/2.25Ah Consumption/power of actuator: 24V, max 8A.						
				C	Weight of light head: 15.5kg (34 lb). Minimum ceiling height (finished floor to intermediate ceiling): 2,750mm. Minimum height from intermediate ceiling to raw ceiling: 500mm. Ceiling mounted. Recommended ceiling height: 9 ft-10" (2,997 mm), finished ceiling. Equipment load: 400 lbf (1,779 N), approximate. Moment load: 1,500 ft-lb (2,034 Nm). Articulations: full for tracking and distal arm joints. Light arm: Distance from light head to finished floor (highest position): 6 ft-10.5" (2,096 mm); lowest position: 3 ft-8.25" (1,124 mm). Arm reach, total: 5 ft-9.25" (1,759 mm). Arm reach, horizontal: 33.46" (850 mm); Arm reach pivots 28 deg up and 50 deg down: 35.83" (910 mm). Distance of down tube from floor: 8 ft-5.75" (2,584 mm). 13.78" (350 mm) from finished ceiling. Surgical light power transformers will be located above ceiling enclosure boxes. Separate transformer enclosure is required for each lamp head. Transformer enclosure will be provided by vendor in advance of final installation. Transformer enclosures must be located in an accessible location. An access panel shall be required in the finished ceiling for transformer enclosure(s). Transformer enclosures dimensions (wxdxh): 11.81x7.87x13.78" (300x200x350 mm). Hardware for enclosure mounting to be provided by contractor. Transformer enclosure(s) must be mounted within 20 ft (6,096 mm) of the light mount with 2 ft (610 mm) square access panel. Flat panel mounting plate (wxd): 13.78x13.78" (350x350 mm). Required cutout in finished ceiling: 14.5x14.5" (368x368 mm). Four, 3/4" (19.05 mm) ASTM-A307 hardware for attachment to light mounting plate to sub-structure thru 0.81" (20.5 mm) diameter corner holes. This	120	1		60		Hard		Yes										Max power uptake of total system: <160VA. Control unit: Lighthead, Wall, Mobile or Dock desk.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Temperature: 5 to 40 deg C (40 to 104 deg F). Relative Humidity: 15 to 95%, non-condensing. Ambient pressure: 70 to 106 kPa (10.2 to 15.4 psia). Infusion back pressure: -100 to 300 mmHg.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.01	Operating Room	E313	1848286	0940472	MEDICATION DISPENSING SYSTEM, ANESTHESIA	Mobile. Automated documentation of stored and dispensed drugs. With monitor, barcode scanner, return bin, tilt bins, extendable worksurface, drawers, electronic access, UPS, & printer.	1	3	E	Becton Dickinson	AnesthesiaStation ES	Pyxis	47.50	28.00	61.00	1,207
Surgical Services	11.3.01.01	Operating Room	E153	1848176	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Surgical Services	11.3.01.01	Operating Room	E167	2337728	0944881	OR AV INTEGRATION SYSTEM	Integrated Operation Room audio and visual control system w/ workstation and Medical Device Control, 2 X 4K InField Monitors and 1 X 4K Wall Monitor Included.	1	3	E	Olympus Canada	VMC-3/UCES-4		23.62	26.50	39.84	600
Surgical Services	11.3.01.01	Operating Room	E308	2074132	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.3.01.01	Operating Room	E414	1848169	0937328	SCOPE ACCESSORY, INSUFFLATOR	High flow 45 L/min insufflation unit complete with smoke evacuation capability, power cord, insufflation tube, suction tube and connectors. Applicable gas: CO2 gas for medical use. For surgical .	1	3	E	Olympus Corp	UHI-4		14.57	11.81	4.72	370
Surgical Services	11.3.01.01	Operating Room	E010	2471796	0939984	SCOPE ACCESSORY, SHAVER	To be mounted on articulating arm. System to include controller, foot switch and 8 handpieces.	1	1	E	Conmed Linvatec	Advantage	D4000/C9863/D4240	14.00	16.50	5.60	356

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
711	1,549	400.0	181.8	F	Dimensions (wxdxh) and weight, approximate: Width without return bin: 37" (940 mm). Width with return bin: 47.50" (1207 mm). Depth with drawers closed: 28" (711 mm). Depth with drawers open: 52" (1321 mm). Height from floor to work surface: 40" (1016 mm). Clearance: Front: minimum 27" (686 mm) for drawer pull out, recommend 4'(48") for operating and circulation. Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)	115	1	3.0	60		Plug		Yes																	
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
673	1,012	196.0	89.1	W	Wall mounted and ceiling mounted combination. Wall support must be able to carry the load of the equipment. Mounting bracket and accessories to be included. Touch control panel to be located at nurse workstation. Dimensions (wxdxh) and weight are approximate: Control unit for video management: 14.61x17.52x4.45" (371x445x113 mm). Weight: 21.1 lb (9.6 kg). Medical device controller: 14.76x17.76x4.72" (375x451x120 mm). Weight: 15.6 lb (7.1 kg). Image and Video recorder: 3.4x14.6x12.8" (86.4x370.84x325.12 mm). Weight: 10 lb (4.53 kg). Monitor, 21.5": 20.4x1.8x12.36" (518x46x314mm), w/out stand; 20.39x8.62x13.86 (518x219x352 mm), w/ stand. Weight: 15.43 lb (7 kg). Enclosure, AV rack: 23.62x26.50x39.84" (600x673x1012 mm). Weight: 134.2 lb (61 kg). Clearances required: Width: 19.76" (502 mm); Height: 37.66" (949 mm). Wall section, depth: 5.31" (135 mm). Load capacity: 750N. Ceiling mounted: Speaker: Enclosure outer (diaxh):10.64diax8.34" (211.8x270.3 mm) 8.0" H (203.2 mm H) from front of ceiling tile to back of rear enclosure Cut-out dimensions: 9.3" diameter (236.2 mm). Weight: 9.4 lb (4.3 kg). Junction box: 12x12x4" (305x305x102 mm) in wall behind equipment rack. Junction box: 24x24x6" (610x610x152 mm) in an accessible location in above ceiling.	115	1		60	200	Plug		Yes	115	1		60		Plug		Yes	Medical device controller: 100VA. Image and Video recorder: 115V, 180 W. Monitor: 115V, 50 W. 6.92 Amp 15Amp circuit breaker. Total power consumed at rack: 800W. Rack location requires 20A circuit. Required dedicated circuit. Constructor to provide duplex outlet for AV/IT equipment on dedicated 20A circuit. Constructor to provide quadruplex outlet for AV/IT equipment on dedicated 20A circuit. 3 data drops by facility required for rack mounted equipment. Data drop by facility required for camera. All power receptacle should be labeled "FOR A/V USE ONLY". All A/V circuits must have a dedicated electrical panel. Constructor to supply and pull all A/V cables. Constructor to provide and install all conduits to support the system, termination , backboxes, power circuits, & wiring. Constructor to provide pull strings in all A/V conduit runs. Constructor to provide electrical box in nurse workstation. Conduit shall not exceed two 90 deg bends between pull boxes. All others shall not exceed three 90 deg bends. Conduits length shall not exceed 100 ft (30.48 m) between pull boxes. Total length of cable path from rack through "24" to other conduits terminus shall not exceed 125 ft (38.1 m). No flexible conduit.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
300	120	20.5	9.3	T		110	1		60		Plug											Input: 150VA.						
419	142	14.5	6.6	O	Dimensions (wxdxh) and weight, approximate: Console: 14x16.5x5.6" (356x419x142 mm), 14.5 lb (6.35 kg) Shaver handpiece: length - 6.1" (155 mm), diameter - approx.1.25" in tear drop (32 mm). 17.8 oz (505 g)	115	1		60		Plug	5-15P											Console: 500 VA. Cord length: 12 ft (3.6 m). Fuse: T 8A, 250V. Output: 3 phase motor drive and control circuit, 325VA. Foot switch: Cord length: 10 ft (3 m) Handpiece: Cord length: 10 ft (3 m), non-detachable.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
			355										
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
			1,800										Heat dissipation at rack location: 1800 BTU/hr Elsewhere in the Rm: 900 BTU/hr. Operating temperature: 10 to 30 deg C (50 to 85 deg F). Humidity: 10 to 80%, non-condensing.
		CO2 medical gas from tank or wall supply.											
													Operating temp: 10 to 40 deg C (50 to 104 deg F) Relative Humidity: 30 to 75% Atmospheric Pressure: 700 to 1,060 hPa Transport and Storage temp: -40 to 70 deg C (-40 to 158 deg F) Relative Humidity: 10 to 100% including condensation. Atmospheric Pressure: 500 to 1,060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.01	Operating Room	E413	2378073	0941517	SCOPE ACCESSORY, VIDEO SYSTEM	To be mounted on boom for OR. 4K video processor and xenon 300W light source, autoclavable camera head.	1	3	E	Olympus Canada	Visera 4K UHD	OTV-S400/CLV-S400	15.35	20.51	6.38	390
Surgical Services	11.3.01.01	Operating Room	T292		00N0040459	SCOPE, VIDEO LARYNGOSCOPE		1	5	E		8403ZX C-MAC					
Surgical Services	11.3.01.01	Operating Room	E065	1848167	0945265	SEQUENTIAL COMPRESSION UNIT	Portable vascular therapy. Compresses leg or foot, or both simultaneously. Tubing set of two individual assemblies included. Continuous operation. 3.2" LCD colour screen. One-touch operation. Patient detection. Adjustable bed hook. USB port for software upgrades.	1	1	E	Cardinal Health	SCD 700	Kendall	7.70	7.30	6.80	196
Surgical Services	11.3.01.01	Operating Room	T221		00N0030344	SMOKE EVACUATION SYSTEM		1	5	E		marVAC					
Surgical Services	11.3.01.01	Operating Room	E053	2074129	0935210	STAND, BASIN, SINGLE	Stainless steel. Single bowl stand. Complete with 7 qt (6.6 L) basin. Fully welded frame.	1	1	E	Imperial Surgical Company	NEW # OR3651	F-3651/F-3654 W/BOWL	16.00	15.00	34.00	406
Surgical Services	11.3.01.01	Operating Room	E228	1848181	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	2	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Surgical Services	11.3.01.01	Operating Room	E352	2074128	0935146	STIMULATOR, MUSCLE	Two channel neuromuscular stimulator. IFC, PREMOD, Biphasic and Russian modes. Includes lead wires and electrodes.	1	1	E	Mettler Electronics Corp.	Sys Stim 228	5679-28	8.00	12.90	7.40	203
Surgical Services	11.3.01.01	Operating Room	E234	1848182	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	2	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Surgical Services	11.3.01.01	Operating Room	E235	1848183	0937985	STOOL, SURGEON'S	Mobile. With multi-position arm rests. Weight capacity: 300 lb (136 kg). Adjustable contoured backrest. Height range 21 to 28.5" (533 to 724 mm). Foot control hydraulic three spindle ("T") base.	1	1	E	Stryker Canada Inc	830 Surgistool II	0830-000-000	21.00	22.00	50.50	533
Surgical Services	11.3.01.01	Operating Room	E255	1848184	0935281	TABLE, INSTRUMENT	With undershelf and casters. 2" (51 mm) diameter casters. Framework 1" (25 mm) diameter. 18 gauge polished stainless steel tubing. All stainless 18 gauge tops and shelves.	1	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Surgical Services	11.3.01.01	Operating Room	T300		00N0020221	TABLE, SURGICAL		1	5	E		OPERON D860					
Surgical Services	11.3.01.01	Operating Room	T268		00N0040417	TOURNIQUET, AUTOMATIC		1	5	E		ATS4000					
Surgical Services	11.3.01.01	Operating Room	E280	2074126	0935034	WARMER, BLOOD/FLUID	Blood/fluid warming unit. Flow rates: 150 ml to 30,000 ml/hr. Output temperatures: 33 to 41 deg C (91 to 106 deg F).	1	1	E	Augustine Medical, Inc	RANGER	24500	7.50	10.00	4.50	191
Surgical Services	11.3.01.01	Operating Room	E353	2074164	0943497	WASTE DISPOSAL SYSTEM, OR, SUCTION, MOBILE UNIT	Mobile unit to suction and collect surgical fluids with smoke evacuation. Dual canister design: 1.05 gal (4 L) and 5.28 (20 L) capacities.	1	1	E	Stryker Canada Inc	NEPTUNE 3	Ultra	19.00	23.00	70.00	483
Surgical Services	11.3.01.01	Operating Room	F079	2542971	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	2	F	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
521	162	0.0	0.0	O	Dimensions and weight: OTV-S400: Dimensions 390W x 506D x 160H mm, weight: 13.5 kg. Light source CLV-S400: Dimensions 391W x 521D x 162H mm), weight: 15.5 kg. CH-S400-XZ-EA camera head: diameter 43.6mm, weight 280g, cable 5.1mm diameter 3m length. Light source should be kept away from flammable gases.	120	1		60		Plug		Yes									Control unit OTV-S400: 120 V +/- 10%, 60 Hz+/- 1%, 350 VA. Signal system Corresponds to the 4K and HD Signal output (resolution) 4096 × 2160, 3840 × 2160, or 1920 × 1080 can be selected. Signal output (transmission method) 3G-SDI or HD-SDI can be selected Light source CLV-S400: 120 V +/- 10%, 60 Hz+/- 1%, 500 VA. Examination lamp: 300 W.						
				O																								
185	173	5.0	2.3	O		120	1		60	50	Plug		Yes									Rechargeable Battery: 10.8V, 2200mAh, Lithium Ion. Power cord: 13 ft (3.96 m) long. USB port.						
				T																								
381	864	13.0	5.9	F																								
330	1,473	30.0	13.6	F																								
328	188	4.9	2.2	X		115	1	0.4	60		Plug																	
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
559	1,283	65.0	29.5	F	Footprint: "T" base: 21x 22" (533x559 mm).																							
508	864	70.0	31.8	F																								
				F																								
				O																								
254	114	7.0	3.2	O		120	1		60	900	Plug											Fuse: 2xT10A-H (250 V)						
584	1,778	288.0	130.9	F		120	1	12.0	60		Plug																	
	914	34.5	15.7	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Relative humidity: 85% max, non-condensing. Atmospheric pressure: 700 to 1060 mbar.
													Environmental conditions: Operating temperature range: 10 to 55 deg C (50 to 131 deg F). Relative humidity: 30 to 75%. Transport & storage temperature range: -40 to 69.4 deg C (-40 to 167 deg F). Relative humidity: up to 90%.
													Operating Conditions: Temperature: 15 to 40 deg C (59 to 104 deg F). Humidity: 10 to 85% relative humidity, noncondensing. Atmospheric pressure: 50 to 106 kPa. Storage Temperature: -20 to 45 deg C (-4 to 113 deg F).
													Operating environment: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 30 to 75% RH. Atmospheric pressure: 700 to 1060 hPa.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.02	Operating Room	E012	1850908	0939902	ANESTHESIA MACHINE	W/ 3 vaporizers, ventilator. Includes light, NIBP, 2-channel IP, respiration, 5/3/12 lead ECG, 2 temp & SpO2 w/ swing arm.	1	1	E	GE Healthcare Clinical Systems	Aisys CS2	W/ B850 Monitor	26.81	32.28	52.72	681
Surgical Services	11.3.01.02	Operating Room	E097	1850915	0946680	ARTICULATING ARM	Contractor to Install: Structural support, ceiling mounting plate aprx. dimensions provided. Vendor to Install: Ceiling mounted articulating arm, vertical service head with 4 shelves, and one arm for a 32" flat panel monitor mount. Electric brakes. Arm & Service Head dimensions are provided in the architectural note.	1	2	E	Olympus Canada	Truport		30.00	30.00	6.00	762

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
820	1,339	418.0	190.0	F	Height: 133.9 cm/52.7 in Height (with vertical arm): 190.5 cm/75.0 in 211 cm/83.1 in Top shelf Weight limit: 45 kg/100 lb Width: 55 cm/21.65 in Depth: 51.6 cm/20.31 in Upper shelf (optional) Weight limit: 23 kg/50 lb Width: 54.8 cm/21.57 in Depth: 44.4 cm/17.48 in Work surface Height: 87.5 cm/34.4 in Size: 2684.2 cm2 /416 in2 Folding side shelf (optional) Weight limit: 12 kg/25 lb Height: 88.17 cm/34.7 in Width: 27.7 cm/10.91 in Depth: 36.6 cm/14.41 in DIN rail (optional) Side of machine: 53.9 cm/21.22 in Drawers (internal dimensions) Small Height: 10.5 cm/4.13 in Width: 37.80 cm/14.88 in Depth: 37.64 cm/14.82 in Large	120	1	15.0	60		Plug		Yes											System circuit breakers: 15A Current leakage : < 300µA Outlets: 4 outlets on back, 3-2A, 1-3A individual breakers, isolation transformer Power cord: 16.4 ft (5 m). 4 Data drop required. B850 CPU: 120V/1~ 60hz/ 300W						
762	152			C	Service head Dimensions 12" x 12" (310 x 310 mm), Lengths Vertical: up to 59" (1500 mm), Horizontal: 19" or 29" (500 or 750 mm) Support Arm reach: single 51", dual 126 Hieght Adjustable Arm: reach 38.4", max height adjustment 27.6" list speed 1.2"/s Swivel range: 330 deg. on all joints Mounting plate to be tandem capable of supporting 2 articulating arms and an exam light extending from one ceiling structural point. Height from floor to bottom of service head of approx. 24" All pre-installation materials, including junction box, medical gas bracket, ceiling gas terminal unit, DISS fittings for medical gases terminations above the ceiling, and anchor plate with mounting hardware to be supplied by General Contractor. Approximate ceiling cutout: 25.6" x 25.6" (650 x 650 mm) Mounting hole pattern to be provided by vendor. Design Loads: Fmax: 9200 N (2067 lbf). Mbmax: 12,500 Nm (9,220 ft-lbs.). Vendor to identify component requirements and bolt hole patterns as applicable. Vendor to supply and install articulating arm with pre-fabricated housing conduits and cabling for desired services included in the center post and horizontal articulating arm. Fixed horizontal/horizontal articulating arm of approximately 63" (1600 mm) effective length. Arm should rotate 330 degrees with adjustable rotation stops. Each arm (respiratory & nursing) to have a payload of at least 100 kg (220.45 lbs.)	120	1	5.0	60		Hard													120V/5amp circuit for powering the articulating arm brakes and accessories Eight (8) duplex receptacles, 20 amps; Eight (8) on emergency power Eight (8) data cables with RJ-45 jacks Six (6) single gang cutouts for Data, A/V and other low voltage cabling Two (2) USB charging outlet/cables with 5V D.C. with 1A electrical supply. Proponent to supply the following: a) Electrical junction box with riser plate. b) Conduit with pull strings to be provided in the arms for all low voltage devices. c) All conduit and wiring related to the data outlets, telephone outlets, and CAT 6A networking.	O2					

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									MA															V							

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA
						N																												

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Gas supply: Pipeline input range: 280 to 600 kPa (41 to 88 psig). Pipeline connections: DISS-male, DISS-female, DIN 13252, AS4059, BSPP 3/8, S90-116 or NIST, all fittings available for O2, N2O and air and contain pipeline filter and check valve. Primary regulator diaphragm minimum burst pressure: 2758 kPa (400 psig). Primary regulator nominal output: </= 345 kPa (50 psig), Pin indexed cylinder and DIN cylinder connections.											Operating Temperature: 10 to 35 deg C (50 to 95 deg F). Storage/Transport temp :-25 to 60°C Oxygen cell storage is -15 to 50°C, 10 to 95% RH, 500 to 800 mmHg LCD display storage is -20 to 60°C Vapourizer cassette storage is -25 to 50°C Relative Humidity Operating/ Storage/Transport: 15 to 95%, non condensing. Altitude Operating : 537 to 800 mmHg (3000 to -440 meters) Storage and Transport: 425 to 800 mmHg (4880 to -440 meters)
		1 ea CO2 2 ea medical air DISS medical gas outlet. 3 ea oxygen DISS medical gas outlet. 4 ea medical vacuum DISS medical gas outlet. 1 ea nitrogen with control panel											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.02	Operating Room	E410	2378065	0946679	ARTICULATING ARM	For Anesthesia - Contractor to Install: Structural support, ceiling mounting plate aprx. dimensions provided. Vendor to Install: ceiling mounted dual articulating arm system, one for anesthesia boom, one for video monitor. Arm & Service Head dimensions are provided in the architectural note.	1	3	E	Olympus Canada	Truport		14.00	14.00	6.00	356
Surgical Services	11.3.01.02	Operating Room	E473	2553344	0948576	CABINET, STORAGE, STAINLESS STEEL	Versatile stainless steel storage cabinet. For linen storage, 5 shelves. Optional shelves, baskets, or trays. 5" casters	1	1	E	Harloff Manufacturing Company	MSSM82-20GK		42.00	29.60	76.00	1,067
Surgical Services	11.3.01.02	Operating Room	F020	2471797	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.3.01.02	Operating Room	E350	2378067	0943591	DESK/WORKSTATION, OR	L-shape OR documentation workstation. Integral AV rack cabinet under desk with minimum 16RU. Stainless steel finish. Standing height. Includes keyboard tray, drawer, monitor mount with vertical articulation for nursing and AV monitors, cable management and articulating task light.	1	3	E	Torvan Medical	TC-NRS-DSK-L-SP-1		72.00	48.00	42.00	1,829
Surgical Services	11.3.01.02	Operating Room	E078	1850913	0944484	ELECTROSURGICAL UNIT	To be mounted on articulating arm. For electrosurgical cutting and coagulation, bipolar functionality and tissue fusion.	1	1	E	Valleylab	FT10		14.50	18.20	7.00	368
Surgical Services	11.3.01.02	Operating Room	E307	2192671	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Surgical Services	11.3.01.02	Operating Room	E368	2192670	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.3.01.02	Operating Room	E104	2378068	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Surgical Services	11.3.01.02	Operating Room	E351	2378069	0943529	HEADLIGHT SYSTEM	Procedure system w/ portable power source. Includes battery charger and carrying case. Dimensions of equipment not available from the manufacturer.	1	1	E	Welch Allyn Inc.	49020/75260/49099		12.00	12.00	5.50	305
Surgical Services	11.3.01.02	Operating Room	T282		00N0004957	HYPERTHERMIA UNIT		1	5	E		775 BAIR HUGGER					
Surgical Services	11.3.01.02	Operating Room	T282		00N0040494	HYPERTHERMIA UNIT		1	5	E		875 BAIR PAWS					
Surgical Services	11.3.01.02	Operating Room	T184		00N0031053	I.V. INFUSION PUMP		1	5	E		8100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
356	152			C	finished ceiling. Equipment load: 450 lbf (2,001.7 N), approximate. Moment load: 1,925 ft-lb (2,609 Nm). Articulations: full for tracking and distal arm joints. Hardware for enclosure mounting to be provided by contractor. Transformer enclosure(s) must be mounted within 20 ft (6096 mm) of the light mount with 2 ft (610 mm) square access panel. Flat panel mounting plate (wxd): 13.78x13.78" (350x350 mm). Required cutout in finished ceiling: 14.5x14.5" (368x368 mm). Four, 3/4" (19.05 mm) ASTM-A307 hardware for attachment to light mounting plate to sub-structure thru 0.81" (20.5 mm) diameter corner holes. This hardware specifications needs to be approved by structural engineer of record for the project. Transformer supplied by vendor. Plate and mounting hardware to be supplied by contractor. Maximum horizontal deflection of anchor plate: 0.1" (2.5 mm) with horizontal load "H" of 100 lb (45.4 kg). Maximum angular deflection of substructure at attachment point must not exceed 1/3 deg from level when subjected to design loads. Wall control boxes will be flush mounted by contractor. This includes the rough-in and rigid conduit. All structural support and mounting requirements between structural and finished ceiling supplied and installed by contractor. Vendor to identify component requirements and bolt hole patterns as applicable. Installation of cabling from wall control to light to be completed by contractor. Vendor to install to finished ceiling. Pallet dimensions (wxdxh): 35x88x74" (889x2,235x1,880 mm). Clear path is required with acceptable turn radius. Elevator must be able to accommodate pallet size.	120	1		60		Hard		Yes											Total number of dedicated electrical duplexes required: 9. - 9 duplexe receptacles to be 20A dedicated circuits, all on UPS - 2 USB charging ports to be supplied with 5 VDC, 1 amp minimum current supply. - 12 ea Data points -2 Biomed, 4 Regular Data,Phome Line + 4 for bridging two sided - 1 Nurse Call - 1 Emergency code call on arm and main wall mounted control panel - 4 ea single gang viedo guest plates - 10 ea single gang cutouts for data, MSH HIS. Faceplates with 8 ethernet ports to be included - 2 ea single gang cutouts for dat, Biomed network. Faceplates with 4 ethernet ports to be included - 2 ea blank cover plates and back boxes for future capacity Constructor to provide: a) Junction box for termination of electrical circuits. b) All electrical, video, data, and communication cables with required junction boxes and conduits (at least 1 telephone & 2 data required). c) Connection of all electrical wires to the ceiling box and testing. Conduit with pull strings in the arm to be provided by vendor (at least 1 telephone & 2 data required).						
752	1,930	332.0	150.6	F																								
610	1,016			F																								
1,219	1,067	400.0	181.4	F		120	1		60		Plug		Yes									connect to 120V power and need 15A circuit.						
462	178	22.3	10.1	O		120	1		60		Plug		Yes									Maximum VA: 950 VA. Maximum mains current: 10 A. Power cord: NEMA 3-prong hospital grade connector. 15 ft (5 m) maximum length. Wireless capability for servicing and Ethernet.						
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
305	140	0.4	0.2	X	Dimensions of case: 6" (L) x 12" (W) x 1.8" (H)	120	1	0.2	60		Plug											Battery charger.						
				F																								
				F																								
				O																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Unit requires services for 2 medical air DISS, 4 oxygen DISS, 2 nitrous oxide DISS, 4 medical vacuum DISS, and active scavenging. Gas bracket and medical gas inlet tubes to be supplied by vendor, installed by constructor. Gas inlet tubes to be brazed into supply lines via a 1/2" OD copper connection. Nitrogen Gas for braking system to be supplied by constructor and locally regulated at 50-75 psi. Gas bracket and gas inlet tube for pneumatic braking system to be supplied by vendor.											No Smoke evacuation system for Anesthesia Dept. requested ariculating arm. 2 ea medical air DISS 4 ea Oxygen DISS 2 ea Nitrous Oxide DISS 4ea medical vacuume DISS Active scavenging system required.
													To include active ventilation and vent design to manage up to 5000 BTU/hr.
													Operating condition: Temperature: 10 to 40 deg C (50 - 104 deg F). Relative Humidity: 30% - 75%, non-condensing. If the unit has been stored or transported at temperature below 10 deg C (50 deg F), the unit requires approx. one hour to acclimate at room temperature. Transport and storage: Temperature: -10 to 60 deg C (14 to 140 deg F). Relative humidity: 25% to 85% non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.02	Operating Room	E383	2483815	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	2	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Surgical Services	11.3.01.02	Operating Room	E184	2483996	0938701	I.V. INFUSION PUMP, SYRINGE	Syringe module for BD Carefusion IV infusion system. Accepts syringe sizes from 1mL - 60mL. Flow rate: 0.01mL/hr to 999mL/hr +/- 2% accuracy.	2	1	E	Alaris Medical Systems	8110		4.50	7.50	15.00	114
Surgical Services	11.3.01.02	Operating Room	E227	1850906	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	2	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.3.01.02	Operating Room	E030	1850914	0940450	KICKBUCKET	Capacity: 12 qt (11.4 L). Stainless steel. Seamless welded frame. All around bumper. Includes pail, with dimensions (dxh): 12x11" (305x279 mm).	1	1	E	Imperial Surgical Company	OR-3631		14.50	0.00	15.00	368
Surgical Services	11.3.01.02	Operating Room	E411	1850907	0946681	LIGHT, SURGICAL	Single surgical LED light head (160,000 lux) w/mount. In-light camera ready.	2	3	E	Trumpf	iLED7		69.25	0.00		1,759
Surgical Services	11.3.01.02	Operating Room	E313	1848260	0940472	MEDICATION DISPENSING SYSTEM, ANESTHESIA	Mobile. Automated documentation of stored and dispensed drugs. With monitor, barcode scanner, return bin, tilt bins, extendable worksurface, drawers, electronic access, UPS, & printer.	1	3	E	Becton Dickinson	AnesthesiaStation ES	Pyxis	47.50	28.00	61.00	1,207

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
191	381	4.5	2.1	O																							
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
	381	1.2	0.5	F																							
				C	Weight of light head: 15.5kg (34 lb). Minimum ceiling height (finished floor to intermediate ceiling): 2,750mm. Minimum height from intermediate ceiling to raw ceiling: 500mm. Ceiling mounted. Recommended ceiling height: 9 ft-10" (2,997 mm), finished ceiling. Equipment load: 400 lbf (1,779 N), approximate. Moment load: 1,500 ft-lb (2,034 Nm). Articulations: full for tracking and distal arm joints. Light arm: Distance from light head to finished floor (highest position): 6 ft-10.5" (2,096 mm); lowest position: 3 ft-8.25" (1,124 mm). Arm reach, total: 5 ft-9.25" (1,759 mm). Arm reach, horizontal: 33.46" (850 mm); Arm reach pivots 28 deg up and 50 deg down: 35.83" (910 mm). Distance of down tube from floor: 8 ft-5.75" (2,584 mm). 13.78" (350 mm) from finished ceiling. Surgical light power transformers will be located above ceiling enclosure boxes. Separate transformer enclosure is required for each lamp head. Transformer enclosure will be provided by vendor in advance of final installation. Transformer enclosures must be located in an accessible location. An access panel shall be required in the finished ceiling for transformer enclosure(s). Transformer enclosures dimensions (wxdxh): 11.81x7.87x13.78" (300x200x350 mm). Hardware for enclosure mounting to be provided by contractor. Transformer enclosure(s) must be mounted within 20 ft (6,096 mm) of the light mount with 2 ft (610 mm) square access panel. Flat panel mounting plate (wxd): 13.78x13.78" (350x350 mm). Required cutout in finished ceiling: 14.5x14.5" (368x368 mm). Four, 3/4" (19.05 mm) ASTM-A307 hardware for attachment to light mounting plate to sub-structure thru 0.81" (20.5 mm) diameter corner holes. This	120	1		60		Hard		Yes									Max power uptake of total system: <160VA. Control unit: Lighthead, Wall, Mobile or Dock desk.						
711	1,549	400.0	181.8	F	Dimensions (wxdxh) and weight, approximate: Width without return bin: 37" (940 mm). Width with return bin: 47.50" (1207 mm). Depth with drawers closed: 28" (711 mm). Depth with drawers open: 52" (1321 mm). Height from floor to work surface: 40" (1016 mm). Clearance: Front: minimum 27" (686 mm) for drawer pull out, recommend 4'(48") for operating and circulation. Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)	115	1	3.0	60		Plug		Yes																

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Operating Temperature: 5 to 40 deg C (40 to 104 deg F). Relative Humidity: 15 to 95%, non-condensing. Ambient pressure: 70 to 106 kPa (10.2 to 15.4 psia). Infusion back pressure: -100 to 300 mmHg.
			355										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.02	Operating Room	E153	1850904	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Surgical Services	11.3.01.02	Operating Room	E167	2337729	0944881	OR AV INTEGRATION SYSTEM	Integrated Operation Room audio and visual control system w/ workstation and Medical Device Control, 2 X 4K InField Monitors and 1 X 4K Wall Monitor Included.	1	3	E	Olympus Canada	VMC-3/UCES-4		23.62	26.50	39.84	600
Surgical Services	11.3.01.02	Operating Room	E308	2378070	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.3.01.02	Operating Room	E414	1850911	0937328	SCOPE ACCESSORY, INSUFFLATOR	High flow 45 L/min insufflation unit complete with smoke evacuation capability, power cord, insufflation tube, suction tube and connectors. Applicable gas: CO2 gas for medical use. For surgical .	1	3	E	Olympus Corp	UHI-4		14.57	11.81	4.72	370
Surgical Services	11.3.01.02	Operating Room	E010	1850900	0939984	SCOPE ACCESSORY, SHAVER	To be mounted on articulating arm. System to include controller, foot switch and 8 handpieces.	1	1	E	Conmed Linvatec	Advantage	D4000/C9863/D4240	14.00	16.50	5.60	356
Surgical Services	11.3.01.02	Operating Room	E413	1850905	0941517	SCOPE ACCESSORY, VIDEO SYSTEM	To be mounted on boom for OR. 4K video processor and xenon 300W light source, autoclavable camera head.	1	3	E	Olympus Canada	Visera 4K UHD	OTV-S400/CLV-S400	15.35	20.51	6.38	390
Surgical Services	11.3.01.02	Operating Room	E065	1850917	0945265	SEQUENTIAL COMPRESSION UNIT	Portable vascular therapy. Compresses leg or foot, or both simultaneously. Tubing set of two individual assemblies included. Continuous operation. 3.2" LCD colour screen. One-touch operation. Patient detection. Adjustable bed hook. USB port for software upgrades.	1	1	E	Cardinal Health	SCD 700	Kendall	7.70	7.30	6.80	196
Surgical Services	11.3.01.02	Operating Room	T221		00N0030343	SMOKE EVACUATION SYSTEM		1	5	E		marVAC					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
673	1,012	196.0	89.1	W	Wall mounted and ceiling mounted combination. Wall support must be able to carry the load of the equipment. Mounting bracket and accessories to be included. Touch control panel to be located at nurse workstation. Dimensions (wxdxh) and weight are approximate: Control unit for video management: 14.61x17.52x4.45" (371x445x113 mm). Weight: 21.1 lb (9.6 kg). Medical device controller: 14.76x17.76x4.72" (375x451x120 mm). Weight: 15.6 lb (7.1 kg). Image and Video recorder: 3.4x14.6x12.8" (86.4x370.84x325.12 mm). Weight: 10 lb (4.53 kg). Monitor, 21.5": 20.4x1.8x12.36" (518x46x314mm), w/out stand; 20.39x8.62x13.86 (518x219x352 mm), w/ stand. Weight: 15.43 lb (7 kg). Enclosure, AV rack: 23.62x26.50x39.84" (600x673x1012 mm). Weight: 134.2 lb (61 kg). Clearances required: Width: 19.76" (502 mm); Height: 37.66" (949 mm). Wall section, depth: 5.31" (135 mm). Load capacity: 750N. Ceiling mounted: Speaker: Enclosure outer (diaxh):10.64diax8.34" (211.8x270.3 mm) 8.0" H (203.2 mm H) from front of ceiling tile to back of rear enclosure Cut-out dimensions: 9.3" diameter (236.2 mm). Weight: 9.4 lb (4.3 kg). Junction box: 12x12x4" (305x305x102 mm) in wall behind equipment rack. Junction box: 24x24x6" (610x610x152 mm) in an accessible location in above ceiling.	115	1		60	200	Plug		Yes	115	1		60		Plug		Yes	Medical device controller: 100VA. Image and Video recorder: 115V, 180 W. Monitor: 115V, 50 W. 6.92 Amp 15Amp circuit breaker. Total power consumed at rack: 800W. Rack location requires 20A circuit. Required dedicated circuit. Constructor to provide duplex outlet for AV/IT equipment on dedicated 20A circuit. Constructor to provide quadruplex outlet for AV/IT equipment on dedicated 20A circuit. 3 data drops by facility required for rack mounted equipment. Data drop by facility required for camera. All power receptacle should be labeled "FOR A/V USE ONLY". All A/V circuits must have a dedicated electrical panel. Constructor to supply and pull all A/V cables. Constructor to provide and install all conduits to support the system, termination , backboxes, power circuits, & wiring. Constructor to provide pull strings in all A/V conduit runs. Constructor to provide electrical box in nurse workstation. Conduit shall not exceed two 90 deg bends between pull boxes. All others shall not exceed three 90 deg bends. Conduits length shall not exceed 100 ft (30.48 m) between pull boxes. Total length of cable path from rack through "24" to other conduits terminus shall not exceed 125 ft (38.1 m). No flexible conduit.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
300	120	20.5	9.3	T		110	1		60		Plug											Input: 150VA.						
419	142	14.5	6.6	O	Dimensions (wxdxh) and weight, approximate: Console: 14x16.5x5.6" (356x419x142 mm), 14.5 lb (6.35 kg) Shaver handpiece: length - 6.1" (155 mm), diameter - approx.1.25" in tear drop (32 mm). 17.8 oz (505 g)	115	1		60		Plug	5-15P											Console: 500 VA. Cord length: 12 ft (3.6 m). Fuse: T 8A, 250V. Output: 3 phase motor drive and control circuit, 325VA. Foot switch: Cord length: 10 ft (3 m) Handpiece: Cord length: 10 ft (3 m), non-detachable.						
521	162	0.0	0.0	O	Dimensions and weight: OTV-S400: Dimensions 390W x 506D x 160H mm, weight: 13.5 kg. Light source CLV-S400: Dimensions 391W x 521D x 162H mm), weight: 15.5 kg. CH-S400-XZ-EA camera head: diameter 43.6mm, weight 280g, cable 5.1mm diameter 3m length. Light source should be kept away from flammable gases.	120	1		60		Plug		Yes									Control unit OTV-S400: 120 V +/- 10%, 60 Hz+/- 1%, 350 VA. Signal system Corresponds to the 4K and HD Signal output (resolution) 4096 × 2160, 3840 × 2160, or 1920 × 1080 can be selected. Signal output (transmission method) 3G-SDI or HD-SDI can be selected Light source CLV-S400: 120 V +/- 10%, 60 Hz+/- 1%, 500 VA. Examination lamp: 300 W.						
185	173	5.0	2.3	O		120	1		60	50	Plug		Yes									Rechargeable Battery: 10.8V, 2200mAh, Lithium Ion. Power cord: 13 ft (3.96 m) long. USB port.						
				T																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
			1,800										Heat dissipation at rack location: 1800 BTU/hr Elsewhere in the Rm: 900 BTU/hr. Operating temperature: 10 to 30 deg C (50 to 85 deg F). Humidity: 10 to 80%, non-condensing.
		CO2 medical gas from tank or wall supply.											
													Operating temp: 10 to 40 deg C (50 to 104 deg F) Relative Humidity: 30 to 75% Atmospheric Pressure: 700 to 1,060 hPa Transport and Storage temp: -40 to 70 deg C (-40 to 158 deg F) Relative Humidity: 10 to 100% including condensation. Atmospheric Pressure: 500 to 1,060 hPa
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Relative humidity: 85% max, non-condensing. Atmospheric pressure: 700 to 1060 mbar.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.01.02	Operating Room	E221	2378071	0933544	SMOKE EVACUATION SYSTEM	Simultaneous evacuation to high-frequency activation. Individual parameters. Extended filter capacity. Two suction hoses can be connected. Turbo mode.	1	1	E	KLS Martin Group	marVac		15.35	18.11	8.58	390
Surgical Services	11.3.01.02	Operating Room	E053	2378072	0935210	STAND, BASIN, SINGLE	Stainless steel. Single bowl stand. Complete with 7 qt (6.6 L) basin. Fully welded frame.	1	1	E	Imperial Surgical Company	NEW # OR3651	F-3651/F-3654 W/BOWL	16.00	15.00	34.00	406
Surgical Services	11.3.01.02	Operating Room	E228	1850919	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	2	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Surgical Services	11.3.01.02	Operating Room	E352	2471798	0935146	STIMULATOR, MUSCLE	Two channel neuromuscular stimulator. IFC, PREMOD, Biphasic and Russian modes. Includes lead wires and electrodes.	1	1	E	Mettler Electronics Corp.	Sys Stim 228	5679-28	8.00	12.90	7.40	203
Surgical Services	11.3.01.02	Operating Room	E234	1850920	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	2	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Surgical Services	11.3.01.02	Operating Room	E235	1850902	0937985	STOOL, SURGEON'S	Mobile. With multi-position arm rests. Weight capacity: 300 lb (136 kg). Adjustable contoured backrest. Height range 21 to 28.5" (533 to 724 mm). Foot control hydraulic three spindle ("T") base.	1	1	E	Stryker Canada Inc	830 Surgistool II	0830-000-000	21.00	22.00	50.50	533
Surgical Services	11.3.01.02	Operating Room	E255	1850918	0935281	TABLE, INSTRUMENT	With undershelf and casters. 2" (51 mm) diameter casters. Framework 1" (25 mm) diameter. 18 gauge polished stainless steel tubing. All stainless 18 gauge tops and shelves.	1	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Surgical Services	11.3.01.02	Operating Room	T300		00N0020237	TABLE, SURGICAL		1	5	E		Amsco/3085 SP					
Surgical Services	11.3.01.02	Operating Room	E268	1848185	0945295	TOURNIQUET, AUTOMATIC	Portable tourniquet system with 6 cylindrical cuffs, three double bladder cuffs, two dual hose assemblies. Stand with 5-leg base and accessory basket.	1	1	E	Zimmer	ATS4000		27.56		63.10	700
Surgical Services	11.3.01.02	Operating Room	E353	2477619	0943497	WASTE DISPOSAL SYSTEM, OR, SUCTION, MOBILE UNIT	Mobile unit to suction and collect surgical fluids with smoke evacuation. Dual canister design: 1.05 gal (4 L) and 5.28 (20 L) capacities.	1	1	E	Stryker Canada Inc	NEPTUNE 3	Ultra	19.00	23.00	70.00	483
Surgical Services	11.3.01.02	Operating Room	F079	2542972	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	1	2	E	Global Industrial	Magnetic Glass Board	695260	48.00		36.00	1,219
Surgical Services	11.3.04.01	Charting Area	F021	1848186	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Surgical Services	11.3.04.01	Charting Area	F062	1848187	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Surgical Services	11.3.04.02	Charting Area	F021	1850923	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Surgical Services	11.3.04.02	Charting Area	F062	1850922	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Surgical Services	11.3.05.01	Equipment Storage Alcove	E216	2241658	0940411	SHELVING, WIRE	Wire shelving unit. 6 shelves. Mobile, with 4 casters. Enclosed cart with complete kit - wire grid on 3 sides, 2 brake casters, 2 swivel casters, 4 donut bumpers, bottom shelf cover, and full width label holder.	2	1	E	Acart Healthcare Storage Solutions	465CH	MEB465CH-6-CL	60.00	24.00	80.00	1,524
MDRD	11.3.06	Ortho Loaner Storage	E337	2471799	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	3	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
MDRD	11.3.06	Ortho Loaner Storage	E044	2377425	0937177	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 200 lb weight capacity. Shelf clearance: 12.25"(311mm). Rubber swivel 3.5"(89mm) casters. Shelves welded to the legs.	1	1	E	Acart Equipment Ltd.	3066		19.00	31.00	33.38	483
MDRD	11.3.06	Ortho Loaner Storage	E046	2377426	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	3	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	11.3.06	Ortho Loaner Storage	E424	2470392	0947585	RACK, CRUTCH/CANE	Wall mounted parwall louvered panel for storage. Accessories include 6"-12" spikes, baskets, and tape holders.	1	2	E	LogiQuip Healthcare Storage Solutions	ParWall	P4819B	48.50	13.00	19.00	1,232

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
460	218	26.4	12.0	T	Noise level: 51 dB (A), distance of 1 m.	120	1		60	600	Plug	3P										Recommended to power the device from an interrupted power supply (UPS).						
381	864	13.0	5.9	F																							
330	1,473	30.0	13.6	F																							
328	188	4.9	2.2	X		115	1	0.4	60		Plug																
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																						
559	1,283	65.0	29.5	F	Footprint: "T" base: 21x 22" (533x559 mm).																						
508	864	70.0	31.8	F																							
				F																							
	1,603			F	ATS 4000: Height: 13.1 in. (33.3 cm). Width: 9.3 in. (23.6 cm). Depth: 10.5 in. (26.7 cm) (including clamp). Weight: 13.2 lbs. (6.0 Kg) (including power cord). IV Pole stand : Height: sufficient to mount unit at = 50 inches (127cm) from floor to base of ATS unit. Pole Diameter: 0.872 to 1.125 inches. Base Diameter: =27.56 inches (70 cm).	120	1		60		Plug											Battery type: Rechargeable, Lithium Ion, 14.4VDC, 4300mAh, 10 hrs life. Battery discharge time: Unit will operate on battery power for 360 min minimum with fully charged battery. Battery recharge time: 10 hr, unit should be plugged in 10 hr before initia use. Power adaptor: Input power 120VA. Power cord: Type SJT, AWG16, 14 ft (4267 mm). Power plug: Hospital grade, 3 prong straight blade, 15 Amp. Line protection: 2 time delayed 1.0 A, 250 V fuses.						
584	1,778	288.0	130.9	F		120	1	12.0	60		Plug																
	914	34.5	15.7	W																							
711	1,219	50.0	22.7	F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
711	1,219	50.0	22.7	F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	2,032	195.0	88.5	F																							
660	1,981			F																							
787	848	42.0	19.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
330	483	22.0	10.0	W	Wall mounted. Mounting brackets included. Must be able to support weight at capacity of approximately 240 lb (109 kg). Consists of 2 bases: 33"Lx 5 1/4" W extends to a length of 16" from wall.																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental conditions: Operating temperature range: 10 to 55 deg C (50 to 131 deg F). Relative humidity: 30 to 75%. Transport & storage temperature range: -40 to 69.4 deg C (-40 to 167 deg F). Relative humidity: up to 90%.
													Ambient temperature 68 F (20°C) to 73°F (23°C) Typical , 50°F (10°C) to 100°F (38°C) Maximum Relative humidity 30% to 60% Altitude =2,000 m – Not intended for high altitude environments Pollution Degree Pollution degree 2
													Operating environment: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 30 to 75% RH. Atmospheric pressure: 700 to 1060 hPa.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	11.3.06	Ortho Loaner Storage	F041	2471800	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
MDRD	11.3.06	Ortho Loaner Storage	F062	2470176	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Surgical Services	11.3.07.01	Stretcher Alcove		2471922	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.3.07.02	Stretcher Alcove		2471920	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.3.08.01	Surgical Suite Control Desk	F020	1848192	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.3.08.01	Surgical Suite Control Desk	F071	1848193	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Surgical Services	11.3.09.01	Physician Dictation Workstation	F020	1848195	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.3.09.01	Physician Dictation Workstation	F048	1848196	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Surgical Services	11.3.09.02	Physician Dictation Workstation	F020	1850928	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.3.09.02	Physician Dictation Workstation	F048	1850929	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Surgical Services	11.3.10.01	Non-Sterile Storage		2471925	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.3.13.01	Crash Cart Alcove	E038	1848200	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Surgical Services	11.3.13.01	Crash Cart Alcove	E069	1848201	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Surgical Services	11.3.13.01	Crash Cart Alcove	E013	2074275	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Surgical Services	11.3.13.02	Crash Cart Alcove	E038	1850931	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	762	88.0	40.0	F																							
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
				NA																							
				NA																							
610	1,016			F																							
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
				NA																							
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.13.02	Crash Cart Alcove	E069	1850930	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Surgical Services	11.3.13.02	Crash Cart Alcove	E013	2074276	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Surgical Services	11.3.14.01	Blanket Warmer	T279		00N0033425	CABINET, WARMING		1	5	E		SWC-015-041					
Surgical Services	11.3.15.01	Fluid Warmer	E280	1848202	0935034	WARMER, BLOOD/FLUID	Blood/fluid warming unit. Flow rates: 150 ml to 30,000 ml/hr. Output temperatures: 33 to 41 deg C (91 to 106 deg F).	1	1	E	Augustine Medical, Inc	RANGER	24500	7.50	10.00	4.50	191
Surgical Services	11.3.16.01	Cart Storage	E338	1952328	0939168	CART, CAST	Drawers: 3x 3" (76 mm), 2x 6" (152 mm), 1x 9" (229 mm). Side bin. 28 quart (26 L) waste basket with holder. Pull out side shelf. Two tier shelving. Four 5" (127 mm) casters, all lockable.	1	1	E	Metro	FLCAST		32.25	22.38	41.50	819
Surgical Services	11.3.16.01	Cart Storage	E047	1848203	0945169	CART, RESUSCITATION, PAEDIATRIC	Fully stocked colour coded resuscitation cart w/ push handle. 9 drawers. 30" locking bar, stabilizing frame system. Plastic top. Soft grip push handles. Swivel casters, 2 lockings and one swivel fixed	1	1	E	Armstrong Medical	BROSELOW	V24UXGLA9PEDS	34.05	25.03	46.05	865
Surgical Services	11.3.16.02	Cart Storage	E043	1850932	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.16.03	Cart Storage	E043	1850933	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.17.01	Emergency Case Cart Storage	E034	1848204	0940387	CART, CASE, CLOSED	All Stainless steel. Dual handles. Four 6" (152 mm) stainless steel casters. Cart fully washable. Height adjustable shelf. Full wrap around bumper.	1	1	E	Acart Equipment Ltd.	CCWB244439		54.00	27.50	39.00	1,372
Surgical Services	11.3.17.01	Emergency Case Cart Storage	E043	1946333	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.17.02	Emergency Case Cart Storage	E034	1850934	0940387	CART, CASE, CLOSED	All Stainless steel. Dual handles. Four 6" (152 mm) stainless steel casters. Cart fully washable. Height adjustable shelf. Full wrap around bumper.	1	1	E	Acart Equipment Ltd.	CCWB244439		54.00	27.50	39.00	1,372
Surgical Services	11.3.17.02	Emergency Case Cart Storage	E043	1946334	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.17.03	Emergency Case Cart Storage	E034	1850937	0940387	CART, CASE, CLOSED	All Stainless steel. Dual handles. Four 6" (152 mm) stainless steel casters. Cart fully washable. Height adjustable shelf. Full wrap around bumper.	1	1	E	Acart Equipment Ltd.	CCWB244439		54.00	27.50	39.00	1,372
Surgical Services	11.3.17.03	Emergency Case Cart Storage	E043	1946335	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
				F																							
254	114	7.0	3.2	O		120	1		60	900	Plug											Fuse: 2xT10A-H (250 V)						
568	1,054			F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Back - 3" (76.2 mm)																							
636	1,170	128.0	58.1	F	Overall Dimentions: 451/2'' H x 25'' D x 33 1/2 W (Includes bumper, handles, and casters) Drawer Configuration: 3" (8), 6" (1)																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
699	991	212.0	96.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
699	991	212.0	96.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
699	991	212.0	96.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
													Operating Conditions: Temperature: 15 to 40 deg C (59 to 104 deg F). Humidity: 10 to 85% relative humidity, noncondensing. Atmospheric pressure: 50 to 106 kPa. Storage Temperature: -20 to 45 deg C (-4 to 113 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.17.04	Emergency Case Cart Storage	E035	1850938	0940456	CART, CASE, CLOSED	All stainless steel. Dual handles. Cart fully washable. Height adjustable shelf. Wrap around bumper. Four 6" (152 mm) stainless steel casters.	1	1	E	Acart Equipment Ltd.	CCWB242639		36.00	27.50	39.00	914
Surgical Services	11.3.17.04	Emergency Case Cart Storage	E043	1946336	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.17.05	Emergency Case Cart Storage	E035	1850940	0940456	CART, CASE, CLOSED	All stainless steel. Dual handles. Cart fully washable. Height adjustable shelf. Wrap around bumper. Four 6" (152 mm) stainless steel casters.	1	1	E	Acart Equipment Ltd.	CCWB242639		36.00	27.50	39.00	914
Surgical Services	11.3.17.05	Emergency Case Cart Storage	E043	1946337	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.17.06	Emergency Case Cart Storage	E035	1850942	0940456	CART, CASE, CLOSED	All stainless steel. Dual handles. Cart fully washable. Height adjustable shelf. Wrap around bumper. Four 6" (152 mm) stainless steel casters.	1	1	E	Acart Equipment Ltd.	CCWB242639		36.00	27.50	39.00	914
Surgical Services	11.3.17.06	Emergency Case Cart Storage	E043	1946338	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.18.01	Alcove: Imaging and Equipment Alcoves	E119	1848206	0937589	IMAGING, X-RAY, DENTAL	Mobile. Intra-oral x-ray system. Arm length: 76" (1,930.4 mm). Dual arm braking system. Focal spot 0.4 mm. Four casters, 2 w/ locking foot brakes. Film receptor capability.	1	3	E	Midmark Corporation	PREVA DC	JB-70 Mobile Stand	26.90	36.00	76.90	683
Surgical Services	11.3.18.01	Alcove: Imaging and Equipment Alcoves	E187	1946339	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Surgical Services	11.3.18.01	Alcove: Imaging and Equipment Alcoves	E283	2192674	0938619	WARMER, INFANT	Capacity: 30 lb (13.6 kg). 0.75" (20 mm) thick mattress. Integrated in-bed scale. Height adjustable: 76 to 86" (1930 to 2180 mm). Bed tilting: +/- 12 deg continuous tilt. 2 under-bed drawer. 4 castors	1	1	E	General Electric Healthcare	Panda Warmer		25.00	47.00	86.00	635
Surgical Services	11.3.18.02	Alcove: Imaging and Equipment Alcoves	T078		00N0010330	ELECTROSURGICAL UNIT		1	5	E		608005001 SYSTEM 5000					
Surgical Services	11.3.18.02	Alcove: Imaging and Equipment Alcoves	T078		00N0030352	ELECTROSURGICAL UNIT		1	5	E		VLLS10GEN VALLEYLAB LS10					
Surgical Services	11.3.18.02	Alcove: Imaging and Equipment Alcoves	E187	1946340	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Surgical Services	11.3.18.03	Alcove: Imaging and Equipment Alcoves	E124	1850946	0940698	IMAGING, X-RAY, C-ARM	Mobile. Mini C-arm system. Flat rotating detector & collimator. Field of view: 5.7x4.5". Wireless foot pedal. Integrated 24" touchscreen LED monitor & keyboard. For orthopedic & other extremities.	1	3	E	Hologic Inc.	Fluoroscan InSightFD	Insight FLEX	28.00	32.00	66.00	711
Surgical Services	11.3.18.03	Alcove: Imaging and Equipment Alcoves	E187	1946341	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Surgical Services	11.3.19.01	Alcove: C-Arm	E115	1848208	0944168	IMAGING, X-RAY, C-ARM	Digital C-arm with mobile viewing workstation. 12" image intensifier. Includes all software and hardware to perform general and urological procedures.	1	3	E	General Electric Medical System	OEC 9900 ELITE	12" C-arm	107.00	34.00	91.00	2,718

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
699	991	168.0	76.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
699	991	168.0	76.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
699	991	168.0	76.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
914	1,953			F	Minimum ceiling requirement: 86.5" (219.7 cm) Cabinet pass-through: 76" arm: 41" W x 47.5" D (93.5 cm x 121 cm) Cabinet pass-through (alternate): 76" arm: 36.75" W x 47.5" D (93.5 cm x 121 cm) Mobile unit: Base: 26.9: W x 36" L (68.3 cm x 91.4 cm); arm reach: 56" (142 cm); height: 76.9" (195.3 cm), weight 239 lb (108.6 kg). X-ray unit (shipping weight: 95 lb (42.7 kg). Arm length: 76" (1,930.4 mm).	115	1	5.0	60		Plug												Line load: 5 amps maximum current. Check with Manufacturer for computer hardware and software requirement.						
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																						
1,194	2,184	220.0	100.0	F	Footprint: 119.4x63.5 cm (47 x 25 in) Floor Space: 7,582 sq cm (1,175 sq in)	115	1	6.6	60		Plug																	
				F																							
				F																							
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																						
813	1,676	476.0	215.9	F	Space requirement: 5x6ft-6" (1.5x2 m). Door clearance: 32" (813 mm), minimum. Footprint: 28x32" (711x813 mm). Ground clearance: 3.875" (98 mm). Floor capacity: 151.1 lb/ft2 (737.2 kg/m2). Arm length: 51.8" (1,316 mm), fully extended from pivot to mid-point of detector.	120	1		60	750	Plug		Yes									Power cord: 20 ft (6 m). Data connectivity: wired Ethernet. Removable data storage.						
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																						
864	2,311	1,190.0	540.9	F	Dimensions are with C-arm fully extended & rotated 90 deg, and height at maximum. Mobile workstation dimensions (w x d x h): 902 x 700 x 1730mm (35.5 x 27.5 x 68") Weight: C-arm stand: 299 kg (660 lb). Mobile Workstation: 240 kg (530 lb).	120	1	12.0	60		Plug		Yes									Emergency or UPS Power Required RJ45 type Ethernet 10/100/1000/10000 Mbit network connector to download images to PACS.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
													Venturi Vacuum Subsystem Range 0-150 mmHg Accuracy +/- 5% of full scale
													Operating temp: 15.5 to 32 deg C (60 to 90 deg F). Relative humidity: 20 to 80%, non-condensing. Atmospheric pressure: 500 to 1060 hPa (375 to 795 mm Hg).
													Operating temperature: 10 to 35 deg C (50 to 95 deg F). Operating humidity: 20 to 80% RH.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.20.01	Minor Procedure Room	E097	1848211	0946680	ARTICULATING ARM	Contractor to Install: Structural support, ceiling mounting plate aprx. dimensions provided. Vendor to Install: Ceiling mounted articulating arm, vertical service head with 4 shelves, and one arm for a 32" flat panel monitor mount. Electric brakes. Arm & Service Head dimensions are provided in the architectural note.	1	2	E	Olympus Canada	Truport		30.00	30.00	6.00	762
Surgical Services	11.3.20.01	Minor Procedure Room	E354	2074058	0940918	CABINET, STORAGE, STAINLESS STEEL	Stainless steel construction. Glass doors. Five adjustable shelves. Sloping top. Keypad locking doors.	1	1	E	Torvan Medical	T2-481872-SS		48.00	18.00	72.00	1,219
Surgical Services	11.3.20.01	Minor Procedure Room	E033	1848209	0936866	CART, ANESTHESIA	Anesthesia package. 6 drawers: 3 - 3" (76 mm), 2 - 6" (152 mm), & 1 - 9" (229 mm). W/ drawer divider kits, side bins, waste basket, over bridge w/ 2 hanging rail & tilt bins. Lockable.	1	1	E	Metro	FLANES1/Flexline	FL30K	22.36	32.24	45.25	568
Surgical Services	11.3.20.01	Minor Procedure Room	E454	2488888	0948002	CHAIR, EXAM/TREATMENT	Lifting capacity: 400 lb (181.80 kg). 345 deg rotation. Height adjustable: 21 to 38" (553 to 965 mm).	1	1	E	Reliance Medical Products	7000		24.25	60.00	34.00	616
Surgical Services	11.3.20.01	Minor Procedure Room	E078	1848210	0944484	ELECTROSURGICAL UNIT	To be mounted on articulating arm. For electrosurgical cutting and coagulation, bipolar functionality and tissue fusion.	1	1	E	Valleylab	FT10		14.50	18.20	7.00	368
Surgical Services	11.3.20.01	Minor Procedure Room	E104	2074085	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Surgical Services	11.3.20.01	Minor Procedure Room	E145	2339675	0939198	LIGHT, SURGICAL, DUAL HEAD	Contractor to Install: Structural support, mounting plate pattern size (d10) at 1 m: 6.3"/ 9.1" (16/23 cm). Vendor to Install: Double-head TruLight, Illumination level Ec at 1 m (lx): 160,000	1	2	E	Trumpf	TruLight 5500		197.24	197.00	12.00	5,010
Surgical Services	11.3.20.01	Minor Procedure Room	E153	1848214	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
762	152			C	Service head Dimensions 12" x 12" (310 x 310 mm), Lengths Vertical: up to 59" (1500 mm), Horizontal: 19" or 29" (500 or 750 mm) Support Arm reach: single 51", dual 126 Hieght Adjustable Arm: reach 38.4", max height adjustment 27.6" list speed 1.2"/s Swivel range: 330 deg. on all joints Mounting plate to be tandem capable of supporting 2 articulating arms and an exam light extending from one ceiling structural point. Height from floor to bottom of service head of approx. 24" All pre-installation materials, including junction box, medical gas bracket, ceiling gas terminal unit, DISS fittings for medical gases terminations above the ceiling, and anchor plate with mounting hardware to be supplied by General Contractor. Approximate ceiling cutout: 25.6" x 25.6" (650 x 650 mm) Mounting hole pattern to be provided by vendor. Design Loads: Fmax: 9200 N (2067 lbf). Mbmax: 12,500 Nm (9,220 ft-lbs.). Vendor to identify component requirements and bolt hole patterns as applicable. Vendor to supply and install articulating arm with pre-fabricated housing conduits and cabling for desired services included in the center post and horizontal articulating arm. Fixed horizontal/horizontal articulating arm of approximately 63" (1600 mm) effective length. Arm should rotate 330 degrees with adjustable rotation stops. Each arm (respiratory & nursing) to have a payload of at least 100 kg (220.45 lbs.)	120	1	5.0	60		Hard												120V/5amp circuit for powering the articulating arm brakes and accessories Eight (8) duplex receptacles, 20 amps; Eight (8) on emergency power Eight (8) data cables with RJ-45 jacks Six (6) single gang cutouts for Data, A/V and other low voltage cabling Two (2) USB charging outlet/cables with 5V D.C. with 1A electrical supply. Proponent to supply the following: a) Electrical junction box with riser plate. b) Conduit with pull strings to be provided in the arms for all low voltage devices. c) All conduit and wiring related to the data outlets, telephone outlets, and CAT 6A networking.	O2					
457	1,829			F	Dimension 48"Wx18"Dx72"H (81"H with sloped top)																							
819	1,149	200.0	90.9	F																								
1,524	864	325.0	147.7	F	Base dimension: 22 3/4 x 24 3/4" (577.85 x 628.65 mm). Shipping weight: 325 lb (147.7 kg).	120	1	8.0	60		Plug																		
462	178	22.3	10.1	O		120	1		60		Plug		Yes									Maximum VA: 950 VA. Maximum mains current: 10 A. Power cord: NEMA 3-prong hospital grade connector. 15 ft (5 m) maximum length. Wireless capability for servicing and Ethernet.						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
5,004	305	240.0	109.1	C	Ceiling mounted. Weight of light head (incl. cardanic): 2.4kg (5.29lbs) Light head size: 300mm (11.81") Max. distance from ceiling to central arm joint: 1287mm (51") Distance from central arm to secondary arm: 800mm (31.5") Distance from secondnary arm to light head: 718mm (28.27") Light head arm articulation: +35 to -45 degrees	120	1		60	65	Hard		Yes									Power Pack Supply Voltage 22-32 V DC DC-DC Box 22-26.4 V AC Maximum Power Consumption (total system) (VA) 65 Power consumption of light heads (W) 65 Ethernet cable is recommended as a backup for Wireless option.						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									MA															V							

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA
						N																												

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		1 ea CO2 2 ea medical air DISS medical gas outlet. 3 ea oxygen DISS medical gas outlet. 4 ea medical vacuum DISS medical gas outlet. 1 ea nitrogen with control panel											
													Operating condition: Temperature: 10 to 40 deg C (50 - 104 deg F). Relative Humidity: 30% - 75%, non-condensing. If the unit has been stored or transported at temperature below 10 deg C (50 deg F), the unit requires approx. one hour to acclimate at room temperature. Transport and storage: Temperature: -10 to 60 deg C (14 to 140 deg F). Relative humidity: 25% to 85% non-condensing.
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.20.01	Minor Procedure Room	E166	2074190	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Surgical Services	11.3.20.01	Minor Procedure Room	E308	2074133	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.3.20.01	Minor Procedure Room	E221	1848215	0933544	SMOKE EVACUATION SYSTEM	Simultaneous evacuation to high-frequency activation. Individual parameters. Extended filter capacity. Two suction hoses can be connected. Turbo mode.	1	1	E	KLS Martin Group	marVac		15.35	18.11	8.58	390
Surgical Services	11.3.20.01	Minor Procedure Room	E228	2074103	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	1	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Surgical Services	11.3.20.01	Minor Procedure Room	E235	1848216	0937985	STOOL, SURGEON'S	Mobile. With multi-position arm rests. Weight capacity: 300 lb (136 kg). Adjustable contoured backrest. Height range 21 to 28.5" (533 to 724 mm). Foot control hydraulic three spindle ("T") base.	1	1	E	Stryker Canada Inc	830 Surgistool II	0830-000-000	21.00	22.00	50.50	533
Surgical Services	11.3.20.01	Minor Procedure Room	E255	1848218	0935281	TABLE, INSTRUMENT	With undershelf and casters. 2" (51 mm) diameter casters. Framework 1" (25 mm) diameter. 18 gauge polished stainless steel tubing. All stainless 18 gauge tops and shelves.	1	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Surgical Services	11.3.20.01	Minor Procedure Room	E268	1848219	0945295	TOURNIQUET, AUTOMATIC	Portable tourniquet system with 6 cylindrical cuffs, three double bladder cuffs, two dual hose assemblies. Stand with 5-leg base and accessory basket.	1	1	E	Zimmer	ATS4000		27.56		63.10	700
Surgical Services	11.3.20.01	Minor Procedure Room	F062	2470177	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	2	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Surgical Services	11.3.22.01	Cart Storage	E359	1848220	0928963	CART, MEDICATION	Formed steel and aluminum construction. Two 3" (76 mm), one 10" (254 mm) high full width drawers. 8 half-width bins. Auto relock. Proximity card reader. 2 handles. 4 swivel casters w/ 1 locking.	1	1	E	Capsa Solutions	Avalo ACS		26.00	24.00	39.50	660
Surgical Services	11.3.23.01	Crash Cart Alcove	E038	1848222	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Surgical Services	11.3.23.01	Crash Cart Alcove	E069	1848223	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Surgical Services	11.3.23.01	Crash Cart Alcove	E013	1848221	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
460	218	26.4	12.0	T	Noise level: 51 dB (A), distance of 1 m.	120	1		60	600	Plug	3P										Recommended to power the device from an interrupted power supply (UPS).						
330	1,473	30.0	13.6	F																								
559	1,283	65.0	29.5	F	Footprint: "T" base: 21x 22" (533x559 mm).																							
508	864	70.0	31.8	F																								
	1,603			F	ATS 4000: Height: 13.1 in. (33.3 cm). Width: 9.3 in. (23.6 cm). Depth: 10.5 in. (26.7 cm) (including clamp). Weight: 13.2 lbs. (6.0 Kg) (including power cord). IV Pole stand : Height: sufficient to mount unit at = 50 inches (127cm) from floor to base of ATS unit. Pole Diameter: 0.872 to 1.125 inches. Base Diameter: =27.56 inches (70 cm).	120	1		60		Plug											Battery type: Rechargeable, Lithium Ion, 14.4VDC, 4300mAh, 10 hrs life. Battery discharge time: Unit will operate on battery power for 360 min minimum with fully charged battery. Battery recharge time: 10 hr, unit should be plugged in 10 hr before initia use. Power adaptor: Input power 120VA. Power cord: Type SJT, AWG16, 14 ft (4267 mm). Power plug: Hospital grade, 3 prong straight blade, 15 Amp. Line protection: 2 time delayed 1.0 A, 250 V fuses.						
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
610	1,003			F																								
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH										AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa
													Ambient temperature 68 F (20°C) to 73°F (23°C) Typical , 50°F (10°C) to 100°F (38°C) Maximum Relative humidity 30% to 60% Altitude =2,000 m – Not intended for high altitude environments Pollution Degree Pollution degree 2
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.24.01	Bed / Stretcher Storage	E247	1848224	0931839	STRETCHER, OB/GYN	Hydraulic hi-low. Dual side-mounted foot control. Thermoformed ABS base with integrated storage tray. Weight capacity: 500 lb (228 kg).	1	1	E	Stryker Canada Inc	1061	GYNNIE OB/GYN	31.50	81.50	36.00	800
Surgical Services	11.3.24.02	Bed / Stretcher Storage		2471929	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.3.25.01	Charting Area	F021	1848225	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Surgical Services	11.3.25.01	Charting Area	F062	1848226	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Surgical Services	11.3.26.01	Endoscopy Suite	E097	1848235	0946680	ARTICULATING ARM	Contractor to Install: Structural support, ceiling mounting plate aprx. dimensions provided. Vendor to Install: Ceiling mounted articulating arm, vertical service head with 4 shelves, and one arm for a 32" flat panel monitor mount. Electric brakes. Arm & Service Head dimensions are provided in the architectural note.	2	2	E	Olympus Canada	Truport		30.00	30.00	6.00	762
Surgical Services	11.3.26.01	Endoscopy Suite	E033	1848227	0936866	CART, ANESTHESIA	Anesthesia package. 6 drawers: 3 - 3" (76 mm), 2 - 6" (152 mm), & 1 - 9" (229 mm). W/ drawer divider kits, side bins, waste basket, over bridge w/ 2 hanging rail & tilt bins. Lockable.	1	1	E	Metro	FLANES1/Flexline	FL30K	22.36	32.24	45.25	568
Surgical Services	11.3.26.01	Endoscopy Suite	T078		00N0005649	ELECTROSURGICAL UNIT		1	5	E		BEAMER ESU CE200					
Surgical Services	11.3.26.01	Endoscopy Suite	T291		00N0040477	ENDOSCOPE ACCESSORY, PROCESSOR		1	5	E		IM8000					
Surgical Services	11.3.26.01	Endoscopy Suite	T291		00N0040483	ENDOSCOPE ACCESSORY, PROCESSOR		1	5	E		IM8000					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
2,070	914			F	Siderails Up: 31.5"" Siderails Down: 26.75"" Height Range (high): 36"" Height Range (low): 22.5"" Litter Positioning Backrest: 0° - 90°. Foot Section: 0° - 90°. Trend./Reverse Trend.: ±18°.																									
				NA																								
711	1,219	50.0	22.7	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
762	152			C	Service head Dimensions 12" x 12" (310 x 310 mm), Lengths Vertical: up to 59" (1500 mm), Horizontal: 19" or 29" (500 or 750 mm) Support Arm reach: single 51", dual 126 Hieght Adjustable Arm: reach 38.4", max height adjustment 27.6" list speed 1.2"/s Swivel range: 330 deg. on all joints Mounting plate to be tandem capable of supporting 2 articulating arms and an exam light extending from one ceiling structural point. Height from floor to bottom of service head of approx. 24" All pre-installation materials, including junction box, medical gas bracket, ceiling gas terminal unit, DISS fittings for medical gases terminations above the ceiling, and anchor plate with mounting hardware to be supplied by General Contractor. Approximate ceiling cutout: 25.6" x 25.6" (650 x 650 mm) Mounting hole pattern to be provided by vendor. Design Loads: Fmax: 9200 N (2067 lbf). Mbmax: 12,500 Nm (9,220 ft-lbs.). Vendor to identify component requirements and bolt hole patterns as applicable. Vendor to supply and install articulating arm with pre-fabricated housing conduits and cabling for desired services included in the center post and horizontal articulating arm. Fixed horizontal/horizontal articulating arm of approximately 63" (1600 mm) effective length. Arm should rotate 330 degrees with adjustable rotation stops. Each arm (respiratory & nursing) to have a payload of at least 100 kg (220.45 lbs.)	120	1	5.0	60		Hard										120V/5amp circuit for powering the articulating arm brakes and accessories Eight (8) duplex receptacles, 20 amps; Eight (8) on emergency power Eight (8) data cables with RJ-45 jacks Six (6) single gang cutouts for Data, A/V and other low voltage cabling Two (2) USB charging outlet/cables with 5V D.C. with 1A electrical supply. Proponent to supply the following: a) Electrical junction box with riser plate. b) Conduit with pull strings to be provided in the arms for all low voltage devices. c) All conduit and wiring related to the data outlets, telephone outlets, and CAT 6A networking.	O2					
819	1,149	200.0	90.9	F																								
				F																								
				O																								
				O																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									MA															V								

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				
						N																															

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
		1 ea CO2 2 ea medical air DISS medical gas outlet. 3 ea oxygen DISS medical gas outlet. 4 ea medical vacuum DISS medical gas outlet. 1 ea nitrogen with control panel											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.26.01	Endoscopy Suite	E411	1848237	0946681	LIGHT, SURGICAL	Single surgical LED light head (160,000 lux) w/mount. In-light camera ready.	1	3	E	Trumpf	iLED7		69.25	0.00		1,759
Surgical Services	11.3.26.01	Endoscopy Suite	E153	1848238	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Surgical Services	11.3.26.01	Endoscopy Suite	E417	2378082	0944954	MONITOR, VIDEO	To be mounted on articulating arm. 31" 4K monitor with monitor arm.	1	3	E	Sony Canada	LMD-X310ST		29.75	2.75	18.00	756
Surgical Services	11.3.26.01	Endoscopy Suite	E418	2378083	0940759	MONITOR, VIDEO	To be mounted on articulating arm. Medical monitor. Flat panel. Picture size: 31.125" (789 mm). 2D. 4K. 4096x2160 pixels. Aspect: 17:9. Contrast ratio: 1450:1. LCD. LED backlight.	1	3	E	Sony Electronics Inc	LMD-X310MD		29.75	2.75	18.00	756
Surgical Services	11.3.26.01	Endoscopy Suite	E416	1848234	0944485	SCOPE ACCESSORY, VIDEO SYSTEM	Video processor system integrated with LED light source, 31" (787 mm) 4K 3D LED monitor, insufflator, and flushing pump. Includes disposable channel tubing, channel adaptor, irrigation tubing with CO2 & air, water container, remote control cable, footswitch. pipeline adaptor, CO2 gas cylinder hose, and gas tube.	1	3	E	Olympus Canada	CV-1500/OFP-2/UCR	LMD-X310ST	15.67	22.83	8.58	398
Surgical Services	11.3.26.01	Endoscopy Suite	T292		00N0010350	SCOPE, VIDEO LARYNGOSCOPE		1	5	E		0570-0200 GLIDESCOPE PGVL					
Surgical Services	11.3.26.01	Endoscopy Suite	E221	1848240	0933544	SMOKE EVACUATION SYSTEM	Simultaneous evacuation to high-frequency activation. Individual parameters. Extended filter capacity. Two suction hoses can be connected. Turbo mode.	1	1	E	KLS Martin Group	marVac		15.35	18.11	8.58	390
Surgical Services	11.3.26.01	Endoscopy Suite	E235	1848241	0937985	STOOL, SURGEON'S	Mobile. With multi-position arm rests. Weight capacity: 300 lb (136 kg). Adjustable contoured backrest. Height range 21 to 28.5" (533 to 724 mm). Foot control hydraulic three spindle ("T") base.	1	1	E	Stryker Canada Inc	830 Surgistool II	0830-000-000	21.00	22.00	50.50	533

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
				C	Weight of light head: 15.5kg (34 lb). Minimum ceiling height (finished floor to intermediate ceiling): 2,750mm. Minimum height from intermediate ceiling to raw ceiling: 500mm. Ceiling mounted. Recommended ceiling height: 9 ft-10" (2,997 mm), finished ceiling. Equipment load: 400 lbf (1,779 N), approximate. Moment load: 1,500 ft-lb (2,034 Nm). Articulations: full for tracking and distal arm joints. Light arm: Distance from light head to finished floor (highest position): 6 ft-10.5" (2,096 mm); lowest position: 3 ft-8.25" (1,124 mm). Arm reach, total: 5 ft-9.25" (1,759 mm). Arm reach, horizontal: 33.46" (850 mm); Arm reach pivots 28 deg up and 50 deg down: 35.83" (910 mm). Distance of down tube from floor: 8 ft-5.75" (2,584 mm). 13.78" (350 mm) from finished ceiling. Surgical light power transformers will be located above ceiling enclosure boxes. Separate transformer enclosure is required for each lamp head. Transformer enclosure will be provided by vendor in advance of final installation. Transformer enclosures must be located in an accessible location. An access panel shall be required in the finished ceiling for transformer enclosure(s). Transformer enclosures dimensions (wxdxh): 11.81x7.87x13.78" (300x200x350 mm). Hardware for enclosure mounting to be provided by contractor. Transformer enclosure(s) must be mounted within 20 ft (6,096 mm) of the light mount with 2 ft (610 mm) square access panel. Flat panel mounting plate (wxd): 13.78x13.78" (350x350 mm). Required cutout in finished ceiling: 14.5x14.5" (368x368 mm). Four, 3/4" (19.05 mm) ASTM-A307 hardware for attachment to light mounting plate to sub-structure thru 0.81" (20.5 mm) diameter corner holes. This	120	1		60		Hard		Yes										Max power uptake of total system: <160VA. Control unit: Lighthead, Wall, Mobile or Dock desk.						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes										Power Consumption> 200 W Average.						
70	457	26.0	11.8	O	To be mounted in articulating arm. Mounting accessories to be included.	120	1	3.2	60		Plug		Yes																
70	457	26.9	12.2	O	Mounted on articulating arm. Mounting accessories to be included.	115	1	2.0	60		Plug		Yes										Required connections: OR AV Integration AC Adaptor. DC input: 26V, 6.9 A.						
580	218	42.8	19.4	O	Dimensions (wxdxh) and weight: Video system: 15.67x22.83x8.58" (398x580x218 mm). Weight: (19.4 kg). Monitor: 29-3/4x2-3/4x18" (755x69.8x457 mm). Weight: 26 lb (11.8 kg). Flushing pump: 9.65x15.16x8.66" (245x385x220 mm). Weight: 8.82 lb (4 kg), with empty water container. CO2 regulation unit: 5x11.81x5.90" (125x300x150 mm). Weight: 10.80 lb (4.9 kg).	120	1		60		Plug		Yes										Video system: 120V, 1-phase, 60Hz, plug, dataline, 600VA. Monitor: 120V, 1-phase, 60Hz, 180W (max), 2.1 Amp (AC), plug, dataline Flushing pump: 120V, 1-phase, 60Hz, plug, 100VA. CO2 regulation unit: 120V, 1-phase, 60Hz, plug, 40VA.						
				O																								
460	218	26.4	12.0	T	Noise level: 51 dB (A), distance of 1 m.	120	1		60	600	Plug	3P											Recommended to power the device from an interrupted power supply (UPS).						
559	1,283	65.0	29.5	F	Footprint: "T" base: 21x 22" (533x559 mm).																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																											
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS											
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW											
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA								

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Monitor: Operating conditions Temperature 0 °C to 40 °C (32 °F to 104 °F) Recommended temperature 20 °C to 30 °C (68 °F to 86 °F) Humidity 30% to 85% (no condensation) Pressure 700 hPa to 1060 hPa Storage and transport conditions Temperature –20 °C to +60 °C (–4 °F to +140 °F) Humidity 0% to 90% Pressure 700 hPa to 1060 hPa
													Operating temperature: 0 to 35 deg C (32 to 95 deg F). Recommended: 20 to 30 deg C (68 to 86 deg F). Humidity: 30 to 85%, non-condensing.
													Monitor: Operating temperature: 0 to 40 degC (32 to 104 deg F). Recommended: 20 to 30 deg C (68 to 86 deg F). Operating humidity: 30 to 85%, no condensation. Storage/Transport temperature: -20 to 60 deg C (-4 to 140 deg F). Storage/Transport humidity: 0 to 90%. Operating/Storage/Transport Pressure: 700 to 1060 hPa.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.3.26.01	Endoscopy Suite	E255	1848242	0935281	TABLE, INSTRUMENT	With undershelf and casters. 2" (51 mm) diameter casters. Framework 1" (25 mm) diameter. 18 gauge polished stainless steel tubing. All stainless 18 gauge tops and shelves.	1	1	E	Imperial Surgical Company	OR-3641D		36.00	20.00	34.00	914
Surgical Services	11.3.26.01	Endoscopy Suite	F062	2470178	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	2	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Surgical Services	11.3.28.01	Supply Alcove	E043	1848243	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.3.28.01	Supply Alcove	E282	2471801	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	2	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Surgical Services	11.3.28.01	Supply Alcove	E213	1946343	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Surgical Services	11.3.29.01	Anesthetic Workroom	F020	1848244	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.3.29.01	Anesthetic Workroom	F048	1848246	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Surgical Services	11.3.29.01	Anesthetic Workroom	E259	1848245	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
Surgical Services	11.3.30.01	Cart Storage	E051	1848247	0941071	CART, SCOPE TRANSPORT	Mobile transport system w/ 6 scope transport trays, 4 braked wheels, recessed ABS plastic top tray.	1	1	E	Advanced Sterilization Products (ASP)	103466	CLEANASCOPE CART	25.24	22.17	40.47	641
Surgical Services	11.3.30.02	Cart Storage	E051	1946344	0941071	CART, SCOPE TRANSPORT	Mobile transport system w/ 6 scope transport trays, 4 braked wheels, recessed ABS plastic top tray.	1	1	E	Advanced Sterilization Products (ASP)	103466	CLEANASCOPE CART	25.24	22.17	40.47	641
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E043	2074143	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	F005	2074194	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E368	2471802	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E343	2471803	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E383	2471804	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
508	864	70.0	31.8	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																		
457	1,753	92.0	41.7	F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																								
563	1,028			F																								
563	1,028			F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																								
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E227	2074148	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E153	1848250	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E308	2471808	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E341	2074151	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	E245	1848251	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	F040	2074156	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E368	2471809	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E343	2471810	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E383	2471811	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E227	2471812	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E153	1946348	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH										AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E308	2471813	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	E245	1946345	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	F040	2471814	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E368	2471815	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E343	2471816	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E383	2471817	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E227	2471818	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E153	1946352	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E308	2471819	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	E245	1946349	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	F040	2471820	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E368	2471825	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E343	2471822	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E383	2471823	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E227	2471824	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E153	1946356	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E308	2471826	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	E245	1946353	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	F040	2471821	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	1	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432
Surgical Services	11.4.02.01	Charting Area		2471924	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.4.02.02	Charting Area		2471930	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.4.03.01	Blanket Warmer	E279	1848254	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Surgical Services	11.4.04.01	Crash Cart Alcove	E038	1848256	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																								
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
813	1,118			F																								
				NA																								
				NA																								
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.04.01	Crash Cart Alcove	E069	1848257	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Surgical Services	11.4.04.01	Crash Cart Alcove	E013	1848255	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Surgical Services	11.4.05.01	Medication Room	E337	2241662	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Surgical Services	11.4.05.01	Medication Room	E419	2483755	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579
Surgical Services	11.4.05.01	Medication Room	E438	2483754	0947884	MEDICATION DISPENSING SYSTEM, COLUMN	Single column auxiliary unit with 4 doors, must be used in conjunction with a main unit.	1	3	E	Becton Dickinson	Pyxis ES Auxiliary		31.00	28.00	79.50	787
Surgical Services	11.4.05.01	Medication Room	E401	2470905	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Surgical Services	11.4.05.01	Medication Room	E191	1848262	0945280	REFRIGERATOR, MEDICATION DISPENSING, 13 CU FT	Used for storing refrigerated medication. Capacity: 13 cu ft. Remotely access via medication system. Auto defrost. Key lockable.	1	3	E	Becton Dickinson	BD Pyxis ES		24.25	29.50	70.50	616
Surgical Services	11.4.05.01	Medication Room	F082	2480642	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Surgical Services	11.4.07.01	Soiled Utility	E392	2241673	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Surgical Services	11.4.07.01	Soiled Utility	E147	1848265	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Surgical Services	11.4.07.01	Soiled Utility	E393	2241685	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Surgical Services	11.4.07.01	Soiled Utility	E218	1872252	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Surgical Services	11.4.07.01	Soiled Utility	E400	2197620	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Surgical Services	11.4.08.01	Clean Utility	E337	2195962	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	7	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Surgical Services	11.4.09.01	Storage Alcove	E043	1848267	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Surgical Services	11.4.09.01	Storage Alcove	E213	1946357	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Surgical Services	11.4.09.02	Storage Alcove	E345	1850964	0943288	SCOPE, GLIDESCOPE	Video laryngoscope with colour monitor on 5-wheeel base mobile stand. Three reusable blades: small to morbidly obese patients. LED light source, video output/recording features.	1	1	E	Verathon Medical Canada	GVL Glidescope,Reusa	0270-858A	24.00	0.00	53.50	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
660	1,981			F																							
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						
711	2,019	314.0	142.4	F	1" either side 2" back side Door opening clearance: 25" Additional clearances required if return bin included	120	1	3.0	60		Plug	5-15P	Yes									Data required Emergency power recommended						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							
749	1,791	382.0	173.3	F	Clearance: Minimum of 3" (76 mm) behind unit. 8" top clearance for ventilation Front clearance for door opening (at least 24.25" recommended.	115	1	1.4	60		Plug	5-15	Yes									Requires 15 Amps dedicated cricuit Power Cord Length: 8 - 10 ft Remote alarm connected to central building alarm system by contractor.						
	610	10.0	4.5	W																							
737	851	29.0	13.2	F																							
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																							
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																							
660	1,981			F																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
457	1,753	92.0	41.7	F																							
	1,359	5.5	2.5	F	Monitor (wxdxh): 8x3.26x6.57" (207x83x167 mm): Weigth: 3.1 lb (1.4 kg). Mobile stand: 24x0x47", 1.5 kg.	120	1	0.5	60		Plug		Yes									1 dataline required: video output cable for external monitor. Battery type: 12V Li Ion rechargeable.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
			355										Approximately 355 BTU/hr, 0.9amp at 117V
			21										
													Temperature Range: 2*C to 10*C (36*F to 50*F)
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 0 to 95%. Atmospheric pressure: 440 - 1060 hPa. Storage temperature: 0 to 45 deg C (32 to 113 deg F). Humidity: 10 to 95%. Atmospheric pressure: 800 - 1060 hPa.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.10.01	Equipment Storage	E282	1848273	0938618	HYPERTHERMIA UNIT	Unit can be used to maintain normothermia. Two airflow settings and hose-end temperature sensing. Three temperature sensors and adjustable airflow provide great heat transfer.	1	1	E	Bair Hugger	77500		14.00	13.00	13.00	356
Surgical Services	11.4.10.01	Equipment Storage	T184		00N0031088	I.V. INFUSION PUMP		1	5	E		8015					
Surgical Services	11.4.10.01	Equipment Storage	T184		00N0031099	I.V. INFUSION PUMP		1	5	E		8100					
Surgical Services	11.4.10.01	Equipment Storage	T184		00N0031100	I.V. INFUSION PUMP		1	5	E		8100					
Surgical Services	11.4.10.01	Equipment Storage	T184		00N0031105	I.V. INFUSION PUMP		1	5	E		8100					
Surgical Services	11.4.10.01	Equipment Storage	E383	2483816	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	4	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Surgical Services	11.4.10.01	Equipment Storage	E183	1848271	0938361	I.V. INFUSION PUMP, P.C.A.	PCA module for BD Carefusion IV infusion system. Ability to automatically pause the PCA infusion and deactivate dose request.	6	1	E	Becton Dickinson	Alaris 8120		4.50	7.50	15.00	114
Surgical Services	11.4.10.01	Equipment Storage	E227	1848272	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	4	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Surgical Services	11.4.10.01	Equipment Storage	E127	1848269	0946213	IMAGING, ULTRASOUND SYSTEM	Multipurpose POC system use in high acuity areas. Mobile. Hi Definition technology for optimal visualization. Includes 3 probes. 21.3" touch screen clinical monitor.	1	3	E	Fujifilm Sonosite Canada	LX		23.00	25.40	68.00	584
Surgical Services	11.4.10.01	Equipment Storage	E179	1848270	0941224	PUMP, I.V., RAPID INFUSER	Blood and Fluid Warming System. Range of Fluid Bag Sizes, From 250 mL to 1000 mL. Maximum Dynamic Operating Pressure of 300 mmHg. Dual Clamp Mounting.	2	1	E	3M	Ranger	14500	20.00	7.75	15.75	508
Surgical Services	11.4.11.01	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471827	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.01	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E139	1848275	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Surgical Services	11.4.11.01	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1848276	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.01	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471828	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.01	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E246	1848277	0931900	STRETCHER, ADULT, BARIATRIC	Bariatric. Weight capacity: 700 lb (318 kg).5th Wheel Steering. Scale and Exit System. 30" wide patient surface w/3" mattress.< 21" low height.	1	1	E	Stryker	1105	Prime Series	38.00	85.00	38.00	965
Surgical Services	11.4.11.02	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471829	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
330	330			F	Relative noise level: 53 dBA (high fan setting). 48 dBA (low fan setting).	120	1	11.7	60		Plug																	
				O																								
				O																								
				O																								
				O																								
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
191	381	5.5	2.5	O																		Powered from main PC unit.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
645	1,727	123.5	56.0	F	Stand Dimensions (width x length): 23 inches x 25.4inches (58.4cm x 64.5cm) Height Maximum: 68 inches (172.6 cm) clinical monitor up Height Minimum: 49.2 inches (125 cm) clinical monitor down in transport position Height Adjustment: 6.5" (16.5 cm) travel Weight: 123.5 lbs. / 56 kg Casters: 4 inch Swivel, 4 Locking	120	1		60		Plug		Yes											System operates via battery or AC power. Rechargeable lithium-ion battery. Battery life: 1.0 hour, 3 days on idle. Battery charges to 80% capacity in 3 hours. Embedded wireless option: 802.11 (B,G, and N networking). 2 Data drop required.						
197	400	17.0	7.7	O		120	1	1.0	60		Plug											Power Cord: 15 feet (4.6m).						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes											Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	965	0.0	0.0	F	Overall width w/ siderails up/down: 38"/30.50" (965/775 mm). Height Range (high): 34" Height Range (low): 20.75"	120	1	10.0	60		Plug											Note: electric lifter is optional.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
			1,600										Recommended operating environment temperature: Temperature: 15°C-25°C. Humidity: Max relative humidity 80% (up to 31 °C) decreasing linearly to 50% relative humidity at 40°C Altitude: Max 2,000m. Storage/transport temperature: -20°C to 45°C (-4°F to 113°F) Store all components in a cool, dry place when not in use. Heat generated high fan setting: 1600 BTU/hr (average), 470 W (average) Low fan setting: 1330 BTU/hr (average), 390 W (average).
													Relative humidity: 20-90% (non condensing) Temperature range: 5-40 deg Celcius
													Heat output: While operating 120W - 409.2 BTUs While operating and charging (max power) 200W - 682 BTUs Operating environment: Temperature 32-104°F (0-40°C) Humidity 15-95% relative humidity (R.H.) Atmospheric Pressure 700-1060 hPa (0.69-1.05 ATM) Storage: Temp -31-149°F (-35-65°C) Humidity 5-95% relative humidity (R.H.) Atmospheric Pressure 500-1060 hPa (0.5-1.05 ATM)
													Storage/Transport temperature: -20 to 45 deg C (-4 to 113 deg F)
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.11.02	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850966	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.02	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471830	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.02	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850967	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.03	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471831	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.03	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850975	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.03	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471832	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.03	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850971	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.04	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471833	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.04	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850979	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.04	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471834	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.04	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850980	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.05	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471835	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.05	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850985	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.05	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471836	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.05	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850981	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.06	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471837	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.06	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850990	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.11.06	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471838	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.06	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850987	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.07	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471839	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.07	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850995	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.07	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471840	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.07	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850991	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.08	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471841	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.08	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1850996	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.08	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471842	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.08	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1850999	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.09	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471843	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.09	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1851001	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.09	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471844	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.09	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1851005	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.10	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471845	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.10	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1851010	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.10	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471846	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.10	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1851009	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.11	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471847	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.4.11.11	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1851012	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.11	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471848	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.11	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E245	1851015	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Surgical Services	11.4.11.12	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E368	2471849	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Surgical Services	11.4.11.12	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E162	1851020	0940442	MONITOR, VITAL SIGNS, WALL-MOUNTED	Wall mounted with GCX track and basket. NIBP/SpO2/temperature. Adult, pediatric, neonatal modes. Touch screen. Patient records sent electronically to EMR/EHR. Wireless connection.	1	2	E	Welch Allyn Inc.	Connex 6000	68NXTX-B/4900-62	11.00	6.00	10.00	279
Surgical Services	11.4.11.12	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E308	2471850	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Surgical Services	11.4.11.12	Pre-Op/Day Surgery (L-2) Recovery Stretchers	E246	1851017	0931900	STRETCHER, ADULT, BARIATRIC	Bariatric. Weight capacity: 700 lb (318 kg).5th Wheel Steering. Scale and Exit System. 30" wide patient surface w/3" mattress.< 21" low height.	1	1	E	Stryker	1105	Prime Series	38.00	85.00	38.00	965
Surgical Services	11.4.13.01	Charting Area	F020	1848279	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.4.13.01	Charting Area	F078	2470896	0947594	DESK, HEIGHT ADJUSTABLE, SMALL	Electric height adjustable straight desk with power module for convenience use (2 power, 2 USB). Includes wire managers.	1	3	F	Global Furniture	Foli	PH3T3048	46.00	29.00	48.60	1,168
Surgical Services	11.4.13.02	Charting Area		2471918	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.4.13.03	Charting Area	E399	1851026	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Surgical Services	11.4.13.04	Charting Area		2471919	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.4.13.05	Charting Area	E399	1851034	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Surgical Services	11.4.13.06	Charting Area		2471936	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Surgical Services	11.4.14.01	Blanket Warmer	E279	1848281	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Surgical Services	11.4.15.01	Fluid Warmer	E280	1848282	0935034	WARMER, BLOOD/FLUID	Blood/fluid warming unit. Flow rates: 150 ml to 30,000 ml/hr. Output temperatures: 33 to 41 deg C (91 to 106 deg F).	1	1	E	Augustine Medical, Inc	RANGER	24500	7.50	10.00	4.50	191
Surgical Services	11.4.16.01	Patient Nutrition Station	E151	1952329	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Surgical Services	11.4.16.01	Patient Nutrition Station	E192	1848283	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Surgical Services	11.5.01.01	Medication / Clean Utility	E337	2192675	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	2	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Surgical Services	11.5.01.01	Medication / Clean Utility	E419	1848284	0947596	MEDICATION DISPENSING SYSTEM	6 drawer configuration main unit with a screen, keyboard, printer, and barcode scanner. Automated medication dispensing system supporting decentralized medication management.	1	3	E	Becton Dickinson	Pyxis ES	MedStation ES Main	22.80	27.00	55.00	579

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
152	254	9.5	4.3	W	Dimensions (wxdxh): Monitor: 11x6x10" (279x152x254 mm). Weight (including battery): 9.5 lb (4.3 kg). Wall mount 4701-62 (shipping dimensions and weight): Wxdxh:382 x 284 x 227 mm. Weight:2.7 kg. Wall mounted.	120	1	1.5	60		Plug		Yes									Battery Rating: 10.8 V, 6.75 Ah (73 Wh), Composition: Lithium-ion. Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 67NXTX-B for wired connection						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
2,159	965	0.0	0.0	F	Overall width w/ siderails up/down: 38"/30.50" (965/775 mm). Height Range (high): 34" Height Range (low): 20.75"	120	1	10.0	60		Plug											Note: electric lifter is optional.						
610	1,016			F																							
737	1,234	129.5	58.9	F	Leave 1" on Left, Right, Back	120	1	3.0	60		Plug	5-15																
				NA																							
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
				NA																							
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1																
				NA																							
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
254	114	7.0	3.2	O		120	1		60	900	Plug											Fuse: 2xT10A-H (250 V)						
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
660	1,981			F																							
686	1,397	165.5	75.1	F	Clearances: 1" each side 2.5" back side Drawer opening (front side) - 23" Additional clearances required if return bin included	115	1	3.0	60		Plug		Yes									Data port required for CPU. Emergency power recommended.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Operating Conditions: Temperature: 15 to 40 deg C (59 to 104 deg F). Humidity: 10 to 85% relative humidity, noncondensing. Atmospheric pressure: 50 to 106 kPa. Storage Temperature: -20 to 45 deg C (-4 to 113 deg F).
			355										Approximately 355 BTU/hr, 0.9amp at 117V

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.5.01.01	Medication / Clean Utility	E402	2470906	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Surgical Services	11.5.01.01	Medication / Clean Utility	E397	1848288	0947882	REFRIGERATOR, MEDICATION DISPENSING, 5 CU FT	5 cubic ft undercounter refrigerator for medication storage. On Casters (optional, height includes 1.5" casters). Compatible with main dispensing unit. Meets requirements for vaccine storage.	1	3	E	Becton Dickinson	PyxisES Refrig 5CF		24.00	29.00	33.50	610
Surgical Services	11.5.01.01	Medication / Clean Utility	F082	2480643	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Surgical Services	11.5.02.01	Equipment Storage	E209	1848291	0945282	SCALE, CLINICAL, BARIATRIC	Bariatric. Digital stand-on scale with side handrails. Maximum capacity: 1000 lb (454 kg).	1	1	E	Health-O-Meter (div of Pelstar)	1100KL	130-1100KL	31.75	31.25	49.50	806
Surgical Services	11.5.02.01	Equipment Storage	E216	2192676	0940411	SHELVING, WIRE	Wire shelving unit. 6 shelves. Mobile, with 4 casters. Enclosed cart with complete kit - wire grid on 3 sides, 2 brake casters, 2 swivel casters, 4 donut bumpers, bottom shelf cover, and full width label holder.	1	1	E	Acart Healthcare Storage Solutions	465CH	MEB465CH-6-CL	60.00	24.00	80.00	1,524
Surgical Services	11.5.02.01	Equipment Storage	E013	2192669	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Surgical Services	11.5.04.01	Alcove: Clean & Soiled Linen	E347	2115064	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Surgical Services	11.5.04.02	Alcove: Clean & Soiled Linen	E347	2115065	0931440	CART, LINEN	Chrome finished, 4 tiers wire cart. Enclosed with 3" wire mesh on sides and back. 4 swivel casters.	1	1	E	Acart Equipment Ltd.	TSS wire carts	ME436CH	36.00	24.00	69.00	914
Surgical Services	11.5.05.01	Soiled Utility	E392	2241674	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Surgical Services	11.5.05.01	Soiled Utility	E147	1848293	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Surgical Services	11.5.05.01	Soiled Utility	E393	2241686	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Surgical Services	11.5.05.01	Soiled Utility	E218	1872253	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Surgical Services	11.5.05.01	Soiled Utility	E434	2477621	0947821	SUCTION WASTE DISPOSAL SYSTEM, DOCKING STATION	Docking station for mobile waste disposal system. Disposes of fluids collected during procedures.	1	2	E	Stryker Corporation	NEPTUNE 2	Ultra	23.00	23.00	16.00	584
Surgical Services	11.5.05.01	Soiled Utility	E400	2197621	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Surgical Services	11.5.06.01	Housekeeping Room	E039	1848295	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Surgical Services	11.5.06.01	Housekeeping Room	E207	1946358	0942667	FLOOR MACHINE, SCRUBBER	Auto scrubber with battery and charger.	1	1	E	Taski of Switzerland	SWINGO 755B		19.00	46.00	47.00	483
Surgical Services	11.5.06.01	Housekeeping Room	E215	1848296	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Surgical Services	11.5.07.01	BioMed Workroom	F020	1848298	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.5.07.01	BioMed Workroom	E294	1848299	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Surgical Services	11.6.01.01	Office: Nurse Manager	F005	1848300	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Surgical Services	11.6.01.01	Office: Nurse Manager	F020	1848301	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
737	851	206.0	93.6	F	Clearance requirements: Minimum of 3 in. behind unit for clearance and feature access Casters are 1.5", can be ordered without to accommodate 32" height fridge with levelling feet only Shelf weight capacity: 100 lbs max capacity/shelf Interior shelves: 18 in. x 18 in.	115	1	1.4	60		Plug	5-15	No									Requires 15 Amps dedicated circuit Power Cord Length: 8 - 10 ft Power plug/power cord length NEMA 5-15 hospital grade plug (115 V) 8-10 ft Remote alarm connected to central building alarm system by contractor							
	610	10.0	4.5	W																								
794	1,257	50.0	22.7	F	180 degree swivel display.	120	1	0.3	60		Plug	5-15P										Includes AC adaptor. Operable using 6 AA batteries. Data Transfer: EMR/EHR Connectivity Featuring USB Port or optional wireless technology							
610	2,032	195.0	88.5	F																								
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.							
610	1,753	112.0	50.9	F																								
610	1,753	112.0	50.9	F																								
737	851	29.0	13.2	F																								
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.							
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																								
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																								
584	406	0.0	0.0	F	Minimum space requirements: Dimensions (w x d x h): Docking station: 23 x 23 x 16" (584 x 584 x 406 mm). Side clearance: 20" (508 mm), each side. Front clearance: 48" (1,219 mm). Additional space to be provided for placement of detergent bottle adjacent to docking station.	120	1	3.0	60		Plug											15 A receptacle	HW	0.750	19				
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																								
1,226	1,359	70.0	31.8	F																								
1,168	1,194	342.0	155.1	F	Sound level 58 dB(A). Turning circle: 3 feet (1 m). Working width: 17 inch (43 cm). Squeegee width: 27 inch (69 cm).	120	1		60	900	Plug		No									22" Battery-powered auto scrubber Rated voltage: 24 V. Cable length of integrated battery charger: 2.5 m.							
457	1,880	18.0	8.2	F																								
610	1,016			F																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits							
546	838			F																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH										AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
Hose					50	345.0	120	828.0	DR	1.000	25				Hose									CW						Hose		

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA
		50	345.0	120	828.0																													

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature Range: 2*C to 10*C (36*F to 50*F) Set point :40°F (4.4°C) Temperature probe:+/-1°F (+/-0.5°C)
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Water requirements: Quality: Potable tap water. Hot and cold tap with dedicated shut-off valves. Inlet to accept garden style fitting. Temperature: 40 to 110 deg F (4.4 to 43.3 deg C). Connection: Garden hose fitting. Water inlet hose: 0.75" (19 mm) diameter, 6 ft (1.83 m) length. Usage: 9 gallons (34 L) per rinse cycle at default settings on standard cycle. Drainage: Rubber hose (waste outlet hose to be provided by vendor) to connect to floor drain or wall drain. 8 ft (2.44 m) connection distance maximum. Waste outlet hose: 1" (254 mm) diameter 6 ft (1.83 m) length.										Operating environment: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 30 to 75% RH. Atmospheric pressure: 700 to 1060 hPa.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.6.01.01	Office: Nurse Manager	F071	1848304	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Surgical Services	11.6.01.01	Office: Nurse Manager	F028	1848302	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Surgical Services	11.6.01.01	Office: Nurse Manager	F082	2480644	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Surgical Services	11.6.02.01	Office: OR Booking Clerk	F005	1848305	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Surgical Services	11.6.02.01	Office: OR Booking Clerk	F020	1848306	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.6.02.01	Office: OR Booking Clerk	F048	2470179	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	2	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Surgical Services	11.6.02.01	Office: OR Booking Clerk	F027	1848307	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Surgical Services	11.6.02.01	Office: OR Booking Clerk	F082	2480645	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Surgical Services	11.6.03.01	Office: Pre-Screening	F005	1848310	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Surgical Services	11.6.03.01	Office: Pre-Screening	F020	1848311	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.6.03.01	Office: Pre-Screening	F053	1848314	0940215	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal.	1	3	F	Globalcare	FOLI	1200 SERIES	72.00	72.00	68.00	1,829
Surgical Services	11.6.03.01	Office: Pre-Screening	E161	1848312	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Surgical Services	11.6.03.01	Office: Pre-Screening	E209	1848313	0945282	SCALE, CLINICAL, BARIATRIC	Bariatric. Digital stand-on scale with side handrails. Maximum capacity: 1000 lb (454 kg).	1	1	E	Health-O-Meter (div of Pelstar)	1100KL	130-1100KL	31.75	31.25	49.50	806
Surgical Services	11.6.04.01	Clinical Workstations	F068	2194561	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Surgical Services	11.6.04.01	Clinical Workstations	F069	2194560	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Surgical Services	11.6.04.01	Clinical Workstations	F020	1848315	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.6.04.02	Clinical Workstations	F020	1851041	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Surgical Services	11.6.05.01	Business Centre	F029	1848318	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Surgical Services	11.6.05.01	Business Centre	F065	1952331	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Surgical Services	11.6.05.01	Business Centre	F041	1848319	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Surgical Services	11.6.05.01	Business Centre	F043	2480646	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Surgical Services	11.6.06.01	Meeting / Education Room	F015	1848321	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	10	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Surgical Services	11.6.06.01	Meeting / Education Room	F042	1848322	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	4	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Surgical Services	11.6.06.01	Meeting / Education Room	F080	2480647	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
	610	10.0	4.5	W																								
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
508	1,829			F																								
	610	10.0	4.5	W																								
546	838			F																								
610	1,016			F																								
1,829	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P																
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
794	1,257	50.0	22.7	F	180 degree swivel display.	120	1	0.3	60		Plug	5-15P										Includes AC adaptor. Operable using 6 AA batteries. Data Transfer: EMR/EHR Connectivity Featuring USB Port or optional wireless technology						
305	1,829			F																								
457	1,657			F																								
610	1,016			F																								
610	1,016			F																								
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Surgical Services	11.6.07.01	Staff Lounge	F010	1848325	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Surgical Services	11.6.07.01	Staff Lounge	F012	1848326	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Surgical Services	11.6.07.01	Staff Lounge	F005	1848324	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	6	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Surgical Services	11.6.07.01	Staff Lounge	F034	1848329	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	3	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Surgical Services	11.6.07.01	Staff Lounge	F043	2480648	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Surgical Services	11.6.08.01	Locker Room with Change Areas (male)	F002	1848331	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Surgical Services	11.6.08.01	Locker Room with Change Areas (male)	E104	2044781	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	2	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Surgical Services	11.6.09.01	Locker Room with Change Areas (female)	F002	2044783	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Surgical Services	11.6.09.01	Locker Room with Change Areas (female)	E104	2044782	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	2	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.1.01.01	Reception Desk	F020	1848333	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.1.01.02	Reception Desk	F020	1851053	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.1.02.01	General Waiting Area	F006	1848337	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	2	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Diagnostic Imaging	12.1.02.01	General Waiting Area	F005	1848336	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	8	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.1.02.01	General Waiting Area	F037	1848338	0939738	TABLE, END	Laminate Rectangular table top. Metal base	4	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Diagnostic Imaging	12.1.03.01	Workstation: DI Booking Clerk	F069	2194562	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Diagnostic Imaging	12.1.03.01	Workstation: DI Booking Clerk	F020	1848339	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.1.03.01	Workstation: DI Booking Clerk	F048	2470205	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Diagnostic Imaging	12.1.03.01	Workstation: DI Booking Clerk	F071	1848340	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Diagnostic Imaging	12.1.03.01	Workstation: DI Booking Clerk	T301		00N0034128	IMAGING, FILM DIGITIZER		1	5	E		Diagnostic Pro Edge					
Diagnostic Imaging	12.1.03.01	Workstation: DI Booking Clerk	E341	2471891	0938462	SCREEN, PRIVACY, MOBILE	Mobile. Bed end screen. 3 fold-open sections. Trolley: 4 dual wheel casters with brakes.	1	1	E	Cornerstone Medical Inc.	Silentia	6522	59.06	19.69	61.02	1,500
Diagnostic Imaging	12.1.04.01	Business Centre	F029	1848341	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Diagnostic Imaging	12.1.04.01	Business Centre	F065	1952333	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Diagnostic Imaging	12.1.04.01	Business Centre	F041	1848342	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Diagnostic Imaging	12.1.04.01	Business Centre	F043	2480649	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Diagnostic Imaging	12.1.05.01	File Storage	F028	1848344	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Diagnostic Imaging	12.1.05.01	File Storage	E213	2267170	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Diagnostic Imaging	12.2.01.01	Radiology Sub-Waiting Area	E279	2470180	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	2	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Diagnostic Imaging	12.2.01.01	Radiology Sub-Waiting Area	F006	1848346	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Diagnostic Imaging	12.2.01.01	Radiology Sub-Waiting Area	F005	1848345	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	14	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.2.01.01	Radiology Sub-Waiting Area	E104	2074054	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	2	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.2.01.01	Radiology Sub-Waiting Area	F037	1848347	0939738	TABLE, END	Laminate Rectangular table top. Metal base	4	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	F005	1848349	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
914	737			F																								
	914	10.0	4.5	W																								
610	457	75.0	34.1	F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
610	457	75.0	34.1	F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
610	1,016			F																								
610	1,016			F																								
559	838			F																								
546	838			F																								
508	432			F																								
457	1,657			F																								
610	1,016			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
				F																								
500	1,550	13.2	6.0	F	Folded dimensions (wxdxh): 23.2"x19.7"x61" (590x500x1550 mm).																							
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
457	1,753	92.0	41.7	F																								
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
559	838			F																								
546	838			F																								
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
508	432			F																								
546	838			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E368	2471852	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E104	2074086	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E343	2483823	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E383	2483817	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E227	2074149	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 Ibs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E136	2074186	0938548	IMAGING, LEAD SHIELD	Barrier, Mobile, Clear-Lead, Full Window, For ionizing radiation, 0.5 mm LE Window size 30" w x 54.5" h (76 x 138.4 cm)	1	1	E	Biodex Medical Systems	042-582 Clear-Lead		30.00	10.50	73.62	762
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E116	1848351	0942285	IMAGING, RADIOGRAPHIC SYSTEM	Digital; wireless cassette-sized DR detector; Pediatric capabilities; standard table weight capacity = 600 lbs;	1	3	E	Carestream Health Canada	DRX-Evolution		34.00	63.50	56.00	864
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E128	1952381	0945195	IMAGING, RESTRAINT	Pediatric immobilization/ positioning device for infants and young children. For DR X-ray (no cassette holder)	1	1	E	Cone Instruments	PIGG-O-STAT	206500	20.00	22.00	35.00	508

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							
267	1,870	97.9	44.5	F	Leg Depth: 10.5" (26.7 cm)																							
1,613	1,422	912.0	414.6	F	22.7" (D) x 25.4" (W) x 54.7" (H) - 57.7 x 64.5 x 139 cm Weight: 272 kg - 600 lb OTC (Unpacked) 56" (D) x 34" (W) x 68.8" (H) - 142.3 x 86.4 cm x 174.7 cm Weight: 414.5 kg - 912 lb Table (Unpacked) 94.5" D x 33" W x 12" H - 240 x 83.8 x 30.5 cm Weight: 251 kg - 553 lb Wall Stand (Packed): 101" x 46" x 45" (256.5 x 116.8 x 114 cm) Weight (Unpacked): 200 kg (440.0 lb) Longitudinal and Transverse Rails (Unpacked) 236" - 600 cm Weight: 66.4 kg - 146 lb Floor and Ceiling Rails (Unpacked) 236" - 600m Weight: 34 Kg - 76 lb Console: 23 X 35.5 x 38.6 - 38.6 x 40 x 98.1 cm Weight: 47.7 kg - 405.5 lb HP 5800 Computer: 15.5" L - 39.4 cm, 13.2" W - 33.7 cm, 4" H - 10.239.4 cm Weight: 7.3 kg - 16.1 lb Array DRX1:	480	3		60		Hard											Maximum Current at 480 V: 135 A Intermittent (80KW) Maximum Continuous Current: 5 A 400/480 VAC, 3 phase, Delta or WYE 110/240 VAC outlet for detector battery charger						
559	889			F	Shipping weigh: 48 lb (21.8 kg).																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS			
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA		

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)
													Operating Temperature: 18 - 30 deg C Relative Humidity: 30-65% (allow condensation dry time before installing) Maximum Gradient: 5 deg C

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E138	1848354	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E161	2074175	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E177	1848355	0940487	POSITIONING DEVICE	Assorted positioning devices. Latex free. With hook and loop strap.	1	1	E	Performance Health	Tumble Forms 2		30.00	7.99	6.02	762
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E187	1848356	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E308	2074134	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E233	1848357	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Diagnostic Imaging	12.2.03.01	Radiology Imaging Room	E029	1848348	0918274	TRANSFER BOARD W/WALL HANGER	Warp-resistant, polyethylene, carbon-filled plastic board with built in handles. Antistatic, and conductive. With vertical wall hanger.	1	2	E	Alimed	PATIENT SHIFTERS	9-719000000/RD9-704	22.00	72.00	0.19	559
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	F005	2197331	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	F021	2197332	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E368	2471853	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E104	2197343	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E343	2483824	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E383	2483818	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E227	2197342	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
203	153	92.6	42.0	X																								
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
584	699	0.0	0.0	F																								
1,829	5	9.0	4.1	W	Vertical wall hanger dimension (wxdxh): 18x5x0.75" (457x127x19 mm). Wall mounted. Mounting hardware to be included.																							
546	838			F																								
711	1,219	50.0	22.7	F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E116	2197341	0942285	IMAGING, RADIOGRAPHIC SYSTEM	Digital; wireless cassette-sized DR detector; Pediatric capabilities; standard table weight capacity = 600 lbs;	1	3	E	Carestream Health Canada	DRX-Evolution		34.00	63.50	56.00	864
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E128	2197334	0945195	IMAGING, RESTRAINT	Pediatric immobilization/ positioning device for infants and young children. For DR X-ray (no cassette holder)	1	1	E	Cone Instruments	PIGG-O-STAT	206500	20.00	22.00	35.00	508
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E138	2197330	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E161	2197338	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E177	2197337	0940487	POSITIONING DEVICE	Assorted positioning devices. Latex free. With hook and loop strap.	1	1	E	Performance Health	Tumble Forms 2		30.00	7.99	6.02	762
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E187	2197344	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E308	2197336	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E233	2197329	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Diagnostic Imaging	12.2.03.02	Radiology Imaging Room	E029	2197339	0918274	TRANSFER BOARD W/WALL HANGER	Warp-resistant, polyethylene, carbon-filled plastic board with built in handles. Antistatic, and conductive. With vertical wall hanger.	1	2	E	Alimed	PATIENT SHIFTERS	9-719000000/RD9-704	22.00	72.00	0.19	559
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E043	2471854	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	F005	1851073	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E104	2197345	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
					22.7" (D) x 25.4" (W) x 54.7" (H) - 57.7 x 64.5 x 139 cm Weight: 272 kg - 600 lb OTC (Unpacked) 56" (D) x 34" (W) x 68.8" (H) - 142.3 x 86.4 cm x 174.7 cm Weight: 414.5 kg - 912 lb Table (Unpacked) 94.5" D x 33" W x 12" H - 240 x 83.8 x 30.5 cm Weight: 251 kg - 553 lb Wall Stand (Packed): 101" x 46" x 45" (256.5 x 116.8 x 114 cm) Weight (Unpacked): 200 kg (440.0 lb) Longitudinal and Transverse Rails (Unpacked) 236" - 600 cm Weight: 66.4 kg - 146 lb Floor and Ceiling Rails (Unpacked) 236" - 600m Weight: 34 Kg - 76 lb Console: 23 X 35.5 x 38.6 - 38.6 x 40 x 98.1 cm Weight: 47.7 kg - 405.5 lb HP 5800 Computer: 15.5" L - 39.4 cm, 13.2" W - 33.7 cm, 4" H - 10.239.4 cm Weight: 7.3 kg - 16.1 lb																								
1,613	1,422	912.0	414.6	F	Array DRX1:	480	3		60		Hard											Maximum Current at 480 V: 135 A Intermittent (80KW) Maximum Continuous Current: 5 A 400/480 VAC, 3 phase, Delta or WYE 110/240 VAC outlet for detector battery charger						
559	889			F	Shipping weigh: 48 lb (21.8 kg).																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
203	153	92.6	42.0	X																							
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
584	699	0.0	0.0	F																							
1,829	5	9.0	4.1	W	Vertical wall hanger dimension (wxdxh): 18x5x0.75" (457x127x19 mm). Wall mounted. Mounting hardware to be included.																							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
546	838			F																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Operating Temperature: 18 - 30 deg C Relative Humidity: 30-65% (allow condensation dry time before installing) Maximum Gradient: 5 deg C
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E120	1851071	0946635	IMAGING, RADIOGRAPHIC/ FLUOROSCOPIC UNIT	Digital, multipurpose fluoroscopy/radiography unit. Table height: 48 cm (19") to 98 cm (38.6"). Table tilt: +90/-45 deg. Max. patient weight: 300kg (660 lb). Motorized longitudinal tabletop travel. The system is composed of various pieces of equipment, all dimensioning and weights of items can be found in the architectural notes.	1	3	E	Siemens Healthcare	Artis ZEE MP					
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E281	1848381	0940494	IMAGING, WARMER, CONTRAST MEDIA	Continuous operation. Capacity: 22.6 L (0.8 cu ft). Chamber size (wxdxh): 11.5x12x10.5" (292x305x267 mm). 2 adjustable shelves. Solid door.	1	1	E	Boekel Scientific	Economy Digital	133000	13.00	14.00	16.25	330
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E138	1851070	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E177	1851066	0940487	POSITIONING DEVICE	Assorted positioning devices. Latex free. With hook and loop strap.	1	1	E	Performance Health	Tumble Forms 2		30.00	7.99	6.02	762
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E187	1851065	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E233	1851067	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Diagnostic Imaging	12.2.03.03	Radiology Imaging Room	E029	1851072	0918274	TRANSFER BOARD W/WALL HANGER	Warp-resistant, polyethylene, carbon-filled plastic board with built in handles. Antistatic, and conductive. With vertical wall hanger.	1	2	E	Alimed	PATIENT SHIFTERS	9-719000000/RD9-704	22.00	72.00	0.19	559
Diagnostic Imaging	12.2.04.01	Radiology Control Room	F021	1848358	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Diagnostic Imaging	12.2.04.01	Radiology Control Room	E121	1848359	0940705	IMAGING, RADIOGRAPHIC/ FLUOROSCOPIC UNIT, CONSOLE	Control Station - with EPA ID# 0940455	1	3	E	Siemens Canada Ltd	Artis Zeego	Zeego Floor	90.00	17.70	43.30	2,286

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
				F	Recommended Room Size (including control area): 6250 x 5800mm (246 x 228") Recommended ceiling height: 2870mm (113") Ceiling height without restriction: 3230mm (127") Remote control table is floor-mounted. Transverse bridge and x-ray tube stand mounted on ceiling rails. Docking station and grid holder are wall-mounted. Generator cabinet is floor/wall mounted. Dimensions (w x d x h) and weight: Digital imaging system computer: 442 x 826 x 686mm (17.5 x 32.5 x 27"); 50 kg (110 lb) Power Unit: 800 x 445 x 2200mm (31.5 x 17.5 x 87"); 380 kg (838 lb) Remote control table: 2108 x 1905 x 2718mm (83 x 75 x 107"); 1320 kg (2911 lb) 18" flat display on cart: 855 x 721 x 1524mm (33.5 x 28.5 x 60"); 85 kg (187 lb) Wall stand with mobile detector: 762 x 940 x 2108mm (30 x 37 x 83"); 250 kg (551 lb) Docking station, wall-mounted: 520 x 200 x 420mm (20.5 x 8 x 16.5"); 18 kg (40 lb) Grid holder, wall-mounted: 550 x 102 x 420mm (21.5 x 4 x 16.5"); 10 kg (22 lb) Ceiling rails for tube stand, each: 4252 x 77 x 89mm (167.5 x 3 x 3.5"); 27 kg (59 lb) 3M transverse bridge and x-ray tube stand: 3030 x 991 x 102mm (119.5 x 39 x 4"); 350 kg (772 lb)	120	1		60		Plug		Yes	480	3	80.0	60		Hard		Yes	Volt: 480 Amp: 80 Emergency or UPS Power: Y, can be provided BMS/Alarm: Y Dataline: Y 480V, 3 phase, 60Hz Dedicated circuit required. Generator output: 80kW Allowable impedance: <160 mOhm Maximum momentary load: 126 kVA Control area: 120V, 1 phase, 60Hz						
356	413			T	shipping weight 22lbs (10kg)	120	1		60	90	Plug											Fuses 5mmx20mm, 250V, 1AF, quick rating.						
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
203	153	92.6	42.0	X																								
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																							
584	699	0.0	0.0	F																								
1,829	5	9.0	4.1	W	Vertical wall hanger dimension (wxdxh): 18x5x0.75" (457x127x19 mm). Wall mounted. Mounting hardware to be included.																							
711	1,219	50.0	22.7	F																								
450	1,100	6,650.0	3,022.7	F	Typical Room Plan Procedure: 25ft 8"x21ft 10" (7.42x6.15 m). Typical Equipment Room: 6ftx21ft 10" (1.83x6.15 m). Typical Control Room: 9ft 6"x21ft 10" (2.59x6.15 m). Bottom edge of any fixed component must be no less than 8ft 6-3/8" (2.58 m). Recommended ceiling height: 9ft 6-3/8" (2.89 m). Ceiling height range: 9ft 4-1/4" to 9ft 10" (2.84x3 m). Axis Image System: 23x37-1/2x28-3/8" (584x953x720.85 mm). Weight: 331 lb (150.13 kg). Mobile. Archive Control Extension: 12-1/4x11-3/4x4" (311x298x102 mm) . Weight: 13 lb (5.90 kg). Countertop. Control Room Distributor: 41-1/2x8-1/4x16-1/8" (1054x210x408 mm). Weight: 64 lb (29 kg). Wall mounted. Keyboard: 17-1/2x6-1/8x2-1/8" (445x156x54 mm). Weight: 2.2 lb (1 kg). Countertop. Live Display 19" (482 mm): 16-1/4x4x13-1/4" (413x102x337 mm). Weight: 15 lb (6.80 kg). Countertop. Reference Display 19" (482 mm): 16-1/4x4x13-1/4" (413x102x337 mm). Weight: 15 lb (6.80 kg). Countertop. Table Control Modules: 35-3/8x8-3/4x3-1/2" (899x222x89 mm). Weight: 20.20 lb (9.16 kg). Mobile. 6 Display: 167x27-7/8x63-1/2" (4242x708x1613 mm). Weight: 680 lb (308 kg). Ceiling mounted. Floor stand with mounting plate: Weight: 3531 lb (1601.64 kg). Robot floor mounted. Floor stand cable reel: 89x53-1/8x10-1/8" (2261x1350x257.30 mm). Weight: 268 lb (122 kg). Ceiling mounted. Patient table (OR): Weight: 1169 lb (530.25 kg). Floor mounted. Cooling unit: 18-3/4x15-1/2x18-3/4" (476x394x476 mm). Weight: 93 lb (43.18 kg). Floor mounted. Power Unit: 31-1/2x17-1/8x87" (800x435x2210 mm). Weight: 662 lb	480	3	125.0	60		Hard		Yes	120	1	10.0	60		Plug										

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		The cooling water hoses may be installed only infrost-free rooms. Length of the hoses max. 26 m.											Ventilation Digital imaging system computer: 1468 BTU/hr Power Unit: 2048 BTU/hr Remote control table: 2730 BTU/hr 18" flat display on cart: 256 BTU/hr Wall stand with mobile detector: 819 BTU/hr Docking station, wall-mounted: 256 BTU/hr 3M transverse bridge and x-ray tube stand: 853 BTU/hr Environmental Conditions: Operating room temperature: 59 to 95 deg F (15 to 35 deg C). Operating relative humidity, non-condensing: 20 to 75%.
													indoor use, ambient temp between 10 to 35 degree Celsius. Maximum relative humidity 80%, non- condensing, Altitude up to 6500ft.
													Procedure Room: Heat Output: approx. 700W. Computer Room: approx. 4,500W. Control Room: approx. 3,450W.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.2.05.01	Storage Alcove: Patient Stands	E321	1946360	0942674	STOOL, FOOT, PLATFORM TYPE	3 Step, Multi-view positioning platform. Designed for use with CR systems. Weight capacity of 500 lbs. Two grab bars. Four imaging panel placement locations. First step is 8" high. Casters are 2".	1	1	E	Clear Image Devices	CD-24309		24.75	33.60	59.50	629
Diagnostic Imaging	12.2.05.02	Storage Alcove: Patient Stands	E229	1851074	0940354	IMAGING, ACCESSORY, STAND, X-Ray STITCHING	Provides patient support in standing position. Adjustable patient arm rests. Clear backing. Rollers with mechanical stops. Metal frame.	1	1	E	Cone Instruments	Z-Stand CN43611		32.00	33.50	79.00	813
Diagnostic Imaging	12.2.05.02	Storage Alcove: Patient Stands	E321	1946361	0942674	STOOL, FOOT, PLATFORM TYPE	3 Step, Multi-view positioning platform. Designed for use with CR systems. Weight capacity of 500 lbs. Two grab bars. Four imaging panel placement locations. First step is 8" high. Casters are 2".	1	1	E	Clear Image Devices	CD-24309		24.75	33.60	59.50	629
Diagnostic Imaging	12.2.06.01	Storage Alcove: Portable X-Ray	E118	1848361	0933265	IMAGING, X-RAY UNIT, DIGITAL, MOBILE	Mobile. Radiographic X-ray system. Wireless connectivity from detector to system. Fully digital with flashpad digital detector. 360 deg turn with one hand. 2 touch-screen displays. Battery operated.	1	3	E	Carestream Health Canada	DRX-Revolution		22.70	48.00	77.00	577
Diagnostic Imaging	12.2.07.01	Wheelchair Alcove	E291	1848362	0938410	WHEELCHAIR, ADULT	Seat width: 16". Seat depth: 16". Capacity: 250 lb. Swing away footrest, articulating elevating legrest. Casters: 8 x 1". Wheels: 24 x 1". Padded fixed full length arm.	1	1	E	Invacare	TREX2		28.25	31.88	34.00	718
Diagnostic Imaging	12.2.08.01	Stretcher Alcove		2471932	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.2.10.01	Workstation: Tech	F020	1848364	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.2.10.01	Workstation: Tech	F050	1848366	0939740	DESK, STRAIGHT	Freestanding desk, full gables, with no storage.	1	3	F	Steelcase	TS5ARS3060	Payback	60.00	30.00	29.00	1,524
Diagnostic Imaging	12.2.10.01	Workstation: Tech	F082	2480650	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Diagnostic Imaging	12.2.10.02	Workstation: Tech	F020	1851077	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.2.10.02	Workstation: Tech	F046	1851078	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Diagnostic Imaging	12.2.10.03	Workstation: Tech		2471927	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.3.01	CT Sub-Wait Area	F006	2488924	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Diagnostic Imaging	12.3.01	CT Sub-Wait Area	F005	2488925	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	12	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.3.01.01	CT Sub-Waiting Area	F006	1848369	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Diagnostic Imaging	12.3.01.01	CT Sub-Waiting Area	F005	1848368	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	5	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.3.01.01	CT Sub-Waiting Area	F073	1848370	0941378	TABLE, SIDE, W/USB	Round Drum side table with power module (2power +2 usb) and 2" metal kick plate.	2	3	F	Spec Furniture	24D	DURM	24.00	24.00	20.00	610
Diagnostic Imaging	12.3.03.01	CT Room	E322	1946365	0942671	CABINET, WARMING	Double chambered fluid and Blanket warming cabinet. Blanket Chamber: 30 to 40 Blankets. Fluid Chamber: 30 One-Liter bottles or 24 One-Liter bags. On Wheels.	1	2	E	Enthermics Medical Systems	EC1850BL		30.00	28.50	75.00	762
Diagnostic Imaging	12.3.03.01	CT Room	E043	2074144	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.3.03.01	CT Room	E368	2193173	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
853	1,511			F	first step height 8" Second step height 16.25" Third step height 24.5" Cassette slot size 0.625" Casters 2"																								
851	2,007			F																							
853	1,511			F	first step height 8" Second step height 16.25" Third step height 24.5" Cassette slot size 0.625" Casters 2"																								
1,219	1,956	1,268.0	576.4	F	Dimensions (wxdxh) and weight, approximate: Width: 22.7" (577 mm). Depth: 48" (1219 mm). Weight: 1268 lb (575 kg). Height with column extended: 77" (1956 mm). Height with column collapsed: 51" (1295 mm).	120	1		60		Plug		Yes									Battery operated. Lead acid. 12 Amp-hr energy capacity. Generator power rating: 32 kW at 100 kvp.						
810	864			F	shipping weight 43lbs (19.45kg).																								
				NA																								
610	1,016			F																								
762	737			F		120	1		60		Plug											Integrated power and data in desks and tables to connect to power source 120V/1P/60Hz, 15A circuits.							
	610	10.0	4.5	W																								
610	1,016			F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																	
				NA																								
559	838			F																								
546	838			F																								
559	838			F																								
546	838			F																								
610	508	29.0	13.2	F		120	1		60		Plug											15A Duplex receptacle with 2x USB Charging Ports located on Table Top. The Outlet is a 'pass-though device' and has no electrical load Power Cord Length = 108"							
724	1,905	457.0	207.3	F	Interior dimensions of Blanket chamber: 13 cubic feet Right hinging is standard. Width when door swing : 58.75" (1492mm) Depth when door swing : 56" (1422mm) Clearance : Top 1" Sides 2" Bottom 1/2" Back 4"	120	1	11.0	60	1,300	Plug											NEMA 5-20P; 20A 125V plug; Hospital grade.							
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
													Heat capacity, hu: 300,000 Cooling, hu/min: 60,000
													Operating The Warmer must acclimate to the room temperature it will be placed in 24 hours is recommended the recommended environmental temperature range if 60oF to 90oF (15oC to 32oC) The recommended relative humidity is above 20%, non-condensing Transportation and storage conditions: Ambient temperature range from -40oF to +159oF (-40oC to +70oC) Relative humidity range of 10 to 95%, non-condensing Atmospheric pressure range of 7.25psi to 15.37psi (50kPa to 106 kPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.3.03.01	CT Room	E343	2483825	0947738	I.V. INFUSION PUMP MODULE	Module for IV infusion system to be used with main control/PC unit. LCD displays the drug or IV infusion fluid name, dose and rate. Indicator lights to display channel status. Includes Guardrails point of care software.	1	1	E	Becton Dickinson	Alaris 8100		3.30	5.50	8.90	84
Diagnostic Imaging	12.3.03.01	CT Room	E383	2483819	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Diagnostic Imaging	12.3.03.01	CT Room	E227	2074150	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Diagnostic Imaging	12.3.03.01	CT Room	E122	1848373	0940453	IMAGING, COMPUTED TOMOGRAPHIC SCANNER	64-row, 128- slice	1	3	E	GE Healthcare Clinical Systems	REVOLUTION EVO		81.00	41.00	77.00	2,057
Diagnostic Imaging	12.3.03.01	CT Room	E136	2074152	0938548	IMAGING, LEAD SHIELD	Barrier, Mobile, Clear-Lead, Full Window, For ionizing radiation, 0.5 mm LE Window size 30" w x 54.5" h (76 x 138.4 cm)	1	1	E	Biodex Medical Systems	042-582 Clear-Lead		30.00	10.50	73.62	762

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
140	226	2.5	1.1	O																		Powered from main PC unit.						
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																								
1,041	1,956			F	Dimensions: Gantry with GT1700V Table (W x D x H): 148"(3744mm) x 81"(2050mm) x 76"(1938mm) Gantry Weight: 4012 lbs (3612 kg) | Patient Table (1700): 981 lbs (822 kg) Console (W x D x H): 29"(736mm x 21"(546mm) x 26"(656mm) Weight: 176 lbs Optima Table (W x D x H): 51"(1300mm) x 33"(850mm) x 33"(850mm) PDU(W x D x H): 27.6"(700mm)(w/o seismic mounting brackets) x 21.7"(550mm) x 41.8"(1062mm) Weight: 816 lbs (370 kg) MEDRAD MOUNTING (W x D x H): 14" (356)x 0.5"(12.7mm) x14"(356mm) - All ceiling mounted fixtures, air vents, sprinklers, etc. To be flush mounted, or shall not extend more than 1/4" below the finished ceiling. - Floor slabs on which equipment is to be installed must be level to 1/4" in 10'-0" -The floor surface in the scan room directly under the gantry and table must be level. -The floor levelness tolerance of the floor surface that the gantry and table will rest on is 6 mm [0.24 in] over a 3000 mm (. 118.1 in") distance. Exam Room Dimensions: 18'-6" x 20'-0" Control Room Dimensions: 18'-6" x 15'-8"	480	3		60		Hard		Yes								AVERAGE (CONTINUOUS) POWER DEMAND: 20 kVA POWER FACTOR: 0.85 -Power supply should come into a main disconnect panel (MDP) containing the protective units and controls. -Power input must be separate from any others which may generate transients (elevators, air conditioning, radiology rooms equipped with high speed film changers...). -All equipment (lighting, power outlets, etc...) installed with GE system components must be powered separately. -Phase imbalance 2% maximum. -All wires specified shall be copper stranded, flexible, thermo-plastic, color coded, cut 10 foot long at outlet boxes, duct termination points or stubbed conduit ends. All conductors, power, signal and ground, must be run in a conduit or duct system. Electrical contractor shall ring out and tag all wires at both ends. Wire runs must be continuous copper stranded and free from splices. -Aluminum or solid wires are not allowed. Wire sizes given are for use of equipment. Larger sizes may be required by local codes. It is recommended that all wires be color coded, as required in accordance with national and local electrical codes. -Conduit sizes shall be verified by the architect, electrical engineer or contractor, in accordance with local or national codes. -A special grounding system is required in all procedure rooms by some national and local codes. It is recommended in areas where patients might be examined or treated under present, future, or emergency conditions. Consult the governing electrical code and confer with						
267	1,870	97.9	44.5	F	Leg Depth: 10.5" (26.7 cm)																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Conditions: Operating Temperature Range: 41 to 104°F(5 to 40°C) Relative Humidity: 20 to 90% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 525 to 4560 mmHg (700 to 6080 hPa) Storage/Transport Temperature Range: -4 to 140°F (-20 to 60°C) Relative Humidity: 5 to 85% Noncondensing (Avoid prolonged exposure to relative humidity >85%) Atmospheric Pressure: 375 to 760 mmHg (500 to 1013 hPa)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.3.03.01	CT Room	E132	1848374	0942664	IMAGING, PUMP INJECTOR FOR CONTRAST MEDIA	On Free-Standing pedestal for mobile use, Single Head injection system, Syringe Capacity(ml): 1-150ml in 1ml increments. Touchsceen.	1	3	E	Medrad, Inc.	MARK 7 Arterion		29.59	22.04	45.34	752
Diagnostic Imaging	12.3.03.01	CT Room	E281	2074202	0940494	IMAGING, WARMER, CONTRAST MEDIA	Continuous operation. Capacity: 22.6 L (0.8 cu ft). Chamber size (wxdxh): 11.5x12x10.5" (292x305x267 mm). 2 adjustable shelves. Solid door.	1	1	E	Boekel Scientific	Economy Digital	133000	13.00	14.00	16.25	330
Diagnostic Imaging	12.3.03.01	CT Room	E138	1848376	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Diagnostic Imaging	12.3.03.01	CT Room	E161	1952382	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Diagnostic Imaging	12.3.03.01	CT Room	E355	2074213	0942034	RACK, APRON, MOBILE	Mobile. Holds 10 x 2 piece aprons.	1	1	E	Ultra Ray Inc.	ARVS		39.00	26.00	55.00	991
Diagnostic Imaging	12.3.03.01	CT Room	E187	1848378	0938574	RACK, APRON, WALL MOUNTED	Wall mounted rack to accommodate up to 4 aprons. 8 pegs. High tensile aluminum construction.	1	2	E	Bar-Ray Products, Inc.	60081		20.00	4.75	3.00	508
Diagnostic Imaging	12.3.03.01	CT Room	E308	2471855	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.3.03.01	CT Room	E210	2092842	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Diagnostic Imaging	12.3.03.01	CT Room	E234	2074176	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Diagnostic Imaging	12.3.03.01	CT Room	E013	2074139	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Diagnostic Imaging	12.3.03.01	CT Room	E029	1848371	0918274	TRANSFER BOARD W/WALL HANGER	Warp-resistant, polyethylene, carbon-filled plastic board with built in handles. Antistatic, and conductive. With vertical wall hanger.	1	2	E	Alimed	PATIENT SHIFTERS	9-719000000/RD9-704	22.00	72.00	0.19	559
Diagnostic Imaging	12.3.04.01	CT Control Room	F020	1848379	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.3.04.01	CT Control Room	E123	1848380	0940704	IMAGING, SCANNER, CT, CONSOLE	Control Station - with EPA ID: 0940453	1	3	E	GE Healthcare Clinical Systems	REVOLUTION EVO		147.24	80.71	43.00	3,740
Diagnostic Imaging	12.3.06.01	Workstation: Tech	F020	1848382	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.3.06.01	Workstation: Tech	F048	1848384	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
560	1,152	146.0	66.2	F	Injector head size (HxWxD): 182 mm (7.15")x539 mm (21.22") x 220 mm(8.66") Injector head weight: 18 lbs - 8.16 kg Control / Operator interface module: Control/operator interface module size (HxWxD) cm:321x77x280 mm (12.62" x 3.04" x 11.04") Control module/ operator interface weight: 7 lbs - 3.18 kg Power Unit (W x D x H): 15.21"(386mm) x 9.76"(248mm) x 4.64"(118mm) Weight: 11 lbs (4.99kg) Pedestal Mount (W x D x H): 29.59"(751mm) x 22.04"((560mm) x 45.34" (1153mm), maximum height 57.4 (1458mm). Weight: 100 lbs (45.35kg) Ceiling Mount Long Column: 39.4"(1001mm) Weight: 100.66 lbs - 45.66 kg Display Control Unit (W x D x H): 12.56"(319mm)x1.83"(46mm) x13.08"(332mm) Weight: 4.4 lbs (1.99 kg) Power Unit Floor Mount (W x D x H): 15.46"(393mm) x 7.1"(180mm) x 16.3"(414mm) Weight: 202 lbs (1 kg) - The Power Unit should have at least 1"(2.5 cm) clearance on sides and back from any adjacent equipment or wall. These should be at least 12" (305mm) clearance on the side where all the connections are made.	120	1		60		Plug											Power: 1200VA Drive mechanism detail: electromechanical						
356	413			T	shipping weight 22lbs (10kg)	120	1		60	90	Plug											Fuses 5mmx20mm, 250V, 1AF, quick rating.						
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
660	1,397	0.0	0.0	F																							
121	76	12.0	5.5	W	Wall mounted. Mounting hardware to be included.																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
1,829	5	9.0	4.1	W	Vertical wall hanger dimension (wxdxh): 18x5x0.75" (457x127x19 mm). Wall mounted. Mounting hardware to be included.																							
610	1,016			F																							
2,050	1,092	5,930.4	2,690.0	F																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental Specifications: Operating: Temperature: +15 deg C to +40 deg C Humidity: 20% - 93% R.H at 40 deg C non-condensing Air Pressure: 70kPa- 110 kPa Non-operating: Temperature: -20 deg C to +60 deg C Humidity: 5% - 100% R.H at 40 deg C non-condensing Air Pressure: 57kPa- 106 kPa
													indoor use, ambient temp between 10 to 35 degree Celsius. Maximum relative humidity 80%, non- condensing, Altitude up to 6500ft.
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.3.06.02	Workstation: Tech	F020	2195944	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.3.06.02	Workstation: Tech	F048	2195943	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Diagnostic Imaging	12.3.06.03	Workstation: Tech	F020	2195941	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.3.07.01	Preparation Room	E043	2074145	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.3.07.01	Preparation Room	E368	2267942	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.3.07.01	Preparation Room	E308	2267940	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.3.07.01	Preparation Room	E233	1848387	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Diagnostic Imaging	12.3.07.01	Preparation Room	E245	1848388	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Diagnostic Imaging	12.3.08.01	Crash Cart Alcove	E038	1848390	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Diagnostic Imaging	12.3.08.01	Crash Cart Alcove	E069	1848391	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Diagnostic Imaging	12.3.08.01	Crash Cart Alcove	E161	2193177	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Diagnostic Imaging	12.3.08.01	Crash Cart Alcove	E013	1848389	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Diagnostic Imaging	12.4.01.01	Ultrasound Sub-Waiting Area	F006	1848393	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Diagnostic Imaging	12.4.01.01	Ultrasound Sub-Waiting Area	F005	1848392	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	9	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.4.01.01	Ultrasound Sub-Waiting Area	F073	1848394	0941378	TABLE, SIDE, W/USB	Round Drum side table with power module (2power +2 usb) and 2" metal kick plate.	4	3	F	Spec Furniture	24D	DURM	24.00	24.00	20.00	610
Diagnostic Imaging	12.4.02.01	Inpatient Holding Area		2471934	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																								
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																								
584	699	0.0	0.0	F																								
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
559	838			F																								
546	838			F																								
610	508	29.0	13.2	F		120	1		60		Plug											15A Duplex receptacle with 2x USB Charging Ports located on Table Top. The Outlet is a 'pass-though device' and has no electrical load Power Cord Length = 108"						
				NA																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.4.03.01	Change Cubicle	E433	2477247	0947812	DISPENSER, ICE/WATER, FULL HEIGHT	Full height with base stand. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. Stainless steel exterior. In line water filter included.	1	2	E	Hoshizaki	DCM-271BAH, SD-271	H9320-51	16.54	24.41	63.88	420
Diagnostic Imaging	12.4.03.02	Change Cubicle	F002	2193180	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Diagnostic Imaging	12.4.03.04	Change Cubicle	F002	2193182	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E320	2470181	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	2	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E043	1848396	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E064	1848398	0933125	CHAIR, SONOGRAPHER	Sonography chair w/foot ring, additional support & positioning. Seat height adjustable, back height & backwards tilt tension adjustment w/ integrated seat slider. Weight capacity: 250 lb (113.6 kg).	1	1	E	Biodex Medical Systems	Sonography Chair	058-704	23.50	19.50	48.25	597
Diagnostic Imaging	12.4.04.01	Ultrasound Room	F005	1848397	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E368	2193184	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E104	2074087	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.4.04.01	Ultrasound Room	T126		00N0031224	IMAGING, ULTRASOUND SYSTEM		1	5	E		EPIQ 7G					
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E138	1848400	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E161	1848401	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E308	2074135	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E210	2092843	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E228	2471856	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	1	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Diagnostic Imaging	12.4.04.01	Ultrasound Room	E022	1848395	0942668	STRETCHER, ULTRASOUND	Capacity: 500 lb (227 kg). Swing-out cardiac scanning cutout. Adjustable sonographer cutout. Foot & hand controls. 4 casters w/ central locking system.	1	1	E	Biodex Medical Systems Inc.	Sound Pro	058-710	35.00	71.00	39.00	889
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E320	2470182	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	2	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E043	1851088	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
620	1,623	221.0	100.2	F	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No									15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	CW	0.250	6			C
610	457	75.0	34.1	F																							
610	457	75.0	34.1	F																							
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
495	1,226	35.0	15.9	F	Shipping weight: 45 lb (20.4 kg).																						
546	838			F																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
				F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
330	1,473	30.0	13.6	F																							
1,803	991	350.0	159.1	F	Overall width with side rails: 35" (889 mm). Height adjustable: 23 to 39" (584 to 991 mm) Trendelenburg: 0 to +/- 15 degree Fowler Positioning: 0 to 80 degree	115	1	8.0	60		Plug	5-15																
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
Hard					10	69.0	113	779.7	DR	0.750	19			C	Hard																		

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E064	1851093	0933125	CHAIR, SONOGRAPHER	Sonography chair w/foot ring, additional support & positioning. Seat height adjustable, back height & backwards tilt tension adjustment w/ integrated seat slider. Weight capacity: 250 lb (113.6 kg).	1	1	E	Biodex Medical Systems	Sonography Chair	058-704	23.50	19.50	48.25	597
Diagnostic Imaging	12.4.04.02	Ultrasound Room	F005	1851092	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E368	2193185	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E104	2197346	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.4.04.02	Ultrasound Room	T126		00N0031236	IMAGING, ULTRASOUND SYSTEM		1	5	E		EPIQ 7G					
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E308	2193187	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E210	2092844	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E228	2471857	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	1	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Diagnostic Imaging	12.4.04.02	Ultrasound Room	E022	1851091	0942668	STRETCHER, ULTRASOUND	Capacity: 500 lb (227 kg). Swing-out cardiac scanning cutout. Adjustable sonographer cutout. Foot & hand controls. 4 casters w/ central locking system.	1	1	E	Biodex Medical Systems Inc.	Sound Pro	058-710	35.00	71.00	39.00	889
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E320	2470183	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	2	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E043	1851100	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E064	1851098	0933125	CHAIR, SONOGRAPHER	Sonography chair w/foot ring, additional support & positioning. Seat height adjustable, back height & backwards tilt tension adjustment w/ integrated seat slider. Weight capacity: 250 lb (113.6 kg).	1	1	E	Biodex Medical Systems	Sonography Chair	058-704	23.50	19.50	48.25	597
Diagnostic Imaging	12.4.04.03	Ultrasound Room	F005	1851097	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E368	2193190	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E104	2197347	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E126	1851094	0940943	IMAGING, ULTRASOUND SYSTEM	On dedicated cart. 3D/4D capability. Includes 3 probes: linear, curved linear, and convex. LED display monitor. Height adjustable: 57.50 to 67.50" (1461 to 1715 mm).	1	1	E	Philips Healthcare	EPIQ Elite		23.90	43.00	67.50	607
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E308	2193194	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E210	2092845	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E228	2471859	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	1	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Diagnostic Imaging	12.4.04.03	Ultrasound Room	E022	1851096	0942668	STRETCHER, ULTRASOUND	Capacity: 500 lb (227 kg). Swing-out cardiac scanning cutout. Adjustable sonographer cutout. Foot & hand controls. 4 casters w/ central locking system.	1	1	E	Biodex Medical Systems Inc.	Sound Pro	058-710	35.00	71.00	39.00	889
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E320	2470184	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	2	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
495	1,226	35.0	15.9	F	Shipping weight: 45 lb (20.4 kg).																						
546	838			F																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
				F																							
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
330	1,473	30.0	13.6	F																							
1,803	991	350.0	159.1	F	Overall width with side rails: 35" (889 mm). Height adjustable: 23 to 39" (584 to 991 mm) Trendelenburg: 0 to +/- 15 degree Fowler Positioning: 0 to 80 degree	115	1	8.0	60		Plug	5-15															
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
495	1,226	35.0	15.9	F	Shipping weight: 45 lb (20.4 kg).																						
546	838			F																							
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
1,092	1,715	230.0	104.6	F	Weight without peripheral devices.	120	1		60		Plug		Yes									<600 VA. Integrated A/C line conditioning & battery backup system.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
330	1,473	30.0	13.6	F																							
1,803	991	350.0	159.1	F	Overall width with side rails: 35" (889 mm). Height adjustable: 23 to 39" (584 to 991 mm) Trendelenburg: 0 to +/- 15 degree Fowler Positioning: 0 to 80 degree	115	1	8.0	60		Plug	5-15															
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E043	1851103	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E064	1851107	0933125	CHAIR, SONOGRAPHER	Sonography chair w/foot ring, additional support & positioning. Seat height adjustable, back height & backwards tilt tension adjustment w/ integrated seat slider. Weight capacity: 250 lb (113.6 kg).	1	1	E	Biodex Medical Systems	Sonography Chair	058-704	23.50	19.50	48.25	597
Diagnostic Imaging	12.4.04.04	Ultrasound Room	F005	1851105	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E368	2193199	0941664	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E104	2197348	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.4.04.04	Ultrasound Room	T126		00N0031203	IMAGING, ULTRASOUND SYSTEM		1	5	E		LOGIQ E10					
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E308	2193200	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E210	2092846	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E228	2471861	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	1	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Diagnostic Imaging	12.4.04.04	Ultrasound Room	E022	1851102	0942668	STRETCHER, ULTRASOUND	Capacity: 500 lb (227 kg). Swing-out cardiac scanning cutout. Adjustable sonographer cutout. Foot & hand controls. 4 casters w/ central locking system.	1	1	E	Biodex Medical Systems Inc.	Sound Pro	058-710	35.00	71.00	39.00	889
Diagnostic Imaging	12.4.06.01	Workstation: Tech	F020	1848402	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.4.06.01	Workstation: Tech	F082	2480651	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Diagnostic Imaging	12.4.06.02	Workstation: Tech	F020	1851108	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.4.06.03	Workstation: Tech	F020	1851112	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.4.06.04	Workstation: Tech	F020	1851116	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.4.07.01	Probe Cleaning Room	E320	2092852	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	2	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610
Diagnostic Imaging	12.4.07.01	Probe Cleaning Room	E286	1848406	0943758	DISINFECTOR, ULTRASOUND PROBE	High level disinfection for ultrasound probes. Programmable. Digital record keeping. Integration to hospital IT system & EMR. Includes printer, and printer label roll.	1	2	E	Nanosonics	Trophon2	N05000-US/N00048-US	14.20	12.50	21.00	361
Diagnostic Imaging	12.5.01.01	Mammography Sub-Waiting Area	E279	2074216	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Diagnostic Imaging	12.5.01.01	Mammography Sub-Waiting Area	F010	1848408	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Diagnostic Imaging	12.5.01.01	Mammography Sub-Waiting Area	F073	1848410	0941378	TABLE, SIDE, W/USB	Round Drum side table with power module (2power +2 usb) and 2" metal kick plate.	2	3	F	Spec Furniture	24D	DURM	24.00	24.00	20.00	610
Diagnostic Imaging	12.5.04.01	Mammography Room	E043	2074146	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	1,226	35.0	15.9	F	Shipping weight: 45 lb (20.4 kg).																							
546	838			F																								
58	152	0.0	0.0	H	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
				F																								
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
330	1,473	30.0	13.6	F																								
1,803	991	350.0	159.1	F	Overall width with side rails: 35" (889 mm). Height adjustable: 23 to 39" (584 to 991 mm) Trendelenburg: 0 to +/- 15 degree Fowler Positioning: 0 to 80 degree	115	1	8.0	60		Plug	5-15																	
610	1,016			F																								
	610	10.0	4.5	W																								
610	1,016			F																								
610	1,016			F																								
610	1,016			F																								
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						
318	533	48.4	22.0	T	Clearance on each side of disinfector: 10" (25.4 mm). Dimensions (wxdxh) & weight are approximate: Disinfector: 14.20x12.50x21" (361x318x533 mm). Weight: 48.40 lb (22 kg). Printer: 4.29x8.23x6.73" (109x209x171 mm). Weight: 7 lb (3.2 kg).	115	1	6.0	60		Plug		Yes	115	1	2.0	60		Plug			Printer: Dataline plugs into disinfector only.						
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
800	927			F																								
610	508	29.0	13.2	F		120	1		60		Plug											15A Duplex receptacle with 2x USB Charging Ports located on Table Top. The Outlet is a 'pass-though device' and has no electrical load Power Cord Length = 108"						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters
													Operating temperature range: 17 to 27 deg C (62.6 to 80.6 deg F). Storage/Transport temperature range: -20 to 60 deg C (-4 to 140 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.5.04.01	Mammography Room	F005	1848411	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.5.04.01	Mammography Room	F020	2470186	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.5.04.01	Mammography Room	F046	2470185	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Diagnostic Imaging	12.5.04.01	Mammography Room	E368	2074155	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.5.04.01	Mammography Room	E104	2074171	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Diagnostic Imaging	12.5.04.01	Mammography Room	E060	1952377	0945193	IMAGING, CHAIR, MAMMOGRAPHY	Mammography/biopsy chair. Capacity: 325 lb (147.5 kg). Height adjustment: 23.5 - 31.5" (60 - 80 cm). Pneumatic-assist backrest: 0 - 90 deg. Trendelenburg: 10 deg. Restraint strap. 3" (76 mm) cushion.	1	1	E	Hausted	MBC-000-ST		22.00	75.00	31.50	559
Diagnostic Imaging	12.5.04.01	Mammography Room	T110		00N0030339	IMAGING, MAMMOGRAPHY SYSTEM		1	5	E		SDM-SYS-9000-2D SELENIA DIMENSIONS SYSTEM					
Diagnostic Imaging	12.5.04.01	Mammography Room	E394	2197277	0945229	IMAGING, VACUUM ASSISTED BREAST BIOPSY SYSTEM	Mobile. With console, palm-sized handpiece, touch screen display, foot pedal, odour filter, driver and probes. Height adjustable: 46 to 57" (1168 to 1448 mm).	1	1	E	Bard Biopsy Systems	EnCor Enspire	E4115	16.00	26.00	57.00	406
Diagnostic Imaging	12.5.04.01	Mammography Room	E308	2473151	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.6.01.01	BMD Sub-Waiting Area	F006	1848417	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Diagnostic Imaging	12.6.01.01	BMD Sub-Waiting Area	F005	1848416	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	3	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.6.01.01	BMD Sub-Waiting Area	F073	1848418	0941378	TABLE, SIDE, W/USB	Round Drum side table with power module (2power +2 usb) and 2" metal kick plate.	2	3	F	Spec Furniture	24D	DURM	24.00	24.00	20.00	610
Diagnostic Imaging	12.6.02.01	Change Cubicle	F002	2193227	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E320	2542551	0942662	CABINET, ULTRASOUND PROBE	Wall mounted.General Purpose and Endocavity Probe Cabinet Holds up to 6 probes. Top vented. HEPA filtered air. Fan for continuous air flow. Filter change indicator light. Viewing window. Locking door.	2	2	E	Civco Medical Instruments	610-1327		24.00	10.00	74.00	610
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E043	2542552	0938325	CART, PROCEDURE	Drawers: one-3" (76 mm), two-6" (152 mm), one-9" (229 mm). Smooth, stain resistant surfaces with rounded corners. Key lockable.	1	1	E	Metro Cart	Flexline	FLPROC1	32.25	22.38	39.00	819
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E064	2542553	0933125	CHAIR, SONOGRAPHER	Sonography chair w/foot ring, additional support & positioning. Seat height adjustable, back height & backwards tilt tension adjustment w/ integrated seat slider. Weight capacity: 250 lb (113.6 kg).	1	1	E	Biodex Medical Systems	Sonography Chair	058-704	23.50	19.50	48.25	597
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	F005	1848419	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E368	2471864	0945231	FLOWMETER, OXYGEN	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated - brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1284-921		2.00	2.00	6.00	56
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E104	2074088	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
546	838			F																								
610	1,016			F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
1,905	800			F	Wheel Base:25 x 22 in (630 x 550 mm) Seat Cushion width: 22 in (550 mm) Overall Length (Upright):42.5 in (1080 mm) Overall Length (Supine):75 in (1905 mm). Height Adjustment: 23.5 - 31.5 in (600 - 800 mm). shipping weight 297 lbs (134.72 kg)																					
				F																								
660	1,448	105.0	47.7	F	-Dimensions: 16" Wide x 26 " Deep x 46"(retracted) to 57"(extended) high - Floors should be wood, concrete or ceramic tile. If floors are synthetic, the r/h should be at least 30%. Cable length : 244"(2500mm) - Not protected in the presence flammable anesthetic and against ingress of water.	115	1	4.0	60	450	Plug											600VA. 3-wire. Grounded with removable power cord. Nominal ratings, operating: 115V, 60 Hz, 4 amp, 600VA, 450W, 0.75 power factor.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																							
559	838			F																								
546	838			F																								
610	508	29.0	13.2	F		120	1		60		Plug											15A Duplex receptacle with 2x USB Charging Ports located on Table Top. The Outlet is a 'pass-though device' and has no electrical load Power Cord Length = 108"						
610	457	75.0	34.1	F																								
254	1,880	100.0	45.5	W	Wall mounted. Minimum space required: (w x d x h): 30 x 36 x 84" (76.2 x 91.44 x 213.36 cm). Minimum 6" (15.2) clearance on the right side of the cabinet. Attached to the wall using the interlocking mounting bracket supplied. Mounting consists of bracket mounted to cabinet, and separate wall bracket to be mounted to wall.	120	1	0.5	60	8	Plug											15 Amp hospital grade GFCI receptacle. Fuse: 1.0 amp 250 V 5mm x 20mm FSF panel mounted, qty 2.						
568	991	150.0	68.2	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	1,226	35.0	15.9	F	Shipping weight: 45 lb (20.4 kg).																							
546	838			F																								
58	152	0.0	0.0	O	Note: dimensions are for unit only, excluding fittings, and do not include nebulizers to be utilized with flowmeter;																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 15 to 25 deg C (59 to 77 deg F). Relative humidity: 30 to 75%. Atmospheric pressure: 700 to 1060 hPa. Transport/Storage: Temperature: -20 to 25 deg C (-4 to 140 deg F). Relative humidity: 10 to 90%. Atmospheric pressure: 500 to 1060 hPa.
													indoor use only. Fan on top draws air through replaceable HEPA filter. Temperature range: 5 to 40 deg C (41 to 104 deg F). Maximum relative humidity: 80 % for temperature up to 31 deg C (87.8 deg F), decreasing linearly to 50 % relative humidity at 40 deg C (104 deg F). Altitude up to 3,000 meters

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E127	2542555	0946213	IMAGING, ULTRASOUND SYSTEM	Multipurpose POC system use in high acuity areas. Mobile. Hi Definition technology for optimal visualization. Includes 3 probes. 21.3" touch screen clinical monitor.	1	3	E	Fujifilm Sonosite Canada	LX		23.00	25.40	68.00	584
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E308	2471863	0937417	REGULATOR, SUCTION, INTERMITTENT/ CONTINUOUS	Intermittent. With continuous option. W/ DISS male and overflow safety trap, DISS with hand twist adapter (twist adapter must be metal). Ranges to be low, medium, high, and emergency	1	1	E	Datex-Ohmeda (Canada) Inc	ISU HIT	6702-1251-908	3.00	5.00	7.00	76
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E210	2542550	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E228	2542549	0918254	STAND, MAYO	Tray size: 19x13" (483x330 mm). Manually operated. Height adjustable: 38-58" (965-1473 mm). T-lock handle.	1	1	E	Imperial Surgical Company	OR-3660		19.00	13.00	58.00	483
Diagnostic Imaging	12.6.03.01	Bone Densitometry Room	E022	2542554	0942668	STRETCHER, ULTRASOUND	Capacity: 500 lb (227 kg). Swing-out cardiac scanning cutout. Adjustable sonographer cutout. Foot & hand controls. 4 casters w/ central locking system.	1	1	E	Biodex Medical Systems Inc.	Sound Pro	058-710	35.00	71.00	39.00	889
Diagnostic Imaging	12.7.01.01	Equipment Storage	E143	2074265	0938558	LIGHT, EXAM/TREATMENT, MOBILE	Mobile on portable stand. 12x13" (305x336 mm) single head LED exam light. Intensity: 51,200 LUX at 1 m. Total reach: 42" (1067 mm). Colour temperature: 4317 deg K.	1	1	E	Skytron	Spectra		17.25	42.13	80.00	438
Diagnostic Imaging	12.7.01.01	Equipment Storage	E213	1848429	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Diagnostic Imaging	12.7.02.01	Clean Utility Room	E337	2195964	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	5	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Diagnostic Imaging	12.7.03.01	Soiled Utility Room	E392	2241675	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Diagnostic Imaging	12.7.03.01	Soiled Utility Room	E147	1848431	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Diagnostic Imaging	12.7.03.01	Soiled Utility Room	E393	2241687	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Diagnostic Imaging	12.7.03.01	Soiled Utility Room	E218	1872254	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Diagnostic Imaging	12.7.03.01	Soiled Utility Room	E400	2197622	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Diagnostic Imaging	12.7.05.01	Housekeeping Closet	E039	2189063	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Diagnostic Imaging	12.7.05.01	Housekeeping Closet	E339	2189061	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Diagnostic Imaging	12.7.05.01	Housekeeping Closet	E215	2189062	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Diagnostic Imaging	12.7.05.01	Housekeeping Closet	E234	2189056	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Diagnostic Imaging	12.7.05.01	Housekeeping Closet	F082	2480652	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Diagnostic Imaging	12.8.01.01	Meeting / Education Room	F015	1848435	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	15	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Diagnostic Imaging	12.8.01.01	Meeting / Education Room	F042	1848436	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	6	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Diagnostic Imaging	12.8.01.01	Meeting / Education Room	F080	2480653	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
645	1,727	123.5	56.0	F	Stand Dimensions (width x length): 23 inches x 25.4inches (58.4cm x 64.5cm) Height Maximum: 68 inches (172.6 cm) clinical monitor up Height Minimum: 49.2 inches (125 cm) clinical monitor down in transport position Height Adjustment: 6.5" (16.5 cm) travel Weight: 123.5 lbs. / 56 kg Casters: 4 inch Swivel, 4 Locking	120	1		60		Plug		Yes									System operates via battery or AC power. Rechargeable lithium-ion battery. Battery life: 1.0 hour, 3 days on idle. Battery charges to 80% capacity in 3 hours. Embedded wireless option: 802.11 (B,G, and N networking). 2 Data drop required.						
127	178	7.0	3.2	O	Note: dimensions are for unit excluding fittings, and does not include suction collection system to be utilized with regulator.																						
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
330	1,473	30.0	13.6	F																							
1,803	991	350.0	159.1	F	Overall width with side rails: 35" (889 mm). Height adjustable: 23 to 39" (584 to 991 mm) Trendelenburg: 0 to +/- 15 degree Fowler Positioning: 0 to 80 degree	115	1	8.0	60		Plug	5-15																
1,070	2,032	35.8	16.3	F	-12" (305mm) LED exam light. -Mobile floor stand mounted with total reach of 42" (1067mm) and 13' (4m) removable power cord. -50° upward and 30° downward movement of arm; -355° pitch and 360° roll rotation of lighthead.	110	1	0.4	60		Plug		No															
457	1,753	92.0	41.7	F																							
660	1,981			F																							
737	851	29.0	13.2	F																							
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																						
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																						
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																						
1,226	1,359	70.0	31.8	F																							
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																						
457	1,880	18.0	8.2	F																							
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																						
	610	10.0	4.5	W																							
432	980			F																							
610	737	88.0	40.0	F																							
	1,219	74.8	33.9	W																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC									
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
													Heat output: While operating 120W - 409.2 BTUs While operating and charging (max power) 200W - 682 BTUs Operating environment: Temperature 32-104°F (0-40°C) Humidity 15-95% relative humidity (R.H.) Atmospheric Pressure 700-1060 hPa (0.69-1.05 ATM) Storage: Temp -31-149°F (-35-65°C) Humidity 5-95% relative humidity (R.H.) Atmospheric Pressure 500-1060 hPa (0.5-1.05 ATM)
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.8.02.01	Staff Lounge	F010	1848439	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	2	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Diagnostic Imaging	12.8.02.01	Staff Lounge	F012	1848440	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	1	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Diagnostic Imaging	12.8.02.01	Staff Lounge	F005	1848438	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	8	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.8.02.01	Staff Lounge	E072	2193228	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Diagnostic Imaging	12.8.02.01	Staff Lounge	E151	1848441	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Diagnostic Imaging	12.8.02.01	Staff Lounge	E372	1848442	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Diagnostic Imaging	12.8.02.01	Staff Lounge	F032	1848443	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	2	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Diagnostic Imaging	12.8.02.01	Staff Lounge	F034	1848444	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	2	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Diagnostic Imaging	12.8.02.01	Staff Lounge	F043	2480654	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Diagnostic Imaging	12.8.03.01	Student Area	F069	1848447	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Diagnostic Imaging	12.8.03.01	Student Area	F020	1848446	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.03.01	Student Area	F048	1848449	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	2	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Diagnostic Imaging	12.8.03.01	Student Area	F045	2480655	0947788	WHITEBOARD, STEEL, LARGE	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880013	96.00		48.00	2,438
Diagnostic Imaging	12.8.04.01	Office: Manager	F069	1848452	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Diagnostic Imaging	12.8.04.01	Office: Manager	F005	1848450	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.8.04.01	Office: Manager	F020	1848451	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.04.01	Office: Manager	F026	1848454	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Diagnostic Imaging	12.8.04.01	Office: Manager	F082	2480656	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Diagnostic Imaging	12.8.05.01	Office: NH Medical Imaging Quality Assurance	F069	1848457	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Diagnostic Imaging	12.8.05.01	Office: NH Medical Imaging Quality Assurance	F005	1848455	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Diagnostic Imaging	12.8.05.01	Office: NH Medical Imaging Quality Assurance	F020	1848456	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.05.01	Office: NH Medical Imaging Quality Assurance	F026	1848459	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
1,067	457	60.0	27.3	F																								
914	737			F																								
	914	10.0	4.5	W																								
457	1,657			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	1,219	20.0	9.1	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
	610	10.0	4.5	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.8.05.01	Office: NH Medical Imaging Quality Assurance	F082	2480657	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Diagnostic Imaging	12.8.06.01	Office: Radiologist	F020	1848461	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	3	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.06.01	Office: Radiologist	F028	1848462	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Diagnostic Imaging	12.8.06.01	Office: Radiologist	E344	2074124	0944724	MONITOR, VIEWING STATION, PACS	A picture archiving and communication system (PACS) for radiology	2	1	E	Barco Coronis Fusion (diagnostic monitor)	MDCC6530/HPZ4G4/VG22	Coronis Fusion	6.65	17.50	15.20	169
Diagnostic Imaging	12.8.06.01	Office: Radiologist	F055	1848464	0930262	RAD ERGONOMIC WORKSTATION	Height adjustable worksurface up to 49.5" (125cm), with cable management system, 2 CPU holder and 8 outlet power bar. Monitor mounts include 6 USB ports, swing arm extender, 6 outlet power	1	3	F	Redrick	B600-S-L4		70.00	70.00	49.50	1,778
Diagnostic Imaging	12.8.06.01	Office: Radiologist	F082	2480658	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Diagnostic Imaging	12.8.07.01	Touchdown Workstation	F020	1848465	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.07.01	Touchdown Workstation	F048	1848467	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Diagnostic Imaging	12.8.07.02	Touchdown Workstation	F020	2113241	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.07.02	Touchdown Workstation	F048	2113242	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Diagnostic Imaging	12.8.07.02	Touchdown Workstation	E344	2483366	0944724	MONITOR, VIEWING STATION, PACS	A picture archiving and communication system (PACS) for radiology	2	1	E	Barco Coronis Fusion (diagnostic monitor)	MDCC6530/HPZ4G4/VG22	Coronis Fusion	6.65	17.50	15.20	169
Diagnostic Imaging	12.8.07.2.01	Shared Office:PACS Administrator	F020	1849738	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.8.07.2.01	Shared Office:PACS Administrator	F048	2194566	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Diagnostic Imaging	12.8.07.2.01	Shared Office:PACS Administrator	F053	1849737	0940215	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal.	1	3	F	Globalcare	FOLI	1200 SERIES	72.00	72.00	68.00	1,829
Diagnostic Imaging	12.8.07.2.01	Shared Office:PACS Administrator	E213	1849739	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Diagnostic Imaging	12.8.08.01	Lockers Room	F002	1848469	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	2	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Diagnostic Imaging	12.8.08.01	Lockers Room	E185	1848470	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	3	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Diagnostic Imaging	12.8.08.01	Lockers Room	E186	1848471	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	3	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Diagnostic Imaging	12.8.08.03	Lockers Room	E186	1851135	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	1	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Diagnostic Imaging	12.8.08.04	Lockers Room		2484881	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
	610	10.0	4.5	W																								
610	1,016			F																								
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																								
445	386			T	system setup is Barco Coronis Fusion MDCC 6530 monitor (qty 1), HP Z4 G4 Workstation (qty 1), Viewsonic VG2240V montior (qty 2) MDCC-6530: Dimensions with stand (W x H x D) 714 x 624 x 240 mm (28.11" x 24.56" x 9.45") Weight: 17.7 Kg (039.02 lb) Active screen size (H x V) 654 x 409 mm (25.8 x 16.1")	120	1	9.5	60	1,115	Plug		Yes									1 data drop required. Electrical requirements based on the system setup: Plug required for each computer CPU and computer monitor MDCC-6530: 120 V, 1 phase, 60 Hz, 3.6A 80W						
1,778	1,257	600.0	272.7	F		120	1	5.0	60		Plug											Dedicated circuit recommended						
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
445	386			T	system setup is Barco Coronis Fusion MDCC 6530 monitor (qty 1), HP Z4 G4 Workstation (qty 1), Viewsonic VG2240V montior (qty 2) MDCC-6530: Dimensions with stand (W x H x D) 714 x 624 x 240 mm (28.11" x 24.56" x 9.45") Weight: 17.7 Kg (039.02 lb) Active screen size (H x V) 654 x 409 mm (25.8 x 16.1")	120	1	9.5	60	1,115	Plug		Yes									1 data drop required. Electrical requirements based on the system setup: Plug required for each computer CPU and computer monitor MDCC-6530: 120 V, 1 phase, 60 Hz, 3.6A 80W						
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
1,829	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P																
457	1,753	92.0	41.7	F																								
610	457	75.0	34.1	F																								
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
				NA																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.8.08.05	Lockers Room		2484883	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.06	Lockers Room		2484893	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.07	Lockers Room		2484878	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.08	Lockers Room		2484885	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.09	Lockers Room		2484887	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.10	Lockers Room		2484891	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.11	Lockers Room		2484884	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.12	Lockers Room		2484892	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.13	Lockers Room		2484890	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.14	Lockers Room		2484879	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.15	Lockers Room		2484880	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.16	Lockers Room		2484888	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.17	Lockers Room		2484889	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.18	Lockers Room		2484886	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.19	Lockers Room		2484882	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.8.08.20	Lockers Room		2484894	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Diagnostic Imaging	12.9.01	MRI Room	E457	2488892	0948023	CABINET, STORAGE, MRI	Non-magnetic storage cabinet for MRI coils. Rated up to 3T. Holds up to 6 coils - CTL, NV, brain, extremity, body and shoulder coils. 4 swivel locking casters.	1	1	E	General Electric Healthcare	Non-magnetic storage		44.00	32.00	48.75	1,118
Diagnostic Imaging	12.9.01	MRI Room	E453	2488898	0948000	CART, PROCEDURE (MRI)	MRI compatible up to 3.0T. Aluminum drawers: One 4" (102 mm), two 3.25" (83 mm), two 6.5" (165 mm) & one 9.75" (248 mm). Breakaway lock. Four 5" (127 mm) casters, 1 w/ brake & 1 directional. Color options available.	1	1	E	Harloff Manufacturing Company	MR6B		30.50	23.75	45.75	775
Diagnostic Imaging	12.9.01	MRI Room	F088	2488897	0948025	CHAIR, STACKING, PLASTIC	Plastic seat and back, fixed arms, 4 legs. Can support weight capacity of 300lbs min dynamic load. Can be used for seasonal outdoor spaces.	1	1	F	Global Furniture	6750	Bakhita	23.00	21.00	32.00	584
Diagnostic Imaging	12.9.01	MRI Room	E462	2488920	0948028	FLOWMETER, AIR (MRI)	Chromed Brass body Medical Air Flowmeter. Thorpe style. Colour coded inner tube and labeling. "D" shaped knob. Inlet filter and extension. DISS Handtight. MRI compatible. 0-15 LPM.	1	1	E	Amico Corporation	FMA-15I-DH-M		2.70		5.60	69
Diagnostic Imaging	12.9.01	MRI Room	E460	2488894	0948026	FLOWMETER, OXYGEN (MRI)	Standard 1/8" FNTP connection, customizable with different adapters and accessories. MRI compatible. Colour coded inner tube and labelling. Includes inlet filter and inlet extension. Flow range: 0-70 LPM. Calibrated at 50 psi.	1	1	E	Amico Corporation	FMO-15I-DH-M	FMO-15I-DH-M	2.70	2.70	5.60	69
Diagnostic Imaging	12.9.01	MRI Room	E459	2488893	0948024	HAMPER, LINEN (MRI)	Non-magnetic, MR safe, stainless steel hamper. Foot pedal with self closing lid.	1	1	E	Magmedix, Inc.	03-LHSS-LF	1010595	18.00	18.00	35.00	457

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
				NA																								
				NA																								
				NA																								
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				NA																								
				NA																								
				NA																								
813	1,238	130.0	59.0	F																								
603	1,162	110.0	50.0	F																								
533	813	12.0	5.5	F																								
	142	1.0	0.5	O																								
69	142	0.4	0.2	W																								
457	889	24.0	10.9	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA									

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Flow range: 0-15 LPM Calibrated at 50 psi											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.9.01	MRI Room	E447	2488891	0947985	IMAGING, MRI	1.5T. Magnetic resonance imaging scanner. W/ injector. Typical Cardiac software configurations with appropriate coils. Coils to support body, spine, c-spine, MSK (knee, shoulder, wrist etc.). Vendor to provide cabinet to hold coils.	1	3	E	Siemens Canada Ltd	MAGNETOM SOLA		233.00	439.00	221.00	5,918
Diagnostic Imaging	12.9.01	MRI Room	E461	2488895	0948027	REGULATOR, SUCTION, CONTINUOUS (MRI)	Vacuum regulator. ABS polymer casing. Reverse flush. Continuous 3 mode. DISS handtight. MRI compatible. 65 LPM flowrate. Battery operated.	1	1	E	Amico Corporation	SRA-C3ID-DH-M		2.93	4.04	5.94	74
Diagnostic Imaging	12.9.01	MRI Room	E029	2488921	0918274	TRANSFER BOARD W/WALL HANGER	Warp-resistant, polyethylene, carbon-filled plastic board with built in handles. Antistatic, and conductive. With vertical wall hanger.	1	2	E	Alimed	PATIENT SHIFTERS	9-719000000/RD9-704	22.00	72.00	0.19	559
Diagnostic Imaging	12.9.02	MRI Control Room	F020	2488923	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Diagnostic Imaging	12.9.02	MRI Control Room	E455	2488899	0948003	FIRE EXTINGUISHER (MRI)	Non-magnetic rechargeable fire extinguisher up to 3 tesla, with NM bracket.	1	1	E	Ansul	FE13NM		9.00	7.00	25.50	229
Diagnostic Imaging	12.9.05	MRI Prep Room	E279	2488909	0942672	CABINET, WARMING	Dual chambered. Capacity of 60 to 70 blankets. Mobile. Interior capacity: 20.6 cu ft.	1	1	E	Enthermics Medical Systems	EC2060		32.00	29.30	71.00	813
Diagnostic Imaging	12.9.05	MRI Prep Room	E453	2488904	0948000	CART, PROCEDURE (MRI)	MRI compatible up to 3.0T. Aluminum drawers: One 4" (102 mm), two 3.25" (83 mm), two 6.5" (165 mm) & one 9.75" (248 mm). Breakaway lock. Four 5" (127 mm) casters, 1 w/ brake & 1 directional. Color options available.	1	1	E	Harloff Manufacturing Company	MR6B		30.50	23.75	45.75	775
Diagnostic Imaging	12.9.05	MRI Prep Room	E458	2488910	0948033	CART, RESUSCITATION (MRI)	MRI compatible up to 3.0T. Aluminum drawers: One 4" (102 mm), two 3.25" (83 mm), two 6.5" (165 mm) & one 9.75" (248 mm). Breakaway lock. Four 5" (127 mm) casters, 1 w/ brake & 1 directional. Color options available.	1	1	E	Harloff Manufacturing Company	MR6B		30.50	23.75	45.75	775
Diagnostic Imaging	12.9.05	MRI Prep Room	E062	2488905	0938515	CHAIR, PHLEBOTOMY	Three position recliner w/ infinite back adjustments. Trendelenburg. Drop-down armrests. Locking casters. Two flip-up 11.5" w x 18" d side tables. Weight Capacity: 275 lbs	1	1	E	Winco Inc.	6530		32.25	39.00	49.00	819

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
11,151	5,613	4,300.0	1,950.5	F	Room dimension: Recommended room height: 2500mm Exam room : minimum 2400mm (94.5"). Control room : minimum 2100mm (82.7") Equipment room 2200mm (86.7"). Finished room length: Whole Body, Mobile Patient Table: minimum 6470mm, recommended 6670mm. Whole Body, Fixed Patient Table: min. 6170mm Dimension WxDXH & Weight: Magnet 2335x1926x2176/2255mm Weight (transport) 4200kg, Weight (installation) 3982kg Mobile table 760x2470x1090mm weight 270kg Fixed Table 760x2470x1050mm weight 250kg Cabinet GPA/EPC 650x1560x1970mm weight 1500kg Cabinet SEP 650x650x1870mm weight 318kg Cryogene dewar with siphon (example) max diameter 110mm, height 2040mm, weight 500kg Gradient coil (information for service only) max diameter 920mm, height 1752mm, weight 1030kg Min. transport opening in the wall: W = 200 cm / H = 240 cm Min. transport opening in the ceiling: L = 200 cm / W = 245 cm Noise (Average values across 8 hours) Examination room = 80.3 dB(A) XJ-Gradient = 80.6 dB(A) XQ-Gradient Control room = 55 dB(A) Technique room = 65 dB(A)	400	3		60		Hard		Yes									Voltage TN-S 400 V AC +10% /-10%, Frequency 60 Hz +/- 1%. XJ-Gradient: Connection value 69 kVA short time 75KVA fuse current 125A (NH-type) XQ-Gradient: Connection value 88 kVA short time 104KVA fuse current 160A (NH-type) during measurement sequences < 3 sec. Line to line unbalanced max: 2%. Internal line impedance: XJ-gradient: < 120 micro ohm XQ-gradient: < 100 micro ohm	CW					
103	151	0.7	0.3	H																		two 2/3 AA Batteries, 3.6V, 1.6 Ah, Lithium						
1,829	5	9.0	4.1	W	Vertical wall hanger dimension (wxdxh): 18x5x0.75" (457x127x19 mm). Wall mounted. Mounting hardware to be included.																							
610	1,016			F																							
178	648	20.0	9.1	W																							
744	1,803	347.0	157.7	F	Overall depth with door opened: 55" (1,397 mm).	120	1	15.0	60	1,700	Plug	3P										Circuit Breaker Size: 15A Cord length: 8 ft (2,438 mm). 20 Amp - 125V plug hospital grade. NEMA 5-20P.						
603	1,162	110.0	50.0	F																							
603	1,162	110.0	50.0	F																							
991	1,245	93.7	42.6	F	Overall length, reclined: 76.50" (194.3 cm). Add: 9.25" (235 mm), each side for foldable side trays.																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
	24	1.51					87	600.3																							

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Prime water quality recommendation pH-value : 6 bis 8 Hardness : < 250 ppm CaCO3, < 14 °dH Chlorine portion < 200 ppm Sulfate portion : < 200 ppm Filtration : 700 µm Water / antifreeze : 35 to maximum 40 % ethylene glycol Secondary water quality Water to be used : De-ionized water Filtration : 700 µm Water / antifreeze : n.a. Additive for secondary chilled water circuit : NaHCO3 SEP-Cabinet Heat dissipation to water : XJ-Gradient: 50kW; XQ-Gradient: 60kW Water flow rate : 90 l/min to 110 l/min Primary water temperature : 6 to 14 °C Temperature range : +/- 2 K Temperature gradient : < 1 K / 30 s Primary water pressure : < 6 bar Pressure loss across SEP : < 0.6 bar (at 110 l / min) Minimum water flow rate for He-compressor operation : 15-20 l / min Cooling water (IFP + Chiller KKT): Water quality Water to be used : De-ionized water Filtration : 700 µm Antifreeze concentration : 35 to maximum 40 % ethylene glycol IFP + Chiller											Temperature / relative humidity / absolute humidity/ Exam room: 18 to 22 deg C (64.4 to 71.6 deg F) / 40 to 60% / < 11 g/kg , Air intake system ~ 30% - 50% fresh air Air exchange rate : min. 6 times / h (recommanded 10 times/h) Off-take installation height : > 2000 mm Air pressure: 700-1060 mbar Technique room: 15 to 30 deg C (59 to 86 deg F) / 40 to 80% / < 11.5 g/kg. Air pressure: 700-1060 mbar Control room: 15 to 30 deg C (59 to 86 deg F) / 40 to 80% / <11.5 g/kg. Air pressure: 700-1060 mbar Air filtering : In the equipment area: filter classification EU 4 (DIN 24185 / part 2) to filter out dust particles > 10 µm. For the MR examination room observe the local regulations. Heat dissipation of system components in operation into the air: Exam rm: <= 3 kW. Control rm: <= 2 kW Equipment rm: <= 1 kW. Air-conditioning system is required.
		Continuous flow rate: 65 LPM (Adult), 40LPM (Pediatric and Neonatal) Vacuum Range: 0-300 mmHg (40 kPa) Adult 0-100 mmHg (13 kPa) Neonatal 0-750 mmHg (94 kPa) Surgical +/- 1% Full-scale											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.9.05	MRI Prep Room	E069	2488912	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Diagnostic Imaging	12.9.05	MRI Prep Room	E462	2488916	0948028	FLOWMETER, AIR (MRI)	Chromed Brass body Medical Air Flowmeter. Thorpe style. Colour coded inner tube and labeling. "D" shaped knob. Inlet filter and extension. DISS Handtight. MRI compatible. 0-15 LPM.	1	1	E	Amico Corporation	FMA-15I-DH-M		2.70		5.60	69
Diagnostic Imaging	12.9.05	MRI Prep Room	E460	2488914	0948026	FLOWMETER, OXYGEN (MRI)	Standard 1/8" FNTP connection, customizable with different adapters and accessories. MRI compatible. Colour coded inner tube and labelling. Includes inlet filter and inlet extension. Flow range: 0-70 LPM. Calibrated at 50 psi.	1	1	E	Amico Corporation	FMO-15I-DH-M	FMO-15I-DH-M	2.70	2.70	5.60	69
Diagnostic Imaging	12.9.05	MRI Prep Room	E459	2488922	0948024	HAMPER, LINEN (MRI)	Non-magnetic, MR safe, stainless steel hamper. Foot pedal with self closing lid.	1	1	E	Magmedix, Inc.	03-LHSS-LF	1010595	18.00	18.00	35.00	457
Diagnostic Imaging	12.9.05	MRI Prep Room	E448	2488900	0947992	I.V. INFUSION PUMP (MRI)	MRI safe IV infusion pump with side infusion channel, SPO2, MRI IV pole, IV basket, and wireless remote display/control device. Compatible up to 3.0T, 10,000 Gauss line.	1	1	E	Iradimed Corporation	MRidium	3860+, 3861, 3865	8.00	10.50	9.50	203
Diagnostic Imaging	12.9.05	MRI Prep Room	E451	2488902	0947997	I.V. STAND (MRI)	Conditional w/ 3-tesla MRI. Non-magnetic 5-leg I.V. stand, with 2 hooks, and casters.	1	1	E	Blickman Health Industries, Inc	7792MR-C		24.00	24.00	110.00	610
Diagnostic Imaging	12.9.05	MRI Prep Room	E138	2488908	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	1	E	Guldmann	GH3		22.80	8.10	98.40	579
Diagnostic Imaging	12.9.05	MRI Prep Room	E449	2488901	0947993	MONITOR, PHYSIOLOGICAL (MRI)	Mobile with cart. MR condition up to 3T. Automatically store parameter trend information for heart rate, IBP, NIBP, SpO2, CO2, N2O, O2, agents, respiration and temperature.	1	1	E	Philips Healthcare	MR400		18.70	22.01	50.12	475
Diagnostic Imaging	12.9.05	MRI Prep Room	E461	2488915	0948027	REGULATOR, SUCTION, CONTINUOUS (MRI)	Vacuum regulator. ABS polymer casing. Reverse flush. Continuous 3 mode. DISS handtight. MRI compatible. 65 LPM flowrate. Battery operated.	1	1	E	Amico Corporation	SRA-C3ID-DH-M		2.93	4.04	5.94	74
Diagnostic Imaging	12.9.05	MRI Prep Room	E463	2488917	0948029	STRETCHER, ADULT (MRI)	Compatible w/ 3-tesla MRI. Heavy-duty all aluminum non magnetic. W/ mattress, restraining straps and retractable guard rails. Locking 5" (127 mm) swivel casters. Load capacity: 500 lb (226.8 kg).	1	1	E	Pinestar Technology, Inc.	240-100	PINESTAR 240-100	27.75	74.50	34.00	705
Diagnostic Imaging	12.9.05	MRI Prep Room	E013	2488913	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Diagnostic Imaging	12.9.05	MRI Prep Room	E450	2488903	0947994	VENTILATOR (MRI)	On mobile cart. MRI compatible ventilator. Compatible with 1.0, 1.5, and 3.0 Tesla MR scanners. Full ventilatory performance. Neonate, Pediatric and Adult Patients Continuity of Care from ICU to MRI and back.	1	1	E	Maquet	SERVO-i MR		22.05	25.20	51.77	560

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug												Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
	142	1.0	0.5	O																							
69	142	0.4	0.2	W																							
457	889	24.0	10.9	F																							
267	241	16.0	7.3	O	3860+ IV Pump: DxWxH - 6 x 8 x 9.5 Inches (15.25 x 20.3 x 22.9 cm) Weight - 10 LBS (4.5 Kg); 11.5 LBS (5.2 Kg) with Battery. 3861 Sidecar Channel: DxWxH - 5.5 x 4.5 x 9.5 Inches (14.0 x 11.4 x 24.1 cm) Weight - 6 LBS (2.7 Kg) 3865 Remote Display: DxWxH - 8 x 6 x 10 Inches (20.3 x 15.25 x 25.4 cm) Weight - 3.5 LBS (1.6 Kg); 5 LBS (2Kg) with Battery.	120	1	18.0	60		Plug	5-15P		120	1	14.0	60		Plug	5-15P		3860+ IV Pump: 100-240 VAC +/- 10%, 50/60hz < 15 VA @ 120 VAC Rechargeable Lithium Polymer Battery 3865 Remote Display/Control Unit: 100-240 VAC +/- 10%, 50/60hz < 19 Volt-Amperes @ 120 VAC nominal with spare battery charging bay						
610	2,794	35.0	15.9	F																							
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
559	1,273	103.2	46.9	F		120	1	1.4	60	65	Plug		Yes									Rechargeable battery on cart. Approx. 8 hours of operation. Battery type: Cart - Lithium Ion; Module: Lithium Polymer. Battery Capacity: Cart - 75Wh; Module: 3.1Wh.						
103	151	0.7	0.3	H																		two 2/3 AA Batteries, 3.6V, 1.6 Ah, Lithium						
1,892	864	200.0	90.9	F																							
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
640	1,315	88.0	40.0	F	Dimensions (wxdxh) and Weight, approximate: Ventilator, user interface: 13.98x2.09x11.61" (355x53x295 mm). Weight: 11 lb (5 kg). Patient unit: 11.81x8.07x16.34" (300x205x415 mm). Weight: 33.1 lb (15 kg). Cart: 22.05x25.20x39.96" (560x640x1,015 mm). Weight: 44.1 lb (20 kg). Overall height: 51.77" (1,315 mm). Noise level: <50 dBA.	120	1		60	140	Plug		Yes									External 12 to 15 V DC. 10 Amp. Battery powered. Two battery modules included. Battery capacity: Rechargeable, 12V, 3.5 Ah each battery. Power consumption, maximum: 120V, 2 Amp, 190 VA. RS-232C serial port.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																										
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS											
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW										
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA							

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
		Flow range: 0-15 LPM Calibrated at 50 psi											
													Operating temperature range: Cart, modules and all accessories: 10 to 350 deg C (50 to 95 deg F) Relative humidity range: Cart, modules and all accessories:5 to 80%, non condensing. Storage and transport temperature range: Batteries:0 to 40 deg C (32 to 104 deg F) Cart: -20 to 60 deg C (-4 to 140 deg F) Wireless modules: -20 to 60 deg C (-4 to 140 deg F).
		Continuous flow rate: 65 LPM (Adult), 40LPM (Pediatric and Neonatal) Vacuum Range: 0-300 mmHg (40 kPa) Adult 0-100 mmHg (13 kPa) Neonatal 0-750 mmHg (94 kPa) Surgical +/- 1% Full-scale											
		Inlet gas pressure Air/O2: 200 to 650 kPa (2.0 to 6.5 bar, 29 to 94 psi). System gas connectors Male 22MM and Female 15MM											Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Relative humidity: 15 to 95%, non-condensing. Atmospheric pressure: 660 to 1060 hPa. Storage/Transportation Conditions: Temperature: -25 to 60 deg C (-13 to 140 deg F). Humidity: less than 95%. Atmospheric pressure: 470 to 1060 hPa.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Diagnostic Imaging	12.9.05	MRI Prep Room	E464	2488911	0948030	WALKER, ADULT (MRI)	MRI compatible at 7T. Foldable. Weight capacity: 250 lb (113 kg). Height adjustable: 32 to 36" (813 to 914 mm).	1	1	E	MRIEquip	WA-1002		18.00	17.00	36.00	457
Diagnostic Imaging	12.9.05	MRI Prep Room	E452	2488907	0947999	WHEELCHAIR, ADULT (MRI)	Full MRI compatibility, up to 7 Tesla. 24" wide seat. 350 lb (160 kg) capacity. Constructed entirely of non-ferrous materials. Removable foot rests. With cylinder tank holder and IV pole.	2	1	E	Magmedix, Inc.	03-WCA24DFB		32.00	33.00	38.00	813
Laboratory	13.1.01.01	Waiting Area	F006	1848473	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Laboratory	13.1.01.01	Waiting Area	F005	1848472	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	11	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Laboratory	13.1.01.01	Waiting Area	F037	1848474	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Laboratory	13.2.01.01	Specimen Collection Station / Room	E371	2074170	0938339	CHAIR, PHLEBOTOMY, BARIATRIC	Three position recliner w/ infinite back adjustments. Trendelenburg. Drop-down armrests. Locking casters. Two flip-up 11.5" W x 18" D side tables. Weight capacity: 450 lbs (204kg).	1	1	E	Winco Manufacturing	6540		36.25	44.00	49.00	921
Laboratory	13.2.01.01	Specimen Collection Station / Room	F048	1848481	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Laboratory	13.2.01.01	Specimen Collection Station / Room	E076	1848478	0947275	ELECTROCARDIOGRAPH	With height adjustable (56-62") mobile workstation. 15.6" LED, full HD monitor touch screen.	2	1	E	GE Healthcare Clinical Systems	MAC VU360		19.00	28.00	62.00	483
Laboratory	13.2.01.01	Specimen Collection Station / Room	E213	1947312	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Laboratory	13.2.01.01	Specimen Collection Station / Room	E233	1848479	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Laboratory	13.2.01.02	Specimen Collection Station / Room	E062	1946373	0938515	CHAIR, PHLEBOTOMY	Three position recliner w/ infinite back adjustments. Trendelenburg. Drop-down armrests. Locking casters. Two flip-up 11.5" w x 18" d side tables. Weight Capacity: 275 lbs	1	1	E	Winco Inc.	6530		32.25	39.00	49.00	819
Laboratory	13.2.01.02	Specimen Collection Station / Room	F048	1946372	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Laboratory	13.2.01.02	Specimen Collection Station / Room	E213	1947313	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Laboratory	13.2.01.02	Specimen Collection Station / Room	E233	1946374	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Laboratory	13.2.01.02	Specimen Collection Station / Room	E245	2471866	0929449	STRETCHER, ADULT	Capacity: 700 lb (318 kg). Dual pedestal hydraulics. Push handle at head end. Patient surface: 30x75.25" (762x1911 mm). 4" (102 mm) mattress. Height range: 20.75 - 34" (527 - 864 mm).	1	1	E	Stryker	1105	Prime Series	38.00	85.00	34.00	965
Laboratory	13.2.01.03	Specimen Collection Station / Room	E062	1946380	0938515	CHAIR, PHLEBOTOMY	Three position recliner w/ infinite back adjustments. Trendelenburg. Drop-down armrests. Locking casters. Two flip-up 11.5" w x 18" d side tables. Weight Capacity: 275 lbs	1	1	E	Winco Inc.	6530		32.25	39.00	49.00	819
Laboratory	13.2.01.03	Specimen Collection Station / Room	F048	1946379	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Laboratory	13.2.01.03	Specimen Collection Station / Room	E213	1947314	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Laboratory	13.2.01.03	Specimen Collection Station / Room	E233	1946381	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Laboratory	13.3.01.01	Specimen Drop Off/Triage	E044	2471867	0937177	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 200 lb weight capacity. Shelf clearance: 12.25"(311mm). Rubber swivel 3.5"(89mm) casters. Shelves welded to the legs.	1	1	E	Acart Equipment Ltd.	3066		19.00	31.00	33.38	483
Laboratory	13.3.01.01	Specimen Drop Off/Triage	E441	2484089	0947915	REFRIGERATOR, UNDERCOUNTER, PHARMACY	5.3 cu.ft. medical grade refrigerator. Chart recorder (electronic/usb or paper), remote alarm contacts, locking casters, optional door lock with pin entry, rear access port for external monitoring probes, energy star certified, touchscreen control.	1	3	E	Helmer Labs Inc.	i-Series	iPR105-GX	24.30	28.10	34.40	617
Laboratory	13.3.01.01	Specimen Drop Off/Triage	F042	2471868	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	1	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Laboratory	13.3.02.01	Control Desk	F069	2471869	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Laboratory	13.3.02.01	Control Desk	F020	1848484	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.3.02.02	Control Desk	F069	2471870	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
432	914	20.0	9.1	F																							
838	965	46.0	20.9	F	Depth and weight dimension without foot rest.																						
559	838			F																							
546	838			F																							
508	432			F																							
1,118	1,245	111.0	50.4	F	Reclined depth: 76.5" (1943 mm).																						
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
711	1,575	75.3	34.2	F	Weight 75.3 lbs max with adjustable height premium trolley and one battery Basic trolley 20.5 x 23.5 x 57 in (52 x 60 x 145 cm) Easy Clean trolley 19 x 28 x 56-58 in (48 x 71 x 142-147 cm) Easy Clean trolley 19 x 28 x 56-62 in (48 x 71 x 142-158 cm) with adjustable height 6 in (16 cm) of height adjustability	120	1		60		Plug		Yes									Powered by AC adapter or replaceable and rechargeable internal battery (hot swappable).						
457	1,753	92.0	41.7	F																							
584	699	0.0	0.0	F																							
991	1,245	93.7	42.6	F	Overall length, reclined: 76.50" (194.3 cm). Add: 9.25" (235 mm), each side for foldable side trays.																						
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
457	1,753	92.0	41.7	F																							
584	699	0.0	0.0	F																							
2,159	864			F	Width: Side rails up: 38" (965 mm). Side rails down: 30.5" (775 mm).	120	1	10.0	60		Plug											Note: Electric lifter is optional for stretcher.						
991	1,245	93.7	42.6	F	Overall length, reclined: 76.50" (194.3 cm). Add: 9.25" (235 mm), each side for foldable side trays.																						
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
457	1,753	92.0	41.7	F																							
584	699	0.0	0.0	F																							
787	848	42.0	19.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
714	874	182.0	82.6	F	Clearance: Minimum 3” (76 mm) behind unit for plug/cord and feature access. Front ventilation eliminates the need for top or side clearance. Height includes 2.5" casters (31.9"H if choosing levelling feet)	115	1	1.4	60		Plug	5-15										8-10ft power cord Remote alarms to connect with BMS system (installed by contractor)						
610	737	88.0	40.0	F																							
457	1,657			F																							
610	1,016			F																							
457	1,657			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Temperature: Operating: 10 to 40 deg C (50 - 104 deg F). Transport/Storage: -40 to 70 deg C (-40 to 158 deg F). Humidity: Operating: 20% - 95% RH non-condensing. Transport/Storage: 15% - 95% non-condensing.
			460										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.3.02.02	Control Desk	F020	1851203	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.3.03.01	Business Centre	F029	1848487	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Laboratory	13.3.03.01	Business Centre	F041	1848488	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Laboratory	13.3.03.01	Business Centre	F043	2480659	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Laboratory	13.3.04.01	Confidential Garbage		2114125	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Laboratory	13.3.05.01	Data Entry	F020	1848490	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.3.06.01	Courier Drop Off	E046	2471892	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Laboratory	13.3.08.01	Freezer and Fridge Area	E102	1848541	0945243	LAB FREEZER, UPRIGHT	20.2 cu ft (572L) capacity. Temperature range -15 to -30C; Lockable door, password protected settings, optional PIN access; RTD control sensor; Alarms: high/low, power failure, condenser temp door ajar; event & temp log	1	2	E	Helmer Labs Inc.	ILF 120-GX		30.40	34.00	80.30	772
Laboratory	13.3.08.01	Freezer and Fridge Area	E190	1952187	0940634	REFRIGERATOR, LABORATORY, UPRIGHT, DOUBLE-DOORS	Storage Volume: 56 cu ft (1586 L). Swivel Locking 4x Casters.	1	2	E	Helmer Labs Inc.	iLR256-GX		59.00	37.70	79.60	1,499
Laboratory	13.3.09.01	Centrifugation and Specimen Pour Off	T056		00N0005670	LAB CENTRIFUGE, COUNTER TOP		1	5	E		UNIVERSAL 320					
Laboratory	13.3.09.01	Centrifugation and Specimen Pour Off	T056		00N0005671	LAB CENTRIFUGE, COUNTER TOP		1	5	E		ROTANTA460R					
Laboratory	13.3.09.01	Centrifugation and Specimen Pour Off	T056		00N0010378	LAB CENTRIFUGE, COUNTER TOP		1	5	E		MICROMAX					
Laboratory	13.3.09.01	Centrifugation and Specimen Pour Off	T058		00N0031167	LAB CENTRIFUGE, REFRIGERATED, COUNTER TOP		1	5	E		1406-37					
Laboratory	13.3.09.01	Centrifugation and Specimen Pour Off	E294	2471871	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.3.10.01	Send Out / Off Site	F021	1848496	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Laboratory	13.3.10.01	Send Out / Off Site	F048	1848500	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Laboratory	13.3.10.01	Send Out / Off Site	F028	2471872	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Laboratory	13.3.10.01	Send Out / Off Site	E372	2074212	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Laboratory	13.3.10.01	Send Out / Off Site	E191	2471874	0945280	REFRIGERATOR, MEDICATION DISPENSING, 13 CU FT	Used for storing refrigerated medication. Capacity: 13 cu ft. Remotely access via medication system. Auto defrost. Key lockable.	1	3	E	Becton Dickinson	BD Pyxis ES		24.25	29.50	70.50	616
Laboratory	13.3.10.01	Send Out / Off Site	F041	2471873	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Laboratory	13.3.11.01	Accessioning Storage	E337	2195965	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	5	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Laboratory	13.3.12.01	Phlebotomy cart area	E036	1848502	0940047	CART, PHLEBOTOMY	3 drawers. Drawer divider. Side bin. Work surface on top w/ lip. Modular rail system for accessories. Sharps container. 5" (127mm) casters , two w/ brakes.	3	1	E	Market Lab Inc.	ML21491		23.25	20.50	34.25	591

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
610	1,016			F																								
457	1,829	133.0	60.5	F																								
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
				NA																								
610	1,016			F																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
864	2,040	400.0	181.4	F	Minimum of 8' (203mm) above and 3' (76mm) behind unit. Interior Dimensions: 24.7 x 58.1 x 24 in [628 x 1476 x 609 mm] depth when door opening 59.7" Sound level is less than 52 dB(A)	115	1	8.5	60		Plug	NEMA 5-15	Yes									15 amp dedicated ground circuit 8-10ft hospital grade power cord.						
958	2,022	703.0	319.6	F	Depth when doors opened: 64.5". Minimum of 8" (203 mm) above and 3" (76 mm) behind unit for clearance and feature access. Noise emission 52 dB.	115	1	4.3	60		Plug	5-15	Yes									NEMA 5-15 hospital-grade Power Plug/Power Cord Length 8 to 10 ft (2.4-3.0m)						
				T																								
				T																								
				T																								
				T																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	1,219	50.0	22.7	F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
749	1,791	382.0	173.3	F	Clearance: Minimum of 3" (76 mm) behind unit. 8" top clearance for ventilation Front clearance for door opening (at least 24.25" recommended.	115	1	1.4	60		Plug	5-15	Yes									Requires 15 Amps dedicated cricuit Power Cord Length: 8 - 10 ft Remote alarm connected to central building alarm system by contractor.						
610	762	88.0	40.0	F																								
660	1,981			F																								
521	870	80.0	36.4	F	Sharps container (wxdxh): 10.75x4.75x10.5" (273x121x267 mm). Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Indoor use only Non-corrosive, non-flammable, non-explosive, 15°C to 32°C (59°F to 90°F) Altitude (maximum): 2000 m
			1,195										Ambient temperature: 15 to 32 deg C (59 to 90 deg F).
													Temperature Range: 2*C to 10*C (36*F to 50*F)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.3.12.01	Phlebotomy cart area	E442	2484905	0945124	CHAIR, PHLEBOTOMY, BARIATRIC	Stretcher recline positioning. Powered lift. Capacity: 750 lbs (340 kg). Integrated IV pole and oxygen tank holder. Handheld remote. Adjustable armrests/flip-up footrests. Central lock twin casters.	1	1	E	Winco Manufacturing	Stretchair S750		37.00	45.00	53.50	940
Laboratory	13.3.12.01	Phlebotomy cart area	E213	1848503	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Laboratory	13.3.14.01	Front End Automation	E294	1848504	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.4.01.01	Receiving Area (inventory & issuing)	F082	2480660	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.4.02.01	Blood Products Storage	E102	2473149	0945243	LAB FREEZER, UPRIGHT	20.2 cu ft (572L) capacity. Temperature range -15 to -30C; Lockable door, password protected settings, optional PIN access; RTD control sensor; Alarms: high/low, power failure, condenser temp door ajar; event & temp log	1	2	E	Helmer Labs Inc.	ILF 120-GX		30.40	34.00	80.30	772
Laboratory	13.4.02.01	Blood Products Storage	T195		00N0020905	REFRIGERATOR, LABORATORY		1	5	E		MBR-1404GR					
Laboratory	13.4.03.01	Storage Area, Supplies / Samples	E213	1848509	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Laboratory	13.4.04.01	Blood Products Room Temperature Storage	F021	1848511	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Laboratory	13.4.04.01	Blood Products Room Temperature Storage	F085	2484917	0946504	FILE, LATERAL, DRAWERS: 2	Painted metal construction, integrated pull	2	3	F	Herman Miller	LW200.362		36.00	20.00	26.75	914
Laboratory	13.4.04.01	Blood Products Room Temperature Storage	E294	2471876	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.4.06.01	Testing Area	E340	1959857	0939743	LAB AUTOMATION, BLOOD BANK	Fully Automated Blood Bank System. Results visualized in 23 minutes. The dimension provided are for the main instrument, and the dimension for the fluidics module are provided in the architectural notes.	1	1	E	Immucor Inc.	Echo Lumena		28.00	19.50	19.00	711
Laboratory	13.4.06.01	Testing Area	T056		00N0028293	LAB CENTRIFUGE		1	5	E		IMMUSPIN					
Laboratory	13.4.06.01	Testing Area	T054		00N0010389	LAB CENTRIFUGE, CELL WASHER		1	5	E		ULTRA CW					
Laboratory	13.4.06.01	Testing Area	E357	2074172	0945033	LAB CENTRIFUGE, SERO-FUGE	For cell-washing blood Grouping & typing cross matching. With 12-place swing-out rotor. Spin speed: 3,600 RPM (1,040 xg Max RCF). Digital display. Program up to 10 custom time and speed settings. LED lid lighting indicates cycle status: Ready, running or completed.	1	1	E	Drucker	SERO 12	VWR#76408-114	13.00	15.00	9.00	330
Laboratory	13.4.06.01	Testing Area	T130		00N0010394	LAB INCUBATOR		1	5	E		GAMMA P2					
Laboratory	13.4.06.01	Testing Area	E294	1848517	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	5	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.4.07.01	Microscope	T148		00N0010397	LAB MICROSCOPE, INVERTED		1	5	E		ECLIPSE TS100					

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,143	1,359	303.0	137.7	F	Overall length upright: 45" (1143 mm). Overall length flat: 72" (1828 mm) or 76" (1930 mm) with legrests extended. Back height above seat: 31.5" (800 mm). Adjustable arm range/fixed height: 30" - 40" (762 -1016 mm). Range of back angle, powered: 80 degree to zero (flat), infinnite recline. Stretcher positioning height adjustment: 30" - 38" (762 - 965 mm) lift. Independently adjustable legs. Rear mounted storage bin. Seat: Seat width: (between arms) 28" (711 mm). Seat depth: 20" (508 mm. Seat height: 22" (558 mm). Seat height adjustment: 22 - 30" (558 - 762 mm).	120	1		60		Plug											On-board 24 V DC battery charger with battery indicator.						
457	1,753	92.0	41.7	F																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
	610	10.0	4.5	W																								
864	2,040	400.0	181.4	F	Minimum of 8' (203mm) above and 3' (76mm) behind unit. Interior Dimensions: 24.7 x 58.1 x 24 in [628 x 1476 x 609 mm] depth when door opening 59.7" Sound level is less than 52 dB(A)	115	1	8.5	60		Plug	NEMA 5-15	Yes									15 amp dedicated ground circuit 8-10ft hospital grade power cord.						
				F																								
457	1,753	92.0	41.7	F																								
711	1,219	50.0	22.7	F																								
508	679			F																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	2,134			F	THe system includes the following 1. Main instrument (with instrument cover in place) :28 inches wide x 19.5 inches deep x 19inches high (71 cm wide x 49.5 cm deep x48.5 cm high) . Maximum dry weight 84 lbs(38.1 kg) Fits on a 24-inch (61-cm) deep bench. This allows for 2.75 inches (7 cm) of cable space on the right end and 2 inches (5 cm) of space in the rear for tubing, cables, and air flow. Main instrument consists of the following components: Sample and reagent loading bays • Strip loading bay • Incubators • Pipetting system • Transport system • Washer • Centrifuge • Camera reader 2. Fluidics module (without monitor in place) : 17 inches wide x 23 inches deep x 13.5 inches high (43.2 cm wide x 58.4 cm deep x 34.3 cm high) .Max weight 20 lbs (9.1 kg) Fits on a 24-inch (61-cm) deep bench. Side clearance between the fluidics module and the main instrument should be 0.5 inch to 1 inch (1.3 cm to 2.5 cm) .Allow for 2.75" of cable space on the right side and 2" of space in the rear for tubing, cables and airflow. 3. Power supply: 4.5 inches wide x 11 inches deep x 3 inches high (11.4 cm wide x 27.9 cm deep x 7.6 cm high)	120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Requires 2 Dedicated 20A circuits						
495	483	84.0	38.1	F	4. PC computer with Echo Lumena software.	120	1		60	250	Plug		Yes									Connections: Serial RS232 or TCP/IP Socket Transfer USB						
				T																								
				T																								
381	229	27.1	12.3	T	Sound level: 61 dBA. Allow space on top when lid is open: 15" (381 mm).	120	1		60	415	Plug																		
				F																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Indoor use only Non-corrosive, non-flammable, non-explosive, 15°C to 32°C (59°F to 90°F) Altitude (maximum): 2000 m
													Environmental conditions: Ambient temperature: 18 to 30 deg C. Shipping and storage temperatures range from -25 to 50 deg C. Relative humidity range is 10 to 80% at 18 to 31 deg C and 10 to 74% at 33 deg C(noncondensing). The instrument is for use at altitudes up to 2,000 meters.
													Environmental range: 16 to 32 deg C (60.8 to 89.6 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.4.08.01	Plasma Thawer	E016	1848520	0938379	LAB PLASMA THAWER	Plasma thawing system using both controlled temperature and agitation to reduce thaw times. Stainless steel chamber and baskets. Thaw capacity: 8 bags. Chamber volume: 32 L (8.5 gal).	1	1	E	Helmer Labs Inc.	QuickThaw DH8		18.50	22.00	23.00	470
Laboratory	13.4.08.01	Plasma Thawer	E294	1848521	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.4.09.01	Platelet / Incubator	T008		00N0010382	LAB PLATELET INCUBATOR AND		1	5	E		PC100I					
Laboratory	13.4.09.01	Platelet / Incubator	T008		00N0010383	LAB PLATELET INCUBATOR AND		1	5	E		PF15H					
Laboratory	13.4.09.01	Platelet / Incubator	E294	1848524	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.5.01.01	Receiving Bench	T208		00N0040517	LAB WATERBATH		1	5	E		WB05					
Laboratory	13.5.01.01	Receiving Bench	E294	1848526	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.5.02.01	Automated hematology analyzer	T005		00N0010381	LAB ANALYZER, HEMATOLOGY		1	5	E		XS1000I					
Laboratory	13.5.02.01	Automated hematology analyzer	T005		00N0030335	LAB ANALYZER, HEMATOLOGY		1	5	E		XS1000I					
Laboratory	13.5.02.01	Automated hematology analyzer	T220		00N0010387	STAINER, SLIDE HEMATOLOGY (3407)		1	5	E		7151 Aerospary HematologyPro					
Laboratory	13.5.02.01	Automated hematology analyzer	E294	1848530	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.5.03.01	Microscopy Workstation	F021	1952191	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Laboratory	13.5.03.01	Microscopy Workstation	T148		00N0010366	LAB MICROSCOPE		1	5	E		E400					
Laboratory	13.5.03.01	Microscopy Workstation	E294	1848532	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.5.04.01	Manual Hematology & Fluids Workstation	E327	2311184	0945858	CABINET, SAFETY, BIOLOGICAL	6 ft. wide. Class II, Type B2. Interior duplex outlet. Touch screen control. HEPA supply filter. 8" (203mm) access opening. Includes height adjustable stand (32", 34", and 36").	1	2	E	Nuaire Inc.	NU-565-600		77.64	31.42	94.50	1,972
Laboratory	13.5.04.01	Manual Hematology & Fluids Workstation	F021	1952192	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Laboratory	13.5.04.01	Manual Hematology & Fluids Workstation	E057	1848534	0934923	LAB CENTRIFUGE, COUNTER TOP	Thin-layer cell preparation system. Processes max. 12 specimens at a time. Autoclavable sealed head/rotor. Keypad control. 23-program memory w/ instant recall. Incl. clipped & funnels starter kit.	1	1	E	Thermo Shandon	CYTOSPIN 4	A78300003	16.00	24.50	9.50	406
Laboratory	13.5.04.01	Manual Hematology & Fluids Workstation	E294	1848536	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.5.05.01	Coagulation Analyzers	T006		00N0030334	LAB ANALYZER, COAGULATION		1	5	E		58989 STA COMPACT MAX					
Laboratory	13.5.05.01	Coagulation Analyzers	E294	1848538	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
559	584	74.0	33.6	T	Overall dimensions with baskets extended, drain port, plasma overlap holders and switches: 21.75x22.50x23" (552x572x584 mm). Clearance: Minimum 8" (203 mm) above the thawer for basket lift-out system to operate.	115	1	10.0	60		Plug	5-15P	Yes									15 Amp dedicated ground circuit.						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																								
				T																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				F																								
				F																								
				T																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	1,219	50.0	22.7	F																								
				T																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
798	2,400			F	Cabinet Height including Basestand (@36" Working Height):94.5" H Approximate height of cabinet: 1549 mm (61") Cabinet weight 680lbs (308kg) Approximate height of stand: 826 mm (32.5"), resulting in 914 mm (36") high working surface. Sound level: less than 63 dBA measured 381mm (15") above the work tray and 305mm (12") in front of viewing window. Clearance requirement : planning space of the BioSafety Cabinet (BSC) must be compliant to latest Canadian Biosafety Standard, ADOA. Also the Manufacturer recommend the clearance requirement to follow the NHI BioSafety Cabinet placement requirement as follow: -Maintain an undisturbed space of minimum 40" around BSC. -Maintain a minimum distance of 12'' to adjacent walls -Place BSCs minimum 80" from opposing walls. - Place BSCs at least 60'' to opposing bench tops or areas with occasional traffic -Maintain a minimum distance of 40” between BSC and bench top along perpendicular wall -Maintain a distance of 12”to columns to avoid disturbance to BSC airflow -Maintain a minimum distance of 120”between opposing BSCs -Maintain a minimum distance of 40”between BSCs along same wall -Maintain a minimum distance of 48'' between BSCs along perpendicular wall -Placing BSCs near one or two entryways is NOT RECOMMENDED. If this arrangement is absolutely necessary, DO Maintain a distance of 60" to doorways behind workspace or a distance of 40" to adjacent doorways. -DO NOT crowd together bench tops and BSCs. -DO NOT Place BSCs directly near bench tops.	115	1	10.0	60		Plug											12 ft (2.5 m) 14 GA- 3 wire power cord (15Amp). Constructor to provide 15 A circuit protected from distribution panel with thermal circuit breaker. The unit shall have 3 internal electrical circuits: one each for blower and lights and one dedicated circuit for duplex outlets.						
711	1,219	50.0	22.7	F																								
622	241	26.5	12.0	T	Height with lid open: 25" (635 mm).	120	1		60		Plug											150 VA maximum. Fuses: Main plug fuse 5A, 250V (where applicable) Main fuses (x2) T5A, 250V						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
		Requires close access to water supply and adjacent to sanitary drain or waste water container.											
		Standard Inflow Velocity 105 cfm (0.53m/s).	1,020		12.00	305			1,275	2	599	0.4	Duct Static pressure: 1.8 w.g./ 46mm w.g.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.5.05.01.01	Flammable Storage	E238	2241738	0945196	CABINET, SAFETY, FLAMMABLE STORAGE	Flammable safety cabinet. Capacity 170.34 L (45 gal). Self-closing doors.	2	1	E	Justrite Manufacturing	Sure-Grip EX	4655602	43.00	18.00	65.00	1,092
Laboratory	13.5.05.02.01	Fume Hood	E111	1848199	0936965	HOOD, FUME	6 ft wide, 100% vented, flammable base cabinet. W/ airflow alarm. Stainless steel work surface. Service: Cold water. Cup sink. 2 duplex receptacles. Overhead automatic compensating by-pass.	1	2	E	Mottlab Inc.	7421010	FLAMMABLE BASE	72.00	32.60	89.00	1,829
Laboratory	13.5.05.03.01	Hematology Incubator	E382	2114145	0944257	LAB INCUBATOR, COUNTER TOP	Digital incubator. Powder coated aluminum exterior. High-Optic acrylic door, Full PID microprocessor. Includes one fixed and one adjustable wire shelf. Capacity: 0.7 cu ft. Temperature control settings, temperature range: 2°C to 62°C (143°F)	1	1	E	Quincy Lab, Inc.	10-140E		12.00	10.00	10.00	305
Laboratory	13.5.05.03.01	Hematology Incubator	E294	1947311	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.5.06.01	Storage Area	E100	1848554	0940402	LAB FREEZER, ULTRA-LOW	Upright freezer. Temperature range: -50 to -86 deg C.	1	2	E	Thermo Fisher Scientific	TSX400A		32.20	37.80	78.00	818
Laboratory	13.5.06.01	Storage Area	T195		00N0036111	REFRIGERATOR, LABORATORY		1	5	E		MPR-1014		20.00	20.00	34.50	508
Laboratory	13.5.06.01	Storage Area	E190	2093000	0940634	REFRIGERATOR, LABORATORY, UPRIGHT, DOUBLE-DOORS	Storage Volume: 56 cu ft (1586 L). Swivel Locking 4x Casters.	3	2	E	Helmer Labs Inc.	iLR256-GX		59.00	37.70	79.60	1,499
Laboratory	13.5.07.01	Workstation: Hematology	F021	1952193	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Laboratory	13.5.07.01	Workstation: Hematology	E294	1848544	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.01.01	Specimen Reception - Bench Space	E294	1848547	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.02.01	Automated High Volume Analyzers with Robotic Track	T001		000T001-01	LAB ANALYZER, CHEMISTRY, AUTOMATED		1	5	E		Atellica (incl. Sci CH930, IM1300, Sample Handler)		58.70	45.50	53.70	1,491
Laboratory	13.6.02.01	Automated High Volume Analyzers with Robotic Track	T001		000T001-02	LAB ANALYZER, CHEMISTRY, AUTOMATED		1	5	E		Atellica (incl. Sci CH930, IM1300, Sample Handler)		58.70	45.50	53.70	1,491
Laboratory	13.6.02.01	Automated High Volume Analyzers with Robotic Track	E296	1848552	0940421	LAB WATER SYSTEM, REVERSE OSMOSIS	Clinical laboratory reagent grade water system. 13.21 gal (50 L) storage reservoir. Make-up rate: 30L/hr at 15 deg C.	1	3	E	Elga Labwater, John Meunier Inc	PRO-30		31.80	18.80	32.80	808
Laboratory	13.6.02.01	Automated High Volume Analyzers with Robotic Track	E294	1848553	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.05.01	Fetal Fibronectin analyzer	T007		00N0005668	LAB ANALYZER, IMMUNOASSAY, POC		1	5	E		COBAS H232					
Laboratory	13.6.05.01	Fetal Fibronectin analyzer	E004	1848560	0938371	LAB ANALYZER, PROTEIN, FETAL FIBRONECTIN	Includes: display screen, keypad, and cassette insertion site. Memory capacity: 50 calibration records, 50 control records, 1000 patient records.	1	1	E	Hologic Inc.	RapidFFN 10Q		6.90	8.90	3.00	175

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,651	266.5	120.9	F	Shipping weight: 301 lbs. (137 kg). Clearance should be left for the vent of the cabinet.																							
828	2,261	525.0	238.6	F	Dimensions (wxdxh), approximate: Fumehood: 72x32.60x54.25" (1829x828x1378 mm). Insulated Solvent Storage 1: 36 x 18 x 34.75" (1829 x 457 x 883 mm). Insulated Solvent Storage 2: 36 x 18" x 34.75" (914.4 x 457.2 x 882.7 mm) Requires 7.5" (190.5 mm) clearance above hood for exhaust. Fan mounted outside cabinet. Integral cup sink: 3" x 6" (76.2 x 152.4mm) Sash has a 30" (762mm) viewing height Laminated Safety Glass, .25" (6mm) thickness Horizontal glass panel: 15.75"W (400mm) , width and height opening of 28" (711.2mm)	120	1	15.0	60		Plug	5-15P		120	1	15.0	60		Plug	5-15P		Unit requires dedicated 15A circuit. Two 120 V 15 A duplex receptacles, one on each corner post, prewired to junction box.						
254	254			T	Interior dimensions (wxdxh): 12" x 10" x 10"	110	1		60	110	Plug																	
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
960	1,981	778.8	354.0	F	Door opening clearance: 34.5" (876 mm).	120	1	9.0	60		Plug	5-15P	Yes									Requires dedicated 15A circuit						
508	876	2.3		F		120		1.5	60		Plug																	
958	2,022	703.0	319.6	F	Depth when doors opened: 64.5". Minimum of 8" (203 mm) above and 3" (76 mm) behind unit for clearance and feature access. Noise emission 52 dB.	115	1	4.3	60		Plug	5-15	Yes									NEMA 5-15 hospital-grade Power Plug/Power Cord Length 8 to 10 ft (2.4-3.0m)						
711	1,219	50.0	22.7	F																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
1,156	1,364	1,036.0	469.9	F																								
1,156	1,364	1,036.0	469.9	F																								
478	833	99.0	45.0	F	Dimensions (wxdxh), approximate: Unit: 31.80x18.80x32.80" (808x478x833 mm). Height includes casters: 33.40" (848 mm). Operational weight: 224.40 lb (102 kg). Noise level: <63 dBA.	115	1	10.0	60		Plug											Peak demand: 650VA.						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																								
226	76	1.6	0.7	T		120	1	0.7	60		Plug		Yes									Input connector: Coaxial power plug with positive center conductor Output connectors: 9 pin data connector, 2 host USB connectors						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Cup sink, & cold water located in right corner of hood. 1.5" (38 mm) drain, 1/2" (13 mm)connection to cold water required.			12.00	305			825		387		12" (305 mm) opening for duct. 100 FPM with 18" sash opening: 825 CFM, 0.11 SP 100 FPM with 1/2 sliding door open: 640 CFM, 0.10 SP Project Co. to ensure that facility ducting material will withstand chemicals being used in hood. Flammable cabinet vented independently. Two 2" (52 mm) vent, one on bottom and one on top right side of the cabinet to be connected to ventilation system of building.
													Storage temperature: 15 to 32 deg C (59 to 90 deg F).
			1,195										Ambient temperature: 15 to 32 deg C (59 to 90 deg F).
		Temperature: 4 to 40 deg C (39.2 to 104 deg F). Recommended: 15 to 25 deg C (59 to 77 deg F). Feed pressure: 30 to 90 psi (2 to 6 bar). Drain requirements, gravity fall with air gap: 20 L/min. Flowrate, at 15 deg C: 9 L/min. Access to facility's plumbing and drain.											
													Operating temperature: 15 to 30 deg C (59 to 86 deg F). Operating humidity: 20% to 80%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.6.06.01	Urinalysis Area	E327	2337738	0945858	CABINET, SAFETY, BIOLOGICAL	6 ft. wide. Class II, Type B2. Interior duplex outlet. Touch screen control. HEPA supply filter. 8" (203mm) access opening. Includes height adjustable stand (32", 34", and 36").	1	2	E	Nuaire Inc.	NU-565-600		77.64	31.42	94.50	1,972
Laboratory	13.6.06.01	Urinalysis Area	F021	1952195	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Laboratory	13.6.06.01	Urinalysis Area	T009		00N0010360	LAB ANALYZER, URINE		1	5	E		cobas u 411		16.73	13.34	10.24	425
Laboratory	13.6.06.01	Urinalysis Area	T056		00N0004945	LAB CENTRIFUGE, COUNTER TOP		1	5	E		ROTOFIX32A					
Laboratory	13.6.06.01	Urinalysis Area	T148		00N0010362	LAB MICROSCOPE		1	5	E		ECLIPSE CI-S					
Laboratory	13.6.06.01	Urinalysis Area	E294	1848562	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.07.01	Osmometer Area	T169		00N0040538	LAB OSMOMETER		1	5	E		OSMO1					
Laboratory	13.6.07.01	Osmometer Area	E294	1848564	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.08.01	Blood Gas Analyzer	T002		00N0036044	LAB ANALYZER, BLOOD GAS		1	5	E		0024006700 GEM PREMIER 4000					
Laboratory	13.6.08.01	Blood Gas Analyzer	T002		00N0036045	LAB ANALYZER, BLOOD GAS		1	5	E		0024006700 GEM PREMIER 4000					
Laboratory	13.6.08.01	Blood Gas Analyzer	E294	1848565	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.09.01	Workstation: Chemistry	E294	2193256	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.6.09.02	Workstation: Chemistry	E011	1848557	0942669	GLUCOMETER	Glucose and Ketone testing in one meter. Glucose results in 6 seconds. Ketone results in 10 seconds. Data Storage for Patient tests: 1000. QC Test: 200. User test: 8000. Colour touch screen. Built-in barcode scanner. Operator password. Includes docking station and carrying case.	1	1	E	Nova Biomedical Canada Ltd	StatStrip		3.10	1.18	5.80	79
Laboratory	13.6.09.02	Workstation: Chemistry	E294	2193289	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.7.01.01	Clean Supply / Utility Room	E337	2195967	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	7	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Laboratory	13.7.02.01	Soiled Utility Room	E392	2241676	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Laboratory	13.7.02.01	Soiled Utility Room	E147	1849741	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Laboratory	13.7.02.01	Soiled Utility Room	E393	2241688	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
798	2,400			F	Cabinet Height including Basestand (@36" Working Height):94.5" H Approximate height of cabinet: 1549 mm (61") Cabinet weight 680lbs (308kg) Approximate height of stand: 826 mm (32.5"), resulting in 914 mm (36") high working surface. Sound level: less than 63 dBA measured 381mm (15") above the work tray and 305mm (12") in front of viewing window. Clearance requirement : planning space of the BioSafety Cabinet (BSC) must be compliant to latest Canadian Biosafety Standard, ADOA. Also the Manufacturer recommend the clearance requirement to follow the NHI BioSafety Cabinet placement requirement as follow: -Maintain an undisturbed space of minimum 40" around BSC. -Maintain a minimum distance of 12'' to adjacent walls -Place BSCs minimum 80" from opposing walls. - Place BSCs at least 60'' to opposing bench tops or areas with occasional traffic -Maintain a minimum distance of 40" between BSC and bench top along perpendicular wall -Maintain a distance of 12"to columns to avoid disturbance to BSC airflow -Maintain a minimum distance of 120"between opposing BSCs -Maintain a minimum distance of 40"between BSCs along same wall -Maintain a minimum distance of 48'' between BSCs along perpendicular wall -Placing BSCs near one or two entryways is NOT RECOMMENDED. If this arrangement is absolutely necessary, DO Maintain a distance of 60" to doorways behind workspace or a distance of 40" to adjacent doorways. -DO NOT crowd together bench tops and BSCs. -DO NOT Place BSCs directly near bench tops.	115	1	10.0	60		Plug											12 ft (2.5 m) 14 GA- 3 wire power cord (15Amp). Constructor to provide 15 A circuit protected from distribution panel with thermal circuit breaker. The unit shall have 3 internal electrical circuits: one each for blower and lights and one dedicated circuit for duplex outlets.						
711	1,219	50.0	22.7	F																							
339	260	26.0	11.8	T		115			60		Plug		Yes														
				T																							
				T																							
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																							
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
				T																							
				T																							
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
30	147	0.5	0.2	T		115	1		60		Plug		Yes									Rechargeable battery. 3.7V Li polymer.						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
660	1,981			F																							
737	851	29.0	13.2	F																							
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																	15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
		Standard Inflow Velocity 105 cfm (0.53m/s).	1,020		12.00	305			1,275	2	599	0.4	Duct Static pressure: 1.8 w.g./ 46mm w.g.
													Ketone strip Operating Ranges: Temperature: 41°F-104°F (5°C40°C) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity Hematocrit: 20%-65% Glucose strip operating ranges Temperature: 15°C- 40°C(59°F-104°F) Altitude: Up to 15,000 feet Humidity: 10% to 90% relative humidity
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.7.02.01	Soiled Utility Room	E218	1872255	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Laboratory	13.7.03	Lab Safety Vestibule	E104	2473152	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	2	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Laboratory	13.7.04.01	Bulk Storage	E213	1848569	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	12	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Laboratory	13.7.05.01	Housekeeping Closet	E039	2189072	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Laboratory	13.7.05.01	Housekeeping Closet	E339	2189070	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Laboratory	13.7.05.01	Housekeeping Closet	E215	2189071	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Laboratory	13.7.05.01	Housekeeping Closet	E234	2189065	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Laboratory	13.7.05.01	Housekeeping Closet	F082	2480661	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.7.06.01	Office: Supervisor	F068	2194567	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Laboratory	13.7.06.01	Office: Supervisor	F005	1848573	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Laboratory	13.7.06.01	Office: Supervisor	F020	1848574	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.7.06.01	Office: Supervisor	F071	1848578	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Laboratory	13.7.06.01	Office: Supervisor	F028	1848575	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Laboratory	13.7.06.01	Office: Supervisor	F082	2480662	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.7.07.01	Office: Tech III	F068	2194568	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Laboratory	13.7.07.01	Office: Tech III	F005	1848579	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Laboratory	13.7.07.01	Office: Tech III	F020	1848580	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.7.07.01	Office: Tech III	F063	1848583	0942326	DESK, L-SHAPE, W/HUTCH	L-Shaped, laminate finish, o/h hutch at return w/ storage below. Non-powered, includes grommets and wire management.	1	3	F	Global Furniture	Ionic		72.00	84.00	65.00	1,829
Laboratory	13.7.07.01	Office: Tech III	F082	2480663	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.7.08.01	Office: Pathologist / Flex	F068	1848586	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Laboratory	13.7.08.01	Office: Pathologist / Flex	F005	1848584	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Laboratory	13.7.08.01	Office: Pathologist / Flex	F020	1848585	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.7.08.01	Office: Pathologist / Flex	F063	1848588	0942326	DESK, L-SHAPE, W/HUTCH	L-Shaped, laminate finish, o/h hutch at return w/ storage below. Non-powered, includes grommets and wire management.	1	3	F	Global Furniture	Ionic		72.00	84.00	65.00	1,829
Laboratory	13.7.08.01	Office: Pathologist / Flex	F028	2194569	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Laboratory	13.7.08.01	Office: Pathologist / Flex	F082	2480664	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.7.09.01	Workstation: Teaching Microscope	F021	1952198	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																					
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
																								INCH	MM	INCH	MM	
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
457	1,753	92.0	41.7	F																								
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
	610	10.0	4.5	W																								
305	1,829			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
	610	10.0	4.5	W																								
305	1,829			F																								
546	838			F																								
610	1,016			F																								
2,134	1,651			F																								
	610	10.0	4.5	W																								
305	1,829			F																								
546	838			F																								
610	1,016			F																								
2,134	1,651			F																								
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
	610	10.0	4.5	W																								
711	1,219	50.0	22.7	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.7.09.01	Workstation: Teaching Microscope	E148	1848590	0939908	LAB MICROSCOPE, DUAL	Dual-observer ergonomic configured with objectives from 2x through 100x and a Pathology/Research grade colour camera.	1	1	E	Nikon (USA)	Eclipse Ci-L		9.17	13.03	15.91	233
Laboratory	13.7.09.01	Workstation: Teaching Microscope	E294	1848591	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.7.09.02.01	Workstation: Touchdown	F020	1849743	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.7.09.02.01	Workstation: Touchdown	F082	2480665	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.7.09.02.01	Workstation: Touchdown	E294	1849745	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.7.09.02.02	Workstation: Touchdown	F020	1952336	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Laboratory	13.7.09.02.02	Workstation: Touchdown	F082	2480666	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Laboratory	13.7.09.02.02	Workstation: Touchdown	E294	1952337	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Laboratory	13.7.10.01	Meeting / Education Room	F015	1848592	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6''	10	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Laboratory	13.7.10.01	Meeting / Education Room	F042	1848593	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	3	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Laboratory	13.7.10.01	Meeting / Education Room	F080	2480667	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Laboratory	13.7.11.01	Staff Lounge	F010	1848596	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	2	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Laboratory	13.7.11.01	Staff Lounge	F086	2485033	0947944	CHAIR, LOUNGE, 3 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	1	3	E	Spec Furniture	9103M	Tailor	75.50	29.00	33.00	1,918
Laboratory	13.7.11.01	Staff Lounge	F005	1848595	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	6	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Laboratory	13.7.11.01	Staff Lounge	E072	2267150	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Laboratory	13.7.11.01	Staff Lounge	E151	1848598	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Laboratory	13.7.11.01	Staff Lounge	E372	1848599	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Laboratory	13.7.11.01	Staff Lounge	F032	1848600	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	1	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Laboratory	13.7.11.01	Staff Lounge	F034	1848601	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Laboratory	13.7.11.01	Staff Lounge	F043	2480668	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Laboratory	13.7.13.01	Locker Room	F002	1848603	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Laboratory	13.7.13.01	Locker Room	E185	1848604	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	1	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
331	404	29.5	13.4	T		115	1	0.4	60	6	Plug		Yes									Power Consumption: 6 W (Brightfield Configuration)						
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
610	1,016			F																								
	610	10.0	4.5	W																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
610	1,016			F																								
	610	10.0	4.5	W																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
800	927			F																								
737	838	161.0	73.2	F																								
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
1,067	457	60.0	27.3	F																								
914	737			F																								
	914	10.0	4.5	W																								
610	457	75.0	34.1	F																								
349	521	23.0	10.5	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Laboratory	13.7.13.01	Locker Room	E186	1848605	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	1	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Pharmacy	14.1.01.01	Receiving / Breakdown / Off-Site Send Out Area	E215	2241741	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Pharmacy	14.1.01.01	Receiving / Breakdown / Off-Site Send Out Area	F082	2480669	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.1.01.01	Receiving / Breakdown / Off-Site Send Out Area	E294	2241743	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Pharmacy	14.1.02.01	Active Storage and Receiving	E387	2195048	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	3	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Pharmacy	14.1.02.01	Active Storage and Receiving	F082	2480670	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.1.03.01	Waste Holding	A007	1848613	0940493	TRUCK, REFUSE/UTILITY	Recyclable tilt truck, no lid. Recycling sign printed on sides. Volume: 1/2 cu yd. Capacity: 1400 lb (636 kg). Plastic construction. Handle on rear.	1	1	A	Rubbermaid Commercial Products	FG130600		28.00	60.50	38.63	711
Pharmacy	14.1.04.01	AMDS/Equipment Storage		2193343	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Pharmacy	14.2.02.01	Picking Cart Holding Area	E042	1848619	0940390	CART, PICKING	Two wire baskets. Dimensions: Top basket: 16.25x17.50x8"; Bottom basket: 16.25x17.50x4". Four 5" (127 mm) casters, 2 fixed and 2 swivel.	4	1	E	Acart Equipment Ltd.	5341		20.50	27.50	39.50	521
Pharmacy	14.2.03.01	Crash Cart Replenishment Area	E038	1849746	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	2	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Pharmacy	14.2.04.01	Non-Sterile Compounding Area	F020	1848621	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.2.04.01	Non-Sterile Compounding Area	F046	1848624	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Pharmacy	14.2.04.01	Non-Sterile Compounding Area	E204	1848623	0940407	LAB BALANCE, DIGITAL	Max. capacity: 8200 g with readability of 0.1g. Repeatability: 0.1g. Linearity: 0.2 g. Size of weight pan: 6.69x7.87" (170x200 mm). Settling time: 1 seconds.	1	1	E	Mettler Toledo Inc	MS8001TS		7.64	13.66	3.90	194
Pharmacy	14.2.04.01	Non-Sterile Compounding Area	E073	1848622	0937465	LAB WASHER, GLASSWARE	Undercounter. Front loading. W/injector & insert basket, baskets and lids, steam condenser and audio visual alarm system. External DI booster pump. 11 wash programs. S/s cabinet and chamber.	1	2	E	Miele Limited	PG8583		23.54	23.54	32.28	598
Pharmacy	14.2.05.01	Packaging Area	F021	1848625	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	2	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.2.05.01	Packaging Area	E330	1952178	0943054	COUNTER, MEDICATION, PILLS	Tablet Cutting and Counting Device. Recognizes different tablet shapes. Cuts tablets in half or quarters. Cuts 20 tablets per minute. Counts 100 tablets per minute,	1	1	E	McKesson Canada	ezCUT		9.45	16.14	9.84	240
Pharmacy	14.2.05.01	Packaging Area	F046	1848630	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	2	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
457	1,880	18.0	8.2	F																							
	610	10.0	4.5	W																							
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
381	1,930	200.0	90.8	F																							
	610	10.0	4.5	W																							
1,537	981	87.8	39.9	F	shipping weight 88lbs (39.9kg).																						
				NA																							
699	1,003	39.0	17.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
610	1,016			F																							
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P															
347	99			T	shipping weight 7.26lbs (3.3kg).	120	1	0.3	60		Plug		Yes														
598	820	162.8	74.0	F	Requires 24.5" (622 mm) of clearance in front for door opening. Space required for external DI water booster pump.	208	3	20.0	60	6,200	Plug		Yes									Unit equipped with 1.8 m(5.9 ft) long, 12/4 AWG unterminated power cord. Electrical connection - lower left rear. Must be grounded.	DR					
711	1,219	50.0	22.7	F																							
410	250	33.1	15.0	T	Clearance: About 40 cm (15.75”) at the top for the door to open. Sound level less than 50 dB.	120	1	2.0	60		Plug											Main power cord rated for 110 V-240 V/10 A maximum. must be connected to grounded type electrical outlet						
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P															

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
Hose			4	0.26					HW						Hose	2	0.13			6	40.0	145	999.7	CW						Hose	2	0.13

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Cold water: 2 connections required for machines with steam condenser. Maximum temperature: 20 deg C (68 deg F). Maximum water hardness: 70 deg dH (73 gpg). Recommended flow pressure: 29 psi (200 kPa). Connection (on site, flat sealing): 3/4" male garden hose tread. Length of hose connection: 5'7" (1.7 m), length of steam condenser hose: 5'7" (1.7 m). Hot water: Maximum temperature: 65 deg C (150 deg F). Maximum water hardness: 70 deg dH (73 gpg). Recommended flow pressure: 29 psi (200 kPa). Connection (on site, flat sealing): 3/4" male garden hose tread. Length of hose connection: 5'7" (1.7 m), length of steam condenser hose: 5'7" (1.7 m). DI: Maximum temperature: 65 deg C (150 deg F). Recommended flow pressure: 29 psi (200 kPa). Connection (on site, flat sealing): 3/4" male garden hose tread. Length of hose connection: 5'7" (1.7 m), length of steam condenser hose: 5'7" (1.7 m). Drain: temperature: 93 deg C (200 deg F). Length of hose: 4'6" (1.4 m). Maximum hose length: 13'1" (4.0 m). Drain pump head height from level floor, maximum: 3'3" (1 m). Drain hose delivery maximum: 4.2 g/min (16 l/min). Onsite hose connector (external diameter x length): 7/8" x 1-3/16" (22 x 30 mm). Connection required for external DI water booster pump.	1,194										Heat dissipation to room, at load on removal: 1,365 BTU/hr (0.40 kWh/h).
													Operation Temperature / Humidity: Temperature: 12°C to 27°C Humidity: 20% to 80% relative humidity

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Pharmacy	14.2.05.01	Packaging Area	E278	1848629	0940469	MEDICATION VERIFICATION SYSTEM	Tablet recognition pouch verification system. Each pouch and entirety of the contents analyzed. Questionable contents flagged. All pouches photographed and images saved.	1	1	E	McKesson Canada	PACVision		39.00	26.50	71.00	991
Pharmacy	14.2.05.01	Packaging Area	E171	1848627	0936055	PACKAGING MACHINE, UNIT DOSE, LIQUID	Counter top. Fully automatic, bar coded, oral liquid unit dose packager w/ syringe pump mechanism. Built-in printer. Rate of 22 doses/minute. Sealing temp: 220 deg C. Includes barcode verifier.	1	3	E	Medical Packaging Inc.	Series 5H	Fluidose	32.01	14.02	17.99	813
Pharmacy	14.2.05.01	Packaging Area	E170	1848626	0940468	PACKAGING STATION, PHARMACY	Fully automated bar-coded unit-dose & multi-dose packaging system. Stores medications in dedicated canisters.	1	3	E	McKesson	PACMED S500		43.00	48.00	91.00	1,092
Pharmacy	14.2.05.01	Packaging Area	E212	1848628	0934916	SEALING UNIT, HEAT SEALER	Digital temperature control. Ready for use. 1/2" (12.7 mm) seal in 2 sec w/30 psi of consistent sealing pressure. Object thickness: maximum 1/8" (3.1 mm). Package size: 18" (457 mm).	1	1	E	Rennco Inc	LIFT SEAL LS-18D	073-M0063063	19.25	10.25	7.25	489
Pharmacy	14.2.05.01	Packaging Area	E387	2193467	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	1	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Pharmacy	14.2.06.01	Medication Stock Shelving Area	F020	1848632	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.2.06.01	Medication Stock Shelving Area	E384	1848634	0944283	LIGHT, TASK	Edge mount clamp. LED illumination. 25" (635 mm) flexible gooseneck arm.	1	2	E	Dazor Mfg. Corp.	EcoFlex LED Clamp	LED-FA25CM-BK	4.00	4.00	18.00	102
Pharmacy	14.2.06.01	Medication Stock Shelving Area	E387	2194581	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	6	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Pharmacy	14.2.06.01	Medication Stock Shelving Area	E294	2194576	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Pharmacy	14.2.07.01	Narcotic Room	F021	1848638	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.2.07.01	Narcotic Room	E311	1848636	0940470	MEDICATION DISTRIBUTION SYSTEM, NARCOTIC	Double integrated main unit. 7 doors & 1 drawer. Includes removable printer shelf. Removable rear panel. Key lockable. Touch screen 10.4" display.	1	3	E	Pyxis Healthcare Systems	C2 SAFE		52.00	28.00	79.50	1,321
Pharmacy	14.2.07.01	Narcotic Room	E401	2241659	0945079	MEDICATION DISTRIBUTION SYSTEM, NARCOTIC	Double tower auxiliary, with 8 doors. Sheet metal construction, Includes removable printer shelf. Removable rear panel. Key lockable. Touch screen 10.4" display.	6	3	E	Pyxis Healthcare Systems	C2 SAFE		52.00	28.00	79.50	1,321
Pharmacy	14.2.07.01	Narcotic Room	E397	2342240	0947882	REFRIGERATOR, MEDICATION DISPENSING, 5 CU FT	5 cubic ft undercounter refrigerator for medication storage. On Casters (optional, height includes 1.5" casters). Compatible with main dispensing unit. Meets requirements for vaccine storage.	1	3	E	Becton Dickinson	PyxisES Refrig 5CF		24.00	29.00	33.50	610
Pharmacy	14.2.07.01	Narcotic Room	E213	1848641	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Pharmacy	14.2.07.01	Narcotic Room	E399	2484082	0935648	WORKSTATION ON WHEELS (WOW)	Mobile workstation with computer/monitor/keyboard/mouse, UPS, barcode scanner, web camera and wireless data connection. LCD pivot.	1	1	E	Capsa Healthcare	m38e		17.00	17.00	65.00	432
Pharmacy	14.2.08.01	Refrigerated Storage	E102	1848643	0945243	LAB FREEZER, UPRIGHT	20.2 cu ft (572L) capacity. Temperature range -15 to -30C; Lockable door, password protected settings, optional PIN access; RTD control sensor; Alarms: high/low, power failure, condenser temp door ajar; event & temp log	1	2	E	Helmer Labs Inc.	ILF 120-GX		30.40	34.00	80.30	772

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
673	1,803	770.0	350.0	F	Space requirement (wxd): 6x8 ft (1.83x2.44 m). Minimum of 3 ft (0.91 m) clearance required at the front of the unit. Minimum of 2 ft (0.61 m) clearance on the left side and right side of the unit. Minimum of 12" (305 mm) away from rear wall for proper ventilation. Unit dimensions (wxdxh): 39x26.5x71" (991x673x1803 mm). Weight: 770 lb (350 kg), approximate. Constructor to check that the building floor can support the weight of the unit. Required sufficient space for transportation to final room location.	120	1		60		Plug		Yes									Dedicated electrical circuit required. 15 amp duplex. Terminating in a 3 prong ground type receptacle. Required a network connection, network jack must be next to the unit. Required network location for back-ups. 2 electrical outlets required. Computer, Monitor, UPS: 120 V, 60 Hz.						
356	457	125.0	56.7	T		115	1		60	400	Plug	5-15P	Yes									Requires 2 data connections						
1,219	2,311	2,550.0	1,159.1	F	Typical room recommended 12x11'. 1. PACMED work area of 8' x 9', Minimum of 4' of clearance at the front of PACMED is required, 6' is recommended Minimum of 2' of clearance on either side of the PACMED Minimum of 12" away from a rear wall and ceiling for proper ventilation Area must be free and clear of trim, shelves and clutter Area must be an anti-static location (if need be, install 3' of anti-static matting surrounding the unit) 2. The following items will be provided by Manufacturer of the system for workstation (desk/workstation provided by client): table or counter for the PACMED server desktop, monitor, scanner and electronic scale. 3. Work area for the speed loader tray and to refill canisters required: Shelves for STS Drugs 120"x13.5" (WxD), Refill station 120"x25" (WxH)	120	1		60		Plug		Yes									Required duplex dedicated protected circuits, terminating in a 3 prong ground type receptacle. Project Co to provide sufficient power and utilities for the following equipment at system workstation: server desktop, monitor, scanner and electronic scale. Power : Power consumption is 760 W for the workstation (PACMED server: desktop & monitor), 900 W when packaging, (packaging unit) and 1500 W at startup. Network connectivity: adequate broadband internet required. Consult with MNF for network requirement. Ethernet cable provided 15ft length, Project Co to provide the ethernet longer cable if necessary.						
260	184	46.0	20.9	T		120	1	5.0	60		Plug		No														
381	1,930	200.0	90.8	F																							
610	1,016			F																							
102	457	5.0	2.3	O		120	1	0.3	60		Plug																
381	1,930	200.0	90.8	F																							
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	1,219	50.0	22.7	F																							
711	2,019	525.5	238.9	F	Clearance: Add 18" (457 mm) to width for printer shelf.	120	1	1.7	60		Plug		Yes														
711	2,019	470.5	213.4	F	Double integrated main : 52"x28"x79.5" (WXDxH) , width 70" if using printer shelf. weight 525.5lb. Double tower auxiliary: 52"x28"x79.5" (WXDxH) , weight 470.5 lb. Printer to be supplied by client.	120	1	1.7	60		Plug		Yes									Printer (supplied by client) : power requirement to be determined, normal configuration need a standard plug 120V/1 phase/60Hz, and a data line.						
737	851	206.0	93.6	F	Clearance requirements: Minimum of 3 in. behind unit for clearance and feature access Casters are 1.5", can be ordered without to accommodate 32" height fridge with levelling feet only Shelf weight capacity: 100 lbs max capacity/shelf Interior shelves: 18 in. x 18 in.	115	1	1.4	60		Plug	5-15	No									Requires 15 Amps dedicated circuit Power Cord Length: 8 - 10 ft Power plug/power cord length NEMA 5-15 hospital grade plug (115 V) 8-10 ft Remote alarm connected to central building alarm system by contractor						
457	1,753	92.0	41.7	F																							
432	1,651	87.5	39.7	F		120	1	2.5	60	300	Plug	1															
864	2,040	400.0	181.4	F	Minimum of 8' (203mm) above and 3' (76mm) behind unit. Interior Dimensions: 24.7 x 58.1 x 24 in [628 x 1476 x 609 mm] depth when door opening 59.7" Sound level is less than 52 dB(A)	115	1	8.5	60		Plug	NEMA 5-15	Yes									15 amp dedicated ground circuit 8-10ft hospital grade power cord.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																					
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS					
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW					
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA				

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
			488										
													Double integrated Main :488BUT/h Double column auxiliary: 222 BUT/h.
													Temperature Range: 2*C to 10*C (36*F to 50*F) Set point :40°F (4.4°C) Temperature probe:+/-1°F (+/-0.5°C)
													Indoor use only Non-corrosive, non-flammable, non-explosive, 15°C to 32°C (59°F to 90°F) Altitude (maximum): 2000 m

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Pharmacy	14.2.08.01	Refrigerated Storage	E422	2470909	0947588	REFRIGERATOR, PHARMACY, UPRIGHT, DOUBLE DOORS	2 hinged double glass doors, lockable. Preset temperature: 3-7 deg C. 8 stainless steel shelves. Capacity: 51 cu ft (1447 L). Automatic defrost. Remote alarm contacts.	2	2	E	Thermo Fisher Scientific	TSX5005SA		56.50	37.90	78.50	1,435
Pharmacy	14.2.08.01	Refrigerated Storage	E199	2342241	0946230	REFRIGERATOR, UPRIGHT, PHARMACY	1 Glass Door, 5 Basket Drawers. 11.5 cu.ft Capacity. Four 2" casters for easy mobility; the front two are lockable. Remote alarm monitoring. Temperature Range 3-7°C (5°C). Bright, LED interior lighting. Heat-free defrost for maximum temperature uniformity. Energy Star certified.	2	2	E	Thermo Fisher Scientific	TSX1205PA		24.00	30.50	73.00	610
Pharmacy	14.2.09.01	Outpatient Counselling	F005	1848646	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.2.09.01	Outpatient Counselling	F020	1848647	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.2.09.01	Outpatient Counselling	F046	1848649	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Pharmacy	14.2.09.01	Outpatient Counselling	E161	2471877	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Pharmacy	14.2.09.01	Outpatient Counselling	E210	2472853	0943019	SCALE, CLINICAL	Capacity: 550 lb (250 kg). With wrap around handrail. EMR connectivity. Resolution: 0.2 lb (0.1 kg). Platform size: 13-3/4x16-1/2x2-3/8" (349x419x60 mm). Height rod: 30 to 84.25" (762 to 2140 mm). Includes power adapter. Two wheels,. with 8" (203 mm) wheelbase.	1	1	E	Health-O-Meter (div of Pelstar)	500KL		14.13	21.14	53.62	359
Pharmacy	14.2.09.01	Outpatient Counselling	E213	1848648	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Pharmacy	14.3.01.01	Vestibule / Change Room Area	E044	2193558	0937177	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 200 lb weight capacity. Shelf clearance: 12.25"(311mm). Rubber swivel 3.5"(89mm) casters. Shelves welded to the legs.	1	1	E	Acart Equipment Ltd.	3066		19.00	31.00	33.38	483
Pharmacy	14.3.01.01	Vestibule / Change Room Area	F021	1848650	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.3.01.01	Vestibule / Change Room Area	E213	1848651	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Pharmacy	14.3.03.01	Non-Hazardous Sterile Compounding Anteroom	E178	1848653	0940406	CART, PERSONAL PROTECTION EQUIPMENT (PPE)	Economical steel isolation carts. Smooth ball bearing slides with auto close mechanism to pull the drawer fully closed. Advanced nylon reinforced polycarbonate bumper.	1	1	E	Waterloo Healthcare	UTGKU-3699-YEL		29.00	24.50	43.50	737
Pharmacy	14.3.03.01	Non-Hazardous Sterile Compounding Anteroom	E104	1952339	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Pharmacy	14.3.04.01	Non-Hazardous Sterile Compounding Room	E312	1848655	0942883	CABINET, LAMINAR FLOW	w/ Motorized Height Adjustable Base Stand with Leg Levellers	1	2	E	Nuaire Inc.	NU-240-630		74.00	32.00	94.61	1,880
Pharmacy	14.3.04.01	Non-Hazardous Sterile Compounding Room	E426	2473841	0947708	CABINET, PASS THROUGH, SS	Stainless steel pass through cabinet. Eliminate foot traffic and reduce contamination. Easy cleaning, adjustable shelves, durable 16-gauge stainless steel construction.	1	4	E	Clean Air Products Inc.	CAP18W	CAP18W-SST-24W-24H-2	28.75	24.00	26.00	730
Pharmacy	14.3.04.01	Non-Hazardous Sterile Compounding Room	E044	1848656	0937177	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 200 lb weight capacity. Shelf clearance: 12.25"(311mm). Rubber swivel 3.5"(89mm) casters. Shelves welded to the legs.	1	1	E	Acart Equipment Ltd.	3066		19.00	31.00	33.38	483
Pharmacy	14.3.04.01	Non-Hazardous Sterile Compounding Room	F021	1848657	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.3.04.01	Non-Hazardous Sterile Compounding Room	E259	1848661	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	F	Stat Medical	SO-505		48.00	20.00	34.00	1,219
Pharmacy	14.3.05.01	Hazardous (Chemotherapy) Sterile Compounding Anteoom	E178	1848662	0940406	CART, PERSONAL PROTECTION EQUIPMENT (PPE)	Economical steel isolation carts. Smooth ball bearing slides with auto close mechanism to pull the drawer fully closed. Advanced nylon reinforced polycarbonate bumper.	1	1	E	Waterloo Healthcare	UTGKU-3699-YEL		29.00	24.50	43.50	737
Pharmacy	14.3.05.01	Hazardous (Chemotherapy) Sterile Compounding Anteoom	E044	2193622	0937177	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 200 lb weight capacity. Shelf clearance: 12.25"(311mm). Rubber swivel 3.5"(89mm) casters. Shelves welded to the legs.	2	1	E	Acart Equipment Ltd.	3066		19.00	31.00	33.38	483
Pharmacy	14.3.05.01	Hazardous (Chemotherapy) Sterile Compounding Anteoom	E104	2193623	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
963	1,994	621.0	281.7	F	Clearances: 6" (152 mm) on sides, 12" (305 mm) on top.	115	1		60	9	Plug	5-15	Yes									Dedicated circuit required. Remote alarm connection to central building alarm system by contractor.						
775	1,854	388.0	176.0	F	Exterior Dimensions: D x W x H In (cm) 30.5 x 24.0 x 73.0 (77.5 x 61.9 x 185.4) Interior Dimensions: D x W x H In (cm) 21.8 x 20.0 x 52.4 (55.4 x 50.8 x 133.1) Clearance: Minimum of eight inches (20 cm) of space on the top and sides, six inches (15 cm) in back. Allow enough clearance so that door can swing open at least 85°.	115	1		60		Plug	5-15										Requires dedicated 15A circuit.						
546	838			F																							
610	1,016			F																							
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P															
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr						
537	1,362	21.0	9.5	F		120	1		60	8	Plug	1-15P										Battery Powered : 6x AA. Includes Optional 9V AC-to-DC Converter (ADPT31) EMR connectivity via USB or optional wireless						
457	1,753	92.0	41.7	F																							
787	848	42.0	19.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
711	1,219	50.0	22.7	F																							
457	1,753	92.0	41.7	F																							
622	1,105	100.0	45.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
813	2,403			F	Autolift, Leg Levelers - Height adjustable from 83 5/8" (2124 mm) to 94 5/8" (2403 mm)	115	1	5.0	60			5-15P		115	1	5.0	60		Plug	5-15P		x 2 power cords						
610	660			W	Recommended wall cutout is 29.25W x 26.5H																							
787	848	42.0	19.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
711	1,219	50.0	22.7	F																							
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																							
622	1,105	100.0	45.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
787	848	42.0	19.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Pharmacy	14.3.06.01	Chemotherapy Compounding Room	E426	2473842	0947708	CABINET, PASS THROUGH, SS	Stainless steel pass through cabinet. Eliminate foot traffic and reduce contamination. Easy cleaning, adjustable shelves, durable 16-gauge stainless steel construction.	1	4	E	Clean Air Products Inc.	CAP18W	CAP18W-SST-24W-24H-2	28.75	24.00	26.00	730
Pharmacy	14.3.06.01	Chemotherapy Compounding Room	E327	1848664	0945858	CABINET, SAFETY, BIOLOGICAL	6 ft. wide. Class II, Type B2. Interior duplex outlet. Touch screen control. HEPA supply filter. 8" (203mm) access opening. Includes height adjustable stand (32", 34", and 36").	1	2	E	Nuaire Inc.	NU-565-600		77.64	31.42	94.50	1,972
Pharmacy	14.3.06.01	Chemotherapy Compounding Room	E044	1848665	0937177	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 200 lb weight capacity. Shelf clearance: 12.25"(311mm). Rubber swivel 3.5"(89mm) casters. Shelves welded to the legs.	2	1	E	Acart Equipment Ltd.	3066		19.00	31.00	33.38	483
Pharmacy	14.3.06.01	Chemotherapy Compounding Room	F021	1848666	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.3.06.01	Chemotherapy Compounding Room	E443	2485034	0947945	TABLE, STAINLESS, 6FT	Instrument/work table, 18 gauge stainless steel construction. 3" locking casters. Includes lower shelf.	1	1	E	BLICKMAN INC	Howard Table	7837SS	72.00	24.00	34.00	1,829
Pharmacy	14.3.07.01	Hazardous Drug Storage	E422	2342242	0947588	REFRIGERATOR, PHARMACY, UPRIGHT, DOUBLE DOORS	2 hinged double glass doors, lockable. Preset temperature: 3-7 deg C. 8 stainless steel shelves. Capacity: 51 cu ft (1447 L). Automatic defrost. Remote alarm contacts.	2	2	E	Thermo Fisher Scientific	TSX5005SA		56.50	37.90	78.50	1,435
Pharmacy	14.3.07.01	Hazardous Drug Storage	E387	2193624	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	1	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Pharmacy	14.3.09.01	Preparation Room	F046	2470187	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	2	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Pharmacy	14.3.10.01	Checking Area	F021	1848679	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.3.10.01	Checking Area	F046	1848680	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Pharmacy	14.3.10.02	Checking Area/Oncology/Sterile Product Workstation	F021	1851209	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Pharmacy	14.3.10.02	Checking Area/Oncology/Sterile Product Workstation	F046	1851210	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Pharmacy	14.4.01.01	Office: Manager	F069	1848683	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.01.01	Office: Manager	F005	1848681	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.4.01.01	Office: Manager	F020	1848682	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.01.01	Office: Manager	F026	1848685	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Pharmacy	14.4.01.01	Office: Manager	F082	2480671	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	660			W	Recommended wall cutout is 29.25W x 26.5H																							
798	2,400			F	Cabinet Height including Basestand (@36" Working Height):94.5" H Approximate height of cabinet: 1549 mm (61") Cabinet weight 680lbs (308kg) Approximate height of stand: 826 mm (32.5"), resulting in 914 mm (36") high working surface. Sound level: less than 63 dBA measured 381mm (15") above the work tray and 305mm (12") in front of viewing window. Clearance requirement : planning space of the BioSafety Cabinet (BSC) must be compliant to latest Canadian Biosafety Standard, ADOA. Also the Manufacturer recommend the clearance requirement to follow the NHI BioSafety Cabinet placement requirement as follow: -Maintain an undisturbed space of minimum 40" around BSC. -Maintain a minimum distance of 12'' to adjacent walls -Place BSCs minimum 80" from opposing walls. - Place BSCs at least 60'' to opposing bench tops or areas with occasional traffic -Maintain a minimum distance of 40″ between BSC and bench top along perpendicular wall -Maintain a distance of 12″to columns to avoid disturbance to BSC airflow -Maintain a minimum distance of 120″between opposing BSCs -Maintain a minimum distance of 40″between BSCs along same wall -Maintain a minimum distance of 48'' between BSCs along perpendicular wall -Placing BSCs near one or two entryways is NOT RECOMMENDED. If this arrangement is absolutely necessary, DO Maintain a distance of 60" to doorways behind workspace or a distance of 40" to adjacent doorways. -DO NOT crowd together bench tops and BSCs. -DO NOT Place BSCs directly near bench tops.	115	1	10.0	60		Plug											12 ft (2.5 m) 14 GA- 3 wire power cord (15Amp). Constructor to provide 15 A circuit protected from distribution panel with thermal circuit breaker. The unit shall have 3 internal electrical circuits: one each for blower and lights and one dedicated circuit for duplex outlets.						
787	848	42.0	19.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
711	1,219	50.0	22.7	F																								
610	864	210.0	95.3	F																								
963	1,994	621.0	281.7	F	Clearances: 6" (152 mm) on sides, 12" (305 mm) on top.	115	1		60	9	Plug	5-15	Yes									Dedicated circuit required. Remote alarm connection to central building alarm system by contractor.						
381	1,930	200.0	90.8	F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
711	1,219	50.0	22.7	F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
711	1,219	50.0	22.7	F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P											0.5 W power draw when not in use						
	610	10.0	4.5	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
		Standard Inflow Velocity 105 cfm (0.53m/s).	1,020		12.00	305			1,275	2	599	0.4	Duct Static pressure: 1.8 w.g./ 46mm w.g.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Pharmacy	14.4.02.01	Office: Supervisor	F069	1848688	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.02.01	Office: Supervisor	F005	1848686	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.4.02.01	Office: Supervisor	F020	1848687	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.02.01	Office: Supervisor	F026	1848690	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Pharmacy	14.4.02.01	Office: Supervisor	F082	2480672	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.4.03.01	Office: Director of Pharmacy Operations	F069	1848693	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.03.01	Office: Director of Pharmacy Operations	F005	1848691	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.4.03.01	Office: Director of Pharmacy Operations	F020	1848692	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.03.01	Office: Director of Pharmacy Operations	F026	1848695	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Pharmacy	14.4.03.01	Office: Director of Pharmacy Operations	F082	2480673	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.4.04.01	Office: Medication, Safety, Technician (Regional)	F069	1848698	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.04.01	Office: Medication, Safety, Technician (Regional)	F005	1848696	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.4.04.01	Office: Medication, Safety, Technician (Regional)	F020	1848697	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.04.01	Office: Medication, Safety, Technician (Regional)	F048	1848700	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	2	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Pharmacy	14.4.04.01	Office: Medication, Safety, Technician (Regional)	F082	2480674	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.4.05.01	Office: Prov Academic Detailing Pharmacist (Reg)	F069	1848703	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.05.01	Office: Prov Academic Detailing Pharmacist (Reg)	F005	1848701	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.4.05.01	Office: Prov Academic Detailing Pharmacist (Reg)	F020	1848702	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.05.01	Office: Prov Academic Detailing Pharmacist (Reg)	F026	1848705	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Pharmacy	14.4.05.01	Office: Prov Academic Detailing Pharmacist (Reg)	F082	2480675	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.4.06.01	Workstation: Purchaser Technician (Regional)	F069	2471878	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.06.01	Workstation: Purchaser Technician (Regional)	F020	1848706	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.06.01	Workstation: Purchaser Technician (Regional)	F026	1848708	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Pharmacy	14.4.06.01	Workstation: Purchaser Technician (Regional)	F082	2480676	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.4.07.01	Shared Workstation	F020	1848709	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.07.01	Shared Workstation	F048	1848710	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Pharmacy	14.4.07.02	Shared Workstation	F020	1851212	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
	610	10.0	4.5	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
	610	10.0	4.5	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Pharmacy	14.4.07.02	Shared Workstation	F048	1851211	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Pharmacy	14.4.07.03	Shared Workstation	F020	1851213	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.07.03	Shared Workstation	F048	1851214	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Pharmacy	14.4.07.04	Shared Workstation	F020	1851215	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.07.04	Shared Workstation	F048	1851216	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Pharmacy	14.4.08.01	Shared Office: Multipurpose	F069	1848713	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.08.01	Shared Office: Multipurpose	F020	1848712	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Pharmacy	14.4.08.01	Shared Office: Multipurpose	F071	1848715	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	2	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Pharmacy	14.4.08.01	Shared Office: Multipurpose	F082	2480677	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Pharmacy	14.4.09.01	Business Centre	F069	1848716	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Pharmacy	14.4.09.01	Business Centre	F041	1848717	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Pharmacy	14.4.09.01	Business Centre	F043	2480678	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Pharmacy	14.4.10.01	Meeting / Education Room	F015	1848719	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	10	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Pharmacy	14.4.10.01	Meeting / Education Room	F042	1848720	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	4	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Pharmacy	14.4.10.01	Meeting / Education Room	F080	2480679	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Pharmacy	14.4.11.01	General Storage	E213	1848722	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	4	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Pharmacy	14.4.13.01	Staff Lounge	F010	1848724	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Pharmacy	14.4.13.01	Staff Lounge	F012	1848725	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Pharmacy	14.4.13.01	Staff Lounge	F005	1848723	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Pharmacy	14.4.13.01	Staff Lounge	E072	2267151	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Pharmacy	14.4.13.01	Staff Lounge	E151	1848726	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Pharmacy	14.4.13.01	Staff Lounge	E372	1848727	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
457	1,657			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use							
	610	10.0	4.5	W																								
457	1,657			F																								
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
457	1,753	92.0	41.7	F																								
800	927			F																								
737	838	116.0	52.7	F																								
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25				
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.							
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																		

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Pharmacy	14.4.13.01	Staff Lounge	F034	1848728	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Pharmacy	14.4.13.01	Staff Lounge	F043	2480680	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Pharmacy	14.4.14.01	Locker Room with Change Areas	F002	1848730	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Pharmacy	14.4.14.01	Locker Room with Change Areas	E185	1848731	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	2	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Pharmacy	14.4.14.01	Locker Room with Change Areas	E186	1848732	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	2	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Pharmacy	14.4.15.01	Housekeeping Closet	E039	2189081	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Pharmacy	14.4.15.01	Housekeeping Closet	E339	2189079	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Pharmacy	14.4.15.01	Housekeeping Closet	E215	2189080	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Pharmacy	14.4.15.01	Housekeeping Closet	E234	2189074	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Pharmacy	14.4.15.01	Housekeeping Closet	F082	2480681	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Rehabilitation Services	15.1.01.01	Equipment Drop-Off Area	E213	1848736	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Rehabilitation Services	15.1.02.01	Waiting Area	F006	1848738	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Rehabilitation Services	15.1.02.01	Waiting Area	F005	1848737	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	3	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Rehabilitation Services	15.1.02.01	Waiting Area	E185	1848739	0940488	RACK, BOOT	Shoe storage bench. 3 shelves. Each shelf holds 4 shoes. Steel shelves and fiberboard top panel.	1	1	E	Ikea Canada	Pinnig		31.13	13.75	20.50	791
Rehabilitation Services	15.1.02.01	Waiting Area	E186	1848740	0940039	RACK, COAT	Mobile. Coat hanging rod. 2 ea wire shelves, one for bottom and one for top.	1	1	E	Acart Equipment Ltd.	UR48CH		48.00	18.00	77.00	1,219
Rehabilitation Services	15.1.02.01	Waiting Area	F037	1848741	0939738	TABLE, END	Laminate Rectangular table top. Metal base	1	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Rehabilitation Services	15.2.01.01	Physiotherapy Area	F006	1848743	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Rehabilitation Services	15.2.01.01	Physiotherapy Area	F005	1848742	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	6	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E290	1848761	0947814	DISPENSER, ICE/WATER, COUNTERTOP	Countertop with 4" (102 mm) legs. Ice/water dispenser. To produce up to 257 lb (116.8 kg) of ice per 24 hr. Built in 10 lb (4.5 kg) ice storage. To form dry, cubelet ice. S/s exterior. Water filter.	1	2	E	Hoshizaki	DCM-271BAH	H9320-51	16.54	24.41	31.69	420
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E090	2339382	0945982	EXERCISE UNIT, BALANCE, PARALLEL BARS	10' Platform Mounted ,Height range: 26 - 44" . Width: 19 - 26" (483 - 660 mm). Stainless steel handrails. 10' x 34" platform. Weight capacity: 400 lb	1	2	E	Armedica	AM-710	566819	43.00	120.00	44.00	1,092
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E091	1848747	0940401	EXERCISE UNIT, BICYCLE, RECUMBENT	Self-powered; 16 levels of resistance; ergonomic seat; heart rate monitoring; user weight 400 lbs	3	1	E	Circle Fitness USA	CIR-RB6000-C		25.00	61.00	52.00	635
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E089	1848746	0944129	EXERCISE UNIT, ERGOMETER	Arm and leg ergometer w/ motorized height adjustable table. Height range: 27" to 37" (686mm to 940mm).	1	1	E	Monark	881E/UBE Table	2162R/081691229	30.50	27.25	58.60	775
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E256	1848759	0910851	EXERCISE UNIT, KNEE	For knee flex and extension exercise. Includes two torque arms that each holds up to 75 lb. Backrest reclines to the horizontal position. Adjustable black vinyly covered roller shin pads.	1	1	E	Performance Health	N-K Exercise table	9250-76	31.00	28.00	45.00	787

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
914	737			F																								
	914	10.0	4.5	W																								
610	457	75.0	34.1	F																								
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																								
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																								
	610	10.0	4.5	W																								
457	1,753	92.0	41.7	F																								
559	838			F																								
546	838			F																								
349	521	23.0	10.5	F																								
457	1,956	71.5	32.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
508	432			F																								
559	838			F																								
546	838			F																								
620	805	136.0	61.8	T	Clearances for air circulation and service: - 6" (152 mm) at rear and sides. - 24" (610 mm) on top. Water filter: 18.4" (467.36 mm) H (includes manifold and cartridge).	115	1	8.5	60		Plug	5-15	No										15A circuit breaker. Power cord: 6 ft (1.83 m), bottom. 6.9 kWh used per 100 lb.	DR	0.750	19			C
3,048	1,118	402.0	182.3	F	Height adjusts from 26" to 44" Width adjusts from 19" to 26" Width between uprights is 31"																								
1,549	1,321	130.0	59.1	F																								
692	1,488	48.5	22.0	F	Dimensions (w x d x h): Ergometer: 18.5 x 21.2 x 21.6" (470 x 539 x 549 mm). 48.5 lb (22 kg). Table: 30.5 x 27.25" x 24 to 34" (775 x 692 x 610 to 864 mm).																								
711	1,143	130.0	59.1	F	shipping weight 130lbs (51kg).																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											
		Supply: minimum 1/4" (6 mm) nominal ID. Recommended: 1/2" (13 mm) ID FPT. Copper water tubing or equivalent. Drain: minimum 3/4" (19 mm) nominal ID. Hard pipe or equivalent. 3/4" (19 mm) MPT drain. Water temperature range: 45 to 90 deg F (7 to 32 deg C). Water filter: Inlet/outlet connections: Single (2) 3/8" FNPT. Working pressure: 10 to 125 psi (69 to 862.50 kPa). Potable water.	3,300										Ambient temperature range required: 45 to100 deg F (7 to 38 deg C).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E093	2339383	0945986	EXERCISE UNIT, PULLEY, WALL	The overhead pulley includes (2) padded handles, (2) pulleys, and attachment bracket that extends out from the door	1	2	E	Performance Health	081297134	A873620	6.69	21.65	15.75	170
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E094	1952378	0944702	EXERCISE UNIT, STAIRCASE	Convertible Staircase . Stainless steel. six 6.25"H Steps and 4 4.25"H Steps. Comfort grips handrails 1.5" diameter. 800 lbs bariatric weight capacity.	1	1	E	Fabrication Enterprises, Inc	Training Stairs	15-4215	120.00	35.00	60.00	3,048
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E250	1848758	0937831	EXERCISE UNIT, SUSPENSION FRAME	Mobile. Four 3" (76 mm) casters, 2 rear locking. 48" (1,219 mm) inside width.	1	1	E	Cardon Rehabilitation Products	R16441		50.00	48.00	72.00	1,270
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E095	1848750	0945188	EXERCISE UNIT, TREADMILL, MOTORIZED	Commercial grade treadmill with medical siderails. Low starting speed of 0.1 mph (0.16 kph), adjustable in 0.1 increments (0.16 kph).	1	1	E	Scifit	AC5000M	5607-29	34.00	83.00	63.00	864
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E109	1848751	0938443	HEATER, MOIST HOT PACK	Mobile floor model. 14 gal (52 litre) tank capacity. W/12 standard size 10x12" (25x30cm) moist heat steam packs. Thermostatically controlled. Stainless steel tank & jacket. Full fiberglass insulation.	1	1	E	Chattanooga Canada	M-2	2402	16.00	27.00	33.00	406
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E140	1848753	0938554	LIFTER, PATIENT	Mobile electric patient lifter. Lifting speed: 36mm/sec. Emergency stop and lowering. Battery switches off at low voltage. 50 lifts per battery charge. Lift Capacity, Max: 205 KG	1	1	E	Guldmann	GL5.1		55.51	54.02	78.27	1,410
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E139	1848752	0938553	LIFTER, PATIENT, CEILING MOUNTED, BARIATRIC	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 825 lbs. To include 1 bariatric sling.	1	3	E	Guldmann	GH3+		22.80	8.10	98.40	579
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E152	2339384	0945987	MIRROR, POSTURE	Mobile. Single section mirror. 1/4" (6 mm) distortion free glass. Hardwood, plywood frame and laminated back.	2	1	E	Clinton Industries	561392	081533322	26.50	21.00	72.00	673
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E161	1848755	0944151	MONITOR, VITAL SIGNS, MOBILE	W/ mobile stand. NIBP/SpO2/temperature. Massimo technology. Adult, pediatric, neonatal modes. Touch screen.	1	3	E	Welch Allyn Inc.	Connex 6000 Series		23.00	0.00	49.00	584
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E188	1848748	0928885	RACK, WEIGHTS	Mobile. Fully accessorized weight rack. Built-in dispenser for 5 bands. Hooks for 20 dumbbells. Includes weights, dumbbells, bands, soft-ball hand weights and weight bars.	1	1	E	Hausmann Industries Inc.	5592-100	Patterson# 969117	32.00	24.00	68.00	813
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E381	1848756	0944256	SCALE, FLOOR, CLINICAL	Digital stand-on scale with 3-sided handrail and height bar. Maximum capacity 1000 lb (454.5 kg). Memory recall. Solid cast aluminum construction. Platform dimensions (wxd): 15.75x22" (400x559 mm).	1	1	E	S.R. Instruments	SR555i	SR555i/SR3086/SR3070	22.50	22.00	79.00	572
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E352	1848757	0935146	STIMULATOR, MUSCLE	Two channel neuromuscular stimulator. IFC, PREMOD, Biphasic and Russian modes. Includes lead wires and electrodes.	2	1	E	Mettler Electronics Corp.	Sys Stim 228	5679-28	8.00	12.90	7.40	203
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E233	2471879	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	3	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E420	2470907	0947597	TABLE, TREATMENT, HI/LO	Two section, 2" foam padding, vinyl upholstery, weight capacity 500 lbs, foot switch control, power assisted caster system.	2	3	E	Performance Health	Bobath		40.00	76.00	37.00	1,016
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E421	2470908	0947599	TABLE, TREATMENT, HI/LO, BARIATRIC	Electric. Mobile. Two section. Power mat platform. Weight capacity 900 lbs, 2" foam padding.	1	3	E	Performance Health	553760		48.00	84.00	30.00	1,219
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E369	2074301	0945299	WALKER, ADULT, HIGH WHEELED	Pneumatic. High wheeled. Height adjustable (35 to 47.5"). With Oxygen holder (D & E tank size), IV pole and basket. Width adjustable padded armrests (12 to 19"). Height adjustable: 35 to 51". Handgrips.	1	1	E	Performance Health	6580-05/6580-06	960170/81517556	26.75	28.00	51.25	679
Rehabilitation Services	15.2.01.01	Physiotherapy Area	E358	2074166	0937760	WALKER, ROLLATOR	Foldable. w/ flip-up seat. Weight capacity: 300 lb (136 kg). Handles height adjustable: 34" to 39" (864 to 991mm). Seat (wxd): 19" x 11" (483 x 279 mm).Four 8" (203 mm) casters.	1	1	E	Performance Health	081408129		27.00	24.00	39.00	686
Rehabilitation Services	15.2.01.01	Physiotherapy Area	F081	2480682	0947787	WHITEBOARD, GLASS, LARGE	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 96x48 IN (2439x1220 mm).	2	4	F	Global Industrial	Magnetic Glass Board	695469	96.00		48.00	2,438
Rehabilitation Services	15.2.01.02	Alcove: Floor Scale	E211	1849435	0947805	SCALE, WHEELCHAIR	Wheelchair, chair, and stand on scale. Mobile. 880 lb (400 kg) weight capacity. Digital LED lb/kg readout. Includes hand rail & height gauge. Accuracy: 1/10 lb-100 gm. Automatic zero. Recalls last weight.	1	1	E	Scale-Tronix Inc.	6002		25.00	33.50	49.00	635
Rehabilitation Services	15.2.03.01	Physiotherapy Equipment Storage	E380	2092853	0944253	BOARD, PEG	Painted steel panel. For hanging tools. Mounts in micro slots. Accepts all pegging devices.	1	4	F	Lista International Corporation	8091		60.00	1.00	30.00	1,524
Rehabilitation Services	15.2.03.01	Physiotherapy Equipment Storage	E046	1848764	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	3	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
550	400	1.8	0.8	W	Hooks onto Door, with Door Frame Bracket. Overall Dimensions Rope length: 250cm Bracket-Frame: 40cm x 17cm x 5.5cm Weight: 800g																							
889	1,524	860.0	390.1	F	The top platform measures 24" x 35																							
1,219	1,829	175.0	79.5	F	Shipping weight 200lbs (90.7kg)																							
2,108	1,600	397.0	180.5	F		110	1		60		Plug											15A dedicated, ground circuit.							
686	838	48.0	21.8	F		110	1	10.0	60	1,000	Plug											Power cord: 6.56 ft (2 m).							
1,372	1,988	101.2	46.0	F		120	1		60	53	Plug											Battery, replaceable: 25.9 V/2.25Ah Consumption/power of actuator: 24V, max 8A.							
206	2,499	38.0	17.2	C	Sound level : 52 dB (A)	115	1	2.5	60		Plug											Battery: 2 x 24 V NiMH, 2.0 Ah							
533	1,829			F																								
	1,245	40.0	18.2	F	Dimensions (wxdxh) and weight, approximate: Monitor: 11x6x10" (279x152x254 mm). Weight: 9.50 lb (4.30 kg). Cart: 23x49" (584x0x1245 mm)> Weight: 30.50 lb (13.80 kg).	120	1	1.5	60		Plug											Connection required for nurse call, Ethernet and USB connectivity. Nurse call connections: 25 VAC or 60 VDC maximum at 1A max. 9-cell battery: 10.8V (6.75Ah), Lithium-ion Battery life: 7.8hr							
610	1,727	300.0	136.4	F	Weight of 300 lb (136.4 kg) for rack only without accessories, approximate.																							
559	2,007	62.0	28.2	F	Height rod: 79" (2,007 mm) maximum; 43" (1,092 mm) minimum. Scale dimensions (wxdxh), with handrail: 22.5x22x40" (572x559x1,016 mm). Shipping weight: 62 lb (28.2 kg).																	6 "C" cell alkaline batteries.							
328	188	4.9	2.2	X		115	1	0.4	60		Plug																	
584	699	0.0	0.0	F																								
1,930	940			F	Height adjustable: Range 18"-37"	120	1	6.0	60		Plug								Plug										
2,134	762	0.0	0.0	F	Height range: 20" to 30"	110	1	2.4	60		Plug																	
711	1,302	40.0	18.1	F																								
610	991	16.0	7.3	F																								
	1,219	115.0	52.2	W																								
851	1,245	80.0	36.4	F	Height gauge fully extended (h): 78" (1,981 mm). 12" (305 mm) clearance required on either side of scale for ramps, clear pathway on either side of scale for wheelchair access	120	1		60		Plug											Include A/C adaptor (optional): 120V/1 phase/ 60Hz, 0.3A. Backup power source: 6 D-size disposable batteries.							
25	762	28.0	12.7	W	Wall mounted. Mounting hardware to be included.																							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Unit drained via flexible hose (included). Tap at bottom rear.											
													Operating Conditions: Temperature: 10 to 40 deg C (50 to 104 deg F). Humidity: 15 to 95%, non-condensing. Altitude: -557 to 10,000 ft (-170 to 3,048 m). Storage Conditions: Temperature: -20 to 50 deg C (-4 to 122 deg F). Humidity: 15 to 95%, non-condensing.
													Environmental conditions: Operating temperature range: 10 to 55 deg C (50 to 131 deg F). Relative humidity: 30 to 75%. Transport & storage temperature range: -40 to 69.4 deg C (-40 to 167 deg F). Relative humidity: up to 90%.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Rehabilitation Services	15.2.03.01	Physiotherapy Equipment Storage	E292	1848766	0937464	WHEELCHAIR, ADULT, BARIATRIC	Bariatric. Minimum weight capacity: 700 lb (318 kg). Seat: 34x22" (864x559 mm). W/ I.V. pole, O2 tank holder, swing-away footrests & leg rests, & anti-tip device. Foldable.	1	1	E	Premium Patient Handling System (OMR)	6734-22	REGENCY XL-2000	41.73	42.00	36.00	1,060
Rehabilitation Services	15.2.03.01	Physiotherapy Equipment Storage	T287		00N0036153	WHEELCHAIR, ADULT, TILT		1	5	E		Stellar					
Rehabilitation Services	15.2.03.01	Physiotherapy Equipment Storage	T287		00N0036154	WHEELCHAIR, ADULT, TILT		1	5	E		Stellar					
Rehabilitation Services	15.2.04.01	Clinical Workstation	F020	1848767	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Rehabilitation Services	15.2.04.01	Clinical Workstation	F082	2480683	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Rehabilitation Services	15.2.04.02	Clinical Workstation	F020	1851218	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Rehabilitation Services	15.2.04.03	Clinical Workstation	F020	1851222	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Rehabilitation Services	15.2.05.01	Optimization Classroom	F005	1848771	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	10	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Rehabilitation Services	15.2.05.01	Optimization Classroom	F042	1848772	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	4	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Rehabilitation Services	15.2.05.01	Optimization Classroom	F080	2480684	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Rehabilitation Services	15.2.07.01	Soiled Utility	E392	2241748	0945078	CART, TRANSPORT	Bio-hazardous waste transport cart. Wrap-around rubber bumpers. Load Capacity: 400 Lbs (181kg), with 4" rubber wheels. Foldable.	1	1	E	Uline Canada	H-115		19.00	29.00	33.50	483
Rehabilitation Services	15.2.07.01	Soiled Utility	E147	2241744	0946847	MACERATOR, DISPOSAL SYSTEM	Pulp Macerater. Disposes of 4-6 pulp items per cycle. 9 blade tech. Audio annunciation. Completely hands free.	1	2	E	Dolphin	Pulpmatic Ultima		19.69	23.62	59.17	500
Rehabilitation Services	15.2.07.01	Soiled Utility	E393	2241745	0942974	RECEPTACLE	CSRX - 3.8 L Container with wall-mounted bracket. Dimensions provided are for wall brackets only. The containers dimensions are: 21.6 cm H x 13.5 cm D x 23.1 cm W	1	2	E	Stericycle	CsRx		9.10	5.30	8.50	231
Rehabilitation Services	15.2.07.01	Soiled Utility	E218	2241746	0940963	SHELVING, WALL MOUNTED	On shelf, two posts 13"H, four wall-mount brackets, two adjustable cantilever arms.	1	2	E	Acart Equipment Ltd.	1WA1848CH		48.00	18.00	13.00	1,219
Rehabilitation Services	15.2.07.01	Soiled Utility	E400	2241747	0943838	TRUCK, SOILED LINEN COLLECTION	Metal soiled linen cart holding and transport cart. Provided by a third-party linen company at no cost. For planning and utility information.	1	1	E	G.S. Manufacturing	K-Bro G360-22-DRPD		62.75	24.00	70.00	1,594
Rehabilitation Services	15.2.07.01	Soiled Utility	E284	1848979	0945088	WASHER, STRETCHER/WHEELCHAIR	Mobile, accommodates larger size wheelchairs, carts, geri chairs, broda, split rental beds. capacity up to 2 wheelchairs folded or 2 commodes, or 2 shower chairs, or 2 over-bed tables, or multiple walkers or combinations of different washable equipment. 2 swivel casters front, 2 fixed caster at the back, caster size 1.25"x4". Full handle in front. Touchscreen panel.	1	2	E	The HubScrub Company	20/80		38.50	64.50	61.50	978
Rehabilitation Services	15.3.01.01	ADL Kitchen	F005	1848774	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Rehabilitation Services	15.3.01.01	ADL Kitchen	E225	1848782	0941402	HOOD, RANGE	SS under-cabinet. Electronic push button 3-level control LED indicators. 2 lights. Heat sensor that adjusts blower speed and excessive heat. Clean reminder.	1	4	E	Broan Limited	BCDJ130SS		29.90	19.63	6.00	759
Rehabilitation Services	15.3.01.01	ADL Kitchen	E151	1848775	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Rehabilitation Services	15.3.01.01	ADL Kitchen	E244	1848777	0948037	RANGE, INDUCTION, DOMESTIC	Rapid boil induction cooktop. Air fry. Fan convection. Wifi connectivity and voice control. Front dials/knobs. Front touchscreen control panel.	1	4	E	Samsung	NE63B8411SS		29.94	28.67	37.00	760
Rehabilitation Services	15.3.01.01	ADL Kitchen	E372	1848776	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,067	914	70.0	31.8	F	Dimensions are approximate only.																							
				F																								
				F																								
610	1,016			F																								
	610	10.0	4.5	W																								
610	1,016			F																								
610	1,016			F																								
546	838			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
737	851	29.0	13.2	F																								
600	1,503	187.4	85.0	F	Machine must be bolted to the floor or bonded with silicone to prevent movement																15A dedicated circuit required. 230V, 60Hz, 13A breaker option available. GFCI. In room electrical disconnect switch. Can configure with plug or hard wire.						
135	216			W	Container: 9.09x5.31x8.50 " (231x135x216 mm). Wall mounted baskets: 14 cm H x 10.7 cm D x 12.7 cm W.																						
457	330			W	Wall mounted. Wall-Backing to be provided by contractor.																						
610	1,778	135.6	61.5	F	model # K-Bro G360-22-DRPD-SASKTB-CD.																						
1,638	1,562	385.0	174.6	F	Wash Chamber Interior Available Space (W X H X L): 31.25" X 49" X 54.5" Wash Chamber Door Opening (W X H): 33.25 X 42.25 SET-UP LOCATION System positioned on a level floor to maintain accurate water level readings. Access to water, drain and 115V electrical outlet. ACCESS Doorways should be at least 39" for the unit to pass through. SPACE REQUIREMENTS Allow 3' for door swing plus at least 4' for wheelchair/equipment loading and unloading. Provide space for placing equipment out of the way for drying and loading. Allow 2' for opening the chemical door and changing out chemical containers on the back end.	115	1	12.0	60		Plug										dedicated 20A circuit breaker. 15' heavy duty electrical cord supplied.	HW					P
546	838			F																								
499	152	48.4	22.0	W	mounting height 18" to 30" from cooktop to bottom of the hood. Wall or cabinet mounting options.	120	1	1.4	60		Hard		No															
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
728	940	205.0	93.0	F	Required cabinet opening is 30"W Min. 30" between cooking top and underside of cabinet. Min 15" between adjacent countertop and underside of cabinet.	240	1	40.0	60	800	Plug											Dedicated 40amp or larger circuit breaker required.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Waste connection - 50mm ID (2"), Overflow non return connection - 22mm. Shut off valve before hose connection required. Non return valve before hose connection recommended.											
		HOT WATER – Recommend standard hot tap water 110F to 120F. Access to a standard garden hose male faucet thread. Distance to faucet within 13' for supplied hoses. Water flow should be capable of filling a gallon container in approximately 10 to 15 seconds for standard setting. HOT WATER TANK – If machine will be operating in a location where hot water is stored in a hot water tank, high volume cleaning may affect the supply of hot water in a low capacity water tank. DRAIN – 2" diameter drain line raised 2-3' off the floor or utility sink or floor drain. Drain line capable of 6 gallons a minute flow rate. Distance to drain line within 13' for supplied hoses. Longer hoses are available. WATER USAGE – approximately 4 gallons for complete wash, disinfectant and rinse operations. DISINFECTANT USAGE – Based on disinfectant type, over 300 cycles are achieved with 1 gallon of disinfectant, 2.5oz for Ready To Use or with UV, over 2000 hours of use.										
													CFM (low speed): 100 CFM (high speed): 360 CFM (boost): 450 Vertical duct orientation: Sone (low speed): 0.4 Sone (high speed): 6.0 VerticalHorizontal Sone (low speed): 0.4 Sone (high speed): 5.5 Round: Sone (low speed): 0.4 Sone (high speed): 5.5 Duct sizes: 7" round or 3-1/4 x 10" (82.55 x 254 mm)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Rehabilitation Services	15.3.01.01	ADL Kitchen	F035	1848778	0947966	TABLE, HEIGHT ADJUSTABLE	Mobile with locking casters. Hand therapy table. No cutout. Spring assisted height adjustment. Height adjustable: 28.5 to 42.5" (724 to 1080 mm). Weight capacity: 75 lb (34 kg).	1	3	F	Hausmann Industries Inc.	6282 w/ 075		32.00	18.00	42.50	813
Rehabilitation Services	15.3.02.01	ADL Washer and Dryer	E259	2485035	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
Rehabilitation Services	15.3.02.01	ADL Washer and Dryer	E289	1849747	0946216	WASHER/DRYER, CLOTHES, DOMESTIC	Side by side configuration preferred. Front Load: Washer - 2.2 Cu. Ft. Dryer - Electric, 4.0 Cu. Ft. Energy Star Certified	1	2	E	Bosch	WAW285H1UC/WTW87NH1U		23.50	25.00	67.75	597
Rehabilitation Services	15.3.02.02	ADL Bathroom	E445	2485798	0945458	PATIENT TRANSFER SUPPORT POLE, PORTABLE	Floor mounted support rail with pivoting horizontal rail, safety lock, weight capacity 300lbs (136kg) grip handle, locked in down and lift to unlock. Pole detaches for portability	1	2	E	Performance Health	Adv. Rail Portable	AR-PT-MAX	19.00	7.50	62.00	483
Rehabilitation Services	15.3.03.01	Splinting Area	F005	1848779	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Rehabilitation Services	15.3.03.01	Splinting Area	E108	2337727	0945800	GUN, HEAT	Variable temperatures 140 to 1,040 degrees F/ 38 to 560 C. Variable temperature adjustment allows you to dial in the proper temperature.	1	1	E	Milwaukee	MTL8977-20		1.32	10.50		34
Rehabilitation Services	15.3.03.01	Splinting Area	E226	1848785	0945192	HEATER, THERMOPLASTIC/ SPLINTING	Stainless steel pan. Up to 19x11" (483x279 mm) splinting material. Insulated double lids. Variable temperature.	1	1	E	Whitehall Manufacturing Inc.	SP-1502		23.50	14.25	7.00	597
Rehabilitation Services	15.3.03.01	Splinting Area	E305	1848781	0944131	SEWING MACHINE	W/ stand. One needle, unison feed, lockstitch machine with rectangular feed (prevents needle from fraying) and safety mechanism (prevents machine damage when thread caught in	1	1	E	Juki	DNU 1541 S		20.00	48.00	38.00	508
Rehabilitation Services	15.3.03.01	Splinting Area	E213	2194420	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Rehabilitation Services	15.3.04.01	Clinical Workstation	F020	1848786	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Rehabilitation Services	15.4.01.01	Retail Supply Storage	E046	1848788	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	3	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Rehabilitation Services	15.4.01.01	Retail Supply Storage	E424	2470751	0947585	RACK, CRUTCH/CANE	Wall mounted parwall louvered panel for storage. Accessories include 6"-12" spikes, baskets, and tape holders.	1	2	E	LogiQuip Healthcare Storage Solutions	ParWall	P4819B	48.50	13.00	19.00	1,232
Rehabilitation Services	15.4.02.01	Clean Supply Closet	E436	2483122	0947871	SHELVING, WIRE	Wire shelving unit. 6 shelves. Mobile, with 4 casters. Enclosed cart with complete kit - wire grid on 3 sides, 2 brake casters, 2 swivel casters, 4 donut bumpers, bottom shelf cover, and full width label holder.	1	1	E	Acart Healthcare Storage Solutions	475CH	MEB475CH-6-CL	72.00	24.00	80.00	1,829
Rehabilitation Services	15.5.01.01	Business Centre	F069	1848790	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Rehabilitation Services	15.5.01.01	Business Centre	F065	1952366	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Rehabilitation Services	15.5.01.01	Business Centre	F041	1848791	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Rehabilitation Services	15.5.01.01	Business Centre	F043	2480685	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Biomedical Engineering	16.01.01	Workstation: Biomedical Engineering Tech UPP Staff	F020	1848793	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,080			F																								
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																								
635	1,721	285.0	129.3	F	Washer: Door Hinge: Left Side (Not Reversible) Net Weight: 160 lbs Side Clearance (door open 180*): 15.8" (400 mm) Depth (door open 90*): 42.5" (1090 mm) Side Clearance: 0.625" Rear Clearance: 2.5" Silence level washing: 52 (dBA). Silence level spinning: 72 (dBA). Dryer: Door Hinge: Right Side (Reversible) Net Weight: 125 lbs Side Clearance (door open 180*): 16" (406 mm) Depth (door open 90*): 42.9" (1090 mm) Side Clearance: 0.625" Rear Clearance: 2.5" Silence level: 65 (dBA). Top clearance for stack system: 6.25"	208	1	10.5	60	2,520	Plug	6-15	No	208	1	3.5	60	900	Plug	6-15	No	Washer: Volts: 208V Power Cord Length: 63" Circuit Breaker: 15 Amps Dryer: Volts: 208V Power Cord Length: 63" Circuit Breaker: 15 Amps						
191	1,575	23.0	10.4	F	Floor plate installed to floor that is structurally sound. Preference to align and secure mast directly to floor joist. Fasteners should not protrude above top surface of floor plate. Screw retention force rating at least 600 lbs.(272 kg). Minimum thread engagement 2" (51 mm) Rail Diameter: 1.25" (320 mm) Pivoting and locking horizontal bar: 17" (430 mm) long rail Five settings for bar height between 30 - 38" (750 - 950 mm) above floor Locked if down, lift .25" (6.35 mm) to unlock All hardware to be supplied and installed by Design/Builder																								
546	838			F																								
267		1.8	0.8	X		120	1	11.5	60	1,400	Plug	5-15P																
362	178	31.0	14.1	T	Shipping weight: 50.2 lb (22.77 kg), approximate.	120	1	6.0	60		Plug		No									GFCI receptacle, 3-prong. Includes grounded, hospital-grade plug.						
1,219	965	205.3	93.2	F	Dimensions of machine (wxdxh): 7x18.77x8" (178x477x203 mm). Dimensions of stand (wxdxh): 20x48x30" (508x1219x762 mm).	120	1		60	750	Plug		No									6 A max on start up, 2.5 A max on running. 750 W motor output.						
457	1,753	92.0	41.7	F																								
610	1,016			F																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
330	483	22.0	10.0	W	Wall mounted. Mounting brackets included. Must be able to support weight at capacity of approximately 240 lb (109 kg). Consists of 2 bases: 33"Lx 5 1/4" W extends to a length of 16" from wall.																								
610	2,032	195.0	88.5	F																								
457	1,657			F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																								
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		WASHER: The washing machine must only be operated with cold and hot (max. 140 °F/60 °C) tap water. Water Supply Pressure must be between 14.5 to 145 PSI (1 - 10 bar) with a minimum of 2.2 gallon (8 L) of flow per minute Water Supply Hose Length of 28" to the Right of Washer Water SUpply Hose lnegth of 43" to the Left of Washer Height difference between the floor and drainage point is maximum 39" (100 cm) Drain Hose Length of 57" DRYER: Drain Hose Length: 78" Maximum height of drain is 39 in. (100 cm).											
		1/4 turn integrated valve for draining water to bucket, sink or drain. Required access to drain. Includes drain valve and hose assembly.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Biomedical Engineering	16.01.01	Workstation: Biomedical Engineering Tech UPP Staff	F048	1848794	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Biomedical Engineering	16.01.02	Workstation: Biomedical Engineering Tech UPP Staff	F020	1851226	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Biomedical Engineering	16.01.02	Workstation: Biomedical Engineering Tech UPP Staff	F048	1851225	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Biomedical Engineering	16.01.03	Workstation: Biomedical Engineering Tech UPP Staff	F020	1851228	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Biomedical Engineering	16.01.03	Workstation: Biomedical Engineering Tech UPP Staff	F048	1851227	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Biomedical Engineering	16.01.04	Workstation: Biomedical Engineering Tech UPP Staff	F020	2241750	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Biomedical Engineering	16.01.04	Workstation: Biomedical Engineering Tech UPP Staff	F048	2241749	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Biomedical Engineering	16.02.01	Equipment Collection Bay	E172	1849748	0936934	TRUCK, PALLET	Capacity: 5500 lbs; hydraulic	2	1	E	Raymond Products Co. Inc.	RJ50N	BT LIFTER	27.00	62.20	48.00	686
Biomedical Engineering	16.03.01	Mobile Equipment Bay	E213	1848795	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Biomedical Engineering	16.05.01	Workshop	E265	1848800	0937558	ANALYZER, ELECTROSURGICAL	Electrosurgical analyzer. Current accuracy +/- 2.5%. Measurement of vessel sealing, contact quality monitor, high frequency leakage, output power distribution in single or continuous mode.	1	1	E	Fluke Biomedical Corporation	QA-ES MK III	4502257	13.75	18.50	5.75	349
Biomedical Engineering	16.05.01	Workshop	E217	1848798	0944150	ANALYZER, NIBP	NIBP simulator and cuff tester. Digital manometer pressure range: 0.0 to 400.0 mmHg. LCD display. Built-in adult & neonate cuff supports. Includes adapter hoses, internal pump and battery.	1	1	E	Clinical Dynamics	AccuPulse Benchtop		8.00	12.00	5.00	203
Biomedical Engineering	16.05.01	Workshop	E267	1848801	0940418	ANALYZER, PNEUMATIC AIR PRESSURE VERIFICATION	Precision pressure test gauge. Pressure connection: 1/4" (6 mm) NPT male.	1	1	E	Fluke Biomedical Corporation	700G Series		4.50	1.50	5.00	114
Biomedical Engineering	16.05.01	Workshop	T284		00N0040527	CALIBRATION THERMOMETER		1	5	E		TAT 5000 CERTIFIED MASTER					
Biomedical Engineering	16.05.01	Workshop	F021	1848796	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Biomedical Engineering	16.05.01	Workshop	T075		00N0000957	METER, MULTIMETER, DIGITAL		1	5	E		83 V ROMAN FOUR					
Biomedical Engineering	16.05.01	Workshop	E075	1848797	0945253	METER, MULTIMETER, DIGITAL	AC true RMS measurements. 6000 count resolution. 4-1/2 digits display w/ bargraph & backlight. Min/max/average recording. Temperature probe range -50 to 1000 deg C (-58 to 1832 deg F)	1	1	E	Fluke Electronics Canada Ltd	87V/E2/80K-6		3.85	2.05	7.90	98
Biomedical Engineering	16.05.01	Workshop	E168	1952384	0945271	OSCILLOSCOPE	Handheld. 2-channel. 200 MHz bandwidth. Integrated shock-proof protective holster. LCD display. Includes Li-ion battery pack, battery charger, 2 voltage probe sets, 2 test leads, hand strap.	1	1	E	Fluke Biomedical Corporation	190M-2		7.50	2.80	10.43	191
Biomedical Engineering	16.05.01	Workshop	E402	2194421	0945432	SHOP TOOLS, LIFTER	Mobile lift with standard steel forks. Hold-down mechanism secures carriage, Maximum lifting height of 10 ft 0.5". Up to 400 lbs (181kg) load capacity. Two 8" non-marking rear wheels and 1" dual wheel front swivel castors. Includes Load platform for lifting flat surfaces.	1	1	E	Genie Industries	GL-8		24.80	34.60	120.40	630
Biomedical Engineering	16.05.01	Workshop	T219		00N0027894	SIMULATOR, PULSE OXIMETER		1	5	E		OXSIM OX-1					
Biomedical Engineering	16.05.01	Workshop	E263	1848799	0940417	TESTER, DEFIBRILLATOR	Defibrillator analyzer. Measurements: Monophasic and biphasic dc energy; Energy and cardioversion; Peak voltage, peak current and overshoot.	1	1	E	Fluke Biomedical Corporation	QED 6		9.50	10.50	4.00	241
Biomedical Engineering	16.05.01	Workshop	F043	2480686	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
1,580	1,219	154.0	69.9	F																								
457	1,753	92.0	41.7	F																								
470	146	16.5	7.5	T		110	1		60		Plug		Yes									20 VA. USB and wireless port.						
305	127	8.0	3.6	T		120	1		60	50	Plug		Yes									Output 24DVC @ 2.1A, 6 foot Cable Internal Nickel Metal Metal Hydrae (NIMH) Battery 19.2V, 2.5A-Hr, 150 NIBP Simulators Charge Time: 16 hours Dataline: 2 x RS-232 ports and 1 x USB port						
38	127	1.2	0.6	O																		3 AA alkaline batteries.						
				O																								
711	1,219	50.0	22.7	F																								
				T																								
52	201			T	Dimensions: 87V: 3.85x2.05x7.9" (98x52x201 mm). Weight: 0.8 lb (0.36 kg); 1.37 lb (0.62 kg) - with holster. 80K-6: 9.8" (249 mm) (probe body), 2.0" (51 mm) max. width. Weight: 136gr (4.8 oz).														One 9 V battery.						
71	265	4.6	2.1	T		120	1		60		Plug		Yes									Rechargeable double capacity Li-Ion battery.						
879	3,058	145.5	66.0	F	Height with Forks down: 8 ft 3" Counterweight base: 2 ft 4.5" (L), 3 ft 7.5" Max (W), Ground Clearance: 0.75" Load platform (WxL): 23 x 22"																	Heavy Duty winch.						
				T																								
267	102	4.5	2.1	T		120	1		60		Plug		Yes									One - 9V alkaline battery. RS-232 port.						
	914	10.0	4.5	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				LOW		HIGH												AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature: 10 to 40 deg C (50 to 104 deg F). Storage temperature: -20 to 60 deg C (-4 to 140 deg F). Humidity range: 10 to 90% non-condensing. Altitude: to 2,000 meters.
													87V Operating temperature: -20 to +55 deg C (-4 to 131 deg F). Storage temperature: -40 to +60 deg C (-40 to 140deg F). Humidity (without condensation): 0% to 90% (0 to 35 deg C or 32 to 95 deg F), 0% to 70 % (35 to 55 deg C or 95 to 131 deg F). Operating altitude: 2000 m. 80K-6 Temperature: Storage: -20 to 60°C Operating: 0 to 50°C Temperature Coefficient: 100 ppm/C Relative Humidity: 20 - 80% Altitude: 2000 m.
													Operating temperature: 0 to 40°C (32 to 104°F), +40°C to +50°C excluding battery. Storage temperature: -20 deg C to +60 deg C. Humidity: 95% RH non-condensing (10 to 30°C), 75% RH non-condensing (30 to 40°C), 45% RH non-condensing (40 to 50°C). Maximum operating altitude Up to 2,000 m (6666 ft) for CAT IV 600 V, CAT III 1000 V; up to 3,000 m (10,000 ft) for CAT III 600 V, CAT II 1000 V Maximum storage altitude 12 km (40,000 ft)

Appendix 1B(II) - Furniture Equipment List

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Biomedical Engineering	16.05.01	Workshop	E294	1848803	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	3	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Biomedical Engineering	16.06.01	Flammable Liquid Storage	E238	1848804	0945196	CABINET, SAFETY, FLAMMABLE STORAGE	Flammable safety cabinet. Capacity 170.34 L (45 gal). Self-closing doors.	1	1	E	Justrite Manufacturing	Sure-Grip EX	4655602	43.00	18.00	65.00	1,092
Biomedical Engineering	16.07.01	Parts Storage	E423	2470894	0947590	BIN SYSTEM, WALL MOUNTED	Single rail wall mounted bin system including bins.	1	2	E	Uline Canada	H4682		11.00	4.00	4.00	279
Biomedical Engineering	16.07.01	Parts Storage	F029	2471881	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Biomedical Engineering	16.07.01	Parts Storage	E213	1848805	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Registration / Admitting	17.1.01.01	Waiting Area	F006	1848807	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	2	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Registration / Admitting	17.1.01.01	Waiting Area	F005	1848806	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	10	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Registration / Admitting	17.1.01.01	Waiting Area	F037	1848808	0939738	TABLE, END	Laminate Rectangular table top. Metal base	4	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Registration / Admitting	17.1.02.01	Information Desk	F005	2472857	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Registration / Admitting	17.1.02.01	Information Desk	F020	1848809	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Registration / Admitting	17.1.04.01	Registration Booths	F005	1848812	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Registration / Admitting	17.1.04.01	Registration Booths	F020	1848813	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Registration / Admitting	17.1.04.02	Registration Booths	F005	1851230	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Registration / Admitting	17.1.04.02	Registration Booths	F020	1851229	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Registration / Admitting	17.1.04.03	Registration Booths	F005	1851234	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	1	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Registration / Admitting	17.1.04.03	Registration Booths	F020	1851235	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Registration / Admitting	17.2.01.01	Business Centre	F029	1848816	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Registration / Admitting	17.2.01.01	Business Centre	E046	1952368	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Registration / Admitting	17.2.01.01	Business Centre	F065	1952367	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Registration / Admitting	17.2.01.01	Business Centre	F041	1848817	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Registration / Admitting	17.2.01.01	Business Centre	F043	2480687	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Registration / Admitting	17.2.02.01	General Storage	F068	1848819	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	4	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Registration / Admitting	17.2.03.01	Kitchenette	E151	1952370	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Registration / Admitting	17.2.03.01	Kitchenette	E192	1848820	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Administration / Staffing Office	18.1.01.01	Waiting Area	F006	1848822	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Administration / Staffing Office	18.1.01.01	Waiting Area	F005	1848821	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	3	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.1.01.01	Waiting Area	F037	1848823	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Administration / Staffing Office	18.2.01.01	Office: Director of Patient Care	F068	1848826	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Administration / Staffing Office	18.2.01.01	Office: Director of Patient Care	F005	1848824	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.01.01	Office: Director of Patient Care	F020	1848825	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.01.01	Office: Director of Patient Care	F048	1848828	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.01.01	Office: Director of Patient Care	F082	2480688	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
457	1,651	266.5	120.9	F	Shipping weight: 301 lbs. (137 kg). Clearance should be left for the vent of the cabinet.																							
102	102	6.0	2.7	W	Wall mounted. Mounting accessories to be included.																							
457	1,829	133.0	60.5	F																								
457	1,753	92.0	41.7	F																								
559	838			F																								
546	838			F																								
508	432			F																								
546	838			F																								
610	1,016			F																								
546	838			F																								
610	1,016			F																								
546	838			F																								
610	1,016			F																								
546	838			F																								
610	1,016			F																								
457	1,829	133.0	60.5	F																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
305	1,829			F																								
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
559	838			F																								
546	838			F																								
508	432			F																								
305	1,829			F																								
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Administration / Staffing Office	18.2.02.01	Workstation: Adm Assist - Director of Patient Care	F020	1848830	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.02.01	Workstation: Adm Assist - Director of Patient Care	F071	1848831	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Administration / Staffing Office	18.2.02.01	Workstation: Adm Assist - Director of Patient Care	F028	1848829	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Administration / Staffing Office	18.2.03.01	Office: Director NE Specialized Services	F005	1848832	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.03.01	Office: Director NE Specialized Services	F020	1848833	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.03.01	Office: Director NE Specialized Services	F048	1848836	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.03.01	Office: Director NE Specialized Services	F027	1848834	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Administration / Staffing Office	18.2.03.01	Office: Director NE Specialized Services	F082	2480689	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.04.01	Workstation: Adm Assist-Director NE Spec Serv Mgr	F020	1848837	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.04.01	Workstation: Adm Assist-Director NE Spec Serv Mgr	F071	1848839	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Administration / Staffing Office	18.2.04.01	Workstation: Adm Assist-Director NE Spec Serv Mgr	F028	1848838	0939597	FILE, LATERAL, DRAWERS: 4	Painted metal construction, integrated pull	1	3	F	Herman Miller	LW200.364		36.00	19.38	51.50	914
Administration / Staffing Office	18.2.05.01	Office: South Peace Health Services Administrator	F005	1848840	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.05.01	Office: South Peace Health Services Administrator	F020	1848841	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.05.01	Office: South Peace Health Services Administrator	F048	1848844	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.05.01	Office: South Peace Health Services Administrator	F027	1848842	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Administration / Staffing Office	18.2.05.01	Office: South Peace Health Services Administrator	F082	2480690	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.06.01	Workstation: Adm Assist-South Peace HSA	F029	2194571	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Administration / Staffing Office	18.2.06.01	Workstation: Adm Assist-South Peace HSA	F020	1848845	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.06.01	Workstation: Adm Assist-South Peace HSA	F071	1848846	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Administration / Staffing Office	18.2.07.01	Office: Human Resources Advisor	F005	1848847	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.07.01	Office: Human Resources Advisor	F020	1848848	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.07.01	Office: Human Resources Advisor	F048	1848851	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.07.01	Office: Human Resources Advisor	F027	1848849	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Administration / Staffing Office	18.2.07.01	Office: Human Resources Advisor	F082	2480691	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,016			F																							
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
546	838			F																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
508	1,829			F																							
	610	10.0	4.5	W																							
610	1,016			F																							
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
492	1,308			F	Includes 1: leveling glides. File depth: 19-3/8" (492mm) File width: 41-5/8"(10577.28mm) Interior height of the flipper door with pullout shelf is 10-1/4(260.35mm)																							
546	838			F																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
508	1,829			F																							
	610	10.0	4.5	W																							
457	1,829	133.0	60.5	F																							
610	1,016			F																							
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
546	838			F																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
508	1,829			F																							
	610	10.0	4.5	W																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Administration / Staffing Office	18.2.08.01	Workstation: Practice Support Coach	F029	2194572	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Administration / Staffing Office	18.2.08.01	Workstation: Practice Support Coach	F020	1848852	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.08.01	Workstation: Practice Support Coach	F071	1848853	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Administration / Staffing Office	18.2.09.01	Workstation: Infection Control Practitioner	F029	1848856	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Administration / Staffing Office	18.2.09.01	Workstation: Infection Control Practitioner	F005	1848854	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.09.01	Workstation: Infection Control Practitioner	F020	1848855	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.09.01	Workstation: Infection Control Practitioner	F071	1848858	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Administration / Staffing Office	18.2.09.01	Workstation: Infection Control Practitioner	F082	2480692	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.10.01	Office: Manager of Patient Services	F068	2095917	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Administration / Staffing Office	18.2.10.01	Office: Manager of Patient Services	F005	1849749	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.10.01	Office: Manager of Patient Services	F020	1849750	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.10.01	Office: Manager of Patient Services	F048	1849753	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.10.01	Office: Manager of Patient Services	F082	2480693	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.11.01	Workstation: Touchdown Area	F020	1848865	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.11.01	Workstation: Touchdown Area	F048	1848867	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.11.01	Workstation: Touchdown Area	F082	2480694	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.11.02	Workstation: Touchdown Area	F020	1851240	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.11.02	Workstation: Touchdown Area	F048	1851237	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.01	Workstation: Clinical IT Technologist	F020	1848863	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.01	Workstation: Clinical IT Technologist	F071	2194573	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Administration / Staffing Office	18.2.12.01.01	Workstation: Scheduling Clerk	F020	1848859	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.01.01	Workstation: Scheduling Clerk	F048	1848861	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.01.01	Workstation: Scheduling Clerk	F082	2480695	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.12.01.02	Workstation: Scheduling Clerk	F020	1851241	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,829	133.0	60.5	F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
457	1,829	133.0	60.5	F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
	610	10.0	4.5	W																								
305	1,829			F																								
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
	610	10.0	4.5	W																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Administration / Staffing Office	18.2.12.01.02	Workstation: Scheduling Clerk	F048	1851242	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.01.03	Workstation: Scheduling Clerk	F020	1851246	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.01.03	Workstation: Scheduling Clerk	F048	1851247	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.01.04	Workstation: Scheduling Clerk	F020	1851250	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.01.04	Workstation: Scheduling Clerk	F048	1851252	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.01.05	Workstation: Scheduling Clerk	F020	1851255	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.01.05	Workstation: Scheduling Clerk	F048	1851253	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.01.06	Workstation: Scheduling Clerk	F020	1851259	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.01.06	Workstation: Scheduling Clerk	F048	1851258	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.02	Office: Manager, Support Services	F068	2093014	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	1	3	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762
Administration / Staffing Office	18.2.12.02	Office: Manager, Support Services	F005	2093015	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Administration / Staffing Office	18.2.12.02	Office: Manager, Support Services	F020	2093011	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.02	Office: Manager, Support Services	F048	2194537	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.12.02	Office: Manager, Support Services	F082	2480696	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Administration / Staffing Office	18.2.12.03	Workstation: Human Resources Assistant	F029	2093021	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Administration / Staffing Office	18.2.12.03	Workstation: Human Resources Assistant	F020	2093022	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Administration / Staffing Office	18.2.12.03	Workstation: Human Resources Assistant	F048	2194540	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Administration / Staffing Office	18.2.13.01	Business Centre	F029	1848869	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Administration / Staffing Office	18.2.13.01	Business Centre	F041	1848870	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Administration / Staffing Office	18.2.14.01	Meeting / Education Room	F015	1848872	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	4	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Administration / Staffing Office	18.2.14.01	Meeting / Education Room	F042	1848873	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Administration / Staffing Office	18.2.14.01	Meeting / Education Room	F080	2480697	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Administration / Staffing Office	18.2.16.01	General Storage Room	E213	1848875	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	4	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
HIMS	19.01.01	General File Storage		2115503	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
HIMS	19.02.01	Office: HIM Advisor	F005	1848877	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
HIMS	19.02.01	Office: HIM Advisor	F020	1848878	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.02.01	Office: HIM Advisor	F071	1848881	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
HIMS	19.02.01	Office: HIM Advisor	F027	1848879	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
305	1,829			F																								
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								
457	1,829	133.0	60.5	F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
457	1,829	133.0	60.5	F																								
610	762	88.0	40.0	F																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
457	1,753	92.0	41.7	F																								
				NA																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
HIMS	19.02.01	Office: HIM Advisor	F082	2480698	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
HIMS	19.03.01	Workstation: HIM Clerk	F020	1848882	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.03.01	Workstation: HIM Clerk	F048	1848883	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
HIMS	19.03.02	Workstation: HIM Clerk	F020	1851263	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.03.02	Workstation: HIM Clerk	F048	1851261	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
HIMS	19.03.03	Workstation: HIM Clerk	F020	1851264	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.03.03	Workstation: HIM Clerk	F048	1851265	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
HIMS	19.03.04	Workstation: HIM Clerk	F020	1851268	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.03.04	Workstation: HIM Clerk	F048	1851269	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
HIMS	19.04.01	Workstation: HIM Coder	F020	1848885	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.04.01	Workstation: HIM Coder	F071	1848886	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
HIMS	19.04.01	Workstation: HIM Coder	F027	2471882	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
HIMS	19.04.02	Workstation: HIM Coder	F020	1851272	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.04.02	Workstation: HIM Coder	F071	1851271	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
HIMS	19.04.02	Workstation: HIM Coder	F027	2471883	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
HIMS	19.05.01	Workstation: Touchdown	F020	2113943	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.05.01	Workstation: Touchdown	F048	2113942	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
HIMS	19.06.01	Workstation: Scanning	F020	1848892	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	4	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
HIMS	19.06.01	Workstation: Scanning	F048	1848893	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
HIMS	19.06.01	Workstation: Scanning	F034	2194422	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
HIMS	19.07.01	Business Centre and Kitchenette	F029	1848889	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
HIMS	19.07.01	Business Centre and Kitchenette	E151	2115504	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
HIMS	19.07.01	Business Centre and Kitchenette	E192	1848888	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
HIMS	19.07.01	Business Centre and Kitchenette	E213	2115505	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
HIMS	19.07.01	Business Centre and Kitchenette	F082	2480699	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
HIMS	19.08.01	General Storage	F068	1848895	0941237	BOOKCASE, 5H	Adjustable shelves, metal finish.	4	1	F	Global Furniture	93BC-3072		30.00	12.00	72.00	762

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P											0.5 W power draw when not in use						
508	1,829			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P											0.5 W power draw when not in use						
508	1,829			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
914	737			F																								
457	1,829	133.0	60.5	F																								
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
457	1,753	92.0	41.7	F																								
	610	10.0	4.5	W																								
305	1,829			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
IT	20.1.01.01	Office: Service Desk	F020	1848905	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	4	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
IT	20.1.01.01	Office: Service Desk	F048	1848907	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	4	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
IT	20.1.01.01	Office: Service Desk	E294	1848906	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
IT	20.1.02.01	Equipment Storage	E213	1848908	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
MDRD	21.1.01.01	PPE Gowning Area	E178	1848911	0940406	CART, PERSONAL PROTECTION EQUIPMENT (PPE)	Economical steel isolation carts. Smooth ball bearing slides with auto close mechanism to pull the drawer fully closed. Advanced nylon reinforced polycarbonate bumper.	1	1	E	Waterloo Healthcare	UTGKU-3699-YEL		29.00	24.50	43.50	737
MDRD	21.1.03.01	Workstation: Receiving / Bar Code Scanner	E034	2074057	0940387	CART, CASE, CLOSED	All Stainless steel. Dual handles. Four 6" (152 mm) stainless steel casters. Cart fully washable. Height adjustable shelf. Full wrap around bumper.	1	1	E	Acart Equipment Ltd.	CCWB244439		54.00	27.50	39.00	1,372
MDRD	21.1.03.01	Workstation: Receiving / Bar Code Scanner	F020	1849755	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
MDRD	21.1.03.01	Workstation: Receiving / Bar Code Scanner	F048	1849754	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
MDRD	21.1.05.01	Miscellaneous Shelving Alcove	E046	1848912	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.1.05.02	Miscellaneous Shelving Alcove	E046	1851273	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.1.05.03	Miscellaneous Shelving Alcove	E046	1851274	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.1.06.2.01	Loaner Equipment Disassembly Table	E259	1849756	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
MDRD	21.1.07.01	Decontamination Sinks with Counter and Shelving	E300	1848914	0940423	SINK, PRE-PROCESSING, TRIPLE BASIN, HEIGHT ADJ	Triple sink. Freestanding, self-support on legs. Height adjustable. All stainless steel construction. Work surface on both sides & sinks centered. 4" (102 mm) backsplash. W/ faucets and spray gun.	1	3	E	KTW Group	KHST-13827-3B	KHST Series	138.00	27.50	45.25	3,505
MDRD	21.1.07.02	Decontamination Sinks with Counter and Shelving	E046	1851276	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
457	1,753	92.0	41.7	F																								
622	1,105	100.0	45.5	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
699	991	212.0	96.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																								
699	1,149	1,500.0	681.8	F	Dimensions (wxdxh), approximate: 138x27.50x45.25" (3505x699x1149 mm). Overall height: 49.25" (1251 mm) including 4" (102 mm) high backsplash. Location of a left and/or right side backsplash will be determined based on shop drawings. Floor must be able to support lifting capacity. Lifting capacity: 1500 lb (680 kg). Clearance: 46" (1168.40 mm) for faucet assembly. Installation requirements: Vendor to coordinate installation with construction schedule and contractor. Vendor to provide complete installation, final connections to the building by contractor.	120	1		60		Plug	5-15P								15 Amp.							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Cold water: 1/2" (12.7 mm) NPT. Hot water: 1/2" (12.7 mm) NPT. Treated water: 1/2" (12.7 mm) NPT. Drain: 1-1/2" (38 mm) NPT. Compressed air: 3/4" (19.05 mm) NPT. Pipe sizes indicate terminal outlets only. Plumbing and drain to be provided by facility.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	21.1.07.02	Decontamination Sinks with Counter and Shelving	E300	1851275	0940423	SINK, PRE-PROCESSING, TRIPLE BASIN, HEIGHT ADJ	Triple sink. Freestanding, self-support on legs. Height adjustable. All stainless steel construction. Work surface on both sides & sinks centered. 4" (102 mm) backsplash. W/ faucets and spray gun.	1	3	E	KTW Group	KHST-13827-3B	KHST Series	138.00	27.50	45.25	3,505
MDRD	21.1.08.01	Ultrasonic Cleaner	E287	1848915	0940467	CLEANER, ULTRASONIC	Automatic double basin system. Capacity: 30 gal per basin. Auto lifts. Slide and lock trays. 72 dedicated ports. 6-tray capacity. 40 robotic instruments per cycle.	1	2	E	Getinge	Triton 72		33.38	53.50	67.50	848
MDRD	21.1.10.01	Washer / Disinfector	E288	1848916	0944410	WASHER/DISINFECTOR	Pass-through, steam heated, vented, single chamber. 3 chemical injection pumps. Includes printer. Chamber (wxdxh): 25.6x31.9x26.3" with effective volume 351 L (92.7 gal.). Includes Clean Management System to assure the correct level of detergent in each of the department's use locations. Wash cart load capacity up to 30 kg / 66 lbs on the bottom level plus 10 kg / 22 lbs on other levels.	1	3	E	Getinge	86 Series-8668 Turbo	S-8668T1003	43.70	38.97	73.60	1,110

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
699	1,149	1,500.0	681.8	F	Dimensions (wxdxh), approximate: 138x27.50x45.25" (3505x699x1149 mm). Overall height: 49.25" (1251 mm) including 4" (102 mm) high backsplash. Location of a left and/or right side backsplash will be determined based on shop drawings. Floor must be able to support lifting capacity. Lifting capacity: 1500 lb (680 kg). Clearance: 46" (1168.40 mm) for faucet assembly. Installation requirements: Vendor to coordinate installation with construction schedule and contractor. Vendor to provide complete installation, final connections to the building by contractor.	120	1		60		Plug	5-15P										15 Amp.						
1,359	1,715	965.0	438.6	F	Working height: 67.50" (1715 mm). Clearance height from floor: 75" (1905 mm). Net weight: 965 lb (437.7 kg). Operational weight: 1545 lb (700.8 kg). Depth loading 49.69" (1262 mm). Facility to allow extra space around the machine to accommodate the working environment and for maneuverability.	208	1		60		Plug		Yes									208V wall receptacle NEMA 6-20R. 20 Amp rating dedicated circuit breaker required. 8 ft power cord.						
990	1,869	1,660.1	753.0	F	Chamber dimensions: 667mm H (26.3") x 650mm W (25.6") x 810mm D (31.9:) Sound levels: 57 dB, during washing 62 dB, during drying 58 dB, average during the program	208	3	25.2	60		Hard											connection: 3+PE Fuse C30.						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
		Cold water: 1/2" (12.7 mm) NPT. Hot water: 1/2" (12.7 mm) NPT. Treated water: 1/2" (12.7 mm) NPT. Drain: 1-1/2" (38 mm) NPT. Compressed air: 3/4" (19.05 mm) NPT. Pipe sizes indicate terminal outlets only. Plumbing and drain to be provided by facility.											
		Pure water: 1/4" (6.35 mm) NPT female fitting. Drain 5/8" ID, 6' length from the back of the machine. Air regulator purge: 15 to 30 psi pressure. Air regulator carriage: 60 to 90 psi pressure. Access to facility's water and drain. Manual drain. 10GPM direct drain pump. Facility is responsible to ensure that water supplies are properly protected for internal cross-connection control in accordance with local building and plumbing requirements. Facility is responsible to eliminate water hammer conditions should they occur in the service piping. Facility is responsible to provide a properly sized and located drainage system in accordance with the national plumbing code. Flow rate will be affected by height and distance to drain. Consider what other equipment is tied to drain to eliminate slow drainage or backup. Water supplies must be properly protected for internal cross- connection control in accordance with local building and plumbing requirements. Incoming water temperatures for both CW and HW need to be in an acceptable range to allow the factory-supplied mixing valve to output water to the sonic in the range of 29.4 to 35 deg C (85 to 95 deg F). Air supply should be dry, oil free, and filtered.											Operational conditions: Temperature: 5 to 40 deg C (41 to 104 deg F). Relative humidity: 0 to 75%. Pressure: Sea level to 6,500 (1,981 m).
		CW Temp Max: 20 deg C (68 deg F) Unit connections: Top connect: ISO G- 3/4 " Male | Floor connect: ISO G- 1/2 " Female HW Temp Max: 45-60 deg C (113-140 deg F) Unit connections: Top connect:ISO G- 3/4 " Male | Floor connect: ISO G- 1/2 " Female Drain Max Temp: 90 °C (194 deg F) Unit connections: Adaptable ø 50 mm (2") ø 60 mm (2.4") STM Max Temp: 160 deg C (320 deg F) Unit connections: Top connect: ISO G- 1/2 " Male 1 |Floor connect: ISO G- 1/2 " Male Flow Requirement: 0.9-1.0 kg/min (2-4.4 lb./min) Condensate Top connect: ISO G- 1/2 " Male 1 Floor connect: ISO G- 1/2 " Male Required Supply Pressure: 30 kPa (4.3 Psi) Exhaust connection: 2 x 50 mm (2")| Flow: 250 m3/h (147 CFM) during the drying phase											Room temperature 5-40 deg C (41-104 deg F) Air humidity Max 80 % at 30 deg C (87 deg F) Max surface temperature 50 deg C (123 deg F) Heat dissipation from the machine: 1500 W Steam heating 0.99-2.3 kWh/7.5-9 kg (16.5-19.8 lb.) steam Storage and transport conditions: Surrounding temperature -20 to 70 deg C (-4 to 158 deg F) Surrounding air humidity Maximum 90 % at 30 deg C (86 deg F)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	21.1.10.02	Washer / Disinfector	E288	1851277	0944410	WASHER/DISINFECTOR	Pass-through, steam heated, vented, single chamber. 3 chemical injection pumps. Includes printer. Chamber (wxdxh): 25.6x31.9x26.3" with effective volume 351 L (92.7 gal.). Includes Clean Management System to assure the correct level of detergent in each of the department's use locations. Wash cart load capacity up to 30 kg / 66 lbs on the bottom level plus 10 kg / 22 lbs on other levels.	1	3	E	Getinge	86 Series-8668 Turbo	S-8668T1003	43.70	38.97	73.60	1,110
MDRD	21.1.11.01	Pass-Through Window	E446	1848917	0947957	AUTOMATED PASS THROUGH WINDOW, MDR	Wall-Embedded Automated Pass-Through Window for MDR. Window Width 40" and Window Height 45". Sensor-Activated Opening & Closing.	1	3	E	Steris Canada Inc	PTWAMDR3100		40.25	54.49	45.25	1,022
MDRD	21.1.13.01	Housekeeping Closet	E039	2189090	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
MDRD	21.1.13.01	Housekeeping Closet	E389	2195945	0944706	DETERGENT MANAGEMENT SYSTEM	Clean sink dosing system, Pumps are mounted at the sinks.	1	3	E	Steris Canada Inc	Acu-slnQ		4.84	5.83	5.51	123
MDRD	21.1.13.01	Housekeeping Closet	E339	2189088	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
MDRD	21.1.13.01	Housekeeping Closet	E215	2189089	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
MDRD	21.1.13.01	Housekeeping Closet	E213	1848918	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
MDRD	21.1.13.01	Housekeeping Closet	E234	2189083	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
MDRD	21.1.13.01	Housekeeping Closet	F082	2480700	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
MDRD	21.1.14.01	Utility Racks (instruments, etc.) Storage	E303	1848922	0940425	WASHER, CART, ACCESSORY, UTENSIL WASH CART	3 level wash cart. All welded, type 304 stainless steel construction. Adjustable to accommodate various container sizes. Four 5" (127 mm) casters.	1	2	E	Acart Healthcare Storage Solutions	UW101-4HP		60.50	25.00	69.00	1,537
MDRD	21.1.14.02	Utility Racks (instruments, etc.) Storage	E303	1851278	0940425	WASHER, CART, ACCESSORY, UTENSIL WASH CART	3 level wash cart. All welded, type 304 stainless steel construction. Adjustable to accommodate various container sizes. Four 5" (127 mm) casters.	1	2	E	Acart Healthcare Storage Solutions	UW101-4HP		60.50	25.00	69.00	1,537

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
990	1,869	1,660.1	753.0	F	Chamber dimensions: 667mm H (26.3") x 650mm W (25.6") x 810mm D (31.9:) Sound levels: 57 dB, during washing 62 dB, during drying 58 dB, average during the program	208	3	25.2	60		Hard											connection: 3+PE Fuse C30.						
1,384	1,149	300.0	136.1	W	Shelf extends 25” (635mm) on one side and 25” (635mm) on the other side of the window Shelf height above Finished floor: 32" (813mm). 1.5" clearance on each side. Embedded in wall between 2 rooms Wall thickness: 200mm Installation requirements: Vendor to perform the installation by coordinating with construction schedule and contractor. Vendor to install aluminum framing, seals and provide complete installation with final connections to the building by the contractor.	120	1	1.0	60		Hard											Required 15A circuit. 1/2" NPT connector. 120 VAC require a 3-wire connection (L1, Neutral, Grnd) During Installation, disconnects must be located in a suitable location within line of sight and clear of any obstructions. Nominal Amperage: 1 A | Recommended Circuit: 15A						
1,226	1,359	70.0	31.8	F																							
148	140	3.3	1.5	W	STERIS Acu-slnQ must be mounted to hard, flat, level surface.	110	1		60		Plug											standard 110 Vac, Plug-in transformer reduces operating voltage to 18 Vdc.						
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																						
457	1,880	18.0	8.2	F																							
457	1,753	92.0	41.7	F																							
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																						
	610	10.0	4.5	W																							
635	1,753	60.0	27.3	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
635	1,753	60.0	27.3	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

| PLUMBING | | |

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		CW Temp Max: 20 deg C (68 deg F) Unit connections: Top connect: ISO G- 3/4 " Male | Floor connect: ISO G- 1/2 " Female HW Temp Max: 45-60 deg C (113-140 deg F) Unit connections: Top connect:ISO G- 3/4 " Male | Floor connect: ISO G- 1/2 " Female Drain Max Temp: 90 °C (194 deg F) Unit connections: Adaptable ø 50 mm (2") ø 60 mm (2.4") STM Max Temp: 160 deg C (320 deg F) Unit connections: Top connect: ISO G- 1/2 " Male 1 |Floor connect: ISO G- 1/2 " Male Flow Requirement: 0.9-1.0 kg/min (2-4.4 lb./min) Condensate Top connect: ISO G- 1/2 " Male 1 Floor connect: ISO G- 1/2 " Male Required Supply Pressure: 30 kPa (4.3 Psi) Exhaust connection: 2 x 50 mm (2")| Flow: 250 m3/h (147 CFM) during the drying phase											Room temperature 5-40 deg C (41-104 deg F) Air humidity Max 80 % at 30 deg C (87 deg F) Max surface temperature 50 deg C (123 deg F) Heat dissipation from the machine: 1500 W Steam heating 0.99-2.3 kWh/7.5-9 kg (16.5-19.8 lb.) steam Storage and transport conditions: Surrounding temperature -20 to 70 deg C (-4 to 158 deg F) Surrounding air humidity Maximum 90 % at 30 deg C (86 deg F)
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	21.1.16.01	Cart Washer	E285	1848923	0940110	WASHER, CART	Clean and Disinfect Transport Carts, Containers, bowls, basins and other bulky items. Internal Chamber dimensions: (wxdxh)38x108x79". Validated Instrument Cycle. Drain Cooler Options.	1	3	E	Getinge	9100 E Series- 9128	9128 E-002	105.98	114.49	120.51	2,692
MDRD	21.2.03.01	Prep / Assembly Tables	E052	2194423	0932689	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 500 lb weight capacity. Shelf clearance: 13.1" (333mm). Rubber swivel 5" (127mm) casters. Shelves welded to the legs.	1	1	E	Acart Equipment Ltd.	3067		22.38	39.25	37.25	568
MDRD	21.2.03.01	Prep / Assembly Tables	E046	1848924	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	3	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.2.03.01	Prep / Assembly Tables	F021	1848925	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	3	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
MDRD	21.2.03.01	Prep / Assembly Tables	F046	2470188	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
MDRD	21.2.03.01	Prep / Assembly Tables	E258	2194424	0940414	TABLE, INSTRUMENT, HEIGHT	Table, Packing, Stainless Steel, Height-Adjustable from 35" - 56"	1	1	E	Stat Medical	SO530		20.00	36.00	56.00	508
MDRD	21.2.03.01	Prep / Assembly Tables	T286		00N0036176	TABLE, PREP		1	5	E		Amsco PREP55					
MDRD	21.2.04.01	Pre-pack	F046	2470189	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
MDRD	21.2.04.01	Pre-pack	E212	1848927	0934916	SEALING UNIT, HEAT SEALER	Digital temperature control. Ready for use. 1/2" (12.7 mm) seal in 2 sec w/30 psi of consistent sealing pressure. Object thickness: maximum 1/8" (3.1 mm). Package size: 18" (457 mm).	1	1	E	Rennco Inc	LIFT SEAL LS-18D	073-M0063063	19.25	10.25	7.25	489
MDRD	21.2.04.01	Pre-pack	E259	1848928	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
MDRD	21.2.05.01	Wrap Table	E258	1848929	0940414	TABLE, INSTRUMENT, HEIGHT	Table, Packing, Stainless Steel, Height-Adjustable from 35" - 56"	1	1	E	Stat Medical	SO530		20.00	36.00	56.00	508
MDRD	21.2.06.01	Wrapping Material Storage Area	E046	1848930	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	2	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.2.06.01	Wrapping Material Storage Area	E304	1848932	0932634	RACK, DISPOSABLE WRAP, MOBILE	For disposable sterile wrappers. Full width rods to accommodate different sizes of wrappers. 4 hanging bars of tubular square construction. All welded construction. Bottom wire shelf.	2	1	E	Acart Equipment Ltd.	WC60CH		60.00	24.00	69.00	1,524
MDRD	21.2.08.01	Instrument Storage	E444	2485036	0947946	TABLE, STAINLESS, DRAWER	Instrument/work table, 18 gauge stainless steel, 3" swivel locking casters (2 are locking), 2 drawers 47" wide.	1	1	E	BLICKMAN INC	Howard Table	7837SS, DH247S	72.00	24.00	34.00	1,829
MDRD	21.2.09.01	Drying Station	E259	1848934	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
MDRD	21.2.09.02	Drying Station	E259	1851280	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
MDRD	21.2.10.01	Assembly Workstation		2471923	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
MDRD	21.2.11.01	Workstation	F021	1848937	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
MDRD	21.2.11.01	Workstation	F048	1848938	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
MDRD	21.2.12.01	Incubator (benchtop)	E382	1848939	0944257	LAB INCUBATOR, COUNTER TOP	Digital incubator. Powder coated aluminum exterior. High-Optic acrylic door, Full PID microprocessor. Includes one fixed and one adjustable wire shelf. Capacity: 0.7 cu ft. Temperature control settings, temperature range: 2°C to 62°C (143°F)	1	1	E	Quincy Lab, Inc.	10-140E		12.00	10.00	10.00	305
MDRD	21.2.12.02	Incubator (benchtop)		2470122	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
MDRD	21.2.13.01	Sterilizer	E465	2488889	0947963	STERILIZER, MEDIUM	Single door, recessed. Internal steam. Medium sterilizer. Chamber: 26.5x26.5x51" (673x673x1295 mm). 588 L (20.77 cu ft). Automated vertical sliding door. 12 trays capacity per cycle.	2	3	E	Steris Canada Inc	Amsco 600	1251V-1	41.00	64.06	89.07	1,041

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
2,908	3,061	6,182.0	2,810.0	F		208	3	25.5	60		Hard											3 phase +PE. It shall be contractors responsibility to provide a fused disconnect switch in all electrical supply lines at the washer location. it shall be contractors responsibility to complete all electrical connections using properly sized wiring in accordance with the national electrical code.						
997	946	68.0	30.9	F																							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
711	1,219	50.0	22.7	F																							
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P															
914	1,422			F	Leg clearance 28".																						
				F																							
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P															
260	184	46.0	20.9	T		120	1	5.0	60		Plug		No														
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																						
914	1,422			F	Leg clearance 28".																						
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
610	1,753	50.0	22.7	F																							
610	864	270.0	122.5	F																							
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																						
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																						
				NA																							
711	1,219	50.0	22.7	F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P															
254	254			T	Interior dimensions (wxdxh): 12" x 10" x 10"	110	1		60	110	Plug																	
				NA																							
1,627	2,262	2,650.0	1,202.0	W	Wall opening (wxh): 41x90.5" (1041x2299 mm). Noise level: 64 dBa.	208	3	119.0	60		Hard		Yes									Protection: 150 Amp. Circuit breaker required. Power consumption: 45 kW Disconnect switches must be installed by others. Individual power shutoffs required. Provide grounded metal conduit and wiring between equipment terminals and stub out or disconnects. Power box and control box behind upper panel RH side facing chamber door. Network: 10/100 base T supporting TCP/IP protocol RJ45F connection. Recommended to have lamp in service area to illuminate the surrounding space. Emergency stop present by each door. Main incoming power wiring to have 104 deg C (220 deg F) insulation rating (minimum), copper only.	A	0.500	13			

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
		Drain: Minimum 9" Floor Sink with Minimum 4" drain outlet Drain cooler options.											
		Reverse Osmosis Water Required: 1/2" NPT; hot water temperature 70-140°F 21-(60°C). Generator Drain: 1/2" NPT Water: 3/4" (19.05 mm). Pressure: 20 to 50 psig (1.4 to 3.5 bar), dynamic. Temperature: 4 to 21 deg c (40 to 70 deg f). Peak flow: 12 gpm (45 lpm). Drain: 1-1/2" ODT drain terminal (Gravity drain must be able to handle peak water capacity of 15 gpm (57 LPM)) Compressed air: 1/2" (12.7 mm) NPT, 80 to 100 psig (5.5 to 6.9 bar) dry, oil free, 3 scfm. Safety relief valve parameters: OPTIONAL INTEGRAL ELECTRIC STEAM GENERATOR (ESG) - 45 PSIG, 3.1 bar(g) max, 293°F (145°C) 1" NPT Shut-off valves required.											Heat loss: 5620 BTU (5908 kJ) at each end. 860 BTU (907 kJ), between walls. Shut-off valve is required.

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	21.2.13.02	Sterilizer	E231	2488890	0948031	STERILIZER, SMALL	Single door, recessed. Internal steam. Small sterilizer. Interior chamber 20x20x38" (508x508x965mm). Touch screen control. Foot pedal activated door opening.	1	3	E	Steris Canada Inc	AMSCO 400		30.00	45.63	74.50	762
MDRD	21.2.14.01	Sterilizer Staging Area	E050	1848941	0940458	STERILIZER ACCESSORY, TRANSFER CARRIAGE	Manual car & carriage for loading/unloading, compatible to sterilizer with chamber size: 26x66x37.50" (660x1,676x950 mm).	1	3	E	Steris Canada Inc	Amsco Evolution		25.24	89.50	57.80	641
MDRD	21.2.14.02	Sterilizer Staging Area	E050	1851283	0940458	STERILIZER ACCESSORY, TRANSFER CARRIAGE	Manual car & carriage for loading/unloading, compatible to sterilizer with chamber size: 26x66x37.50" (660x1,676x950 mm).	1	3	E	Steris Canada Inc	Amsco Evolution		25.24	89.50	57.80	641
MDRD	21.2.16.01	Low Temperature Sterilizer (Sterrad)	E230	1848942	0937963	STERILIZER, HYDROGEN PEROXIDE	Single door sterilizer. Chamber usable volume 82.3 L (2.9 cu ft). Total volume 152 L (5.4 cu ft). Endoscope cleaning cycle 42 min. Standard cycle 47 min.	1	3	E	Johnson & Johnson Medical Products	STERRAD 100NX	10104007	30.50	41.50	70.90	775
MDRD	21.2.18.01	Housekeeping Closet	E039	2189099	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
MDRD	21.2.18.01	Housekeeping Closet	E339	2189097	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
MDRD	21.2.18.01	Housekeeping Closet	E215	2189098	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
MDRD	21.2.18.01	Housekeeping Closet	E234	2189092	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
MDRD	21.2.18.01	Housekeeping Closet	F082	2480701	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
MDRD	21.2.19.01	PPE Gowning Area		2471921	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
MDRD	21.3.03.01	Workstation: Bar Code Workstation	F021	1952371	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
MDRD	21.3.03.01	Workstation: Bar Code Workstation	F062	1848947	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
MDRD	21.3.04.01	Work Table	E258	1848948	0940414	TABLE, INSTRUMENT, HEIGHT	Table, Packing, Stainless Steel, Height-Adjustable from 35" - 56"	1	1	E	Stat Medical	SO530		20.00	36.00	56.00	508
MDRD	21.3.05.01	Sterile Supply Storage	E046	1848949	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	35	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.3.05.01.01	Non-Sterile Implant Storage	E046	1848198	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	2	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.3.06.01	Case Cart Holding and Coordination (smaller carts)	E034	1848950	0940387	CART, CASE, CLOSED	All Stainless steel. Dual handles. Four 6" (152 mm) stainless steel casters. Cart fully washable. Height adjustable shelf. Full wrap around bumper.	5	1	E	Acart Equipment Ltd.	CCWB244439		54.00	27.50	39.00	1,372

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,159	1,892	1,726.0	782.9	W	Wall opening width: 28 1/8" (714mm) Wall opening height: 74 1/4" (1886mm) Front service clearance on both sides: 20" (508mm) Front clearance depth: min 76" (1930mm) Rear clearance on left side: min 27" (686) Rear clearance on right side: min 32" (813) Rear clearance depth: min 52" (1321) Wall thickness: 4-8" (102-203mm)	208	3	83.0	60		Hard			120	1	9.5	60		Hard		Yes	Sterilizer power control box: 120V, 60 Hz, 1-phase, 9.5 Amps. Three (3) wire connection. Minimum of 15A dedicated circuit breaker is recommended. Internal Steam Generator: 208V, 60 Hz, 3-phase, 83 Amps Provide grouped or ganged circuit protection and disconnect for sterilizer power. Individual shutoffs required. Grounded metal conduit and wiring between equipment terminals and stub outs or disconnects. Disconnect must be located in suitable location within line of sight and clear of any obstructions. Location should allow service person to shutoff power from side to prevent possible arc flash.	CW	1.000	25			
2,273	1,468	0.0	0.0	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
2,273	1,468	0.0	0.0	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
1,054	1,801	842.0	381.9	F	Service space requirement: Minimum clearance: 39.4 " (1000 mm) above the top. All sides. approximately: 39" (991 mm) of the system Power receptacle should be positioned 12" (305 mm) to 24" (610 mm) above the floor. Allow 30.4" (772 mm) clearance in front of door. Allow 42.5" (1080 mm) width clearance for door to open 110 deg.	208	3		60		Plug		Yes									Sterilizer requires NEMA L21-30 five wire grounding twist lock outlet. Dedicated circuit, 30 Amp with separate neutral and ground conductors.							
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
	610	10.0	4.5	W																								
				NA																								
711	1,219	50.0	22.7	F																								
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets							
914	1,422			F	Leg clearance 28".																							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
699	991	212.0	96.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
			15	0.94	40	276.0	50	345.0	DR	0.500	13	1.500	38											STM								

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA
		50	345.0	80	552.0																													

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Requirements: Sterilizer cold water: 10-21 deg C, 1" NPT, 30-50 PSIG Sterilizer drain: 1.5" ODT (floor drain capacity must handle peak water consumption) Sterilizer hot water: =< 140 deg F, total hardness to be 0-3 ppm, 0.5" NPT, 20-50 PSIG Drain from electric steam generator: 0.5" ODT Provide piping, shut-off valves, pipe plugged tee, and union in steam and water supply connections between equipment and stub outs. Backflow prevention to be supplied by contractor.	4,300										Heat loss: 4,300 BTU/hr at 70 deg F (21 deg C).
			6,187										Operational environment: 18 to 35 deg C (64 to 95 deg F), Relative humidity: 10 to 85%, non-condensing. Heat generation: Idle: 4574 BTU/hr; Maximum: 6187 BTU/hr.
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	21.3.06.01	Case Cart Holding and Coordination (smaller carts)	E035	1848951	0940456	CART, CASE, CLOSED	All stainless steel. Dual handles. Cart fully washable. Height adjustable shelf. Wrap around bumper. Four 6" (152 mm) stainless steel casters.	15	1	E	Acart Equipment Ltd.	CCWB242639		36.00	27.50	39.00	914
MDRD	21.4.04	Endoscopy Sinks	E431	2484066	0947728	SINK, REPROCESSING, TRIPLE BASIN, HEIGHT ADJ	Triple bay reprocessing sink for manual cleaning, rinsing, and sonication of soiled re-usable utensils and medical equipment. 120" length, left to right config. Height adjustable. Right-to-left and left-to right workflows are available.	1	3	E	Steris Canada Inc	AMSCO 70 Series	AMSCO 73	120.00	30.00	68.00	3,048
MDRD	21.4.05.01	Endoflush (wall mounted)	E046	2471884	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	1	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
MDRD	21.4.05.01	Endoflush (wall mounted)	E082	1848952	0940399	SCOPE ACCESSORY, CLEANING STATION	Controllable peristaltic flushing pump. Microprocessor control. LED display. W/ 2 L water container, water tube, & remote control cable. Flow rate: instrument channel: 700>750ml/min; aux - 230ml/min.	1	1	E	Olympus Canada	OFP-2		9.65	15.16	8.66	245
MDRD	21.4.05.01	Endoflush (wall mounted)	E266	1848957	0945286	SCOPE ACCESSORY, LEAKAGE TESTER	To include leakage tester and air pump maintenance unit. To detect leaks within endoscope. Air pump to stimulate pressure exerted through endoscope.	1	1	E	Olympus Corp	MB-155/MU-1	52540/52541	3.35	6.69	6.18	85
MDRD	21.4.06.01	Floor Mounted Hi-Level Disinfection Endo Processor	E086	1848953	0947925	AUTOMATIC ENDOSCOPE REPROCESSOR	Mobile unit with levelling casters.	1	1	E	Olympus Canada	OER-Elite		19.70	31.50	37.20	500
MDRD	21.4.06.02	Floor Mounted Hi-Level Disinfection Endo Processor	E086	1851284	0947925	AUTOMATIC ENDOSCOPE REPROCESSOR	Mobile unit with levelling casters.	1	1	E	Olympus Canada	OER-Elite		19.70	31.50	37.20	500
MDRD	21.4.07.01	Shelving	E041	1848954	0939372	CART, ISOLATION	4 -drawers: 1 - 3" (76 mm), 1 - 6" (152 mm) and 2 - 9" (229 mm). Drawer colour: Yellow. Single pull out shelf. Key lockable. Steel construction. Four 5" (127 mm) casters, 1 locking.	1	1	E	Waterloo Industries	UTGKU-3699-YEL		29.00	24.50	42.00	737
MDRD	21.4.08.01	Counter space	E259	1848955	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
MDRD	21.4.09.01	Probe Cleaning Room	E293	2485883	0939197	AUTOMATED PASS THROUGH WINDOW	Wall-Embedded Automated Pass-Through Window for ENDOSCOPY. Window Width 40" and Window Height 45". Sensor-Activated Opening & Closing.	2	3	E	Steris Canada Inc	PTWAENDO3100		40.25	25.00	45.25	1,022

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
699	991	168.0	76.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
762	1,727	1,500.0	680.4	F	Maximum height to top of gooseneck faucet: 68" (1728 mm) Install against a wall of at least 57" (1448 mm) height required to prevent access to back of sink and to support utilities Wall must be free of obstructions from floor to 57" (1448 mm) Gap of 2"" (50 mm) to all adjacent walls as pinch point protection To be placed on non-combustible level floor	240	1	19.0	60		Hard	N/A	Yes									208-240V, recommended circuit is 25A Wiring on the equipment terminates at a junction box, wiring between junction box and building provided by Design/Builder Disconnect switch with off position lockout must be installed near the equipment. Switch provided by Design/Builder	CW	0.500	13			C
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
385	220	8.8	4.0	T	Weight with empty contrainer: 8.8 lb (4 kg).	120	1		60		Plug											Fuse: 2 x T2.5 AH 250V. Power rating: 100VA.						
170	157	1.8	0.8	T		120	1	0.4	60		Plug																
800	945	280.0	127.0	F	Min. side clearances 30 mm (1.2 in); 50 mm (1.9 in) when connector hanger is installed; 120 mm (4.7 in) when bar code reader is installed; 190 mm (7.1 in) when printer set is installed. Min. rear clearance 50 mm (1.9 in) (projection of buckling guard). Height with lid opened is 1582 mm (62.2 in).	120	1	5.5	60		Plug											The power cord (3.5 m/11.5 ft) should be able to reach the power outlet. Power supply capacity should be enough for the equipment rating (120 V AC, 5.5 A, 60 Hz, voltage fluctuations within ±10%, frequency fluctuations within ±1 Hz). The power outlet should be a hospital-grade, wall mains power outlet (3-conductor, grounded)	CW	0.750	19			
800	945	280.0	127.0	F	Min. side clearances 30 mm (1.2 in); 50 mm (1.9 in) when connector hanger is installed; 120 mm (4.7 in) when bar code reader is installed; 190 mm (7.1 in) when printer set is installed. Min. rear clearance 50 mm (1.9 in) (projection of buckling guard). Height with lid opened is 1582 mm (62.2 in).	120	1	5.5	60		Plug											The power cord (3.5 m/11.5 ft) should be able to reach the power outlet. Power supply capacity should be enough for the equipment rating (120 V AC, 5.5 A, 60 Hz, voltage fluctuations within ±10%, frequency fluctuations within ±1 Hz). The power outlet should be a hospital-grade, wall mains power outlet (3-conductor, grounded)	CW	0.750	19			
622	1,067	100.0	45.4	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																						
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																						
635	1,149	275.0	125.0	W	Shelf extends 25” (635mm) on one side and 4” (102mm) on the other side of the window Shelf height above Finished floor: 32" (813mm). 1.5" clearance on each side. Embedded in wall between 2 rooms Wall thickness: 200mm Installation requirements: Vendor to perform the installation by coordinating with construction schedule and contractor. Vendor to install aluminium framing, seals and provide complete installation with final connections to the building by the contractor.	120	1	1.0	60		Hard											Required 15A circuit. 1/2" NPT connector. 120 VAC require a 3-wire connection (L1, Neutral, Grnd) During Installation, disconnects must be located in a suitable location within line of sight and clear of any obstructions. Nominal Amperage: 1 A | Recommended Circuit: 15A						

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
Hard	16	0.98	20	1.26	30	206.8	50	344.7	HW	0.500	13			C	Hard	11	0.71	20	1.26	15	103.4	50	344.7	DR	1.500	38			OT	Hard	15	0.95
									DR																						
									DR																						

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA
						A	0.250	6			S	Hard							80	551.6	ROW	0.500	13			C	Hard	5	0.32	24	1.50	5	34.5

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
30	206.8	Connection size/type Hot water: 1/2" (12.7 mm) female NPT Connection size/type Cold water: 1/2" (12.7 mm) female NPT Connection size/type Compressed Air: 1/4" (6.35 mm) female NPT Connection size/type Drain: 1 1/2"" (38.1 mm) ABS Cold water: temperature range: 40° - 70°F (4° - 21°C) Maximum Hot water: temperature range: 110°F to 140°F (43° to 60°C) RO water temperature range: 70°F to 140°F (21.1° to 60°C) Approximate drain rate: 15 GPM (56.7L/min) (per bay) Drains material may require copper or other special requirements for code compliance Water hammer arrestor to be installed by Design/Builder Water Quality: Hot and cold water hardness CaCO3 50 - 80 ppm (max 120 ppm) RO water Conductivity 0.5 - 0.1 M? .cm (2 - 10 µS/cm). PH 6.8 - 7.5 Air Quality: Max. particles size 40 microns Max. particulate density 10 mg/m³ Max. dew point for water content 45°F (7°C) Max. oil concentration for the oil content 25 mg/m³											
													Operating Environment: Ambient Temperature: 10 to +40°C (50 to 104°F) Relative Humidity: 30 to 85% without condensation. Atmospheric Pressure: 700 to 1,060 hPa. Transportation and Storage Environment: Ambient Temperature: -25 to +70°C (-13 to +158°F) Relative Humidity: 10 to 90% Atmospheric Pressure: 700 to 1,060 hPa.
		The water supply plug of this equipment is designed to be connected to an ordinary tap water faucet with 3/4" GHT (garden hose thread), or the Olympus Pre-Filter Assembly (MF01-0033PL). The top of the drain hose should be no higher than 60 cm. A floor drain is recommended.											
		The water supply plug of this equipment is designed to be connected to an ordinary tap water faucet with 3/4" GHT (garden hose thread), or the Olympus Pre-Filter Assembly (MF01-0033PL). The top of the drain hose should be no higher than 60 cm. A floor drain is recommended.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
MDRD	21.5.01.01	Inspection Table	E259	1848956	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
MDRD	21.5.03.01	Storage-transport carts/basins/closed containers		2471931	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
MDRD	21.5.05.01	Pass-Through Drying and Scope Storage Cabinets	E239	1848960	0939110	CABINET, SCOPE DRYING, PASS-THROUGH	Wall embedded Stainless-Steel Endoscope Pass Through Drying Cabinet; HEPA Filter; 14 Scopes capacity.	2	3	E	Torvan Medical	4251SCSPTHG-14TD2		35.98	20.00	95.00	914
MDRD	21.6.01.01	Kitchenette	F005	1848961	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
MDRD	21.6.01.01	Kitchenette	E072	2241731	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
MDRD	21.6.01.01	Kitchenette	E151	1848962	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
MDRD	21.6.01.01	Kitchenette	E372	1848963	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
MDRD	21.6.01.01	Kitchenette	F034	1848964	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Housekeeping	22.1.01.01	Central Housekeeping Area	E215	2195947	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Housekeeping	22.1.01.01	Central Housekeeping Area	E390	1848969	0944710	SHELVING, STEEL, PALLET	Pallet rack with 14 gauge steel frame, 16 gauge steel beam. customize height and length.	2	2	E	Uline Canada	H-5716	PALLET RACK	96.00	48.00	96.00	2,438
Housekeeping	22.1.01.01	Central Housekeeping Area	A007	1848971	0940493	TRUCK, REFUSE/UTILITY	Recyclable tilt truck, no lid. Recycling sign printed on sides. Volume: 1/2 cu yd. Capacity: 1400 lb (636 kg). Plastic construction. Handle on rear.	3	1	A	Rubbermaid Commercial Products	FG130600		28.00	60.50	38.63	711
Housekeeping	22.1.02.01	Housekeeping Staff Area	F005	1848976	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	8	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Housekeeping	22.1.02.01	Housekeeping Staff Area	F020	2194574	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Housekeeping	22.1.02.01	Housekeeping Staff Area	F046	2194575	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	2	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Housekeeping	22.1.02.01	Housekeeping Staff Area	E151	1848974	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Housekeeping	22.1.02.01	Housekeeping Staff Area	E372	1848973	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Housekeeping	22.1.02.01	Housekeeping Staff Area	F038	1848975	0939672	TABLE, ROUND	Standard Seating height. X-base. Laminate top	2	3	F	Spec Furniture	Manhattan	MNX36	36.00	36.00	29.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																								
				NA																								
508	2,413	360.0	163.3	F	Equipment size: Maximum allowable dimensions: 36" W x 20" D x 95" H Front height 87". Clearance "1-1.5" side and top. Embedded in wall between 2 rooms. Installation requirements: Vendor to perform the installation by coordinating with construction schedule and contractor. Vendor to install aluminum framing, seals, finishing trims and provide complete installation with final connections to the building by the contractor.	120	1		60		Hard											Required dedicated 15A receptacle.						
546	838			F																								
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
914	737			F																								
457	1,880	18.0	8.2	F																								
1,219	2,438			F																								
1,537	981	87.8	39.9	F	shipping weight 88lbs (39.9kg).																							
546	838			F																								
610	1,016			F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
914	737	55.0	25.0	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Ambient ventilated with Hepa filtering Channel purging air flow
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Housekeeping	22.1.03.01	Equipment Storage	E339	1954627	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Housekeeping	22.1.03.01	Equipment Storage	E031	1848977	0945189	FLOOR MACHINE, BURNISHER	20" (508 mm) working width. 1200 rpm. Electrical spray unit. Front steer wheel to allow maneuverability and straight line action. Foldable handle. Floating pad drive gives constant working pressure.	2	1	E	Taski of Switzerland	ERGODISC 1200		20.47	37.40	46.46	520
Housekeeping	22.1.03.01	Equipment Storage	T207		00N0033404	FLOOR MACHINE, SCRUBBER		1	5	E		IMOP XL					
Housekeeping	22.1.03.01	Equipment Storage	T207		00N0036140	FLOOR MACHINE, SCRUBBER		1	5	E		IMOP XL					
Housekeeping	22.1.03.01	Equipment Storage	E207	2472909	0942667	FLOOR MACHINE, SCRUBBER	Auto scrubber with battery and charger.	1	1	E	Taski of Switzerland	SWINGO 755B		19.00	46.00	47.00	483
Housekeeping	22.1.03.01	Equipment Storage	T272		00N0020638	FLOOR MACHINE, VACUUM, UPRIGHT		1	5	E		Jet 38					
Housekeeping	22.1.03.01	Equipment Storage	T272		00N0033352	FLOOR MACHINE, VACUUM, UPRIGHT		1	5	E		Jet 38					
Housekeeping	22.1.03.01	Equipment Storage	E215	1848978	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	2	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Housekeeping	22.1.04.01	Cart Washer		2095925	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Housekeeping	22.1.05.01	Housekeeping Closet	E039	1848981	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559
Housekeeping	22.1.05.01	Housekeeping Closet	E339	1954628	0943204	DISPENSER SYSTEM, CLEANING SOLUTIONS	Wall mounted, dispenses four different products and rinse water. Powder-coated Locking steel doors. Drip tray with drain hose. Cabinet is lockable.	1	2	E	Diversey Inc	QuattroSelect		18.50	7.50	24.25	470
Housekeeping	22.1.05.01	Housekeeping Closet	E215	1848982	0941177	SHELVING, METAL	Solid 18-guage steel shelving. Weight load capacity: 48" shelf (800 lbs), 60" (600 lbs), 72" (300 lbs). Shelves adjusted in 1" intervals along post. Adjustable levelling legs.	1	1	E	Metro	1842FS		42.00	18.00	74.00	1,067
Housekeeping	22.1.05.01	Housekeeping Closet	E234	1954607	0938398	STOOL, STEP	Chrome construction. Non-slip rubber mat and rubber tips. Handrail that measures 35-3/4" from the floor.	1	1	E	BLICKMAN INC	1251		11.38	14.25	9.00	289
Housekeeping	22.1.05.01	Housekeeping Closet	F082	2480702	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Housekeeping	22.2.01.01	Compactor Loading Area	E408	2377402	0946655	COMPACTOR, WASTE	Full size compactor. For waste or cardboard. Pressure gauge. Emergency stop. Total capacity of 28 cubic yards (21 cubic meters).	2	3	E	Marathon Equipment Company	RAMJET DRC II		100.13	268.63	104.00	2,543
Housekeeping	22.2.03.01	Biomedical Waste Holding	E052	2095923	0932689	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 500 lb weight capacity. Shelf clearance: 13.1" (333mm). Rubber swivel 5" (127mm) casters. Shelves welded to the legs.	2	1	E	Acart Equipment Ltd.	3067		22.38	39.25	37.25	568
Housekeeping	22.2.04.01	Confidential Paper Holding		2095922	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Housekeeping	22.3.02.01	Office: Coordinator	F005	1848990	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Housekeeping	22.3.02.01	Office: Coordinator	F020	1848991	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Housekeeping	22.3.02.01	Office: Coordinator	F071	1848994	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Housekeeping	22.3.02.01	Office: Coordinator	F027	1848992	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Housekeeping	22.3.02.01	Office: Coordinator	F082	2480703	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Food Services	23.1.02.01	Housekeeping Room	E039	1848996	0938321	CART, HOUSEKEEPING	Microfibre cart. 7.25 cu ft of locking cabinet area. 5 cu ft of storage space. Secure cabinet doors, interchangeable handles. 8" wheels and 4" casters. Locking security hood. Includes 34gal vinyl bag	1	1	E	Rubbermaid	FG9T7500BLA		22.00	48.25	53.50	559

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
950	1,180	92.4	42.0	F	Noise level: 64 dBA. Working width: 20" (510mm)	120	1		60	1,300	Plug	5-15P										82' (25 m) power cord length.						
				F																								
				F																								
1,168	1,194	342.0	155.1	F	Sound level 58 dB(A). Turning circle: 3 feet (1 m). Working width: 17 inch (43 cm). Squeegee width: 27 inch (69 cm).	120	1		60	900	Plug		No									22" Battery-powered auto scrubber Rated voltage: 24 V. Cable length of integrated battery charger: 2.5 m.						
				F																								
				F																								
457	1,880	18.0	8.2	F																								
				NA																								
1,226	1,359	70.0	31.8	F																								
191	616	15.0	6.8	W	Wall mounted. Wall mount bracket and hardware included. Carton Dimensions: 27" x 20.5" x 9.5".																							
457	1,880	18.0	8.2	F																								
362	229	8.0	3.6	F	Handrail measures 35-3/4" from the floor																							
	610	10.0	4.5	W																								
6,823	2,642	15,967.6	7,258.0	F	Track width 67 1/2" to centre, 77 1/4 to outer, and 61 7/8 to inner track (track width is 5 1/2)	120	1		60		Hard			208	3		60		Hard			3-phase, 60 Hz, 208/230/460/575 V with a 30 A fused lockable disconnect mounted within sight and 10 to 15 feet (3.1 to 4.6 m) of the power pack location.						
997	946	68.0	30.9	F																								
				NA																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								
	610	10.0	4.5	W																								
1,226	1,359	70.0	31.8	F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5			HVAC										
HIGH		PLUMBING NOTE	BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	HVAC NOTE
PSI	KPA				INCH	MM	INCH	MM					
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											
		Low flow rate: 1.5 gpm High flow rate: 3.1 gpm. Water inlet hose: 4' (1.22m) Remote bucket fill hose: 8' (2.44m) Drip tray hose: 8' (2.44m) Water pressure: 30 to 85 psi (170 to 580 KPA) Water flow: >2.0gpm Water temperature: 10 to 40°C (50 to 100 deg F).											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Food Services	23.1.02.01	Housekeeping Room	E324	2477631	0942562	CART, SUPPLY	4 tiers, wire shelves with 1 solid bottom shelf cover. Chrome finished. Capacity: 750 lb (340.9 kg). Enclosed with 3x3" (76x76 mm) wire mesh on sides and back. Four 5" (127 mm) swivel casters.	6	1	E	Metro	ME476CH		72.00	24.00	69.00	1,829
Food Services	23.2.01.01	Consumables (Food and Food Related)	E386	2115066	0944463	SHELVING, EPOXY COATED STEEL, LOUVERED, FOOD SERV	Corrosion Resistant Adjustable Shelving, w/ Polymer Coated Open Grid Shelf Mats, w/ Corner Release, Shelf Mats Removable & Dishwasher-Safe, Antimicrobial, 600 Lb. Cap Per Shelf.	2	1	E	Metro	MQ1872G - Max Q		72.00	18.00	61.20	1,829
Food Services	23.2.02.01	Non-Food; Paper and Appliances (including smallwares)	E386	2115067	0944463	SHELVING, EPOXY COATED STEEL, LOUVERED, FOOD SERV	Corrosion Resistant Adjustable Shelving, w/ Polymer Coated Open Grid Shelf Mats, w/ Corner Release, Shelf Mats Removable & Dishwasher-Safe, Antimicrobial, 600 Lb. Cap Per Shelf.	5	1	E	Metro	MQ1872G - Max Q		72.00	18.00	61.20	1,829
Food Services	23.3.01.01	Food Services Office	F005	1959863	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Food Services	23.3.01.01	Food Services Office	F020	1959859	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Food Services	23.3.01.01	Food Services Office	F026	1959860	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Food Services	23.3.01.01	Food Services Office	F027	1959862	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Food Services	23.3.01.01	Food Services Office	F082	2480704	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Food Services	23.3.02.01	Touchdown Station in Kitchen	F020	1849003	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Food Services	23.3.02.01	Touchdown Station in Kitchen	F048	1849005	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Laundry Services	24.1.07.01	Clean Folding	F046	2224688	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Laundry Services	24.1.07.01	Clean Folding	E258	2485799	0940414	TABLE, INSTRUMENT, HEIGHT	Table, Packing, Stainless Steel, Height-Adjustable from 35" - 56"	2	3	F	Stat Medical	SO530		20.00	36.00	56.00	508
Laundry Services	24.1.07.01	Clean Folding	F062	2470190	0941054	WORKSTATION, WALL MOUNTED	Articulating single monitor mount and keyboard tray, 17" height adjustable channel. Includes secondary writing surface, CPU mount and power bar.	1	3	F	Amico Corporation	Condour Sidekick	AHC-1-L0-K1-CA	21.50	7.00	44.13	546
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E238	1849012	0945196	CABINET, SAFETY, FLAMMABLE STORAGE	Flammable safety cabinet. Capacity 170.34 L (45 gal). Self-closing doors.	1	1	E	Justrite Manufacturing	Sure-Grip EX	4655602	43.00	18.00	65.00	1,092
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	F021	1849006	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E387	2485801	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	2	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E310	1849015	0940426	SHOP TOOLS, DUST COLLECTOR	Mobile. With 2 canisters with collection bags. Motor speed: 3450 RPM. Suction capacity: 2320 CFM. Static pressure: 15.5" H2O. Impeller size: 12" (305 mm). Triple inlet.	1	4	E	Craftex	CX-402		39.00	31.50	69.00	991
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E425	2471210	0947600	SHOP TOOLS, HOIST	Electric shop hoist. Double line rated for 1100lbs/500kg	1	4	E	Five Oceans	4016		5.75	14.25	8.62	146
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E202	1849009	0938566	SHOP TOOLS, SAW, MITRE	12" dual bevel sliding mitre saw. Integrated jobsite lights, Dual horizontal steel rails with 3 larger linear bearings. Integral dust channel. Saw bevels left and right 0-48 deg	2	1	E	Milwaukee Electric Tools	6955-20HP		26.30	40.10	51.00	668
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E203	1849010	0946222	SHOP TOOLS, SAW, TABLE	10" left tilt contractor saw, with 30" RH Rip with steel wings. One piece rail system. Tubular stand with two fixed wheels and one swivel wheel. Blade brake function, Table size (wxl): 20.24x27.1"	1	1	E	Delta International Machinery Corp	36-5000T2		62.44	40.00	43.00	1,586
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	F043	2480705	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Facilities Maintenance	25.1.01.01	Carpentry / Paint Shop / General Maintenance	E294	1849014	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	E238	1849022	0945196	CABINET, SAFETY, FLAMMABLE STORAGE	Flammable safety cabinet. Capacity 170.34 L (45 gal). Self-closing doors.	1	1	E	Justrite Manufacturing	Sure-Grip EX	4655602	43.00	18.00	65.00	1,092
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	E387	2485802	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	2	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	E425	2471211	0947600	SHOP TOOLS, HOIST	Electric shop hoist. Double line rated for 1100lbs/500kg	1	4	E	Five Oceans	4016		5.75	14.25	8.62	146
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	T283		00N0036164	SHOP TOOLS, WELDER		1	5	E		Dynasty 200					
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	T283		00N0036228	SHOP TOOLS, WELDER		1	5	E		Power Mig 210 MP					
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	E172	2471886	0936934	TRUCK, PALLET	Capacity: 5500 lbs; hydraulic	2	1	E	Raymond Products Co. Inc.	RJ50N	BT LIFTER	27.00	62.20	48.00	686
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	F043	2480706	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,753	172.0	78.2	F	Clearance: Left - 3" (76 mm). Right - 3" (76 mm). Rear - 3" (76 mm).																						
457	1,554	23.5	10.7	F																							
457	1,554	23.5	10.7	F																							
546	838			F																							
610	1,016			F																							
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																							
	610	10.0	4.5	W																							
610	1,016			F																							
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
914	1,422			F	Leg clearance 28".																						
178	1,121			W	Workstation to be wall mounted. Wall backing required 30" to 75" A.F.F	120	1	15.0	60		Plug											All equipment mounted on the workstation will be powered by a power bar on the workstation. Hospital grade, 4 power outlets						
457	1,651	266.5	120.9	F	Shipping weight: 301 lbs. (137 kg). Clearance should be left for the vent of the cabinet.																						
711	1,219	50.0	22.7	F																							
381	1,930	200.0	90.8	F																							
800	1,753	134.5	61.0	F	Noise level: 85 dB. Impeller Size: 12.75" Inlet Size: 6" X 4" X 3"	220	1	18.0	60		Plug											3 Horsepower						
362	219	39.0	17.7	C		120	1	8.5	60	1,000												Outlet to be ceiling height within 3 feet of device						
1,019	1,295	68.5	31.1	F	Stand height: approximately 29" (737 mm). Mitre saw dimensions (wxdxh): 26.3x40.10x22" (668x1019x559 mm). Overall height with stand: 51" (1295 mm).	120	1	15.0	60		Plug																	
1,016	1,092	195.0	88.5	F	Table Size: 20.24 in. W X 27.05" L Dust Port Size: FIT 2-1/2" HOSE (WITH 4" ADAPTER)	120	1	15.0	60		Plug											1HP.						
	914	10.0	4.5	W																							
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
457	1,651	266.5	120.9	F	Shipping weight: 301 lbs. (137 kg). Clearance should be left for the vent of the cabinet.																						
381	1,930	200.0	90.8	F																							
362	219	39.0	17.7	C		120	1	8.5	60	1,000												Outlet to be ceiling height within 3 feet of device						
				T																							
				T																							
1,580	1,219	154.0	69.9	F																							
	914	10.0	4.5	W																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				LOW		HIGH												AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Temperature: -29*C to 52*C (-20*F to 125*F)
													Operating Temperature: -29*C to 52*C (-20*F to 125*F)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Facilities Maintenance	25.1.02.01	Plumbing / Mechanical / Millwright / Metal Shop	E294	1849024	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	2	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Facilities Maintenance	25.1.03.01	Bed Maintenance Area	F021	1849026	0940189	CHAIR, TASK, HIGH BASE, W/ARMS	Mid back task stool with arms. Weight capacity: 350 lbs. 5 casters. 10" Foot ring.	1	3	F	Allseating	96019-T2	Chiroform	28.00	28.00	48.00	711
Facilities Maintenance	25.1.03.01	Bed Maintenance Area	F050	1849030	0939740	DESK, STRAIGHT	Freestanding desk, full gables, with no storage.	1	3	F	Steelcase	TS5ARS3060	Payback	60.00	30.00	29.00	1,524
Facilities Maintenance	25.1.03.01	Bed Maintenance Area	E466	2557339	0948620	LIFT, BED MAINTENANCE	Floor mounted lift for bed maintenance. Lifting height: 60" (1524 mm). Lifting capacity: 1,000 lbs. (453 kg) (500lbs per arm). Telescoping and folding arms. Tubular carriage frame. Locking safety positions every 3.7" (94 mm) beginning at 25" (635 mm) of lift.	1	2	E	SVI International	HBL-1000-60-FL-RR		72.00	65.00	84.00	1,829
Facilities Maintenance	25.1.03.01	Bed Maintenance Area	E425	2471212	0947600	SHOP TOOLS, HOIST	Electric shop hoist. Double line rated for 1100lbs/500kg	1	4	E	Five Oceans	4016		5.75	14.25	8.62	146
Facilities Maintenance	25.1.03.01	Bed Maintenance Area	F082	2480707	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Facilities Maintenance	25.1.05.01	Central Parts Storage	E387	2485803	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	14	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Facilities Maintenance	25.1.06.01	Maintenance Storage	E049	1849033	0945170	CART, TOOL	With lock and handle. One 8" drawer, two 6" drawers, two 4" drawers, two 3" drawers. Two 6" swivel casters w/brake and two 6" rigid casters. Steel top with mat.	3	1	E	Metric Storage Systems	ROUSSEAU	R5BEE-3801/RC32-3624	36.00	24.00	45.50	914
Facilities Maintenance	25.1.06.01	Maintenance Storage	E052	1849034	0932689	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 500 lb weight capacity. Shelf clearance: 13.1" (333mm). Rubber swivel 5" (127mm) casters. Shelves welded to the legs.	3	1	E	Acart Equipment Ltd.	3067		22.38	39.25	37.25	568
Facilities Maintenance	25.1.06.01	Maintenance Storage	E133	1849036	0944217	LADDER, STEP	Load: 300 lbs This 10 foot non-conductive fiberglass step ladder has a load capacity of 300lbs, rated ANSI Type IA. This ladder is equipped with the new and innovative Raptor Top with magnet and multiple tool slots, SHOX impact absorption system, new Raptor boots with non-marring bonded tread mechanically fastened to the upper boot to create a secure slip-resistant footing, inside spreader	2	1	E	Louisville Ladder, Inc.	FS1510		28.30	64.20	114.30	719
Facilities Maintenance	25.1.06.01	Maintenance Storage	E387	2485804	0942624	SHELVING, STEEL	Starter unit, closed back and sides. Seven shelves including top and bottom, w/ 12 dividers (two/shelf). Bolted construction. Seismic Floor anchors.	10	2	E	North American Steel	KWIKERECT		36.00	15.00	76.00	914
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	F015	1849038	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	6	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	F020	1849039	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	E372	2470191	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	E192	1849040	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	F087	2485800	0947967	TABLE, DRAFTING	1" non-glare board surface. 4 post base with centre stabilizing bar. Includes 12"x29" tool drawer and 38"x28" blueprint drawer	1	3	F	Safco Canada	3962GR, 3953	Precision Drafting	60.00	30.00	36.50	1,524
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	F042	1849041	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Facilities Maintenance	25.1.08.01	Plan Room / Multipurpose Space	F082	2480708	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Facilities Maintenance	25.2.01.01	Office: Supervisor	F005	1849044	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Facilities Maintenance	25.2.01.01	Office: Supervisor	F020	1849045	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
711	1,219	50.0	22.7	F																								
762	737			F		120	1		60		Plug											Integrated power and data in desks and tables to connect to power source 120V/1P/60Hz, 15A circuits.						
1,651	2,134			F	Bolts to the floor with concrete anchors, the lift itself does not need to be attached to the wall, self-standing. Minimum recommended clearance (back): 30" Clearance for height of bed required above lift. Approx. 84" including lift and bed. Do not set up the lift on a floor seam to avoid any issues with the pitch of the floor. Do not install any concrete anchors closer than 4-3/4" from a floor seam. Concrete anchor hole: 3/8" diameter x 2-5/8" deep (9.52 x 66.68mm) Mounting hardware Qty=6 (3/8" DIA. x 3" LG. Cracked Concrete Wedge Anchor) Included with unit	120	1		60		Plug						Plug			120V power and pushbutton lock release can be remotely wall mounted or to the column of the lift 8 foot 16/3 SJO power cord						
362	219	39.0	17.7	C		120	1	8.5	60	1,000												Outlet to be ceiling height within 3 feet of device						
	610	10.0	4.5	W																								
381	1,930	200.0	90.8	F																								
610	1,156	485.5	220.4	F	Clearances: Left - 3" (76 mm). Right - 3" (76 mm). Rear - 3" (76 mm).																								
997	946	68.0	30.9	F																								
1,631	2,903	38.0	17.2	F	Closed Height: 121.7 Closed Depth: 6 Closed Width (in): 28.4																								
381	1,930	200.0	90.8	F																								
432	980			F																								
610	1,016			F																								
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																		
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
762	927	173.0	78.6	F																								
610	737	88.0	40.0	F																								
	610	10.0	4.5	W																								
546	838			F																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Facilities Maintenance	25.2.01.01	Office: Supervisor	F071	1849048	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Facilities Maintenance	25.2.01.01	Office: Supervisor	F027	1849046	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Facilities Maintenance	25.2.01.01	Office: Supervisor	F082	2480709	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Facilities Maintenance	25.2.02.01	Shared Office: 4 Workstations	F020	1849049	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	4	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Facilities Maintenance	25.2.02.01	Shared Office: 4 Workstations	F048	1849051	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	4	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Facilities Maintenance	25.2.02.01	Shared Office: 4 Workstations	F082	2480710	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	4	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Facilities Maintenance	25.2.03.01	Business Centre	F029	1849052	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Facilities Maintenance	25.2.03.01	Business Centre	F020	2376070	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Facilities Maintenance	25.2.03.01	Business Centre	F026	2376068	0939671	DESK, 48"X24"	Freestanding desk full gables, with no storage. W/ Cable Mgmt	1	3	F	POI Business Interiors	Payback	Steelcase TS5ARS2448	48.00	24.00	29.00	1,219
Facilities Maintenance	25.2.03.01	Business Centre	F041	1849053	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Facilities Maintenance	25.2.03.01	Business Centre	F043	2480711	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Supply Chain Management	26.1.01.01	Loading Dock / Post Receiving Bay		2470099	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Supply Chain Management	26.1.02.01	Storage Cubicle	E046	1849056	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	2	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Supply Chain Management	26.1.03.01	Short Term Equipment Holding	193	2470204	0946227	REFRIGERATOR, UPRIGHT	13.6 cu.ft. Capacity all refrigerator. Reversible door hinge. 4 shelves.	1	1	E	LG Electronics Canada	LG LRONC1404V		23.40	27.90	73.25	594
Supply Chain Management	26.1.03.01	Short Term Equipment Holding	E213	1849058	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	5	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Supply Chain Management	26.1.04.01	Chemical Storage	E046	2115058	0940457	CART, WIRE	5 tiers, all wire. Capacity: 750 lb (340 kg), maximum. Donut bumpers. Four 5" (127 mm) swivel casters, 2 braking.	2	1	E	Acart Equipment Ltd.	MB455CH		48.00	24.00	80.00	1,219
Supply Chain Management	26.1.04.01.01	Medical Gas Cylinder Storage Room	E469	2544717	0948530	CART, CYLINDER, MEDICAL GAS (50)	Cylinder cart/storage. 50 cylinder capacity. Holds type D and E cylinders. 2400lbs weight capacity. 4 casters - 2 rigid, 2 swivel with brake, 4" diameter.	1	1	E	SaftCart	MDE50H		27.00	38.00	78.00	686
Supply Chain Management	26.1.04.01.01	Medical Gas Cylinder Storage Room	E471	2544720	0948532	DOLLY, CYLINDER	Cylinder dolly, size H. 500 lb weight capacity. Includes 4" casters as well as 2 more ergonomic casters to lay doll	2	1	E	Grainger	8DEV1		22.00	21.00	54.00	559
Supply Chain Management	26.1.04.01.01	Medical Gas Cylinder Storage Room	E470	2544718	0948531	RACK, CYLINDER	Rack for cylinder storage. Up to 4 tank capacity. Bolts to the floor.	1	2	E	Durham Manufacturing	GCRV-302430-08T		30.00	24.00	30.00	762
Supply Chain Management	26.1.05.01	Workstation: Shipper / Receiver	F020	1849060	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Supply Chain Management	26.1.05.01	Workstation: Shipper / Receiver	F048	1849061	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Supply Chain Management	26.2.01.01	General Storage Area	E052	1849062	0932689	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 500 lb weight capacity. Shelf clearance: 13.1" (333mm). Rubber swivel 5" (127mm) casters. Shelves welded to the legs.	5	1	E	Acart Equipment Ltd.	3067		22.38	39.25	37.25	568
Supply Chain Management	26.2.01.01	General Storage Area	E074	1849063	0938829	DOLLY	1200 lb (544 kg) weight capacity. 14 gauge steel construction. 34" (864 mm) removable handle. 4" (102 mm) non-marking rubber casters.	2	1	E	Kleton	MA244	MA199	24.00	24.00	40.00	610
Supply Chain Management	26.2.01.01	General Storage Area	E390	2195946	0944710	SHELVING, STEEL, PALLET	Pallet rack with 14 gauge steel frame, 16 gauge steel beam. customize height and length.	28	2	E	Uline Canada	H-5716	PALLET RACK	96.00	48.00	96.00	2,438
Supply Chain Management	26.2.01.01	General Storage Area	E172	1849064	0936934	TRUCK, PALLET	Capacity: 5500 lbs; hydraulic	1	1	E	Raymond Products Co. Inc.	RJ50N	BT LIFTER	27.00	62.20	48.00	686
Supply Chain Management	26.2.02.01	Bulk Storage Area	E390	1849067	0944710	SHELVING, STEEL, PALLET	Pallet rack with 14 gauge steel frame, 16 gauge steel beam. customize height and length.	4	2	E	Uline Canada	H-5716	PALLET RACK	96.00	48.00	96.00	2,438
Supply Chain Management	26.2.03.01	Pandemic Planning Storage	E390	2195948	0944710	SHELVING, STEEL, PALLET	Pallet rack with 14 gauge steel frame, 16 gauge steel beam. customize height and length.	7	2	E	Uline Canada	H-5716	PALLET RACK	96.00	48.00	96.00	2,438
Supply Chain Management	26.2.04.01	Vertical Lift Storage	E299	1849069	0947595	DISPENSING, CAROUSEL	Vertical Lift Module is an automatic storage system that can deliver/retrieve items through access point/window similar to a large vending machine. Storage Tray Area - Useable tray width 95", depth 32.5" . Max storage height 30" . Max weight per tray is 1000lbs. Aprx. 50 trays can fit in module (max 81).	1	3	E	Vidir Machine, Inc.	VLM195-3296		117.00	115.00	195.00	2,972

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								
457	1,829	133.0	60.5	F																								
610	1,016			F																								
610	737			F																								
610	762	88.0	40.0	F																								
	914	10.0	4.5	W																								
				NA																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
709	1,861	152.0	69.0	F	Depth (Total with Door Open)48 1/4" Rear clearance 2"	115	1	15.0	60		Plug																	
457	1,753	92.0	41.7	F																								
610	2,032	108.0	49.1	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																								
965	1,981	277.0	125.6	F	6 casters: 2 rigid, 4 swivel with brake; 4" diameter, 2" width.																								
533	1,372	40.0	18.1	F																								
610	762	211.0	95.7	F	Includes concrete anchors to secure to floor																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
997	946	68.0	30.9	F																								
610	1,016	27.0	12.3	F																								
1,219	2,438			F																								
1,580	1,219	154.0	69.9	F																								
1,219	2,438			F																								
1,219	2,438			F																								
2,921	4,953	132,000.0	59,874.1	F	Foot Plate Dimensions - 12.25" x 12.25" x 0.5"	480	3	20.0	60		Hard																	

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating temperature is between 55 °F (13 °C) and 110 °F (43 °C)

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Supply Chain Management	26.2.05.01	Flammable Storage	E238	1849070	0945196	CABINET, SAFETY, FLAMMABLE STORAGE	Flammable safety cabinet. Capacity 170.34 L (45 gal). Self-closing doors.	3	1	E	Justrite Manufacturing	Sure-Grip EX	4655602	43.00	18.00	65.00	1,092
Supply Chain Management	26.2.06.01	Breakout / Decasing Area, Cart Marshalling Area	F029	2471888	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Supply Chain Management	26.2.06.01	Breakout / Decasing Area, Cart Marshalling Area	E052	1849071	0932689	CART, UTILITY	3 tiers. Stainless steel. 1"(25mm) lip on three sides of top and middle shelves. 500 lb weight capacity. Shelf clearance: 13.1" (333mm). Rubber swivel 5" (127mm) casters. Shelves welded to the legs.	3	1	E	Acart Equipment Ltd.	3067		22.38	39.25	37.25	568
Supply Chain Management	26.2.06.01	Breakout / Decasing Area, Cart Marshalling Area	F020	2472856	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Supply Chain Management	26.2.06.01	Breakout / Decasing Area, Cart Marshalling Area	F046	2472855	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Supply Chain Management	26.2.06.01	Breakout / Decasing Area, Cart Marshalling Area	E213	1849072	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Supply Chain Management	26.2.06.01	Breakout / Decasing Area, Cart Marshalling Area	E294	2472854	0938622	WORKBENCH	Single sided, Stainless steel worksurface. Motorized Table height adjastable:29'' to 36'' with electrical outlet2.	1	2	E	Mottlab Inc.	ATF2860		60.00	28.00	84.00	1,524
Supply Chain Management	26.2.07.01	Workstation: Stores Attendant (RFID scanner)	F020	1849073	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Supply Chain Management	26.2.07.01	Workstation: Stores Attendant (RFID scanner)	F048	1849076	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Supply Chain Management	26.2.07.01	Workstation: Stores Attendant (RFID scanner)	F082	2480712	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Supply Chain Management	26.2.07.02	Workstation: Stores Attendant (RFID scanner)	F020	2115061	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Supply Chain Management	26.2.07.02	Workstation: Stores Attendant (RFID scanner)	F048	2115060	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Supply Chain Management	26.2.08.01	Loaner Room	E213	1849077	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Administration / Staffing Office	26.2.10.01	Mail Room	E396	2241752	0938429	CART, MAIL	Mail delivery and sorting. Accommodates hanging files. Chrome finish. (4) 5" casters, 2 swivel and 2 rigid with brakes. 2 baskets, 12" (51 mm) top basket, 7" (187 mm) bottom basket.	1	1	E	Acart Equipment Ltd.	LQ-2DCR		32.00	20.00	37.00	813
Administration / Staffing Office	26.2.10.01	Mail Room	F065	2241751	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	2	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Administration / Staffing Office	26.2.10.01	Mail Room	E213	2093355	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	1	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Administration / Staffing Office	26.2.10.01	Mail Room	F034	2241753	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Supply Chain Management	26.3.01.01	Office: Supervisor	F069	1849080	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Supply Chain Management	26.3.01.01	Office: Supervisor	F005	1849078	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Supply Chain Management	26.3.01.01	Office: Supervisor	F020	1849079	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Supply Chain Management	26.3.01.01	Office: Supervisor	F071	1849082	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Supply Chain Management	26.3.01.01	Office: Supervisor	F082	2480713	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Supply Chain Management	26.3.02.01	Office: Inventory Analyst	F069	2471889	0944066	CABINET, STORAGE, COMBO	Metal storage combo cabinet 5H	1	3	F	Global Furniture	9300 Series Storage	9336-5MSL	36.00	18.00	65.25	914
Supply Chain Management	26.3.02.01	Office: Inventory Analyst	F005	1849083	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Supply Chain Management	26.3.02.01	Office: Inventory Analyst	F020	1849084	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Supply Chain Management	26.3.02.01	Office: Inventory Analyst	F071	1849087	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Supply Chain Management	26.3.02.01	Office: Inventory Analyst	F082	2480714	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,651	266.5	120.9	F	Shipping weight: 301 lbs. (137 kg). Clearance should be left for the vent of the cabinet.																							
457	1,829	133.0	60.5	F																								
997	946	68.0	30.9	F																								
610	1,016			F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
457	1,753	92.0	41.7	F																								
711	2,134			F		120	1	20.0	60		Plug	L5-20P		120	1	20.0	60		Plug	L5-20P		Electrical Cord Length: 4' Requires 2 Dedicated 20A circuits						
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
	610	10.0	4.5	W																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
457	1,753	92.0	41.7	F																								
508	940	42.0	19.1	F	Clearance: Left - 3" (76 mm). Right - 3" (76 mm). Rear - 3" (76 mm).																							
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
457	1,753	92.0	41.7	F																								
914	737			F																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P											0.5 W power draw when not in use						
	610	10.0	4.5	W																								
457	1,657			F																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P											0.5 W power draw when not in use						
	610	10.0	4.5	W																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Supply Chain Management	26.3.03.01	Business Centre	F029	1849088	0939160	CABINET, STORAGE, METAL	2 Door Storage Cabinet - One Fixed Shelf, Three Adjustable Shelves. 2 hinged doors. Lockable. Chrome plated handles.	1	1	F	Global Furniture	9336-S72L		36.00	18.00	72.00	914
Supply Chain Management	26.3.03.01	Business Centre	F065	2471890	0941859	MAIL SLOTS	Mail-Sorter with heavy-gauge steel construction. Combination of Sorter Modules and Station Base. Rated up to 500lbs.	1	1	F	Safco Canada	7756GR/7751GR	EZ-Sort	57.50	18.25	76.00	1,461
Supply Chain Management	26.3.03.01	Business Centre	F041	1849089	0939551	TABLE, RECTANGLE	High Pressure Laminate top. (2) T-legs base	1	3	F	Spec Furniture	Manhattan	MNT2472	72.00	24.00	30.00	1,829
Supply Chain Management	26.3.03.01	Business Centre	F045	2480715	0947788	WHITEBOARD, STEEL, LARGE	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880013	96.00		48.00	2,438
Supply Chain Management	26.3.04.01	Kitchenette	F005	1849091	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Supply Chain Management	26.3.04.01	Kitchenette	E151	1952375	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Supply Chain Management	26.3.04.01	Kitchenette	E192	1849092	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Supply Chain Management	26.3.04.01	Kitchenette	F034	1849093	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	1	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Concierge	27.1.01.01	Lobby / Entrance	FXXX	1849095	0940427	ALLOWANCE, FURNITURE	Allowance Lobby Furniture: Planning will be detailed during Coordination Meetings	4	3	F		ZZZ					
Concierge	27.1.01.01	Lobby / Entrance	E404	2271503	0937071	CABINET, DEFIBRILLATOR (AED)	Fully recessed to wall, interior depth 7". Alarm AED wall cabinet. Metal construction. Right hand continuous hinged door. Glass door with clear view of AED unit. Chrome door handle.	1	2	E	Zoll Medical Canada	SGP851	8000-001258	14.00	1.50	14.00	356
Concierge	27.1.01.01	Lobby / Entrance	E068	1849094	0939006	DEFIBRILLATOR (AED)	Automatic. Biphasic defibrillator with self-test.	1	2	E	Zoll Medical Corporation	AED Plus		9.50	11.50	5.25	241
Concierge	27.1.03.01	Family Washroom		2113239	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Concierge	27.2.01.01	Gift Shop	E407	2377360	0946647	FREEZER, CHEST	Domestic chest freezer	1	1	E	Whirlpool Corp.	MZC5216LW		55.25	28.00	36.00	1,403
Concierge	27.2.01.01	Gift Shop	E406	2377359	0946639	MERCHANDISER, REFRIGERATED	Merchandising refrigerator - 2 doors, swing open, glass panes. 10 epoxy coated grill shelves. 3" castors included in height calc. R290 refrigerant. Automatic defrost	1	1	E	Beverage Air Shipley Inc.	MT34-1B		39.50	27.50	82.00	1,003
Concierge	27.2.02.01	Storage Room	E213	1849097	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	3	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Concierge	27.2.03.01	Office	F020	1849098	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Concierge	27.2.03.01	Office	F071	1849099	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	2	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Concierge	27.3.01.01	Team Room	F005	1849100	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Concierge	27.3.01.01	Team Room	F020	1849101	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Concierge	27.3.01.01	Team Room	F048	2376139	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	1	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Concierge	27.3.01.01	Team Room	F071	1849103	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Concierge	27.3.01.01	Team Room	E151	2267172	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Concierge	27.3.01.01	Team Room	E192	2267171	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Concierge	27.3.01.01	Team Room	F038	1849102	0939672	TABLE, ROUND	Standard Seating height. X-base. Laminate top	1	3	F	Spec Furniture	Manhattan	MNX36	36.00	36.00	29.00	914
Concierge	27.3.02.01	Storage Room	E213	1849104	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	3	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Concierge	27.4.01.01	Waiting Area	F006	1849107	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Concierge	27.4.01.01	Waiting Area	F005	1849106	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
457	1,829	133.0	60.5	F																								
464	1,930	258.0	117.0	F	4 x 7751GR: (w x d x h): 57-1/2 x 13 x 14-1/2" 1 x 7751GR: (w x d x h): 57-1/2 x 18-1/2 x 19" 7756GR Station base is height adjustable: 14 - 19"																							
610	762	88.0	40.0	F																								
	1,219	20.0	9.1	W																								
546	838			F																								
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.							
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required							
914	737			F																								
				X																								
38	356	21.0	9.6	W	Wall blocking. Wall opening 15x6-1/4x15" (381x159x381 mm) Inside cabinet dimensions (wxdxh): 14x7x14" (356x177.8x356 mm) Mounting hardware to be included Wall-blocking is required	120	1		60		Plug		No									Replaceable batteries : 12 V sealed lithium manganese dioxide battery. Battery life 5 years							
292	133	6.7	3.1	O																		Replaceable batteries: 10 Type 123A Photo Flash lithium manganese dioxide. Data Transfer: Compatible with Windows Operating Systems. CD-ROM Drive. IrDA Port. 2MB Disk Space							
				NA																								
711	914			F	7cm (2.75") clearance required on both sides and back of freezer. Leave room above freezer to open lid. Manual defrost drain on front.																								
699	2,083	356.0	161.5	F	1309mm/51.5" depth with door open	115	1	7.6	60		Plug	5-15P										2438mm/8 foot power cord, must be connected to its own dedicated power supply							
457	1,753	92.0	41.7	F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use							
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																	
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use							
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.							
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required							
914	737	55.0	25.0	F																								
457	1,753	92.0	41.7	F																								
559	838			F																								
546	838			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5 HIGH PSI	HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	MAX BTU/HR	DUCT WIDTH INCH	DUCT WIDTH MM	DUCT HEIGHT INCH	DUCT HEIGHT MM	CFM	IN (WG)	LPS	KPA	HVAC NOTE
													Operating Temperature: 0 to 50 deg C (32 to 122 deg F). Storage Temperature: -30 to 60 deg C (-22 to 140 deg F). Humidity: 10 to 95% RH, non-condensing. Altitude: -91 to 4,573 m (-300 to 15,000 ft).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Concierge	27.4.01.01	Waiting Area	F020	1849105	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Concierge	27.4.01.01	Waiting Area	F037	1849108	0939738	TABLE, END	Laminate Rectangular table top. Metal base	1	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Concierge	27.4.02.01	Shared Office	F020	1849111	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Concierge	27.4.02.01	Shared Office	F071	1849114	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	2	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Concierge	27.4.02.01	Shared Office	F027	1849112	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	2	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Concierge	27.4.02.01	Shared Office	F082	2480716	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Concierge	27.4.03.01	Meeting Room	F015	1849115	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	6	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Concierge	27.4.03.01	Meeting Room	F042	1849116	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	1	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Concierge	27.4.03.01	Meeting Room	F080	2480717	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Concierge	27.4.04.01	Storage	E213	1849118	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	4	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Concierge	27.5.01.01	Non-Denominational Spiritual Room	F010	2472870	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Concierge	27.5.01.01	Non-Denominational Spiritual Room	F012	2472871	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Concierge	27.5.01.01	Non-Denominational Spiritual Room	F016	2472872	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	2	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775
Concierge	27.5.02.01	Non-Denominational Spiritual Storage Room	F006	1849120	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	2	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Concierge	27.5.02.01	Non-Denominational Spiritual Storage Room	F005	1849119	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	6	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Concierge	27.5.02.01	Non-Denominational Spiritual Storage Room	E213	1849122	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	4	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Concierge	27.5.02.01	Non-Denominational Spiritual Storage Room	F042	1849121	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Concierge	27.6.01.01	Cafe		2113240	0945127	NOTE: NO EQUIPMENT BY COLLIERS REQUIRED	No medical or supporting equipment is planned for this room	1	_	_		N/A					
Concierge	27.6.02.01	Seating	F010	1952179	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	12	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Concierge	27.6.02.01	Seating	F073	1952180	0941378	TABLE, SIDE, W/USB	Round Drum side table with power module (2power +2 usb) and 2" metal kick plate.	3	3	F	Spec Furniture	24D	DURM	24.00	24.00	20.00	610
Academic and Teaching	28.1.01.01	Simulation Room	E019	1849133	0943719	BED, ELECTRIC	Adaptive Bed Alarm, ability to Adjust Sensitivity Based on Siderail Configuration. Bed status check with iBed® Watch. Connect to the nurse call system without any cable. Patient-Centric clinical dashboard. Prevent falls with bed exit alarm. Maximum patient weight: 500lb. Height range from 29.2 cm (11.5") to 76.2 cm (30").	1	1	E	Stryker Canada Inc	ProCuity 3009 LEX		41.50	102.01	30.00	1,054
Academic and Teaching	28.1.01.01	Simulation Room	E306	2074097	0934870	BLENDER, AIR/OXYGEN	Two pressure compensated flowmeters mounted on either side for delivery of air and oxygen.	1	1	E	Bird Products Corporation	ULTRABLENDER	10040A	3.50	3.40	3.60	89
Academic and Teaching	28.1.01.01	Simulation Room	F030	1849134	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Academic and Teaching	28.1.01.01	Simulation Room	E359	2074104	0928963	CART, MEDICATION	Formed steel and aluminum construction. Two 3" (76 mm), one 10" (254 mm) high full width drawers. 8 half-width bins. Auto relock. Proximity card reader. 2 handles. 4 swivel casters w/ 1 locking.	1	1	E	Capsa Solutions	Avalo ACS		26.00	24.00	39.50	660
Academic and Teaching	28.1.01.01	Simulation Room	E038	1849124	0938326	CART, RESUSCITATION	Capacity: 300 lb (136.40 kg), approximate. 4 drawers: 2 - 3", 1 - 6", & 1 - 9". Lightweight polymer construction. Passive lock. Push handle. Four 5" (127 mm) casters, front with brakes.	1	1	E	Metro Cart	LECCRP3	Lifeline	37.99	22.64	39.00	965
Academic and Teaching	28.1.01.01	Simulation Room	F013	1849126	0939677	CHAIR, PATIENT, HIGH BACK	Upholstered seat and back (vinyl or equivalent). Metal frame. Plastic arm caps. Non-marking glides. Weight Capacity: 500 lbs.	1	3	F	Globalcare	GC3655	PRIMACARE HT	25.00	27.01	48.50	635

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
610	1,016			F																							
508	432			F																							
610	1,016			F																							
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																							
	610	10.0	4.5	W																							
432	980			F																							
610	737	88.0	40.0	F																							
	1,219	74.8	33.9	W																							
457	1,753	92.0	41.7	F																							
800	927			F																							
737	838	116.0	52.7	F																							
832	1,092			F																							
559	838			F																							
546	838			F																							
457	1,753	92.0	41.7	F																							
610	737	88.0	40.0	F																							
				NA																							
800	927			F																							
610	508	29.0	13.2	F		120	1		60		Plug											15A Duplex receptacle with 2x USB Charging Ports located on Table Top. The Outlet is a 'pass-though device' and has no electrical load Power Cord Length = 108"						
2,591	762	575.0	260.8	F	Patient Surface: 213.4 cm x 88.9 cm (84 in x 35 in)	120	1	8.0	60		Plug		Yes									Wireless communication capability: 2.4 GHz; 5Ghz.						
86	91	4.0	1.8	W																							
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
610	1,003			F																							
575	991	200.0	90.7	F	Clearance: Left - 3" (76.2 mm) Right - 3" (76.2 mm) Rear - 3" (76.2 mm)																							
686	1,232	62.1	28.2	F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Supply pressure 30 to 75 PSIG/ 2.1 to 5/3 kg/cm2.											

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Academic and Teaching	28.1.01.01	Simulation Room	E069	1849127	0938711	DEFIBRILLATOR	Biphasic waveform. Multiple energy selections. External apex/sternum paddles. ECG monitoring. LCD color display. Depth & rate CPR feedback.	1	1	E	Stryker	LIFEPAK 15		15.80	9.10	12.50	401
Academic and Teaching	28.1.01.01	Simulation Room	E307	2074102	0939963	FLOWMETER, AIR	DISS with metal hand twist adapter. Dual scale: 0 to 5 L/min on an expanded scale. 5 to 15 L/min for general use. Nickel plated-brass manifold. Precision seat and valve.	1	1	E	Datex-Ohmeda (Canada) Inc	6702-1290-921		2.00	2.00	6.00	56
Academic and Teaching	28.1.01.01	Simulation Room	E104	2074221	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	1	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Academic and Teaching	28.1.01.01	Simulation Room	T184		00N0031106	I.V. INFUSION PUMP		1	5	E		8100					
Academic and Teaching	28.1.01.01	Simulation Room	E383	2483820	0938360	I.V. INFUSION PUMP, CONTROLLER	Main control unit, support up to four infusion modules. Colour programming screen, displays drug or IV fluid name, dose or rate and volume infused.	1	1	E	Becton Dickinson	Alaris 8015		6.90	9.00	8.80	175
Academic and Teaching	28.1.01.01	Simulation Room	E227	1849132	0938395	I.V. STAND, ERGONOMIC, HEIGHT ADJ. HOOK	Five legged. 25" (635 mm) diameter cast aluminum base. With urinary drainage bag hook and 4 detachable ram's horn hooks. Height adjustable. 45 lbs Load Capacity.	1	1	E	Brewer Co. Quality Health Care Eq	11360		25.00	25.00	92.75	635
Academic and Teaching	28.1.01.01	Simulation Room	E138	1849129	0938552	LIFTER, PATIENT, CEILING MOUNTED	Ceiling mounted Lift motor. To be mounted on patient lifter track. Weight capacity: up to 600 lbs. To include 1 standard sling	1	3	E	Guldmann	GH3		22.80	8.10	98.40	579
Academic and Teaching	28.1.01.01	Simulation Room	E153	1849130	0945090	MONITOR, PHYSIOLOGICAL	8 wave monitor, 12-lead ECG, SpO2, Co2, NIBP, 2-Invasive BP, temperature, MMS server module. Includes ICP, PA, CVP and CO.	1	1	E	Philips Healthcare	MX750 IntelliVue		18.82	8.54	13.78	478
Academic and Teaching	28.1.01.01	Simulation Room	E166	1849131	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Academic and Teaching	28.1.01.01	Simulation Room	E013	1849123	0937780	SUCTION MACHINE	Portable. Integrated vacuum regulator and handle. Includes canister and disposable liner. Canister capacity: 1200 ml. High vacuum/high flow.	1	1	E	Laerdal Medical Canada Ltd.	Laerdal Suction Unit	78003020/57151	13.00	6.30	12.40	330
Academic and Teaching	28.1.01.01	Simulation Room	F040	1849135	0940188	TABLE, OVERBED	Mobile Table, U-base with casters. Height range of 29 to 44"	2	3	F	Spec Furniture	Overbed		17.00	32.00	44.00	432

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
231	318	18.5	8.4	O	Weight: Basic monitor/defibrillator with new roll paper and two batteries installed: 17.5 lb (7.9 kg) • Fully featured monitor/defibrillator with new roll paper and two batteries installed: 18.5 lb (8.4 kg) Lithium-ion battery: =1.3 lb (0.6 kg) Accessory bags and shoulder strap: 3.9 lb (1.77 kg) Standard (hard) paddles: 2.1 lb (0.95 kg)	120	1	1.4	60		Plug											Battery Operated: Rechargeable Lithium Ion battery , 11.1V typical. AC power Adaptor for Battery Charging: 120V, 1 phase, 60Hz. 1.4A. DC adaptor: input range 11-17.6VDC, 15A. Data Transfer: Wired - Serial Port RS232 Communication Wireless - Bluetooth Technology provides connection to other Bluetooth enabled devices						
58	152	0.2	0.1	O	Note: dimensions are for unit only, excluding fittings, and does not include nebulizers to be utilized with flowmeter.																						
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																						
				O																							
229	224	7.2	3.3	O		120	1		60	150	Plug	5-15P	Yes									Battery run time is a function of the number of modules attached and module activity. With a new, fully charged battery, the system operates as follows before a "BATTERY DISCHARGED" message occurs: • 6 hours with one Pump module infusing at 25 mL/h • 6 hours with one Pump module infusing at 25 mL/h and one Auto-ID module • 3 hours with four Pump modules infusing at 25 mL/h • 3 hours with four Pump modules infusing at 25 mL/h and one Auto-ID module • 4.5 hours with one active SpO2 module • 6 hours with one Syringe module or PCA module infusing at 5 mL/h • 3 hours with four Syringe modules, or one PCA module and three Syringe modules, infusing at 5 mL/h • 4 hours with one active EtCO2 module Comm. port: RS-232 with an RJ45 connector.						
635	2,356			F	Height adjustable: 52.25 to 92.75" (1,327 to 2,356 mm). 25" cast aluminum base 2" Dual wheel nylon casters Bottom pole: 1" diameter Top pole: 0.75" diameter																						
206	2,499	24.5	11.1	C	Sound level : 52 dB (A)	115	1	2.5	60		Hard											Battery : 1 x 24 V NiMH, 2.0 Ah						
217	350	22.1	10.0	O	Wall mounted.	110	1	1.9	60		Plug		Yes									Power Consumption> 200 W Average.						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
160	315	8.8	4.0	O		115	1	5.0	60		Plug	5-15P										Operating/charging: 115 V or 12-28 VDC. 12 VDC lead/acid battery, 2 Ah, rechargeable battery. Power cord: 6 ft (1829 mm) long, approximate.						
813	1,118			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC									HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Environmental: - Operating Temperature: 0 to 45 deg C (32 to 113 deg F); - Storage Temperature: : -20 to 65 deg C (-4 to 149 deg F); - Relative Humidity Operating 5% to 95% relative humidity, non-condensing, NIBP 15 t o95% non condensing - Relative Humidity Storage 10% to 95% relative humidity, non-condensing Atmospheric Pressure, Operating : -382 to 4,572 m (-1,253 to 15,000 ft) , NIBP: -152 to 3,048 m (-500 to 10,000 ft) Battery operating condition Charging temperature range: 41° to 113°F (5° to 45°C) Operating temperature range: 32° to 113°F (0° to 45°C) Short term (<1 week) storage temperature range: -4° to 140°F (-20° to 60°C) Long term (>1 week) storage temperature range: 68° to 77°F (20° to 25°C) Operating and storage humidity range:5 to 95% relative humidity, non-condensing
													Temperature Range: operating: 0 to 40°C (32to 104°F) Or, with iPC installed: 0 to 35°C (32 to 95°F). Storage: -20 to 60°C (-4 to 140°F). Humidity Range: Operating: 15 to 95% RH non-condensing. Storage: 5 to 95% RH non-condensing. Altitude Range: Operating: Operating -1640 to 9842 ft (-500 to 3000 m). Storage: -1640 to 15091 ft (-500 to 4600 m).
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Academic and Teaching	28.1.01.01	Simulation Room	E360	2074076	0943776	TRAINING AID, SIMULATOR, MANNEQUIN, HI-FIDELITY	Patient simulator with quality of CPR feedback, convulsions, bleeding and wounds, wireless monitor, secretions, event recognition, eye signs, vascular access, chest decompression and chest drain.	1	1	E	Laerdal Medical Corp.	SimMan 3G		21.60	70.80		549
Academic and Teaching	28.1.01.01	Simulation Room	F083	2480718	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Academic and Teaching	28.1.02.01	Debriefing / Multipurpose VC Room	F015	1849137	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	10	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Academic and Teaching	28.1.02.01	Debriefing / Multipurpose VC Room	F020	2241758	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Academic and Teaching	28.1.02.01	Debriefing / Multipurpose VC Room	F048	2241763	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	2	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Academic and Teaching	28.1.02.01	Debriefing / Multipurpose VC Room	F042	1849138	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	4	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Academic and Teaching	28.1.02.01	Debriefing / Multipurpose VC Room	F082	2480719	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Academic and Teaching	28.1.03.01	Storage Room	E337	2195969	0942801	CART, SUPPLY, PARWALL	Par Wall Complete Unit. 6 basket shelves, single sided. Mobile, 4x4" swivel casters, two with brakes.	1	1	E	Acart Equipment Ltd.	Par Wall	ParWall36M	36.00	26.00	78.00	914
Academic and Teaching	28.1.03.01	Storage Room	E213	1849142	0940410	SHELVING, WIRE	4-tier, wire. Bottom shelf with solid cover.	2	1	E	Acart Healthcare Storage Solutions	836CH		36.00	18.00	69.00	914
Academic and Teaching	28.1.03.01	Storage Room	E259	2485037	0940415	TABLE, STAINLESS	Stainless Steel Table, shelf below.	1	1	E	Stat Medical	SO-505		48.00	20.00	34.00	1,219
Academic and Teaching	28.1.04.01	Control / Observation Room	F020	1849143	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Academic and Teaching	28.1.04.01	Control / Observation Room	F046	1849146	0940216	DESK, HEIGHT ADJUSTABLE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top.	1	3	F	Globalcare	PH3T3072	FOLI	70.00	29.00	30.00	1,778
Academic and Teaching	28.1.04.01	Control / Observation Room	F027	1849144	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Academic and Teaching	28.1.04.01	Control / Observation Room	F083	2480720	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695497	36.00		24.00	914
Academic and Teaching	28.2.01.01	Shared Office: Education Staff	F005	1849147	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	2	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Academic and Teaching	28.2.01.01	Shared Office: Education Staff	F020	1849148	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Academic and Teaching	28.2.01.01	Shared Office: Education Staff	F071	1849152	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	2	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Academic and Teaching	28.2.01.01	Shared Office: Education Staff	F027	1849149	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	2	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Academic and Teaching	28.2.01.01	Shared Office: Education Staff	F038	1849150	0939672	TABLE, ROUND	Standard Seating height. X-base. Laminate top	1	3	F	Spec Furniture	Manhattan	MNX36	36.00	36.00	29.00	914
Academic and Teaching	28.2.01.01	Shared Office: Education Staff	F082	2480721	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Academic and Teaching	28.3.02.01	Medical Learners Lounge	F005	2371541	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	4	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Academic and Teaching	28.3.02.01	Medical Learners Lounge	F020	1849163	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	2	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699
Academic and Teaching	28.3.02.01	Medical Learners Lounge	F048	1849167	0940213	DESK, HEIGHT ADJUSTABLE, W/ STORAGE	Electric Height Adjustable Table. Ranges 22.6" to 48.6" in height. Laminate Top. With Mobile Box/ File Pedestal	2	3	F	Globalcare	PH3T3060	FOLI	58.00	29.00	48.60	1,473
Academic and Teaching	28.3.02.01	Medical Learners Lounge	E151	1849164	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Academic and Teaching	28.3.02.01	Medical Learners Lounge	E192	2371539	0946228	REFRIGERATOR, UNDERCOUNTER	Refrigerator capacity: 5.1 cu. ft. 3 shelves. Single door. Reversible door swing.	1	1	E	Whirlpool Corp.	WUR50X24HZ		24.00	25.63	35.00	610
Academic and Teaching	28.3.02.01	Medical Learners Lounge	F038	2371542	0939672	TABLE, ROUND	Standard Seating height. X-base. Laminate top	1	3	F	Spec Furniture	Manhattan	MNX36	36.00	36.00	29.00	914
Morgue	29.1.01.01	Viewing Room	F006	2074075	0939567	CHAIR, STACKING, BARIATRIC	Side Chair with arms, Stacking. Grade-3 (Vinyl). 4 point base.	1	3	F	Spec Furniture	Snowball 2	1853	31.00	22.00	33.00	787
Morgue	29.1.01.01	Viewing Room	F005	1849168	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	3	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597
Morgue	29.1.01.01	Viewing Room	E331	1849169	0943061	STRETCHER, CADAVER, BARIATRIC	Weight capacity: 1000 lb (454 kg). Stainless steel frame & cadaver tray. Removable aluminum canopy. Hand crank. Hydraulic system. Height adjustable: 26.7 to 38.7" (678 to 983 mm). Four 8" (203 mm) casters all with brakes. Includes removable vinyl cover.	1	1	E	Mortech Manufacturing Inc	600039-1K		36.00	84.00	55.70	914
Morgue	29.2.01.01	Workstation: Staff	F020	1849170	0939741	CHAIR, TASK, W/ARMS	Full Ergonomic midback, Upholstered Seat and Mesh (suspension) Back. With lumbar support. Grade 3 vinyl Fabric. 5 caster base. Fully adjustable arms. Weight capacity 350 LB	1	3	F	Herman Miller	PI2B325AFAJ	Verus	27.50	24.00	40.00	699

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,798		84.9	38.5	F	Dimensions (w x d) of main manikin: 1.8 x 5.9 ft (550 x 1800 mm). 40 kg (88 lb).	120	1		60		Plug		Yes									Battery charger. Dataline to PC and wireless capability.						
	610	25.0	11.3	W																								
432	980			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
610	737	88.0	40.0	F																								
	610	10.0	4.5	W																								
660	1,981			F																								
457	1,753	92.0	41.7	F																								
508	864			F	Straddle table con?gurations have a standard 27 1/2 inch (700 mm) minimum clearance between the vertical leg supports.																								
610	1,016			F																								
737	762	129.5	58.9	F	Leave 1" gap on left, right and back (for pinch points)	120	1	3.0	60		Plug	5-15P																
508	1,829			F																								
	610	25.0	11.3	W																								
546	838			F																								
610	1,016			F																								
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
508	1,829			F																								
914	737	55.0	25.0	F																								
	610	10.0	4.5	W																								
546	838			F																								
610	1,016			F																								
737	1,234	129.6	58.9	F	Height Adjustability: 22.6" to 48.6" (679 - 1137mm)	120	1	3.0	60		Plug	5-15P																
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
651	889	93.0	42.2	F	Depth when door opened 90 deg: 46.25" 1/4" clearance on sides and top.	120	1	8.0	60		Plug	5-15P										Dedicated Circuit 15A or 20A Required						
914	737	55.0	25.0	F																								
559	838			F																								
546	838			F																								
2,134	1,415			F																								
610	1,016			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
													Operating Temperature: 4 to 40 deg C (39 to 104 deg F). Storage Temperature: minimum -15 deg C (5 deg F).

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Morgue	29.2.01.01	Workstation: Staff	F071	1849171	0944285	DESK, L-SHAPE, HEIGHT ADJUSTABLE, W/ STORAGE	1 height adjustable desk. wall mounted overhead. Metal mobile Box//Box/File Pedestal. 220lbs load capacity.	1	3	F	Globalcare	FOLI	1200 SERIES	60.00	60.00	68.00	1,524
Morgue	29.2.02.01	Cadaver Storage	E237	1849172	0940355	CABINET, STORAGE, CHEMICALS	Storage for noxious and odorous evidence. Sliding glass door. Self-contained HEPA filter to capture particles larger than 0.3 microns. Filter saturation alarm	1	2	E	Air Science	Safestore MiniDouble		21.00	12.00	31.00	533
Morgue	29.2.02.01	Cadaver Storage	E361	2074074	0940603	LIFTER, CADAVER	Bariatric. Hydraulic. Height adjustable: 13.4 to 76.8" (340 to 19.51 mm). Capacity: 800 lb (364 kg). Suitable for 5 tier racks. Tray: 23 to 32 (584 to 813 mm). End access. Scale. Handle control.	1	4	E	Mopec	JD5001		34.40	95.20	76.80	874
Morgue	29.2.02.01	Cadaver Storage	E376	1849173	0944211	LIFTER, CADAVER, CEILING MOUNTED	Ceiling mounted (stationary or with track system), lift system. Lifting capacity: 1000 lbs.	1	4	E	Mopec	JD3500		18.00	48.00	8.00	457
Morgue	29.2.02.01	Cadaver Storage	E375	2086273	0944494	REFRIGERATOR, MORTUARY	End opening Telescoping morgue refrigerator. full extension trays. 6 Door, capacity for 6 Cadavers. Qty 4 (27”) Stainless Steel Body Trays – Standard size Qty 2 (30”) Stainless Steel Body Tray – Bariatric size. Temperature 5C +/- 2C (at the sensor).	1	4	E	Lab Works International	Bella Coola		116.00	96.00	87.00	2,946
Morgue	29.2.03.01	Stretcher Holding	F027	2074073	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Morgue	29.2.03.01	Stretcher Holding	E243	1849174	0946221	STRETCHER, CADAVER	Concealed cadaver transport cart. Lightweight aluminum, equipped with corner guards; on casters. Elevates tray height from 26 to 32 inches (660 to 813 mm). Cadaver weight limit 1000 lbs. maximum.	2	1	E	CSI/Jewett Industries	CCT3687		28.34	84.00	45.40	720
Morgue	29.2.04.01	Exam Room	E142	1849175	0938557	LIGHT, EXAM / TREATMENT, CEILING MOUNTED	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.	1	4	E	Skytron	Spectra		13.00	12.00	5.00	330
Morgue	29.2.04.01	Exam Room	E166	1849176	0946151	OPHTHALMOSCOPE/ OTOSCOPE, WALL MOUNTED	Wall mounted. Wall Transformer with Coaxial LED Ophthalmoscope and MacroView Basic LED Otoscope	1	2	E	Welch Allyn Inc.	111-777-SM2WAS	777/11720-L/238-2	7.95	4.76	9.21	202
Morgue	29.2.04.01	Exam Room	E233	1849177	0938397	STOOL, EXAM	5-legged, poly-foam seat cushion stool, w/ backrest. 18" adjustable chrome foot ring. Height adjustment: 20" - 27.5". Chrome hooded dual-wheel casters. Weight capacity: 250lbs.	1	1	E	Cardinal Health Canada	C1101B		23.00	23.00	27.50	584
Morgue	29.2.04.01	Exam Room	E243	1849178	0946221	STRETCHER, CADAVER	Concealed cadaver transport cart. Lightweight aluminum, equipped with corner guards; on casters. Elevates tray height from 26 to 32 inches (660 to 813 mm). Cadaver weight limit 1000 lbs. maximum.	1	1	E	CSI/Jewett Industries	CCT3687		28.34	84.00	45.40	720
Morgue	29.2.04.01	Exam Room	F082	2480722	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914
Support Staff - Lockers&Change	30.1.01	Male Locker Room - Lockers(25)	F002	1849255	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	1	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Support Staff - Lockers&Change	30.1.02	Male Locker Room - Change Area(4)	E104	2044785	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	4	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Support Staff - Lockers&Change	30.2.01	Female Locker Room - Lockers(40)	F002	1849256	0940642	BENCH	800 lb weight capacity. 100% Recycled Plastic construction.	2	3	F	Gymnasium & Health Equipment	T97B264022	Frog Furnishings	48.00	24.00	18.00	1,219
Support Staff - Lockers&Change	30.2.02	Female Locker Room - Change Area(3)	E104	2044792	0938357	HAMPER, LINEN	Chrome Hamper Stand with Foot Pedal and Poly Coated Steel Lid. Includes hamper bag storage pouch. Supports 36-42 gallon bags and nylon hamper bag.	3	1	E	Global Industrial	T9F436911		19.00	19.50	38.00	483
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	F010	1849258	0939569	CHAIR, LOUNGE, 1 SEAT	Fully upholstered in grade 3 vinyl integrated arms. 4 star swivel base.	4	3	F	Spec Furniture	NOALN251	Always	31.00	31.50	36.50	787
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	F012	1849259	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	3	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	F005	1849257	0939575	CHAIR, STACKING, W/ARMS	Stacks 10 high on dolly, 6 on floor. Grade 3 vinyl seat and back. 4 point base. Seat shell made from 100% recycled plastic	25	3	F	Spec Furniture	Snowball 2	1851	23.50	21.50	33.00	597

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2	ELECTRICAL NOTE		INCH	MM	INCH	MM	
1,524	1,727	129.5	58.9	F	Height adjustable with height range of 26.75 to 44.75" (679 - 1137mm) 1"(25mm) clearance gap on each side Leg dimensions: Outer leg:3.15"(80mm) x 2.35"(60mm)	120	1	3.0	60		Plug	5-15P										0.5 W power draw when not in use						
305	787	45.0	20.5	F		120	1	2.0	60		Plug	5-15P	No															
2,418	1,951	700.0	318.2	F		115	1	8.0	60		Plug											Two 12 VDC sealed rechargeable battery.						
1,219	203	180.0	81.7	C	Head room: Stationary lift, 8" drop from ceiling. Lift with track: 17" drop from ceiling where lift is parked. Suspension: mounted to any ceiling type, wood, metal, concrete or I-beam	110	1	15.0	60		Hard																	
2,438	2,210			F	Approx. Dimensions:12'-0" x 12'-0" x 10'-0" (W x L x H) Polyurethane insulated panels 3" thick, R23, UL and ASTM E84 Certified. Panels to be 26Ga Galvalume, smooth white finish inside and out. Floor of install area must be suitably flat (FF50, FL35). Top mounted Environmental Conditioning Unit installed above the room. Evaporator will be sized and selected to meet above room conditions. Built-in Condenser can be air-cooled or water cooled. Unit to be factory tested prior to shipment. Low GWP refrigerant – R448a.	208	3		60		Hard										Required 208V, 3 phase, 40A feed power supply to control box. Lighting – LED low temperature vapor-proof fixtures controlled by external switch.						
508	1,829			F																							
2,134	1,153			F	Tray size 24.25" x 79.5", type MT1																							
305	127	35.8	16.3	C	Ceiling mounted. Mounting hardware to be included. Contractor to install structural supports, vendor to install light. Ceiling height: Minimum: 98" (2489 mm). Maximum: 124" (3150 mm). Moment load: 88.2 ft-lb (119.6 Nm).	120	1	0.4	60		Hard											100-240 VAC						
121	234	2.9	1.3	W	Wall mounted. Mounting accessories to be included. distance between screws for mounting plate: horizontal 127mm, vertical 35mm. Allow 12 to 16" (305 to 406 mm) clearance below unit for coiled cords.	120	1	0.2	60		Plug																	
584	699	0.0	0.0	F																							
2,134	1,153			F	Tray size 24.25" x 79.5", type MT1																							
	610	10.0	4.5	W																							
610	457	75.0	34.1	F																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
610	457	75.0	34.1	F																							
495	965	22.0	10.0	F	Lid dimensions: 19" W x 19.5"D Base dimensions: 16.5" W x 19.5" D																							
800	927			F																							
737	838	116.0	52.7	F																							
546	838			F																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE		PEAK		LOW		HIGH			INCH	MM	INCH	MM			AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA								GAL/MIN	LPS

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS			
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW			
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA		

URE 5 HIGH PSI	URE 5 HIGH KPA	PLUMBING NOTE	HVAC BTU/HR	HVAC MAX BTU/HR	HVAC DUCT WIDTH INCH	HVAC DUCT WIDTH MM	HVAC DUCT HEIGHT INCH	HVAC DUCT HEIGHT MM	HVAC CFM	HVAC IN (WG)	HVAC LPS	HVAC KPA	HVAC NOTE
		Drain plug compatible.											
		If water-cooled condenser is selected, it is required chilled water loop piping provided above the room (by contractor).											
													Operating : Temperature: 15oC (59oF) to 40oC(104oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa Transport/storage: Temperature: -22oC (-4oF) to 50oC(1122oF) Humidity limitation 15%-95% Atmospheric pressure limit 700hPa to 1060 hPa

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	E072	2267152	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	E151	1849260	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	2	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	E372	1849261	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	2	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	F032	1849262	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	2	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	F037	1849264	0939738	TABLE, END	Laminate Rectangular table top. Metal base	2	3	F	Global Furniture	Primacare HT	GC3661-HP	24.00	20.00	17.00	610
Support Staff - Meeting&Lounge	31.1.01.01	Shared Staff Lounge	F034	1849263	0939739	TABLE, SQUARE	Square table with X base. Laminate top.	7	3	F	Spec Furniture	36X36SQMNX	MANHATTAN	36.00	36.00	29.00	914
Support Staff - Meeting&Lounge	31.2.01.01	Meeting Room (6 people)	F015	1849265	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	6	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Support Staff - Meeting&Lounge	31.2.01.01	Meeting Room (6 people)	F042	1849266	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Support Staff - Meeting&Lounge	31.2.01.01	Meeting Room (6 people)	F043	2480723	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Support Staff - Meeting&Lounge	31.2.01.02	Meeting Room (6 people)	F015	1851323	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	6	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Support Staff - Meeting&Lounge	31.2.01.02	Meeting Room (6 people)	F042	1851324	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	2	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Support Staff - Meeting&Lounge	31.2.01.02	Meeting Room (6 people)	F043	2480724	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880024	48.00		36.00	1,219
Support Staff - Meeting&Lounge	31.2.02.01	Meeting Room (12-15 people)	F015	1849268	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	15	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Support Staff - Meeting&Lounge	31.2.02.01	Meeting Room (12-15 people)	F042	1849269	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	6	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Support Staff - Meeting&Lounge	31.2.02.01	Meeting Room (12-15 people)	F080	2480725	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Support Staff - Meeting&Lounge	31.2.03.01	Meeting Room (20-24 people)	F015	1849271	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	24	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Support Staff - Meeting&Lounge	31.2.03.01	Meeting Room (20-24 people)	F042	1849272	0939828	TABLE, FLIPTOP	Rectangular Table on locking Casters with t-base.	10	3	F	Spec Furniture	MNT2472	MANHATTAN	72.00	24.00	29.00	1,829
Support Staff - Meeting&Lounge	31.2.03.01	Meeting Room (20-24 people)	F080	2480726	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	1	4	F	Global Industrial	Magnetic Glass Board	695259	72.00		48.00	1,829
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F030	1849282	0943389	CABINET, BEDSIDE	Laminate. 3 lockable drawers, with liner. 3/4" (19 mm) thick board. Edges sealed with 1 mm PVC edge banding.	1	3	F	Stance Healthcare Inc.	Royale Series	SR120	20.00	20.75	30.00	508
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F012	1849275	0940190	CHAIR, LOUNGE, 2 SEAT	Fully upholstered in grade 3 vinyl. Metal 4 leg base.	2	3	F	Spec Furniture	9102M	Tailor	52.50	29.00	33.00	1,334
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F015	1849276	0939546	CHAIR, MEETING	One-piece seat and back, mesh. 5 star caster base. seat height range of 6"	4	3	F	Herman Miller	CQ52FN	Setu	25.25	17.00	38.60	641
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F016	1849277	0939571	CHAIR, RECLINER	Recliner on casters. Wallsaver designer. Grade 3 vinyl.	4	3	F	Allseating	Foster	F5114	30.50	32.75	43.00	775

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL																ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
1,067	457	60.0	27.3	F																								
508	432			F																								
914	737			F																								
432	980			F																								
610	737	88.0	40.0	F																								
	914	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	914	10.0	4.5	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
432	980			F																								
610	737	88.0	40.0	F																								
	1,219	74.8	33.9	W																								
527	762	98.0	44.6	F	Clearance: Front: 20.75" (527 mm) with door opened.																							
737	838	116.0	52.7	F																								
432	980			F																								
832	1,092			F																								

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																			
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH			AVERAGE		PEAK				AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.										

TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	EQPTID	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	QTY	PC	FE	MANUFACTURER	MODEL	CATALOGUE #	INCH			
														W	D	H	W
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	E072	2267153	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	1	4	E	Frigidaire	FGID2476S F		24.00	24.25	35.75	610
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	E151	1849279	0929581	OVEN, MICROWAVE	Countertop. Domestic. Capacity: 1.1 cu ft (31.15 L). Turntable cooking system. 10 power levels.	1	1	E	General Electric Appliances	PEM10WFC		24.00	13.31	12.00	610
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	E372	1849280	0941075	REFRIGERATOR FREEZER, UPRIGHT	Top freezer Stainless steel Refrigerator. Total Capacity:17.5 cu.ft. Reversible door, with 4.03 cu ft freezer capacity. Frost free interior, 2 full width glass shelves and 2 vegetable crispers.	1	1	E	General Electric Appliances	GTE18GSNRSS		28.00	32.62	67.37	711
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F027	2194427	0938786	STORAGE, SHELVING	Laminate 5H, adjustable shelves	1	3	F	Herman Miller	L2BC.723620N1LNT	TU	36.00	20.00	72.00	914
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F032	1849283	0939816	TABLE, COFFEE, OVAL	Drum Oval Table, Laminate top and base, weighted and tamper-proof.	2	3	F	Spec Furniture	3042OVAL		30.00	42.00	18.00	762
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F038	1849284	0939672	TABLE, ROUND	Standard Seating height. X-base. Laminate top	1	3	F	Spec Furniture	Manhattan	MNX36	36.00	36.00	29.00	914
Support Staff - Meeting&Lounge	31.3.01.01	Physician Lounge	F082	2480727	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	1	4	F	Global Industrial	Magnetic Steel Board	B880023	36.00		24.00	914

MM		LB	KG	PLACEMENT	ARCHITECTURAL NOTE	ELECTRICAL															ELECTRICAL NOTE	FLUID 1	ID 1		OD 1		CODE 1
D	H					VOLT 1	PHASE 1	AMP 1	FREQ 1	WATT 1	CONN 1	PLUG 1	DATA 1	VOLT 2	PHASE 2	AMP 2	FREQ 2	WATT 2	CONN 2	PLUG 2	DATA 2			INCH	MM	INCH	MM	
616	908	91.0	41.4	F	Corner locations require 2" (5.1 cm) minimum clearance between side of dishwasher door and wall or cabinet. Dishwasher can be raised 1-7/16" (3.7 cm) with feet fully extended. Overall depth with door open 90 deg: 50.25" (1276 mm). Cut-out: 24x24x35.75" (610x610x908 mm). Shipping weight: 91.0 lb (41.4 kg).	120	1		60	1,440	Plug											Require 15Amp dedicated circuit breaker (Use a 20 ampere fuse if dishwasher is connected with a food dispose). Grounded 3 prong outlet.	DR	1.000	25			
338	305	33.0	15.0	T	Shipping weight: 33 lb (15 kg).	120	1	11.5	60	1,300	Plug											Grounded 3 prong plug. Electrical input @ 120V: 11.50 Amp.						
829	1,711	192.0	87.3	F	Clearance: 1" top, 3/4" each side Depth With Door Open 90 Degrees(in.):32.62 Width w/Door Open 90 Degrees LessHandle (in.):30.62"	120	1	15.0	60		Plug																	
508	1,829			F																							
1,067	457	60.0	27.3	F																							
914	737	55.0	25.0	F																							
	610	10.0	4.5	W																							

CONN 1	FLOW 1				PRESSURE 1				FLUID 2	ID 2		OD 2		CODE 2	CONN 2	FLOW 2				PRESSURE 2				FLUID 3	ID 3		OD 3		CODE 3	CONN 3	FLO	
	AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE	
	GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS
									HW			0.380	10		Hose					20	138.0	120	828.0									

PLUMBING																																	
W 3		PRESSURE 3				FLUID 4	ID 4		OD 4		CODE 4	CONN 4	FLOW 4				PRESSURE 4				FLUID 5	ID 5		OD 5		CODE 5	CONN 5	FLOW 5				PRESS	
PEAK		LOW		HIGH									AVERAGE		PEAK		LOW		HIGH									AVERAGE		PEAK		LOW	
GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA	PSI	KPA		INCH	MM	INCH	MM			GAL/MIN	LPS	GAL/MIN	LPS	PSI	KPA

URE 5		PLUMBING NOTE	HVAC										HVAC NOTE
HIGH			BTU/HR	MAX BTU/HR	DUCT WIDTH		DUCT HEIGHT		CFM	IN (WG)	LPS	KPA	
PSI	KPA				INCH	MM	INCH	MM					
		Water Supply Requirements: Hot water line with 20 to 120 psi (138 to 862 kPa) water pressure. Water temperature must be 49 deg C (120°F) water at dishwasher. Use 3/8" O.D. copper tubing with compression fitting or flexible braided water supply line. Use 90 deg elbow with 3/4" (0.95 cm) hose connection with rubber washer. Do not solder within 6" (15.2 cm) from water inlet valve. 1/2" (1.3 cm) minimum plastic tubing is not recommended. Drain Requirements: New drain hose is supplied with dishwasher. If this is not long enough, use new drain hose with maximum length of 12ft (3.7 m) that meets all current AHAM/IAPMO test standards, is resistant to heat and detergent, and fits 1" (2.5 cm) drain connector of dishwasher. Connect drain hose to waste tee or disposer inlet above drain trap in house plumbing and 20" (50.8 cm) minimum above floor. Drain hose can either be looped up and securely fastened to underside of counter, or be connected to air gap. Make sure to use air gap if drain hose is connected to house plumbing lower than 20" (50.8 cm) above subfloor or floor. Use 1/2" (1.3 cm) minimum I.D. drain line fittings. If required, air gap should be installed in accordance with air gap installation instructions. When connecting air gap, rubber hose (not provided) will be needed to connect to waste tee or disposer inlet.										

CONSTR #	ID/TAG	ITEM DESCRIPTION	SYNOPSIS / ADDITIONAL INFO	PC	FE	MANUFACTURER	MODEL
E270	0945399	TUB, TREATMENT	Still bath. Auto fill. Height adjustable. Tub shell length: 1900 mm, polyester reinforced fiberglass. Keyhole shape. Liquid dispensir and disinfection system. Emergency lowering device. Weight capacity of patient: 400 lb	4	E	Arjo	RHAPSODY 23
E456	0948016	TUB, TREATMENT, ACCESSORY, CHAIR LIFT	Height adjustable bath lift chair. Mobile with casters and brakes. Includes optional scale. 400lb (182 kg) capacity. Enables bedsid or wheelchair transfer directly into the bath and back again. Can also be used for showering, toileting and other hygiene tasks, reducing the number of required transfers	4	E	Arjo	Alenti
E380	0944253	BOARD, PEG	Painted steel panel. For hanging tools. Mounts in micro slots. Accepts all pegging devices.	4	F	Lista International Corporation	8091
E072	0940394	DISHWASHER, DOMESTIC	Built-In stainless steel. 24 hr delay start. 8 cycles. 5 was levels, 5 wash speed. Removable filter trap.	4	E	Frigidaire	FGID2476S F
E225	0941402	HOOD, RANGE	SS under-cabinet. Electronic push button 3-level control LED indicators. 2 lights. Heat sensor that adjusts blower speed an excessive heat. Clean reminder.	4	E	Broan Limited	BCDJ130SS
E361	0940603	LIFTER, CADAVER	Bariatric. Hydraulic. Height adjustable: 13.4 to 76.8" (340 to 19.51 mm). Capacity: 800 lb (364 kg). Suitable for 5 tier racks. Tray: 23 to 32 (584 to 813 mm). End access. Scale. Handle control.	4	E	Mopec	JD5001
E376	0944211	LIFTER, CADAVER, CEILING MOUNTED	Ceiling mounted (stationary or with track system), lift system. Lifting capacity: 1000 lbs.				
E388	0945248	LIGHT, BIRTHING	Ceiling mounted dual lightheads with rechargeable remote control wand & wall mounted intensity control.	4	E	Skytron	LUCINA 4-LCN4-PKG-2
E142	0938557	LIGHT, EXAM / TREATMENT, CEILING MOU	12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K	4	E	Skytron	Spectra
E244	0948037	RANGE, INDUCTION, DOMESTIC	Rapid boil induction cooktop. Air fry. Fan convection. Wifi connectivity and voice control. Front dials/knobs. Front touchscreer control panel.	4	E	Samsung	NE63B8411SS
E375	0944494	REFRIGERATOR, MORTUARY	End opening Telescoping morgue refrigerator. full extension trays. 6 Door, capacity for 6 Cadavers. Qty 4 (27") Stainless Stee Body Trays – Standard size Qty 2 (30") Stainless Steel Body Tray – Bariatric size. Temperature 5C +/- 2C (at the sensor	4	E	Lab Works International	Bella Coola
E310	0940426	SHOP TOOLS, DUST COLLECTOR	Mobile. With 2 canisters with collection bags. Motor speed: 3450 RPM. Suction capacity: 2320 CFM. Static pressure: 15.5" H2O Impeller size: 12" (305 mm). Triple inlet	4	E	Craftex	CX-402
E425	0947600	SHOP TOOLS, HOIST	Electric shop hoist. Double line rated for 1100lbs/500kg	4	E	Five Oceans	4016
E426	0947708	CABINET, PASS THROUGH, SS	Stainless steel pass through cabinet. Eliminate foot traffic and reduce contamination. Easy cleaning, adjustable shelves, durabl 16-gauge stainless steel construction	4	E	Clean Air Products Inc.	CAP18W
F043	0947790	WHITEBOARD, STEEL, SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).	4	F	Global Industrial	B880024
F044	0947789	WHITEBOARD, STEEL, MEDIUM	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 72x48 IN (1829x1220 mm).	4	F	Global Industrial	B880012
F045	0947788	WHITEBOARD, STEEL, LARGE	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).	4	F	Global Industrial	B880013
F079	0947785	WHITEBOARD, GLASS, SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).	4	F	Global Industrial	695260
F080	0947786	WHITEBOARD, GLASS, MEDIUM	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).	4	F	Global Industrial	695259
F081	0947787	WHITEBOARD, GLASS, LARGE	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 96x48 IN (2439x1220 mm).	4	F	Global Industrial	695469
F082	0947795	WHITEBOARD, STEEL, EXTRA SMALL	Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).	4	F	Global Industrial	B880023
F083	0947793	WHITEBOARD, GLASS, EXTRA SMALL	Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).	4	F	Global Industrial	695497

Description:	**CABINET, PASS THROUGH, SS**
ID #:	**947708**
Synopsis:	**Stainless steel pass through cabinet. Eliminate foot traffic and reduce contamination. Easy cleaning, adjustable shelves, durable 16-gauge stainless steel construction.**
Quantity:	**Refer to the issued Appendix 1B(II) Furniture and Equipment List for quantity and locations**
DISCLAIMER:	***These Specifications are representative of the end-state requirements of the Authority. The Specifications are for basis of design and procurement. All Category 4 Furniture and Equipment are to be confirmed with the Authority prior to procurement by the Design-Builder.***

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3. Client	The Client is the organization that is the final recipient of the equipment items and/or services.

1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Durable, stainless steel, double wall construction
1.02	**Equipment Features**	Removable inner liner
1.03	**Equipment Features**	Flush mount, continuous hinges
1.04	**Equipment Features**	Clear, tempered glass windows
1.05	**Equipment Features**	Flush, seamless cabinet floor for easy cleaning
1.06	**Equipment Features**	Door includes silicone gasket
1.07	**Equipment Features**	Aprx. 28.75" (730mm) width, 24" (610mm) depth, 26" (660mm) height

Description:	**TUB, TREATMENT**
ID #:	**945399**
Synopsis:	**Still bath. Auto fill. Height adjustable. Tub shell length: 1900 mm, polyester reinforced fiberglass. Keyhole shape. Liquid dispensing and disinfection system. Emergency lowering device. Weight capacity of patient: 400 lbs.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Full immersion, height adjustable, bathing tub
1.02	**Equipment Features**	Suitable for all mobility levels including:
1.03	**Equipment Features**	a) Ambulatory and independent patients
1.04	**Equipment Features**	b) Semi-dependent patients using walkers
1.05	**Equipment Features**	c) Semi-dependent patients using wheelchairs
1.06	**Equipment Features**	Tub shape to allow maximum access to upper body for care giver and shoulder space for patient
1.07	**Equipment Features**	Tub allows for patient reclining
1.08	**Equipment Features**	Integrates with passive ceiling or floor lifts
1.09	**Equipment Features**	Useable by a single caregiver
1.10	**Equipment Features**	System to have integrated disinfection system for cleaning the bath as well as transfer devices
1.11	**Equipment Features**	Disinfectant lockout if water is detected in the tub
1.12	**Equipment Features**	Single shower handle with lockable trigger
1.13	**Equipment Features**	System to have both automatic and manual adjustment of water temperature
1.14	**Equipment Features**	System maintains consistent temperature and automatically shuts down if safe temperature levels are exceeded to prevent scalding
1.15	**Equipment Features**	Push button control panel
1.16	**Equipment Features**	Water temperature display
1.17	**Equipment Features**	System has autofill functionality with after filling possible
1.18	**Equipment Features**	Integrated liquid dispensing system
1.19	**Equipment Features**	Cold and hot water connection
1.20	**Equipment Features**	Minimum weight capacity of 400lb (182 kg)

Description:	**TUB, TREATMENT, ACCESSORY, CHAIR LIFT**
ID #:	**948016**
Synopsis:	**Height adjustable bath lift chair. Mobile with casters and brakes. Includes optional scale. 400lb (182 kg) capacity. Enables bedside or wheelchair transfer directly into the bath and back again. Can also be used for showering, toileting and other hygiene tasks, reducing the number of required transfers.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Height adjustable
1.02	**Equipment Features**	Chair style lift
1.03	**Equipment Features**	a) Ambulatory and independent patients
1.04	**Equipment Features**	b) Semi-dependent patients using walkers
1.05	**Equipment Features**	c) Semi-dependent patients using wheelchairs
1.06	**Equipment Features**	Mobile with locking casters
1.07	**Equipment Features**	Includes scale
1.08	**Equipment Features**	Integrates with selected TUB TREATMENT
1.09	**Equipment Features**	Emergency lowering in case of power failure
1.10	**Equipment Features**	Minimum weight capacity of 400lb (182 kg)

Description:	**BOARD, PEG**
ID #:	**944253**
Synopsis:	**Painted steel panel. For hanging tools. Mounts in micro slots. Accepts all pegging devices.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Approximately 30" H x 36" W
1.02	**Equipment Features**	Painted steel pegboard panel
1.03	**Equipment Features**	Ability to hang equipment and tools
1.04	**Equipment Features**	Wall mounted
1.05	**Equipment Features**	Includes starter kit (assorted pegs, hooks, and holders)

Description:	**DISHWASHER, DOMESTIC**
ID #:	**940394**
Synopsis:	**Built-In stainless steel. 24hr delay start. 8 cycles. 5 wash levels, 5 wash speed. Removable filter trap.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Built in dishwasher
1.02	**Equipment Features**	Stainless steel inner tub, stainless steel outer finish
1.03	**Equipment Features**	Minimum of 2 adjustable racks
1.04	**Equipment Features**	Silverware basket
1.05	**Equipment Features**	Removable, cleanable filter trap
1.06	**Equipment Features**	Minimum of 5 different cycles
1.07	**Equipment Features**	Delay start option
1.08	**Equipment Features**	High temperature wash option
1.09	**Equipment Features**	Soft food disposal
1.10	**Equipment Features**	ENERGY STAR® certified
1.11	**Equipment Features**	DBA to be 55 or less

Description:	**HOOD, RANGE**
ID #:	**941402**
Synopsis:	**SS under-cabinet. Electronic push button 3-level control LED indicators. 2 lights. Heat sensor that adjusts blower speed and excessive heat. Clean reminder.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Approximately 30" W
1.02	**Equipment Features**	Approximately 450 CFM
1.03	**Equipment Features**	Minimum of 2 speed options
1.04	**Equipment Features**	Delay shut off
1.05	**Equipment Features**	Removable, cleanable micromesh grease filter
1.06	**Equipment Features**	Filter change reminder

Description:	**LIFTER, CADAVER**
ID #:	**940603**
Synopsis:	**Bariatric. Hydraulic. Height adjustable: 13.4 to 76.8" (340 to 19.51 mm). Capacity: 800 lb (364 kg). Suitable for 5 tier racks. Tray: 23 to 32 (584 to 813 mm). End access. Scale. Handle control.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Adjustable design to accommodate various body trays including 32" bariatric trays
1.02	**Equipment Features**	Weight capacity approximately 800lbs
1.03	**Equipment Features**	Scissor lift design for durability and balanced weight load
1.04	**Equipment Features**	Compatible with specified cadaver coolers and racks
1.05	**Equipment Features**	Battery operated
1.06	**Equipment Features**	Easy to maneuver

Description:	**LIFTER, CADAVER, CEILING MOUNTED**
ID #:	**940603**
Synopsis:	**Ceiling mounted (stationary or with track system), lift system. Lifting capacity: 1000 lbs.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Ceiling mounted - mounted stationary to ceiling or on existing track system
1.02	**Equipment Features**	Lift capacity approximately 1000lbs
1.03	**Equipment Features**	Ceiling structure to be capable of supporting 1500lb load

Description:	**LIGHT, BIRTHING**
ID #:	**945248**
Synopsis:	**Ceiling mounted dual lightheads with rechargeable remote control wand & wall mounted intensity control.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Ceiling mounted
1.02	**Equipment Features**	Dual head light
1.03	**Equipment Features**	Light intensity per head: aprx. 14,000 lux at 10' (3 meters)/49,000 lux at 3' (1 meter)
1.04	**Equipment Features**	Light head to have 0-41 deg rotation angle can be adjusted to 46 deg toward head if required
1.05	**Equipment Features**	LED light source with sealed lenses
1.06	**Equipment Features**	Includes optional wall control
1.07	**Equipment Features**	Includes remote wand for directing light beam (with wall mounted remote holder)

Description:	**LIGHT, EXAM TREATMENT**
ID #:	**938557**
Synopsis:	**12x13" (305x336 mm) single head LED exam light. Ceiling mounted. Total reach: 71" (1804 mm). 7 high efficiency LEDs. 51,200 LUX at 1 m. Light Field Diameter at 1 meter 6" (152mm). Colour temperature: 4317 deg K.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Ceiling mounted
1.02	**Equipment Features**	LED lights
1.03	**Equipment Features**	Approximately 50,000 lux at 3' (1 meter)
1.04	**Equipment Features**	Approximately 4500 K colour temperature
1.05	**Equipment Features**	Adjustable articulating arm and rotating head for flexibility of light positioning
1.06	**Equipment Features**	Minimum 50" (1270mm) reach

Description:	**RANGE, DOMESTIC, ELECTRIC**
ID #:	**948037**
Synopsis:	**Rapid boil induction cooktop. Air fry. Fan convection. Wifi connectivity and voice control. Front dials/knobs. Front touchscreen control panel.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Front touchpad controls with manual temperature dials/knobs suitable for wheelchair use
1.02	**Equipment Features**	Minimum of 4 burners
1.03	**Equipment Features**	Glass top burners
1.04	**Equipment Features**	Storage drawer below oven
1.05	**Equipment Features**	Self cleaning
1.06	**Equipment Features**	Electronic clock and timer
1.07	**Equipment Features**	Hot surface indicators
1.08	**Equipment Features**	2 adjustable heavy duty oven racks
1.09	**Equipment Features**	Stainless steel finish
1.10	**Equipment Features**	Induction style

Description:	**REFRIGERATOR, MORTUARY**
ID #:	**944494**
Synopsis:	**End opening Telescoping morgue refrigerator. full extension trays. 6 Door, capacity for 6 Cadavers. Qty 4 (27") Stainless Steel Body Trays – Standard size. Qty 2 (30") Stainless Steel Body Tray – Bariatric size. Temperature 5C +/- 2C (at the sensor).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Durable construction with exterior and interior finish of stainless steel and/or stucco embossed alum
1.02	**Equipment Features**	Minimum 3" thick insulation
1.03	**Equipment Features**	Accommodates 6 stainless steel removable body trays
1.04	**Equipment Features**	6 separate refrigerated units
1.05	**Equipment Features**	Telescoping rack system that supports full body tray when fully extended (tray is in full head to toe view)
1.06	**Equipment Features**	Digital thermometer and temperature controller
1.07	**Equipment Features**	Accommodates a minimum of 4 standard size body trays (aprx 27" w)
1.08	**Equipment Features**	Accommodates a minimum of 2 bariatric size body trays (aprx 32" w)

Description:	**SHOP TOOLS, DUST COLLECTOR**
ID #:	**940426**
Synopsis:	**Mobile. With 2 canisters with collection bags. Motor speed: 3450 RPM. Suction capacity: 2320 CFM. Static pressure: 15.5" H2O. Impeller size: 12" (305 mm). Triple inlet.**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	3HP motor
1.02	**Equipment Features**	Approximately 2300 CFM of suction capacity
1.03	**Equipment Features**	Mobile, includes castors
1.04	**Equipment Features**	Two canisters, two collection bags
1.05	**Equipment Features**	To be piped to all stationary, dust-producing tools and equipemnt

Description:	**SHOP TOOLS, HOIST**
ID #:	**947600**
Synopsis:	**Electric shop hoist. Double line rated for 1100lbs/500kg**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Electric hoist
1.02	**Equipment Features**	Rated for at least 1000lbs
1.03	**Equipment Features**	Includes remote control
1.04	**Equipment Features**	Minimum 16.5 ft/min lifting speed
1.05	**Equipment Features**	Minimum 19 ft lifting height

Description:	**WHITEBOARD, STEEL, EXTRA SMALL**
ID #:	**947790**
Synopsis:	**Magnetic painted steel, dry erase whiteboard. Aluminum frame. 36X24IN (915x610mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Painted steel construction
1.04	**Equipment Features**	Metal frame
1.05	**Equipment Features**	Marker rail included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 36X24IN (915x610mm)

Description:	**WHITEBOARD, STEEL, SMALL**
ID #:	**947790**
Synopsis:	**Magnetic painted steel, dry erase whiteboard. Aluminum frame. 48x36 IN (1220x915 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Painted steel construction
1.04	**Equipment Features**	Metal frame
1.05	**Equipment Features**	Marker rail included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 48x36 IN (1220x915 mm)

Description:	**WHITEBOARD, STEEL, MEDIUM**
ID #:	**947789**
Synopsis:	**Magnetic painted steel, dry erase whiteboard. Aluminum frame. 72x48 IN (1829x1220 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Painted steel construction
1.04	**Equipment Features**	Metal frame
1.05	**Equipment Features**	Marker rail included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 72x48 IN (1829x1220 mm)

Description:	**WHITEBOARD, STEEL, LARGE**
ID #:	**947788**
Synopsis:	**Magnetic painted steel, dry erase whiteboard. Aluminum frame. 96x48 IN (2439x1220 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Painted steel construction
1.04	**Equipment Features**	Metal frame
1.05	**Equipment Features**	Marker rail included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 96x48 IN (2439x1220 mm)

Description:	**WHITEBOARD, GLASS, EXTRA SMALL**
ID #:	**947793**
Synopsis:	**Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 36x24 IN (915x610 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
DISCLAIMER:	***These Specifications are representative of the end-state requirements of the Authority. The Specifications are for basis of design and procurement. All Category 4 Furniture and Equipment are to be confirmed with the Authority prior to procurement by the Design-Builder.***

Definitions	
1. Design Builder	The entity or entities that enter into the Project Agreement for the delivery of the Project and have ultimate responsibility for acting as the Prime Contractor and for meeting the obligations of the Project Agreement as well as primary responsibility for the quality, environmental and communications management aspects of the Project.
2. Equipment Vendor	Equipment Vendor means the manufacturer or the distributor, who provides equipment items and/or services to the Client.
3. Client	The Client is the organization that is the final recipient of the equipment items and/or services.

1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Glass construction
1.04	**Equipment Features**	Frameless design
1.05	**Equipment Features**	Marker holder included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 36x24 IN (915x610 mm)

Description:	**WHITEBOARD, GLASS, SMALL**
ID #:	**947785**
Synopsis:	**Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 48x36 IN (1220x915 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
DISCLAIMER:	***These Specifications are representative of the end-state requirements of the Authority. The Specifications are for basis of design and procurement. All Category 4 Furniture and Equipment are to be confirmed with the Authority prior to procurement by the Design-Builder.***

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1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Glass construction
1.04	**Equipment Features**	Frameless design
1.05	**Equipment Features**	Marker holder included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 48x36 IN (1220x915 mm)

Description:	**WHITEBOARD, GLASS, MEDIUM**
ID #:	**947786**
Synopsis:	**Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 72x48 IN (1829x1219 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
DISCLAIMER:	***These Specifications are representative of the end-state requirements of the Authority. The Specifications are for basis of design and procurement. All Category 4 Furniture and Equipment are to be confirmed with the Authority prior to procurement by the Design-Builder.***

Definitions	
1. Design Builder	The entity or entities that enter into the Project Agreement for the delivery of the Project and have ultimate responsibility for acting as the Prime Contractor and for meeting the obligations of the Project Agreement as well as primary responsibility for the quality, environmental and communications management aspects of the Project.
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3. Client	The Client is the organization that is the final recipient of the equipment items and/or services.

1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Glass construction
1.04	**Equipment Features**	Frameless design
1.05	**Equipment Features**	Marker holder included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 72x48 IN (1829x1219 mm)

Description:	**WHITEBOARD, GLASS, LARGE**
ID #:	**947787**
Synopsis:	**Magnetic glass, dry erase whiteboard. Frameless. Durable, for high use areas. 96x48 IN (2439x1220 mm).**
Quantity:	**Refer to the issued Equipment Utility Data Report (EUDR) and/or the Furniture and Equipment List for quantity and locations**
DISCLAIMER:	***These Specifications are representative of the end-state requirements of the Authority. The Specifications are for basis of design and procurement. All Category 4 Furniture and Equipment are to be confirmed with the Authority prior to procurement by the Design-Builder.***

Definitions	
1. Design Builder	The entity or entities that enter into the Project Agreement for the delivery of the Project and have ultimate responsibility for acting as the Prime Contractor and for meeting the obligations of the Project Agreement as well as primary responsibility for the quality, environmental and communications management aspects of the Project.
2. Equipment Vendor	Equipment Vendor means the manufacturer or the distributor, who provides equipment items and/or services to the Client.
3. Client	The Client is the organization that is the final recipient of the equipment items and/or services.

1.0 Performance Features		
	Requirement Sub-Set	**Requirement**
1.01	**Equipment Features**	Magnetic surface
1.02	**Equipment Features**	Dry erase board
1.03	**Equipment Features**	Glass construction
1.04	**Equipment Features**	Frameless design
1.05	**Equipment Features**	Marker holder included
1.06	**Equipment Features**	Wall mounted
1.07	**Equipment Features**	Durable
1.08	**Equipment Features**	Approximately 96x48 IN (2439x1220 mm)

APPENDIX 1C
ACOUSTICS AND NOISE CONTROL MEASURES

APPENDIX 1C – ACOUSTIC AND NOISE CONTROL MEASURES

ACOUSTIC AND NOISE CONTROL MEASURES

1. Definitions

    a. "Acoustic Consultant" means a Consulting Engineer specializing in Acoustics and Noise Control.

    b. "ASTC" means Apparent Sound Transmission Class. It is a single number field test rating that normalizes the wall for room finishes. It can be used in place of NIC.

    c. "dBA" is a weighted sound pressure level within a space adjusted based on human hearing systems (e.g. less sensitive to low frequencies).

    d. "Leq" is a time weighted equivalent sound level.

    e. "NC" means: Noise Criteria. NC is a single number rating that is sensitive to the relative loudness within a given space at different frequencies.

    f. "NIC" stands for Noise Isolation Class. NIC is the single-number rating of the noise reduction that is measured between adjacent spaces. It is related to the STC of the partition separating the adjacent spaces but does not require correction for partition area or the sound absorption capacity of the receiving room. NIC is then simpler to measure in the field than STC and is the most direct measure of sound insulation between rooms.

    g. "NRC" means Noise Reduction Coefficient. NRC is a single number rating of the sound absorbing properties of a material – derived by arithmetically averaging the Sabine absorption coefficients at 500 Hz, 1000 Hz, 2000 Hz and 4000 Hz. An NRC of 0.00 indicates zero absorption while; an NRC of 1.00 indicates 100% absorption.

    h. "PI" means Privacy Index. The privacy index is a way of measuring how intelligible speech is across a given space as defined in ASTM1130.

    i. "RT60" stands for reverberation time. RT60 is the time (in seconds) taken for the sound level in a room to decay by 60 decibels following the abrupt termination of the source of sound. RT60 is the primary measure of 'acoustic liveness' of a space. A short RT60 (i.e. less than 0.9 seconds) favours speech intelligibility while a long RT60 (i.e. greater than 1.5 seconds) favours music.

    j. "STC" means: (Laboratory) Sound Transmission Class. STC is a single number that is an indication of a partition's ability to block sound (i.e. primarily in the speech frequencies). The higher the STC rating, the higher is the sound transmission loss. For instance: loud speech can be understood fairly well through an STC 30 wall but should not be intelligible through an STC 60 wall.

    k. STI means Speech Transmission Index. Speech Transmission Index is a measure of speech transmission quality.

2. General Requirements

    a. The Design-Builder will provide an Acoustic Consultant to ensure that the Design complies with acoustic, noise control and vibration requirements.

    b. Design and construct the Building to comply, at a minimum, with the requirements described within this Statement of Requirements.

    c. Provide acoustic and noise control measures necessary to create a healing environment for patients, a safe and comfortable environment for staff and confidentiality where it is required.

d. Acoustics and noise control measures will include, but not be limited to, the following:

   i. Attenuation of sound within public, patient, and staffenvironments;

   ii. Sound isolation between the exterior and interior spaces;

   iii. Sound isolation between interior spaces within the building at both horizontaland vertical separations designed to work together in tandem;

   iv. Sound and vibration isolation of building service systems and sound isolation of building service rooms;

   v. Sound isolation as required for specialty rooms including but not limited to meeting rooms, respite rooms and quiet rooms;

   vi. Control of noise from equipment within rooms such as terminal units, heat pumps, fan coil units, and other equipment that are part of the building services system. Excluded are in-room equipment such as refrigerators, ice machines, coffee makers, vending machines, etc. Noise from in-room equipment such as MRIs, CT scanners and the like to be addressed to surrounding spaces for compliance with the surrounding spaces noise criteria;

   vii. Minimization of intercom and public address sounds in patient areas;

   viii. Electronic sound masking system; and

   ix. Control of noise and vibration from specialized equipment such as CT scanner.

e. Design partition and ceiling construction to provide approximately the same degree of sound control through each assembly. When a partition is used for sound isolation, extend the sound control construction from slab to slab.

f. Provide airborne sound insulation for gypsum board/steel stud assembly to close off air leaks and flanking paths by which noise can go around the assembly. Make assemblies airtight. Make the entire perimeter of a sound insulating assembly airtight to prevent sound flanking. Use an acoustic caulking compound or acoustical sealant to seal between the assembly and all dissimilar surfaces (including at window mullions) in accordance with the recommendations of an Acoustic Consultant.

g. Optimum sound isolation for partitions rated at STC 45 or higher requires that the integrity of CMU or concrete walls, gypsum board partitions and ceilings (mass) be appropriately treated to maintain the sound isolation performance where they are violated by vent or grille cut-outs or by recessed cabinets, light fixtures, etc. Field tests may be required to confirm that the details meet the ASTC/NIC targets in Table 1.

h. Where penetrations are necessary for partitions rated at STC 45 or higher (refer to 2e re field tests):

   i. Minimize placing the penetrations back-to-back and next to each other.

   ii. Stagger electrical boxes and medical gas outlets by at least one insulatedstud space.

   iii. Provide mineral fiber insulation and a non-hardening mastic caulkingcompound to seal joints around all cut-outs such as electrical, TV and telephone outlets, plumbing escutcheons, recessed cabinets and bathtubs.

   iv. Use non setting acoustical caulking to seal where the gaps are too small to insert mineral fibre insulation.

i. Minimize constructions such as ducts, rigid conduits, etc., that act as tubes to transmit sound from one area to another for partitions rated at STC 45 or higher. At common supply and return ducts, provide sound attenuation liners at the diffuser and/or grill to maintain the acoustical requirements described below. Seal around conduits.

j. Isolate structure-borne vibrations and sound with resilient mountings on vibrating equipment to minimize sound transfer to structural materials. Provide ducts, pipes, and conduits with resilient, non-rigid boots or flexible couplings where they leave vibrating equipment; isolate from the structure with resilient gaskets and sealant where theypass through walls, floors, or other building surfaces.

k. Use acoustic screens, vibration isolators, and carefully selected exterior equipment to prevent exterior noise in compliance with local noise bylaws and according to section 6.a per Table 2 in Appendix 1C to reduce the chance for re-entrant noise.

l. Design the Facility applying the following overriding principles:

i. Provide room shapes, workstation configurations and sound absorptive materials and finishes appropriate to the interior acoustic and reverberation requirements for the intended use of the room or space.

ii. Provide the required degree of sound insulation between the exterior and interior, as well as between interior spaces within the facilities through space planning and use of appropriate building materials.

iii. Provide finishes that dampen footfall and building services vibration so that the function of vibration-sensitive equipment uses and spaces are not disturbed by the effect.

iv. Provide control of building services noise through space planning to address the adjacency/proximity of mechanical and electrical spaces to minimize their effect on noise sensitive areas.

v. Provide wall, roof, and floor assemblies with acoustic performance in accordance with the minimum requirements listed on the following pages.

vi. Provide buffer zones (e.g. corridors) or upgraded party walls between noise sensitive areas (e.g. inpatient rooms, conference rooms, quiet rooms, and offices) and noisy areas (e.g. service areas, waiting areas and lounges);

vii. Avoid vertical adjacencies between noisy and noise sensitive areas.

viii. Design and construct interior assemblies to the STC/NIC/ASTC rating criteria stipulated in this Section.

ix. Room finishes that absorb sound will be considered for all occupied spaces throughout the Building.

3. Noise Isolation Requirements

a. Provide wall and floor assemblies with STC/NIC/ASTC ratings in accordance with Table 1 below.

b. Extend the STC/NIC/ASTC rated assembly full height from floor to the underside of structure above for all walls and partitions requiring an STC/NIC/ASTC rating in Table 1. If such a wall or partition cannot extend full height, provide an alternate system, and provide an Acoustic Consultant's report verifying that the required level of speech privacy and other requirements will be achieved with the proposed design.

c. The sound isolation ratings in Table 1 are considered the laboratory STC ratingsexcept where noted. The STC/NIC/ASTC ratings shown in Table 1 are the field rated targets to be verified by post construction testing by an independent party which includes the Design-Builder's Acoustic Consultant.

   i. Details such as the ceiling plenum conditions, windows, doors,penetrations through the constructions, etc. will be addressed to optimize the field performance sound isolation rating.

   ii. Table 1 will provide Normal speech privacy (except at corridor walls with doors), assuming a background sound level of at least 35 dBA (NC 30). Achieving the NIC ratings in Table 1 will provide Normal speech privacy between adjacent spaces (except for corridor walls with standard, non-acoustically rated doors), assuming a background sound level of at least 35 dBA (NC 30).

   iii. Some adjustments to the STC ratings and NIC/ASTC targets can be made for high STC partitions as long as the results outlined in Table 2 are achieved. Such adjustments must be approved. Field testing may be required to verify the final results have been achieved.

Table 1 – STC/NIC Ratings of Demising Walls and Floor/Ceiling Assemblies

Adjacency Combination		NIC-Walls	STC – Walls	NIC-Floor/ Ceiling	STC – Floors/ Ceilings
All patient rooms and spaces unless otherwise noted, including Inpatient Bedrooms (including bariatric), assessment, treatment, operating rooms, HAU and similar	All patient rooms and spaces unless otherwise noted, including Inpatient Bedrooms (including bariatric), assessment, treatment, operating rooms, HAU and similar	47	50	47	50
All patient rooms and spaces unless otherwise noted, including Inpatient Bedrooms (including bariatric), assessment, treatment, operating rooms, HAU and similar	Corridor (with door)	30	35[1,2,3]	47	50
All patient rooms and spaces unless otherwise noted, including Inpatient Bedrooms (including bariatric), assessment, treatment, operating rooms, HAU and similar	Public spaces, administrative space, lounges, waiting areas	47	50	47	50
Service rooms	All patient rooms and occupied spaces	60	65[4]	55	60
Service rooms	All unoccupied spaces	40	45	47	50
Meeting rooms, multi-purpose rooms, consultation rooms, debriefing rooms and similar	Any space (no door)	45	50	45	50
Meeting rooms, multi-purpose rooms, consultation rooms, debriefing rooms and similar	Corridor (with door)	30	35[1,2,3]	47	50

APPENDIX 1C – ACOUSTIC AND NOISE CONTROL MEASURES

Adjacency Combination		NIC- Walls	STC – Walls	NIC- Floor/ Ceiling	STC – Floors/ Ceilings
Quiet rooms, waiting rooms, respite rooms, spiritual rooms	All occupied rooms (no door)	45	50	47	50
Quiet rooms, waiting rooms, respite rooms, spiritual rooms	Corridor (with door)	30	35[1,5]	47	50
Washrooms	All occupied spaces (other than conference rooms)	40	45	47	50
Communication rooms	All occupied spaces	50	55	47	50
Communication rooms	Corridor (with door)	30	35[1,2,3]	47	50
Offices (Private/Shared), on-call rooms, control rooms	Offices (Private/Shared), On Call control rooms (no door)	42	47	47	50
Offices (Private/Shared), on-call rooms, control rooms	Corridor (with door)	30	35 [1,2,3]	47	50
All workrooms	All occupied spaces	47	50	47	50
Staff lounges, physician lounges and breakrooms	All occupied spaces	47	50	47	50
Staff lounges, physician lounges and breakrooms	Corridor	30	35 [1,2,3]	47	50
Secure rooms and similar	Any occupied space (no door)	50	55	47	50
Secure rooms and similar	Corridor (with door)	40	45[4]	47	50
Service/HVAC shafts	All occupied spaces	55	60	n/a	n/a
Service/HVAC shafts	All unoccupied spaces	40	45	n/a	n/a
Medication rooms	All occupied rooms	45	50	47	50
Locker rooms, change rooms, and similar non-critical spaces	All occupied rooms	45	50	47	50
Clinical and physician workstations (nursing stations) and unit clerk workstations (if enclosed)	All occupied rooms	45	50	47	50
Storage and holding spaces	All occupied spaces	42	47	47	50
Storage and holding spaces	All unoccupied spaces	35	40	47	50

Table 1 – Notes:

a. "Public Space" includes lobbies/atria, waiting/pause areas, reception areas, and similar spaces.

b. "Service Rooms/Areas" include elevator shafts, elevator machine rooms, garages, maintenance rooms, mechanical and boiler rooms and similar spaces, also rooms with noisy medical equipment.

c. The STC/NIC ratings for walls noted in Table No. 1 are based on 25 ga. steel studs at 600 mm o.c. If stiffer studs are required, alternate designs must be developed to achieve the STC ratings noted. That is, consideration should be given to use of larger studs (i.e. 152 mm vs. 89 mm, etc., at 25 ga.), resilient channel or resilient clips (where practical), double stud or staggered stud walls, use of proprietary materials such as Quiet Rock and equals, etc. CMU is also an alternative in some areas such as around mechanical and electrical rooms.

d. Note[1]: This is a composite rating for walls that include doors and/or glazing in a wall.
Note[2]: The results assume a closed door.
Note[3]: Where sliding doors are required, the acoustic rating does not apply.
Note[4]: Require acoustically rated purpose-built door system of STC 45 for these rooms.

e. "Unoccupied spaces" excludes hallways, corridors, circulation spaces, and any space where patient or staff can use but is not continuously occupied (e.g. kitchenette)

f. The STC values stated (in Table 1) assume the need for speech privacy as shown in Section 7 "Acoustics for Privacy/Confidential Enhancement". When selecting assemblies based on their tested STC ratings, it should be noted that laboratory STC test reports can, in general, be considered accurate to +/- 5% of the STC points.

4. Not used.

5. Background Noise – Interior Spaces

   a. The Design-Builder will:

      i. In undertaking the design of the Building, evaluate the expected noise from all mechanical and other systems in the Building; and

      ii. Design and construct the Building so that noise from the mechanical and other systems does not exceed the noise level specified in Table 2 below, within the room or space identified.

Table 2 – Noise Criteria – Rating Within Various Spaces

Room Type	NC/RC(N)	dBA
All patient rooms and spaces unless otherwise noted, including Inpatient Bedrooms (including bariatric) and on call rooms	30-35	37-42
Operating Rooms	35-40	42-47
Exam/treatment rooms and consult/interview rooms and similar	30-35	37-42
Multi-purpose rooms and areas, training rooms, break-out rooms, meeting rooms and similar	30-35	37-42
Security rooms, secure rooms and similar	30-35	37-42

Room Type	NC/RC(N)	dBA
Multiple occupant patient care areas	35-40	42-47
Corridors and public spaces	35-40	42-47
Clinical workstation (Nursing Stations)	30-35	37-42
Offices	30-35	37-42
Reception area, Unit Clerk Workstation, patient/visitor waiting rooms	35-40	42-47
Meeting rooms	25-35	32-42
Laboratory areas and similar	35-40	42-47
Exercise rooms, locker rooms	40-45	47-52

6. Noise Control – Exterior

    a. The interior noise levels (15-minute Leq) due to exterior sources will not exceed the specified room dBA level noted in Table 2 above.

    b. Noise levels created in routinely occupied outdoor amenity spaces/locations including mental health outdoor activity area, public outdoor spaces and staff outdoor spaces by the operation of any mechanical and other building services systems (including electrical substations/transformers) will not exceed 55 dBA.

    c. Noise levels created in routinely occupied outdoor amenity spaces/locations including mental health outdoor activity area, public outdoor spaces and staff outdoor spacesby the operation of emergency power generator system will not exceed 55 dBA.

    d. Where it will not result in the exceedance of the outdoor amenity space noise limit in Clause 'b' of this section, noise levels created by operation of mechanical or other building systems (including electrical substation/transformers) will not exceed 50 dBA at a distance of 10 m from the Building.

    e. Where it will not result in the exceedance of the outdoor amenity space noise limitin Clause 'c' of this section, noise levels created by operation of the emergency power generator system will not exceed 55 dBA at a distance of 10 m from the Building.

    f. Subject to the requirements of Clauses b, c, d and e of this section, noise levels created at the façade of the Building by operation of emergency power generator system will not exceed 75 dBA.

    g. Subject to the requirements of Clauses b, c, d and e of this section, noise levelscreated at the façade of the Building by operation of mechanical or other building systems (including electrical substations/transformers) will not exceed 70 dBA.

7. Acoustics for Privacy/Confidentiality Enhancement

    a. There is a requirement to maintain Confidential Privacy (a level of speech privacy) for some of the key areas of the Building. Confidential Privacy rating is defined as follows:

        i. The sum of the composite STC and the A-weighted background noise levelwill be at least 75; or

        ii. Rated 0.0 – 0.005 on the Speech Transmission Index (STI) scale, or

iii. Rated 95 – 100 on the Privacy Index (PI) scale.

b. Speech Transmission Index (STI) is measured on a scale of 0 to 1. High value of STI means high speech intelligibility.

Rating	Subjective Environment
0.00 – 0.12	Confidential privacy
0.13 - 0.19	Normal privacy
0.20 – 0.34	Marginal privacy
0.35 – 0.49	Fair communication
0.50 – 0.64	Good communication
0.65 – 1.00	Excellent communication

c. This measurement scale is also used to determine the level of speech that is transmitted outside a given room into another area which, in healthcare, is generally our concern when trying to maintain privacy/confidentiality from others.

d. Another means to measure privacy is via the Privacy Index (PI) as indicated in the following table:

Rating	Subjective Environment
95 -100	Confidential privacy
80 - 95	Normal privacy
60 – 80	Marginal / poor privacy
less than 60	No privacy

e. The following spaces in the Building will be designed with increased sound proofingin order to achieve Confidential Privacy* rating:

Rooms	Confidentiality Rating
All Exam/Treatment Rooms	Confidential Privacy
Consult/interview rooms	Confidential Privacy
Meeting rooms which may also be used as consult spaces	Confidential Privacy
Offices	Confidential Privacy
Telehealth capable rooms	Confidential Privacy
Staff Lounge	Confidential Privacy
Resuscitation/Trauma Bay	Confidential Privacy
Secure Rooms	Confidential Privacy

* to be verified by post-construction testing by an independent party which includes the Design-Builder's Acoustic Consultant.

f. Enclosed Room Speech Privacy Design Guidance

i. Speech privacy is based on the level of speech, the acoustical properties ofthe partition systems, the level of acoustic finishes in a space and the background noise. This will need to be evaluated and where sufficient ambient noise is not provided by the HVAC system, consideration must be given to the use of an electronic background sound masking system (refer to Subsection 8 following).

ii. Speech privacy can be achieved with proper space planning, partitions,room finishes and effective use of sound masking systems.

8. Sound Masking

a. Provide a digital centralized, dual networked sound masking system in all spaces requiring confidential speech privacy and which is not reasonably obtainable by sound proofing and adequate background noise from the building services systems. The system is subject to the Authority approval.

b. The sound masking system will include the following:

i. Strategically located speaker assemblies installed above or flush toa conventional suspended acoustic tile ceiling; and

ii. Speaker assemblies generating unique, diffuse, and unobtrusive sound with spatial and temporal uniformity, and having a spectrum shape designed tomask speech and low-level unwanted noise.

c. Sound masking system details and locations will be reviewed by the Authority.

9. Acoustical Finishes

a. Acoustical room finishes, defined as room finishes with an NRC of greater than 0.5, will be used in all occupied spaces except where prohibited by code requirements. These spaces include, but are not limited to, the following:

i. All patient rooms (e.g. exam/treatment rooms)

ii. Corridors

iii. Staff Room and lounges

iv. Clinical Workstations (Nursing Stations)

v. Waiting areas

vi. Lobby, circulation spaces and atria when provided in the design

vii. Offices and similar

viii. Consultation rooms, assessment rooms, interview rooms, meeting rooms and spaces used for education

ix. Quiet rooms

x. Meeting rooms and rooms with video conferencing

xi. Dining Room

b. The extent of acoustical finishes in the spaces listed in Appendix 1A Clinical Specifications will be determined by the Design-Builder's acoustical consultant. However, the area of acoustical finishes will not be less than the floor planarea, unless high NRC finishes are used.

c. Sound absorbing materials will be incorporated into the design of rooms so that the Reverberation Times (RT60s) of the rooms do not exceed the values listed in Table 3.

d. Where achieving the RT60s in Table 3 appears challenging because of limited scopefor use of conventional sound absorbing materials due to safety/security concerns best efforts will be made and alternative approaches explored with the Authority.

Table 3 – Maximum Room Reverberation Times

Room Type(s)	Reverberation Time (Seconds)
Lobby and Entrance Vestibule. Includes atria if provided in the Building design.	1.0
Inpatient Bedrooms (Includes bariatric versions of these rooms).	0.8
Corridors and public spaces	1.0
Offices	0.8
Staff lounges, staff workrooms	0.8
Clinical Workstations (Nursing Stations), Medication Room	0.8
Dining rooms, multipurpose areas, Activity Room	0.8
Reception Area, Unit Clerk Workstation, patient/visitor waiting areas, rooms with televisions, alcoves where computers may be used	0.8
Rooms where counselling may be provided	0.6
Quiet room, Spiritual Room, rooms where training will occur	0.6
Meeting rooms, conference rooms	0.6
Multiple occupant clinical spaces	0.6
Laboratory spaces and similar	0.8
Secure rooms and similar (or as possible due to damageability)	0.8
Rooms with video-conferencing capability	0.5
Wellness/exercise	1.0

10. Rooms with Imaging Equipment

a. Special care will be given in the design of any rooms containing imagingequipment, such as the CT Scanners. Attention will be paid to:

i. Vibration isolation of the imaging equipment; and

ii. Room finishes.

b. For rooms containing imaging equipment the extent of noise and vibration control detailing will be determined by the project Acoustical Consultant in addition to meeting the requirements of Schedule 1.

END OF SECTION

APPENDIX 1C(I)

CONTROL OF VIBRATION AND NOISE DURING CONSTRUCTION

APPENDIX 1C(I) – CONTROL OF VIBRATION AND NOISE DURING CONSTRUCTION

Control of Vibration and Noise During Construction

1) Control of Vibration During Construction

   a) The Design-Builder will review with the Authority any expected vibration from the Design-Builder's Construction activities in advance of those activities, and without limiting the previous sentence, the Design-Builder will:

      i) To prevent cosmetic building damage, ground vibrations from the Design-Builder's Construction activities, including all demolition, ground improvement, and general construction activities, do not exceed 5.0 mm/s peak particle velocity when measured on NLC buildings and neighbouring residential buildings at any time of day, and any day of the week.

      ii) To prevent daytime disturbance/annoyance of residents within neighbouring residential buildings, ground vibrations will not exceed 1.0 mm/sec peak particle velocity when measured on NLC buildings and neighbouring residential buildings during the hours of work described in the City of Dawson Creek Noise Control Bylaw.

      iii) To prevent night-time disturbance/annoyance of NLC users and residents within neighbouring residential buildings, ground vibrations will not exceed 0.3 mm/s peak particle velocity when measured on NLC buildings or neighbouring residential buildings at times other than the hours of work described in the City of Dawson Creek Noise Control Bylaw or during certain times of the day and certain days of the week as determined by the Authority, acting reasonably.

      iv) To avoid possible disruption to the Authority's 24/7 operations on the existing Dawson Creek and District Hospital site, it is the responsibility of the Design-Builder to have a pre-construction vibration survey done by a qualified Acoustic and Vibration Consultant to establish maximum allowable vibration limits for spaces with more stringent vibration requirements such as laboratories, operating rooms, and imaging. The report must indicate the hours of vibration sensitive operations and minimum setback distances for various anticipated construction activities. The results of this study will be used to establish 'do not exceed' limits for vibrations within each of the specialty low vibration spaces during construction.

      v) Vibration complaints must be investigated by the Design-Builder and their Acoustic Consultant; the results of the investigation will be documented and will include recommendations for new 'do not exceed' limits to avoid further complaints. The documentation and recommendations will be presented to the Authority for approval.

      vi) Complete a Vibration Monitoring Program as follows:

         1. The Design-Builder will retain a qualified independent third- party vibration monitor to complete vibration monitoring during the Construction activities to confirm that the vibrations caused by the Construction activities do not exceed the limits specified in this Appendix;

         2. The Design-Builder will undertake preliminary vibration monitoring at the Site during the initial stages of all Construction activities that are expected to cause vibrations in order to determine magnitude and dissipation rate of the vibrations for each activity and provide a mitigation procedure to prevent exceeding the vibration limits specified in this Appendix;

3. The Design-Builder will complete initial vibration related Construction activities at a significant distance away from other buildings. The qualified independent third-party vibration monitor will provide the Authority and the Design-Builder with a report outlining the vibration results from each Construction activity. The Authority will review the preliminary vibration monitoring report and without relieving the Design-Builder of its responsibilities, may require the Design-Builder to comply with additional vibration monitoring requirements for each Construction activity prior to commencement of the Construction activity;

4. The Design-Builder will install vibration monitoring stations on NLC buildings (and on adjacent residential buildings) when vibration generating construction work is taking place within 25 m of NLC buildings and/or adjacent residential buildings. The vibration monitoring stations will be installed at each existing building corner and at the "third points" along the length of the most directly exposed façade of the building (i.e. four vibration monitoring locations per building). The Design-Builder will submit typical detail of monitoring stations for the Authority's review prior to installation;

5. The qualified independent third-party vibration monitor will conduct vibration monitoring during all Construction activity that occurs within 25 m of existing buildings, and as determined by the results of the preliminary vibration monitoring report. The qualified independent third-party vibration monitor is to immediately alert within five (5) minutes to the Authority (or designate) and the Design-Builder if vibrations exceed the limits specified in this Schedule. The Design-Builder will cease within five (5) minutes the activity causing the vibration; and

6. The qualified independent third-party vibration monitor will provide the Authority and the Design-Builder with a report no later than the 5th day of each month detailing the results of the monitoring for the previous month.

2) Control of Noise During Construction

a) The Design-Builder will discuss with the Authority any expected noise from the Design- Builder's Construction activities in advance of those activities. Without limiting the foregoing, the Design-Builder will:

i) prior to commencement of Construction activities, submit a noise control plan to the Authority. At a minimum, the plan will include the following:

1. a list of noise sensitive spaces in the NLC buildings and surrounding areas, and the maximum allowable Construction activity noise levels for each location that is in accordance with Section iv) following;

2. a noise monitoring plan indicating intended locations of noise monitors;

3. tentative schedule of activities likely to produce high sound levels, for the duration of the Construction;

4. planned hours of work for activities expected to produce high noise levels;

5. descriptions of planned specific noise abatement measures;

6. intended staging locations and routes to be used for minimization of noise disturbance;and

7. the approach to selection of construction equipment to be on the Site.

ii) include any updates to the noise control efforts and also a schedule of upcoming, noise and vibration producing activities;

iii) carry out its Construction activities so that:

1. sound levels from the Design-Builder's Construction activities do not exceed 80 dBA (Lmax) at NLC buildings and neighbouring properties, except with prior written approval from the Authority;

2. applicable construction noise bylaw(s) are complied with.

iv) Complete a sound monitoring program for existing sensitive spaces as follows:

1. The Design-Builder will complete sound monitoring during the Construction activities to confirm that the sound levels caused by the Construction activities do not exceed the limits specified in this Schedule and in the noise control plan required in i) above;

2. The Design-Builder will undertake sound monitoring at the Site of all Construction activities that are expected to cause noise in order to determine the magnitude and dissipation rate of the noise for each activity and provide a mitigation procedure to prevent exceeding the sound limits specified in this Schedule. The sound level monitor will provide the Authority and the Design-Builder with a report outlining the noise results from Construction activity. The Authority will review the sound monitoring report and without relieving the Design-Builder of its responsibilities, may require the Design-Builder to comply with additional sound monitoring requirements for each Construction activity prior to commencement of the Construction activity;

3. The Design-Builder will install a sound level monitoring station at an outdoor location, and within any spaces specified in the noise control plan. The sound level monitoring stations will be installed within the monitored indoor spaces along the building wall closest to the Construction area. The sound level meter will have the following minimum capabilities:

   (a) logging of A-weighted Leq, L10, L1, and Lmax sound levels on an hourly basis, and
   (b) remote access via computer to upload logged sound level data;

4. Noise complaints must be investigated by the Design-Builder and their Acoustic and Vibration Consultant; the results of the investigation will be documented and will include recommendations for new noise limits to avoid further complaints. The documentation and findings will be provided to the Authority for approval.

END OF SECTION

APPENDIX 1D
TECHNOLOGY NARRATIVE

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APPENDIX 1D – TECHNOLOGY NARRATIVE

EXECUTIVE SUMMARY

The purpose of the Technology Narrative is to provide general guidance and overview of the technology systems that will reside in the new Dawson Creek and District Hospital. The Technology Narrative is intended to supplement Schedule 1 – Statement of Requirements and not to replace or override it.

This appendix is not intended to be comprehensive and if there are any discrepancies between this appendix and the rest of Schedule 1 – Statement of Requirements, the language in Schedule 1 – Statement of Requirements will prevail.

1.0 COMMUNICATIONS, SAFETY AND SECURITY

1.1 TECHNOLOGY (TELECOMMUNICATION) ROOMS AND PATHWAYS

The new hospital will incorporate a fully redundant structured cabling and pathway infrastructure.

Redundant physical and logical pathways from the service provider will be provided to the demarcation point within the new hospital. Redundant routers running Hot Standby Router Protocol (HSRP), or similar protocol, will be utilized to ensure redundancy requirements are met.

Design-Builder will provide Communications Rooms (entrance facilities (EF), Telecommunications Rooms (TRs), Main Cross Connect Room (MCCR) and Back-up Cross Connect Room (BCCR) to accommodate the telecommunications infrastructure and equipment in accordance with Schedule 1 – Statement of Requirements Section 2.6 Standards.

The EF will be utilized as the main point of connection between public and private network service cabling.

TRs will comprise enclosed architectural spaces throughout the Facility to house communications equipment; provide horizontal cross connects and cable terminations.

The MCCR and BCCR will be the main equipment room to house telecommunications headend and server equipment.

Cable tray and electrical metallic tubing conduit will be run throughout the Building to support all IMIT system cabling with room allocated for future growth.

2.0 STRUCTURED CABLING

2.1.1 Backbone Cabling

Backbone cabling will consist of fibre optic cable. The backbone cabling will utilize redundant conduit pathways to provide connectivity between technology rooms.

2.1.2 Horizontal Cabling

Horizontal cabling will be CAT6A, 4-pair, U/UTP cabling. CAT6A cabling will be utilized for all category cabling run regardless of whether a lesser cable could be used (i.e. RJ11 Phone jacks with CAT5e).

2.2 TELEPHONY

The telephony system will utilize a Cisco Unified Communications platform and will integrate with the Authority's existing Cisco Unified Communication Manager servers and clusters installed in the Authority's other facilities. Access to the Authority's existing telephony network will be via a Cisco Integrated Services Router (ISR) and VoIP gateways for connection to the Public Switched Telephone Network (PSTN). Each VoIP telephone will be capable at the Authority's discretion to all-page or page to specific zones in the new hospital.

2.3 CELLULAR DISTRIBUTED ANTENNA SYSTEM (DAS)

The cellular DAS system will be active, or passive as required by the local service provider. The cellular DAS system will ensure cellphone calls can be made anywhere in the new Hospital with no reduction in signal quality due structural interferences (i.e. building walls, floors and ceilings).

2.4 PUBLIC ADDRESS

The public address system will provide paging capabilities throughout the Facility from all telephones and by back-up microphones in the event the VoIP system fails. Sound coverage will be based on loudness (dBA) and clarity [sound transmission index (STI)]. The public address system will be fully integrated with the VoIP phone system.

The public address system will operate independently and separately from the fire alarm system but will be interconnected via relay for muting during alarm conditions.

2.5 WIRELESS NETWORKS

The wireless network will support access to the Authority networks and guest networks for connectivity of WiFi devices and equipment. The wireless network will provide complete coverage in 5 GHz and 2.4 GHz throughout the entire Hospital.

Coverage will be based on signal strength as well as capacity (# of user connected at a given time) to ensure seamless connectivity for all user and equipment.

2.6 STAFF COMMUNICATIONS

The Authority's Vocera staff communications system will be utilized and extended to the new Hospital. Badges will be provided to staff to allow communication to other staff badges, VoIP telephones, nurse call consoles, patient stations, staff/duty stations and external/internal cellular and landline phones. Charging stations will be provided in designated areas for charging and storage of the staff communication badges.

2.7 INTERCOM

Audio-visual intercoms will be utilized at exterior and departmental entrances in the Facility. The intercom system will integrate with the access control, telephony and surveillance systems to provide remote door release, 2-way voice communication and visual monitoring capabilities. Master intercom stations will be placed strategically throughout the Facility.

2.8 VIDEO CONFERENCING AND TELEHEALTH

Telehealth and video conferencing will include, but is not limited to telehealth carts, Cisco room kits and flat screen displays.

Rooms with telehealth and video conferencing will provide high quility audio-visual call capabilities between Hospital staff and remote users and sites. The system will include user friendly and intuitive controls for ease of access for all staff and will be similar to what is being used in the Authority's other facilities.

2.9 PATIENT WANDERING

The patient wandering system will enhance patient safety and security by restricting patients from exiting or entering restricted departments, areas and to the exterior of the Facility while allowing staff to pass through unrestricted.

Keypads will be installed at all controlled door to allow staff to override the access control system to escort patients through controlled door locations.

Each designated door location will be equipped to detect patients who are wearing specialized bracelet tags; when a patient approaches a restricted door, the door will lock and an audible alarm and notification will be pushed to designated staff workstations, security office and staff communications devices.

2.10 INFANT PROTECTION

The infant protection system will be another layer of protection to provide safety, security, and peace of mind to new mothers and parents.

Mothers and infants will receive bracelets that are synchronized together and alarm if an infant moved away from the mother and if the wrong infant is with the wrong mother.

Infant tags may be configured for transport mode by designated staff, which will allow free movement throughout the Facility.

Each designated door location will be equipped to detect infants who are wearing specialized bracelet tags, when an infant approaches a restricted door, the door will lock and an audible alarm and notification will be pushed to designated staff workstations, security office and staff communications devices.

2.11 PATIENT ENTERTAINMENT AND EDUCATION

2.11.1 Patient Entertainment

Content will be provided in patient rooms via wall mounted flat screen displays. The content will be pushed to patient entertainment displays and administered by a third-party provider. Content will include television programming, clinical applications, and internet access.

Patients will be able to seamlessly control and navigate the patient entertainment system via integration to the nurse call pillow speaker.

2.11.2 Patient Education

Bright Sign media players will be utilized to provide patient education to selected standalone flat screen displays in patients and guest waiting areas, lounges, and others.

Patient education displays will be controllable via remote control by Authority staff.

2.11.3 Electronic Inventory Management System (EIMS)

Clean supply/utility rooms and select storage rooms will utilize a two-bin Kanban RFID based electronic inventory management system.

Staff will utilize RFID scanners and tags to track when supply bins are empty. The (EIMS) software will include, but is not limited to, automatic re-order capabilities, low stock alerts, expired inventory alerts.

2.12 NURSE CALL

The nurse call system will match one of the three existing manufacturers currently installed in other Authority facilities to allow smooth transitioning and minimal training for Authority staff. Spare parts will be easier to obtain and will be more readily available when nurse call systems are matched between facilities.

The nurse call system will be the primary communication device for patients to contact staff and for Authority staff to alert other staff for assistance in clinical use and patient care areas.

Patient/bed stations and pillow speakers will allow inpatients to communication and alert staff in the event of an emergency or need of assistance.

Staff terminal/consoles will include a user-friendly graphical user interface (GUI). Staff consoles will assist in accepting and redirecting calls, provide 2-way audio communication to patient stations and staff communication devices, initiate call escalations, and push schedule reminders to staff communication devices.

Dome lights will be placed above the doorway to in rooms containing nurse call equipment and throughout corridor areas to guide staff to the location of multiple code calls. Dome lights will include multiple color code capabilities including but not limited to:

- Code Red (Fire)
- Code White (Panic)
- Code Blue (Cardiac Arrest)
- Additional colours used by the Authority in similar facilities.

The nurse call system will include code call capabilities for code blue and staff duress calls. Full integration to the access control system will allow unimpeded pathways for code blue response teams to reach the code location in a timely manner.

Integration to the Connexall software platform with the nurse call system will allow bi-directional communication between the nurse call system and other devices (i.e. Vocera) and allow for future growth and flexibility to integrate new systems.

2.13 ACCESS CONTROL

The access control system will match existing installs in other Authority facilities to allow smooth transitioning and minimal training for Authority staff. Spare parts will be easier to obtain and will be more readily available when access control systems are matched between facilities.

The access control system will provide necessary separation between the public and clinical space, as well as restricted areas and departments. Staff spaces will be accessible via card reader to staff who are permitted to enter those spaces (i.e. electrical room).

The access control system events logs will be saved in case of break-in or other so that dates and times will be easily accessible to the Authority for review.

The access control system will integrate with the fire alarm system and the code blue system to allow unimpeded egress in the event of a fire or emergency and an unimpeded pathway for code blue teams responding to code blue calls.

The use of electromechanical door hardware will be utilized throughout the new Hospital to provide increased security, reduced noise, and a more aesthetically clean finish.

2.14 FIXED PANIC SYSTEM

Fixed panic/duress stations will be placed strategically throughout the Hospital and parking areas. Hold-up style panic buttons will be installed at locations where audio-visual alarms could escalate the situation and compromise staff safety.

The panic/duress stations (excluding hold-up buttons) will provide an audio and visual alarm in the form of flashing light and siren. The panic/duress stations will provide two-way verbal communication and integrate directly with the intrusion alarm system to provide an alert to the local RCMP dispatchment and local security office.

2.15 STAFF DURESS

The staff duress system will be part of the nurse call system. Staff duress pushbuttons will be placed strategically throughout the new Hospital and in consultation with the Authority.

Staff duress pushbuttons will notify staff via staff communication devices, select workstations and the overhead paging system. The notifications will indicate the location of the call and the nurse call dome and zone lights will guide response teams to the call origin.

2.16 INTRUSION DETECTION

The intrusion alarm system will be provided in areas where protection of physical assets is deemed critical and in consultation with the Authority. The intrusion alarm system will utilize multiple sensor types (i.e. glass break, infrared, and shock) to maximize the effectiveness without nuisance alarms.

The intrusion alarm system will utilize a dialer that will call to a UL-listed Central Station where the Central Station operator will follow a call-out list that may include the RCMP.

The call will be primarily over IP, with provision for cellular back up, if there will be failure of IP call.

2.17 CONNEXALL AND SYSTEMS INTEGRATION

System integration is at the core of modern hospital design. The new Dawson Creek and District Hospital will utilize a Connexall platform as its primary integration middleware and Cerner for electronic health records.

2.18 ASSET TRACKING

Asset tracking for the new Hospital will consist of barcode scanners and laminated barcode labels. Laminate barcode labels will be fixed to all Design-Builder installed equipment and recorded on a software-based spreadsheet application in consultation with the Authority.

2.19 SURVEILLANCE SYSTEM (CCTV)

Complete CCTV coverage will be provided throughout the inside and outside of the Hospital, in corridors, public areas and areas determined in consultation with the Authority. Outdoor cameras will be rated for the Dawson Creek climate and will be equipped with IR technology for low light viewing. Viewing stations will be located strategically in multiple locations in consultation with the Authority. Footage from cameras in non-clinical areas will be time stamped and reside on network video recorders so that it can be recalled and reviewed.

APPENDIX 1D(I)

TECHNOLOGY RESPONSIBILITY MATRIX

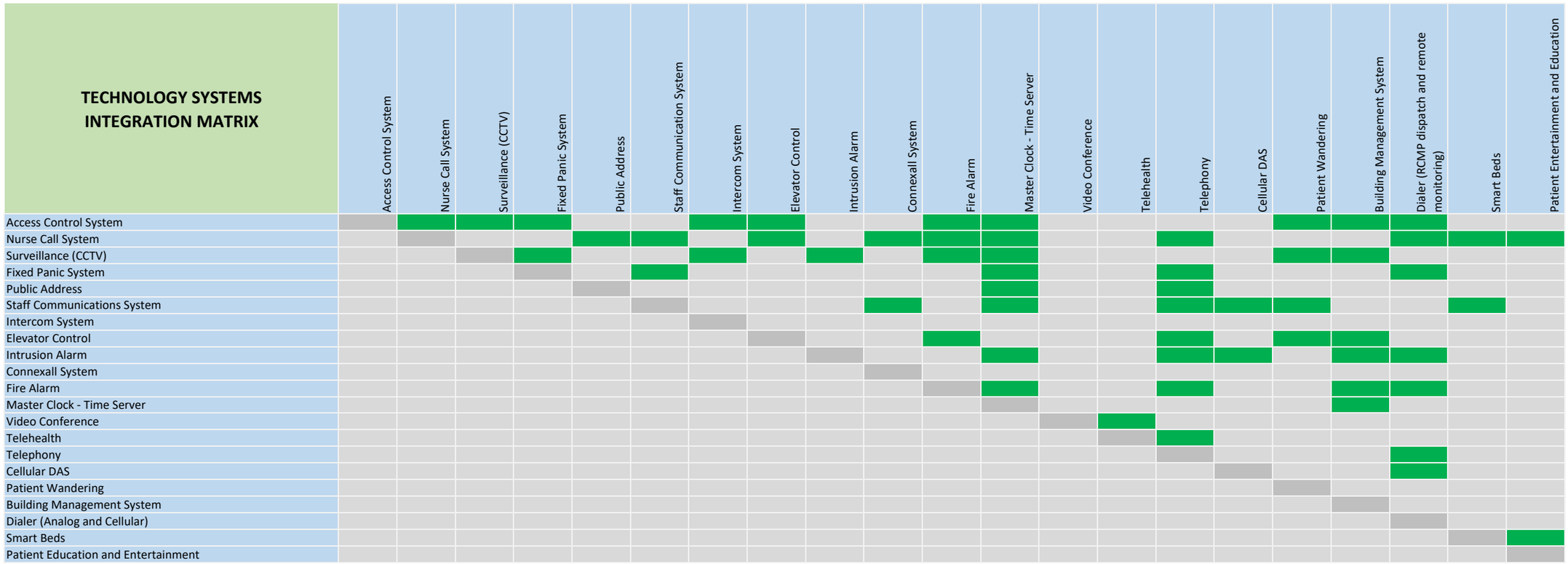
	Infrastructure (Passive)				Electronics (Active Equipment)					
System Description	Design	Provide	Install	Commission & Test	Design	Provide	Install	Commission & Test	Program & Configure	License
Division 27 - Communications										
Communications Site Services	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	N/A	N/A
Communications Infrastructure	Design-Builder	Design-Builder	Design-Builder	Design-Builder	N/A	N/A	N/A	N/A	N/A	N/A
Structured Cabling										
Backbone	Design-Builder	Design-Builder	Design-Builder	Design-Builder	N/A	N/A	N/A	N/A	N/A	N/A
Horizontal	Design-Builder	Design-Builder	Design-Builder	Design-Builder	N/A	N/A	N/A	N/A	N/A	N/A
System Network Equipment	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	Authority	Design-Builder
Design Builder Network Equipment	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Wireless Network	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	Design-Builder
Telephony System - VoIP and Analog	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Public Address System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Intercom System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Nursecall (incl. code blue & staff duress)	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Patient Education										
Infrastructure	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Content	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Authority	Authority	Authority
Patient Entertainment										
Infrastructure	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Content	N/A	N/A	N/A	N/A	Authority	Authority	Authority	Authority	Authority	Authority
Telehealth	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority
Videoconferencing	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Staff Communications System**	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	Authority	Authority	Authority	Authority	Authority
DAS - Cellular	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Electronic Health Record System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	Authority	Authority	Authority	Authority	Authority
Integration - Middleware	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority
Electronic Inventory Management System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
PACS	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	Design-Builder	Design-Builder	Design-Builder	Authority
Infant Protection System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Patient Monitoring	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Authority	Authority	Authority	Authority	Authority
Division 28 - Electronic Safety & Security										
Intrusion Detection System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Access Control System	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder / Authority*
Surveillance (CCTV)	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Fixed Panic Duress	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Asset Tracking	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder
Patient Wandering	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder	Design-Builder

Notes:

1. All system, equipment and cabling designs will be completed in consultation with the Authority.
2. If a discrepency exists between the Technology Responsibility Matrix and the Schedule 1 - Statement of Requirements, the more stringent standard will apply.
3. All middleware integration, configuration and programming between all systems in Division 28 and Division 27 will be completed by the Design-Builder, unless stated otherwise. Design-Builder to provide all equipment (passive or active) necessary for complete and fully integrated systems as required in Schedule 1 - Statement of Requirements.
4. * Authority will provide the enterprise level access control licensing and LDAP licensing. All additional licensing requirements will be provided by the Design-Builder.
5. ** See SOR for additional information on Design-Builder responsibilities.

APPENDIX 1D(II)

TECHNOLOGY SYSTEMS INTEGRATION MATRIX



NOTES: 1. If a descrepancy exists between Appendix 1D(II) - Technology Systems Integration Matrix and Schedule 1 - Statement of Requirements the more stringent standard will apply.
2. All integration, configuration and programing between all systems (incl. middleware) in Division 28 - Electronic Safety and Security and Division 27 - Communications will be completed by the Design-Builder. Design-
3. See Schedule 1 - Statement of Requirements for additional integration requirements for Division 25 - Integrated Automation.
4.The Authority's network time protocol (NTP) may be used for networked devices requiring connection to "Master clock - Time Server"

APPENDIX 1D(III)
IMIT GENERAL REQUIREMENTS AND CASH ALLOWANCE

1.0 DEFINITIONS

"Acceptance Protocol" means the formal procedure and guidelines for demonstrating, to the satisfaction of the Authority, that IMIT equipment is installed in accordance with manufacturers' requirements and is functioning in accordance with the specifications of the IMIT equipment purchase contracts and purchase orders, as applicable. Refer to Section 1.1.6.

"Equipment" means the IMIT equipment as described in Appendix ID(V) IMIT List.

"IMIT Equipment Committee" means a committee comprised of representatives of the Authority and the Design-Builder established to ensure oversight, coordination, monitoring, input, and execution of the IMIT equipment. Refer to Section 1.1.1.

"IMIT List" means the list of IMIT Equipment requirements described in Appendix 1D(V) - IMIT List of Schedule 1 - Statement of Requirements.

"Design" means the system development activities that enable a person to describe in detail how the resulting information system will be implemented.

"Provide" means to supply the IMIT equipment through either the IMIT Cash Allowance or under the base Design-Build Agreement, as applicable. (See Appendix 1D(V) for designation of scope.)

"Install" means to place, set up, and connect Equipment in the Facility, including making connections to necessary communication or network interfaces or devices. "Installed" and "Installation" have corresponding meanings.

"Commission and Test" means to test and commission installed Equipment or system in accordance with all Commissioning requirements set out in the DBA, and all applicable standards and good industry practice, including to ensure that the Equipment is operating in accordance with the manufacturer's requirements and specifications. "Commissioned" and "Commissioning" have a corresponding meaning.

"Program and Configure" means that, in the installation of hardware and software, configuration is the methodical process of defining options that are provided. Programing is the process of adopting and integrating a software application into a business workflow.

APPENDIX 1D(III) - IMIT GENERAL REQUIREMENTS AND CASH ALLOWANCE

1.1 GENERAL

1.1.1 IMIT Equipment Committee

The Design-Builder and Authority will establish an IMIT Equipment Committee (the Committee) comprised of three representatives of the Authority and two representatives of the Design-Builder (or any other reasonable number agreed between the parties) whose roles are to promote cooperation and communication between the parties, and to ensure oversight, coordination, monitoring, input and execution of the IMIT equipment. The Committee will meet regularly (and not less than once per month). Quorum is established with a minimum of two representatives of the Authority and one representative of the Design-Builder. Advisors and consultants may be invited to attend the Committee meetings, as required, to provide information and briefings to the Committee. The Design-Builder will be responsible for preparing and distributing, in a timely manner, the agenda and meeting minutes.

1.1.2 Integration of Equipment with Design of Facility

The Design-Builder will ensure that all Equipment is integrated with the overall Design of the Facility and will include such Equipment as part of the development of Design under the Design-Build Agreement. To the extent practicable, any required changes to the Design of the Facility resulting from changes to Equipment requirements will be resolved as part of the Design development process.

1.1.3 Changes affecting Design or Construction

If the Authority increases or decreases the quantities of Equipment described in Appendix 1D(V) IMIT List, procures other items in substitution for those identified in Appendix 1D(V) IMIT List, or otherwise changes the items to be procured and there is an effect on the Design or Construction as a result, then such increase, decrease, procurement or change, and any effects thereof, will constitute a Change. The parties will endeavour to agree to an expedited Change process to deal with Equipment changes.

1.1.4 Equipment Commissioning

The Design-Builder will incorporate its IMIT Equipment Commissioning responsibilities into its overall Commissioning plan for the Facility as contemplated in this Agreement.

1.1.5 Title

The Design-Builder will ensure that procurement arrangements for IMIT Cat 4 Equipment provide for direct transfer of title to such Equipment from the vendors to the Authority. Title to IMIT Cat 4 Equipment may be reserved by third party unpaid vendors until the earlier of the date of payment or the Substantial Completion date. The Design-Builder will pay all such unpaid vendors prior to the Substantial Completion date for amounts owing on outstanding invoices.

1.1.6 Acceptance Protocol

The Design-Builder will provide a document to the Authority for IMIT Cat 4 Equipment that certifies that all testing of the relevant Equipment has been completed to demonstrate that it has been installed in accordance with the manufacturer's requirements and is functioning in accordance with the specifications included in the relevant Equipment purchase contract or purchase order (the "Acceptance Protocol"). Without limiting the Design-Builder's obligation to Commission the relevant Equipment, the Design-Builder will, to the Authority's reasonable satisfaction, complete all the aspects of the Acceptance Protocol for IMIT Cat 4 Equipment.

If, prior to the Substantial Completion date:

(a) the Design-Builder fails to complete any aspect of an Acceptance Protocol for any item of IMIT Cat 4 Equipment, and

(b) the Authority waives the requirement for the Design-Builder to complete the relevant Acceptance Protocol,

then, subject to meeting the other requirements for Substantial Completion, each such failure will be deemed a deficiency and the Authority may make the withholding described in the Design-Build Agreement.

1.2 PROCUREMENT AND CASH ALLOWANCE

Appendix 1D(V) identifies items which will be procured utilizing the assigned IMIT Cash Allowance and identifies the nature of the procurement of each item (single/sole-sourced, open procurement).

The Design-Builder will follow the procurement methodology prescribed. For items identified as Cash Allowance, the Design-Builder will use the Authority's existing partner pricing where available. Promptly following the completion of procurement activities for the Equipment, the Design-Builder will provide the Authority with all relevant information (including Purchase Order details and vendor contact information) necessary to verify that the Equipment has been properly procured and sourced as required. Only those items which are expressly indicated as a Cash Allowance funded item in Appendix 1D(V) will be expended and paid as a Cash Allowance. The identification o f "Base Building" items in Appendix 1D(V) is for convenience only and does not alter the scope of the Cash Allowance items.

The Design-Builder is responsible for performing the work described, and providing all items called for, in the Design-Build Agreement. Notwithstanding the foregoing, the Design-Builder will not proceed with a Cash Allowance procurement unless and until the Authority authorizes the performance of such item in accordance with Section 46 of the Design-Build Agreement.

If the Authority does not authorize a Cash Allowance item, or the Authority authorizes a Cash Allowance item that adversely impacts the Design-Builder's ability to perform an obligation or requirement specified in this Appendix, including any design or performance requirements, then the Design-Builder will not be responsible for meeting such obligation or requirement specified in this Appendix, provided that the Design-Builder will have the burden of proof to demonstrate that the Authority's failure to authorize a Cash Allowance item, or decision to authorize a specific Cash Allowance item, directly caused the Design-Builder's inability to meet the obligation or requirement specified in this Appendix.

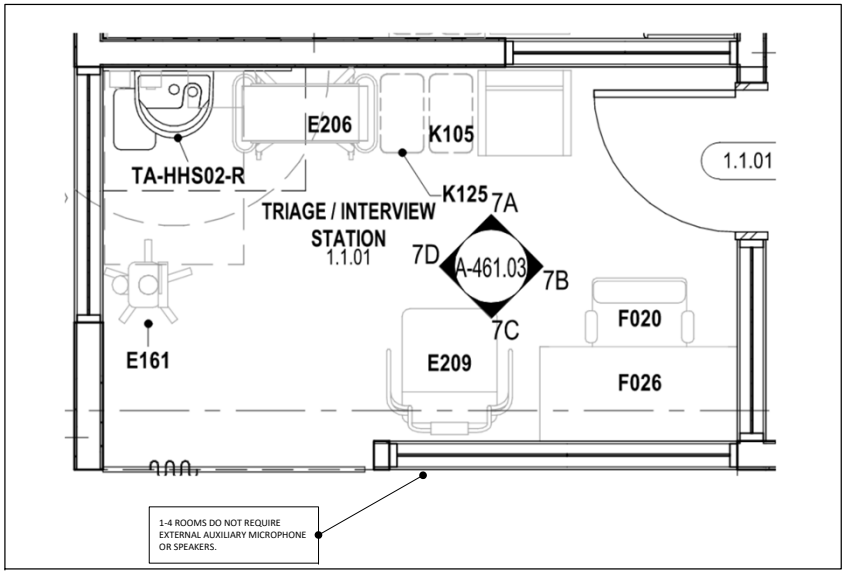
1.2.1 Vendor Default

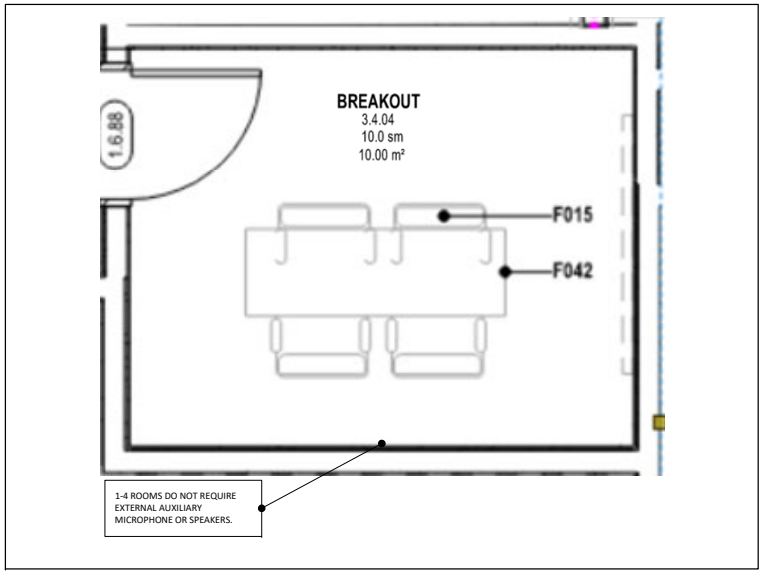
The Design-Builder will make all reasonable and best efforts to ensure that both sole-source and sole-source multi-vendor equipment procured by the Design-Builder is delivered by the dates specified in the Schedule. If such equipment is not delivered by the required dates and the Design-Builder has notified the Authority of all attempts made to subsequently secure delivery of the equipment, the Authority will not hold the Design-Builder liable for the delay by its vendor. The Authority will be responsible for vendor follow up in such a situation and will advise the Design-Builder of the outcome.

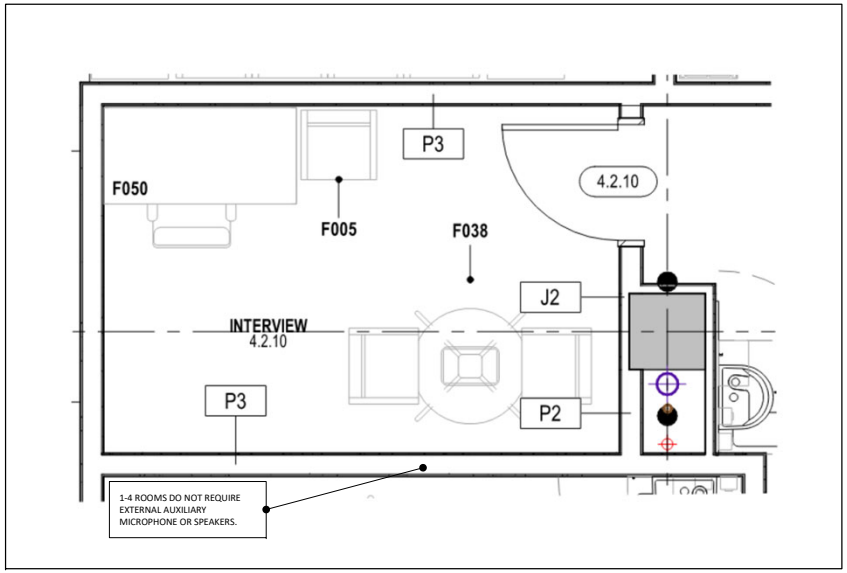
APPENDIX 1D(IV)

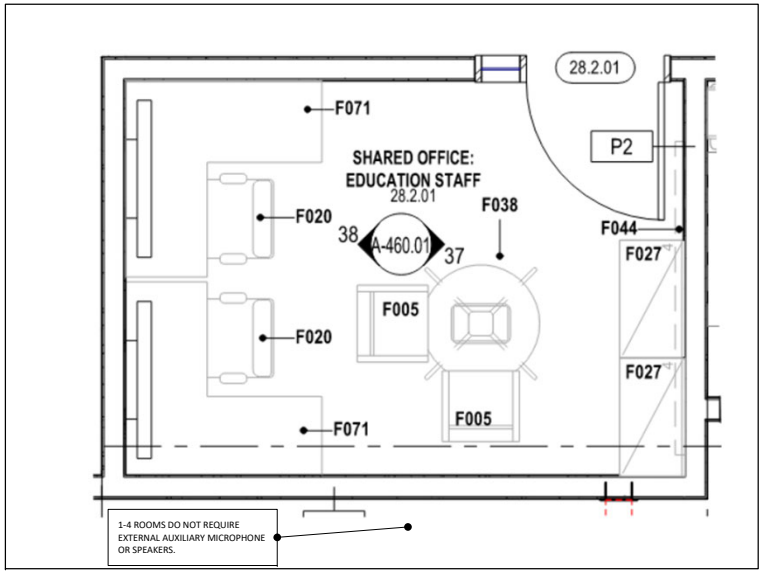
MEETING, RESUSCITATION/TRAUMA, SPECIALITY ROOMS

1-4 PERSON CONFERENCE ROOM









1-4 PERSON CONFERENCE ROOM

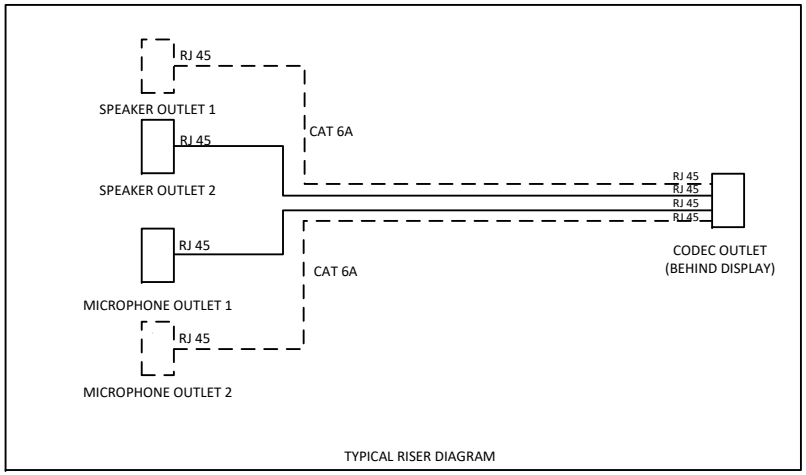
KEYNOTES

(1)
- PROVIDE 1X RJ 45 RECESSED OUTLET ON THE WALL FOR FUTURE SPEAKER.
- PROVIDE 1X RJ 45 RECESSED OUTLET ON THE WALL BEHIND THE MONITOR LOCATION FOR CODEC CONNECTION.
- PROVIDE 1X CAT 6A CABLE BETWEEN THE TWO OUTLETS AND TERMINATE AT BOTH ENDS TO THE RJ 45 CONNECTORS OF THE OUTLETS.
- PROVIDE 2 GANG RECESSED BACK BOXES FOR THE SPEAKER OUTLETS AND THE CODEC OUTLET
- PROVIDE 1X 27 CONDUIT BETWEEN THE TWO BACK BOXES.
- THE SPEAKER AND MICROPHONE RJ 45 CONNECTION SOCKETS AT THE CODEC LOCATION BEHIND DISPLAY SHALL BE ON THE SAME FACEPLATE AND BACK BOX.
- THE OUTLETS ARE STANDALONE WITH CABLE CONNECTION FOR THE FUTURE SPEAKER TO THE CODEC BEHIND DISPLAY AND DO NOT CONSITUTE NETWORK DROPS. DATA DROPS PROVIDED IN THE ROOM PER SOR WILL REMAIN UNCHANGED.
- COORDINATE WITH THE AUTHORITY FOR EXACT LOCATIONS AND LABEL THE OUTLETS FOR IDENTIFICATION PER AUTHORITY REQUIREMENT.

(2)
- PROVIDE 1X RJ 45 RECESSED OUTLET ON THE CEILING FOR FUTURE MICROPHONE.
- PROVIDE 1X RJ 45 RECESSED OUTLET ON THE WALL BEHIND THE DISPLAY LOCATION FOR CODEC CONNECTION.
- PROVIDE 1X CAT 6A CABLE BETWEEN THE TWO OUTLETS AND TERMINATE AT BOTH ENDS TO THE RJ 45 CONNECTORS OF THE OUTLETS.
- PROVIDE 2 GANG RECESSED BACK BOXES FOR THE MICROPHONE OUTLETS AND THE CODEC OUTLET
- PROVIDE 1X 27 CONDUIT BETWEEN THE TWO BACK BOXES.
- THE SPEAKER AND MICROPHONE RJ 45 CONNECTION SOCKETS AT THE CODEC LOCATION SHALL BE ON THE SAME FACEPLATE AND BACK BOX.
- THE OUTLETS ARE STANDALONE WITH CABLE CONNECTION FOR THE FUTURE SPEAKER TO THE CODEC BEHIND DISPLAY AND DO NOT CONSITUTE NETWORK DROPS. DATA DROPS PROVIDED IN THE ROOM PER SOR WILL REMAIN UNCHANGED.
- COORDINATE WITH THE AUTHORITY FOR EXACT LOCATIONS AND LABEL THE OUTLETS FOR IDENTIFICATION PER AUTHORITY REQUIREMENT.

(3)
- DATA PORT REQUIREMENT AND VIDEO CONFERENCING SOLUTION FOR TRAUMA ROOM SHALL BE DETERMINED BY THE DESIGN- BUILDER IN CONSULTATION WITH THE AUTHORITY.

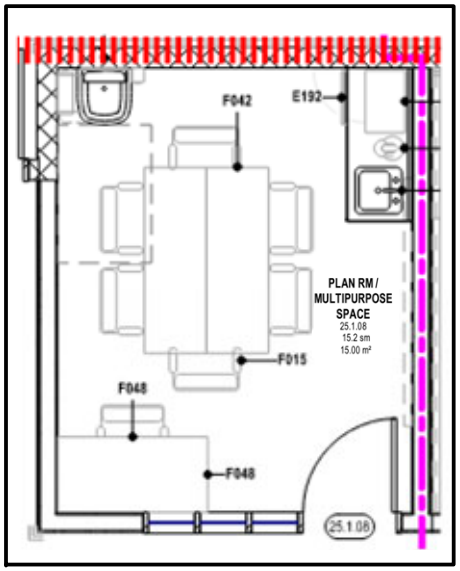
(4)
- >14 PERSONS CONFERENCE ROOM – THE DESIGN-BUILDER SHALL COORDINATE WITH THE AUTHORITY TO PROVIDE A CUSTOM BUILD OF THE VIDEO CONFERENCING SYSTEM.

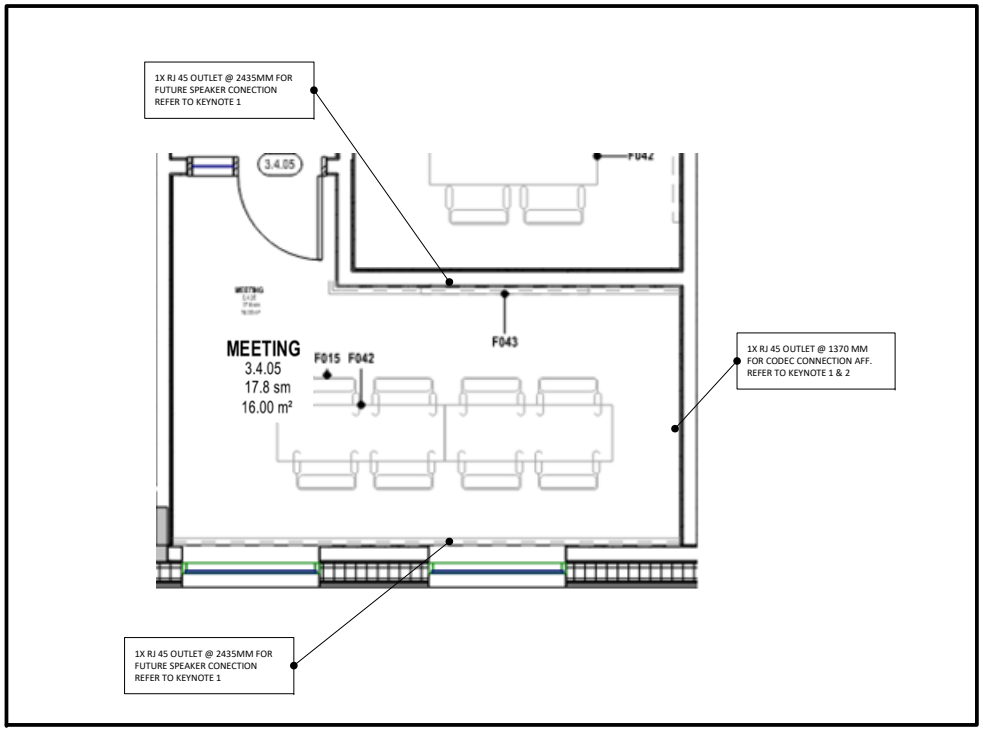


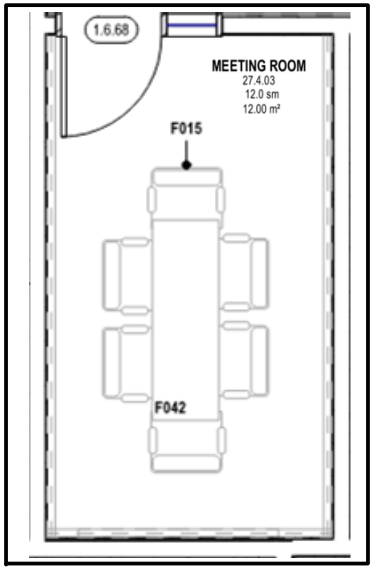
TYPICAL RISER DIAGRAM

NOTE:
1. DRAWINGS AND SKETCHES NOT TO SCALE.
2. THE DIRECTION BEING PROVIDED REGARDING PLACEMENT OF IMIT DEVICES WITHIN THE ROOMS IS BASED ON LAYOUTS THAT ARE WORK IN PROGRESS. IF THE FINAL LAYOUT CHANGES, THE DESIGN-BUILDER TO FOLLOW THE PRINCIPLES SHOWN IN THE SKETCH FOR POSITIONING IMIT DEVICES RELATIVE TO THE LAYOUT OF THE ROOM AND REVIEW FINAL ADJUSTED POSITIONING OF THE IMIT DEVICES WITH THE AUTHORITY.

5-7 PERSON CONFERENCE ROOM







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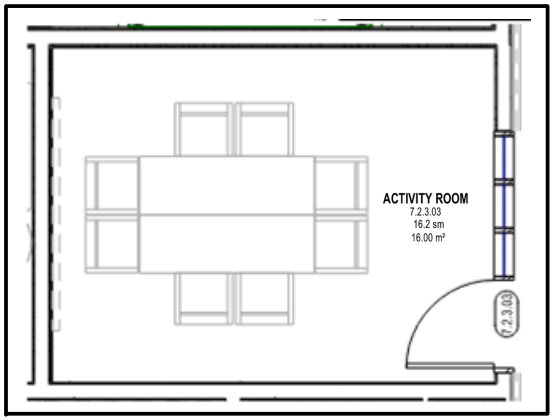
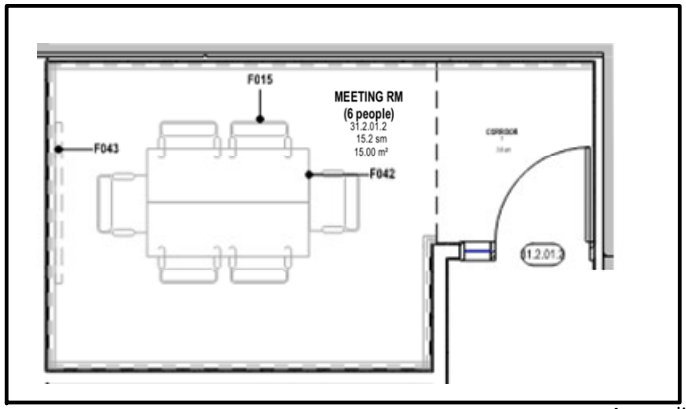
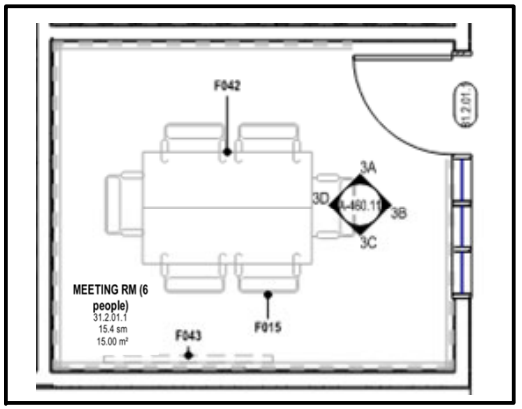
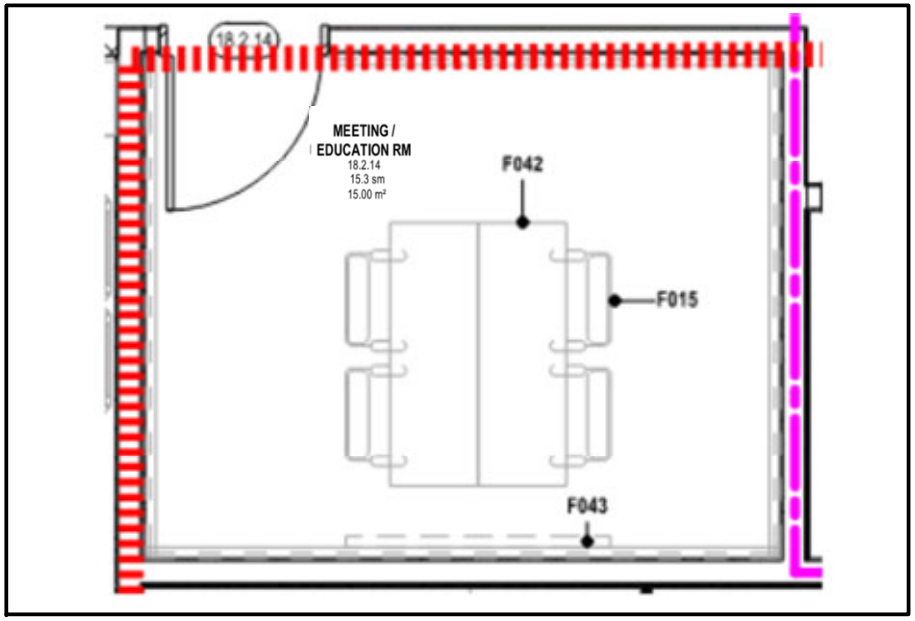
TYPICAL FOR ALL 5-7 PERSON ROOMS

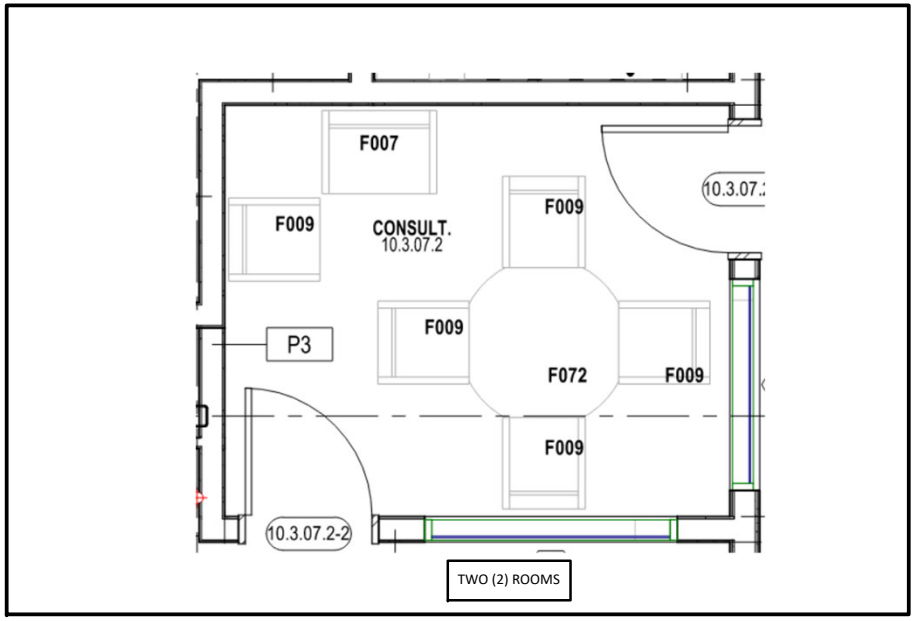


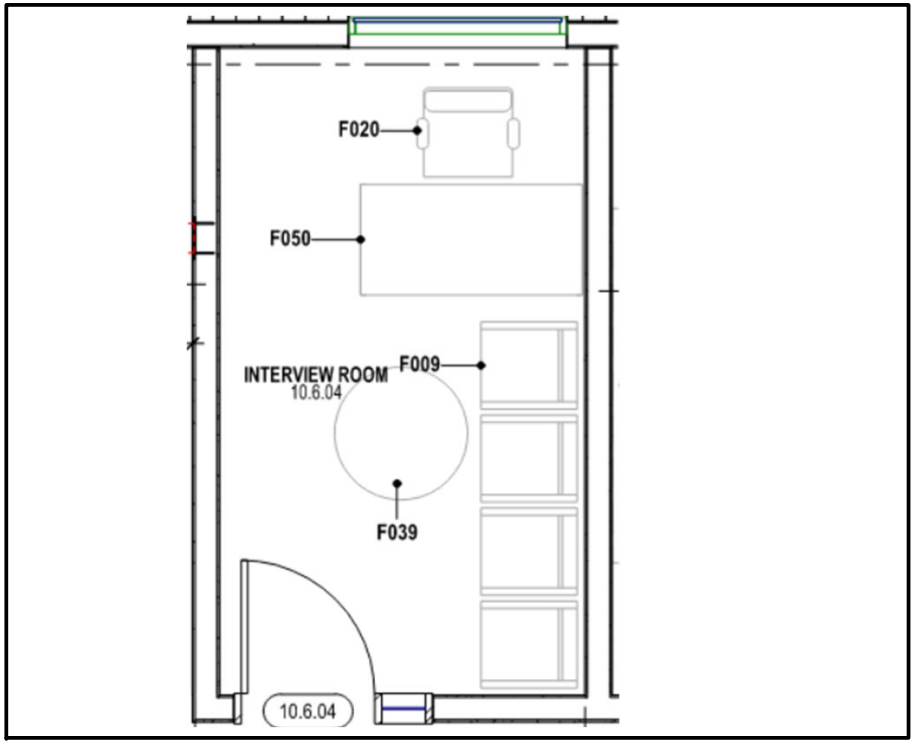




5-7 PERSON CONFERENCE ROOM







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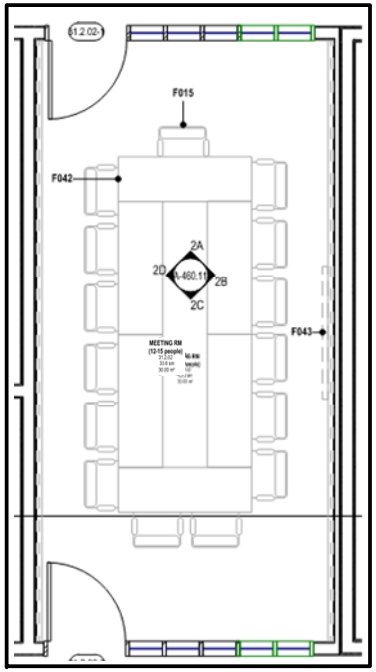
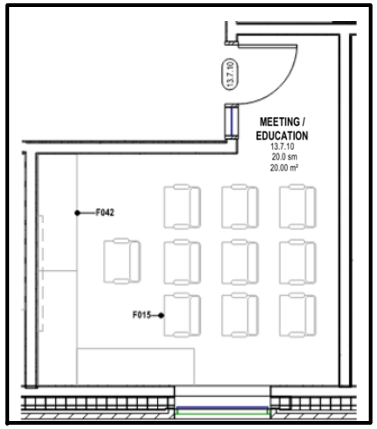
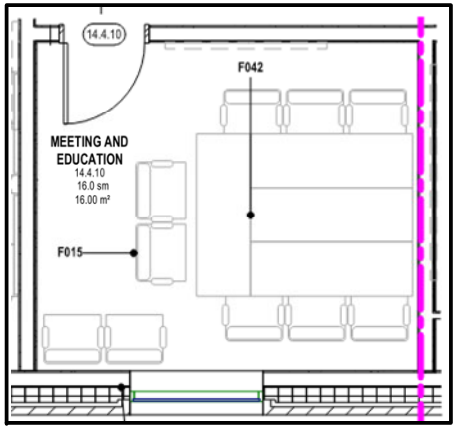
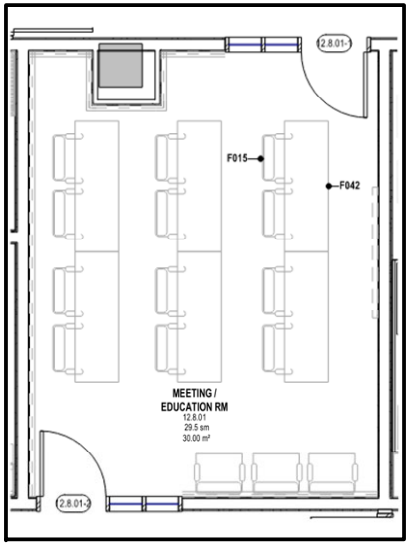
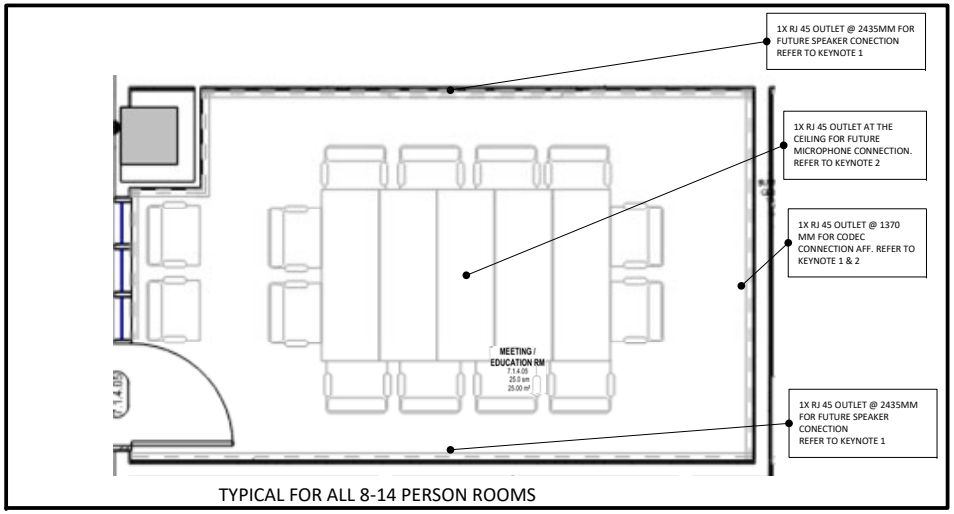
8-14 PERSON CONFERENCE ROOM



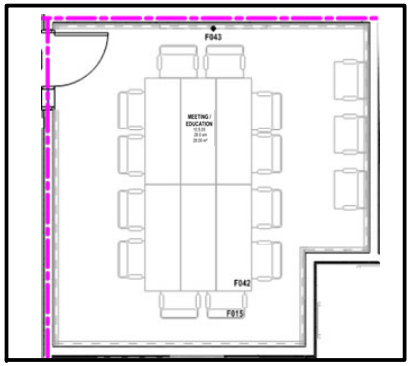








TYPICAL FOR ALL 8-14 PERSON ROOMS



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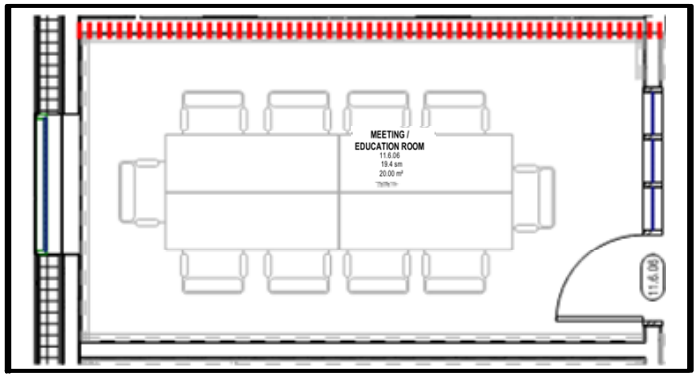
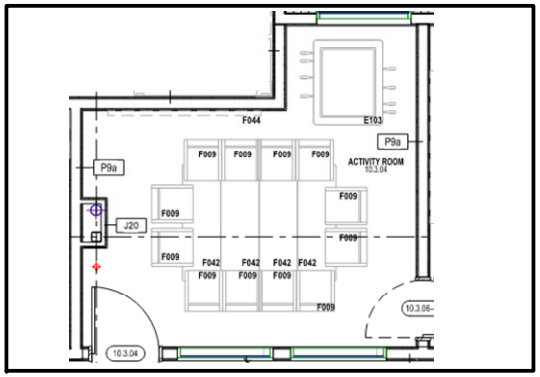
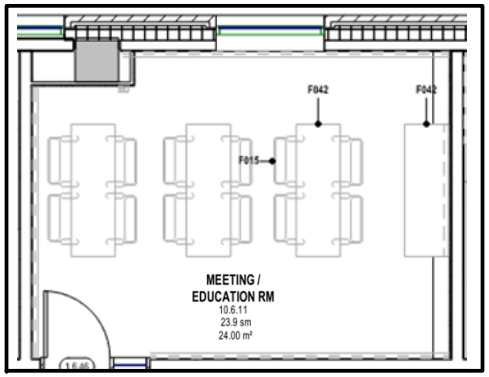
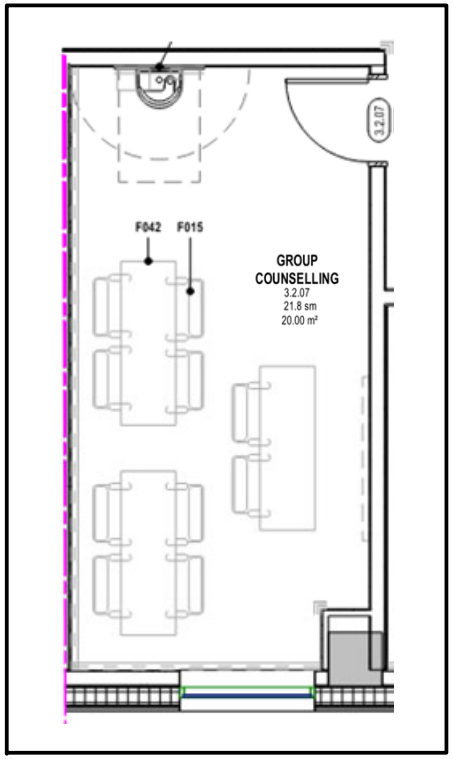
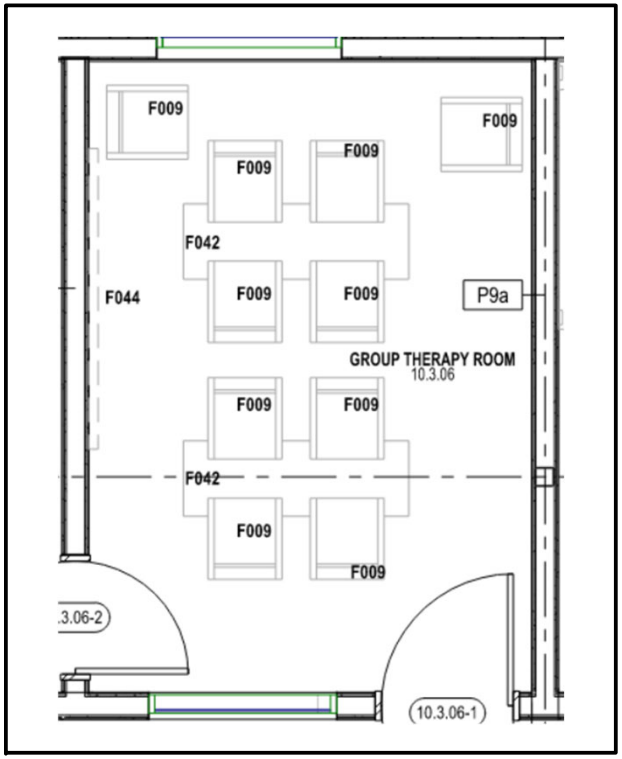


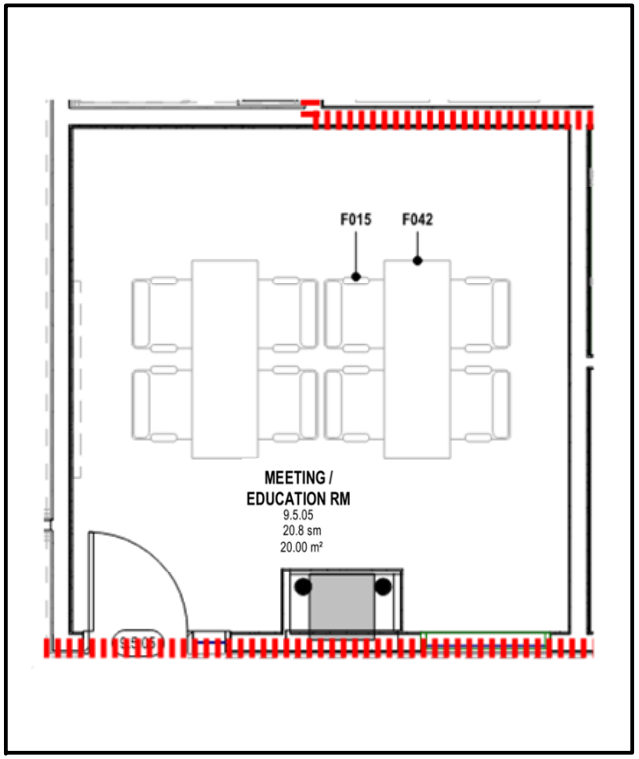


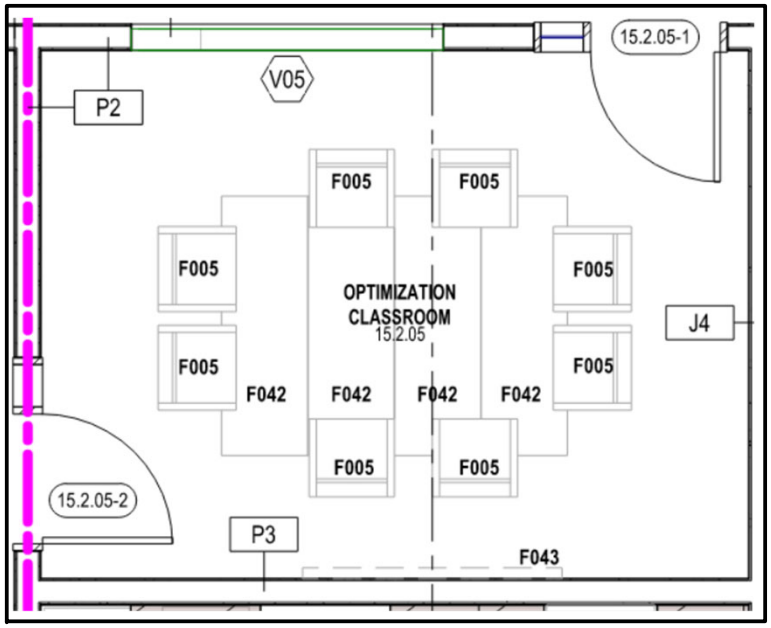


8-14 PERSON CONFERENCE ROOM

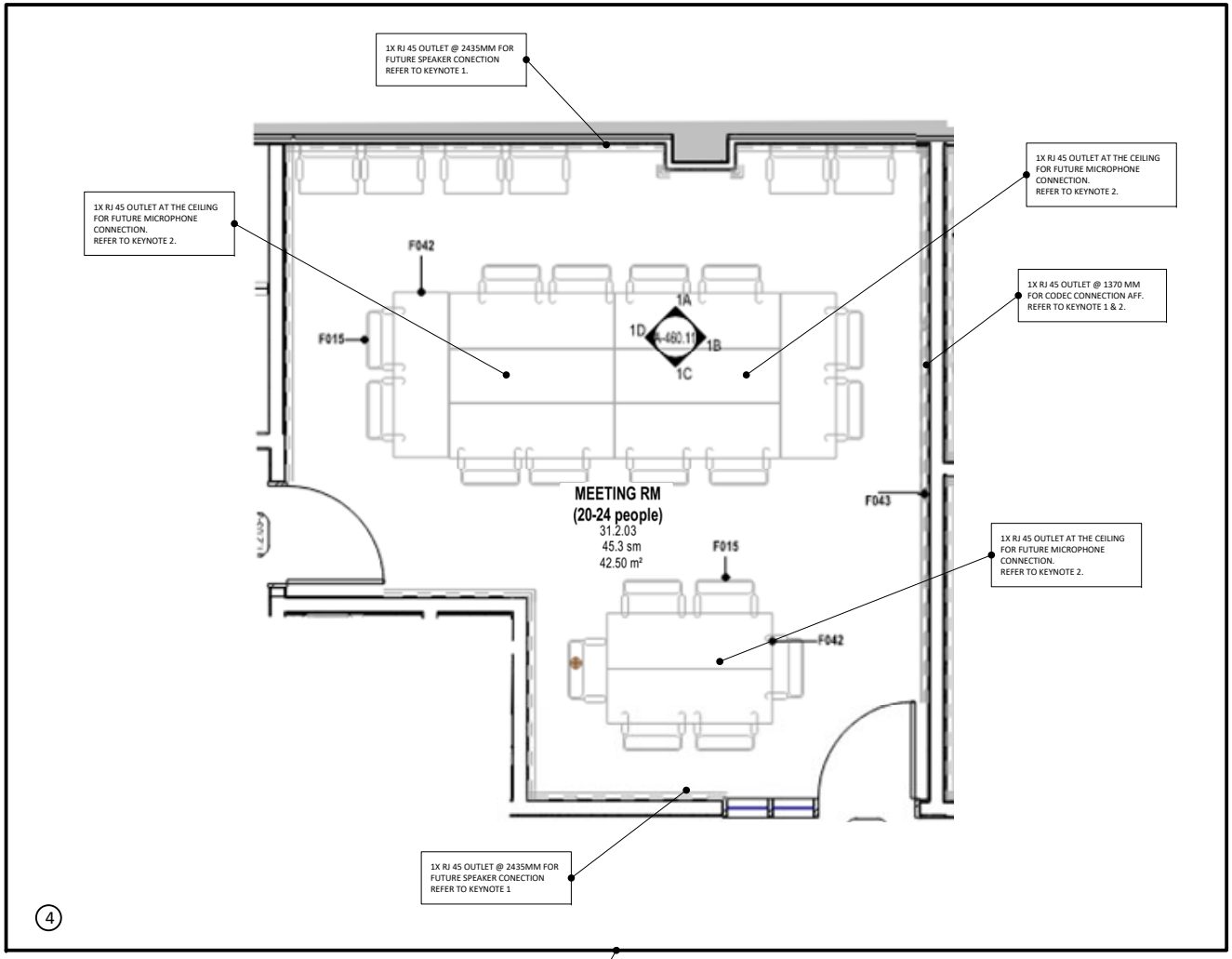








14 > PERSON CONFERENCE ROOM

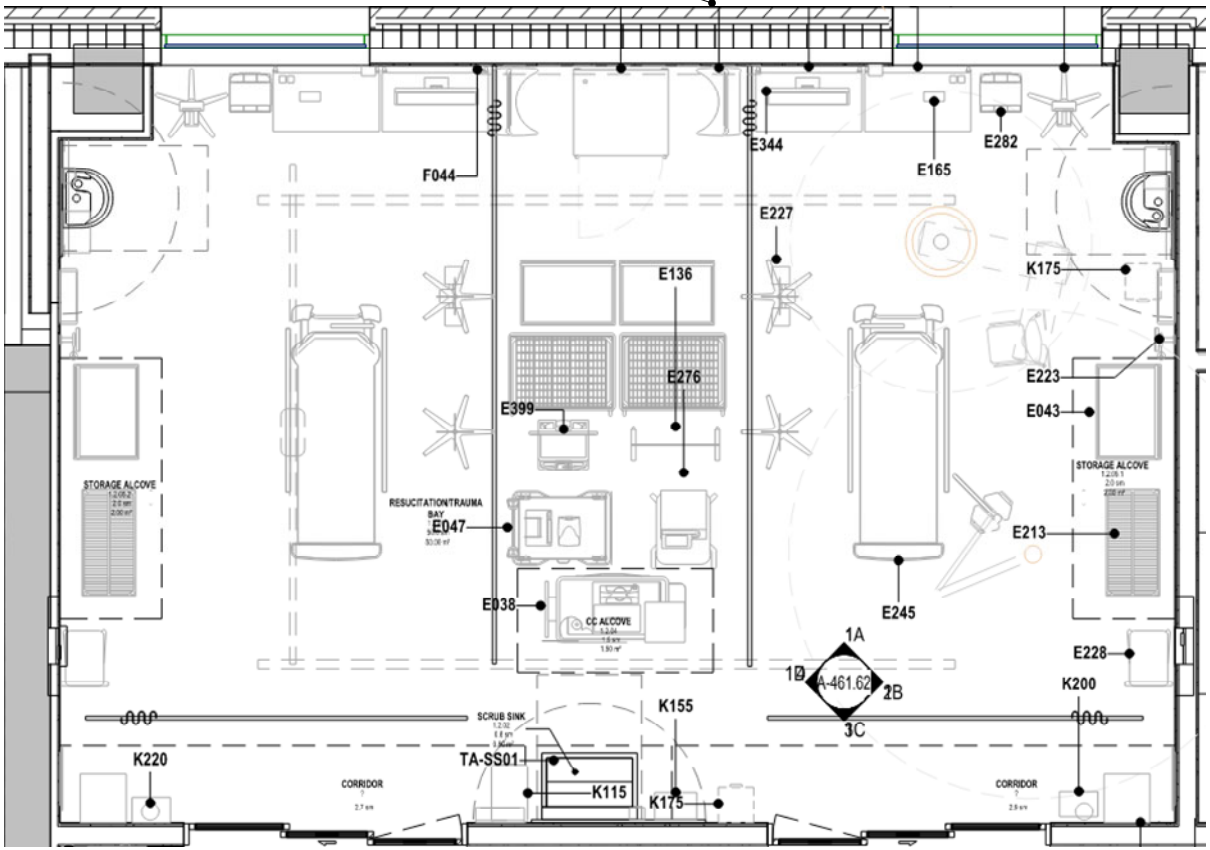


THE DESIGN BUILDER MUST COORDINATE WITH THE AUTHORITY TO PROVIDE A CUSTOM BUILD OF THE VIDEO CONFERENCING SYSTEM.

NOTE:
1. DRAWINGS AND SKETCHES NOT TO SCALE.
2. THE DIRECTION BEING PROVIDED REGARDING PLACEMENT OF IMIT DEVICES WITHIN THE ROOMS IS BASED ON LAYOUTS THAT ARE WORK IN PROGRESS. IF THE FINAL LAYOUT CHANGES, THE DESIGN-BUILDER TO FOLLOW THE PRINCIPLES SHOWN IN THE SKETCH FOR POSITIONING IMIT DEVICES RELATIVE TO THE LAYOUT OF THE ROOM, AND REVIEW FINAL ADJUSTED POSITIONING OF THE IMIT DEVICES WITH THE AUTHORITY.

RESUSCITATION/TRAUMA BAY ROOM

FOR RESUSCITATION / TRAUMA ROOM, THE DESIGN-BUILDER MUST COORDINATE WITH THE AUTHORITY TO DETERMINE REQUIREMENTS AND PROVIDE A SOLUTION.



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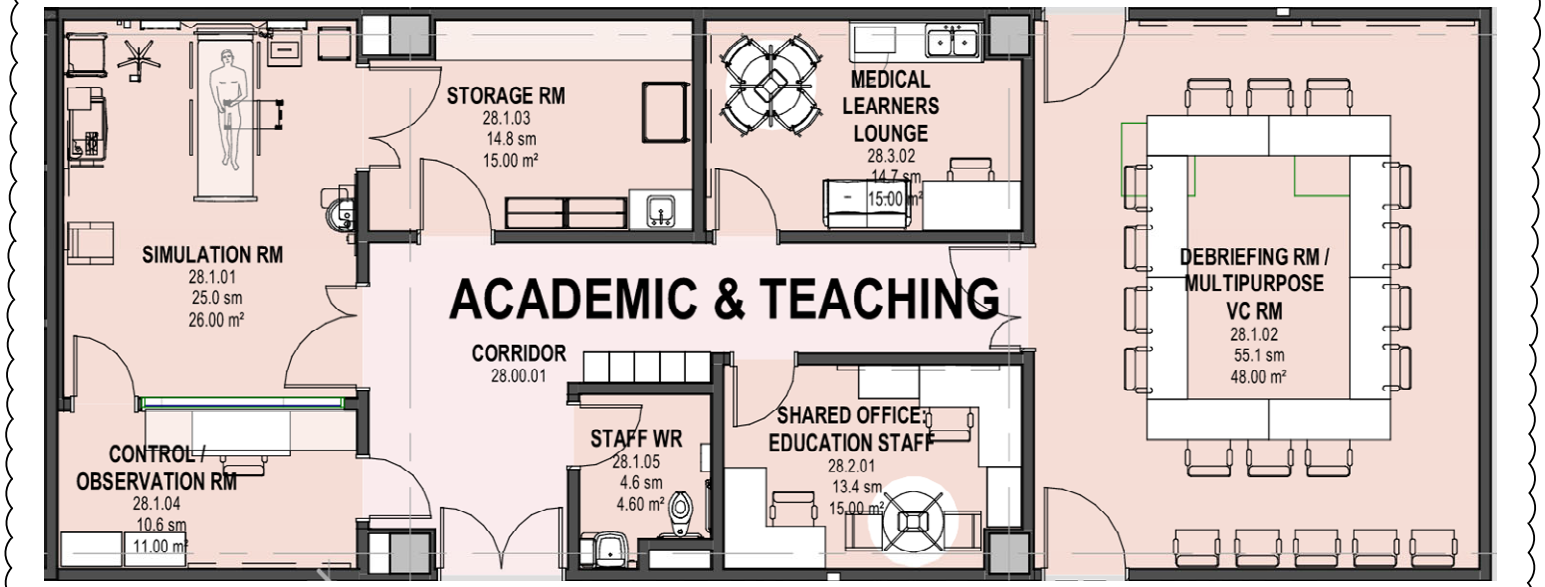
SPECIALTY ROOMS



FOR SPECIALITY ROOMS (SIMULATION ROOM, CONTROL/ OBSERVATION ROOM, DEBRIEFING ROOM/MULTIPURPOSE ROOM), DESIGN-BUILDER MUST COORDINATE WITH THE AUTHORITY AND FOLLOW UBC (UNIVERITY OF BRITISH COLUMBIA) FACULTY OF MEDICINE DESIGN GUIDELINES AND FUNCTIONAL REQUIREMENTS FOR LEARNING SPACE

NOTE:
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APPENDIX 1D(V)

IMIT LIST

Item #	General Item Description	Description	Quantity	Make/ Model	**Responsibility Categories** IMIT Cat-1 (Authority Supplied - Authority Installed) IMIT Cat-2 (Authority Supplied - Design-Builder Installed) IMIT Cat-3 (Authority Supplied - Vendor Installed - Design-Builder Coordinated) IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	**Payment** CA = Cash Allowance BB = Base Building	**Procurement Responsibility** SS = Sole Source SSMV = Sole Source, Multi-Vendor RFx = Competitive Procurement
Computers and Monitors							
1	Standard PC (no monitor)		261		IMIT Cat-1 (Authority Supplied - Authority Installed)		
2	Monitor	Monitors to be installed on standard PCs and additional monitors, where required.	449	Lenovo LT2252p 22"	IMIT Cat-1 (Authority Supplied - Authority Installed)		
3	Clinical Workstations	(including PACS Workstations) (no monitors)	41	Lenovo PACS Station	IMIT Cat-1 (Authority Supplied - Authority Installed)		
4	Clinical Monitors		51		IMIT Cat-1 (Authority Supplied - Authority Installed)		
5	PACS Monitor	PACS Monitor	4		IMIT Cat-1 (Authority Supplied - Authority Installed)		
6	Wall Mounts (Monitors/Workstations)	Wall Mount Workstation / Articulating Arm Mount Workstation (As approved by the Authority per location)	52	Ergotron Carefit Enclosure 61-367-060 complete with accessories as required, including scanner bracket, per approval of the Authority. Colour to Architects approval. Ergotron Styleview Sit-Stand Combo Arm Type 45-271-026, with extender arm, complete with accessories as required, per approval of the Authority. Colour to Architects approval.	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SS
Flat Screen displays							
7	TV Mounts (TV)	TV Mounts	87	Samsung Professional	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	RFx
8	TV Monitor	43"	46	43" - Samsung QM43B	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	RFx
9	TV Monitor	55"	41	55" - Samsung QM55B	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	RFx
10	TV Monitor	50" (For ref)	0	50" - Samsung QM50B	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)		RFx
11	TV Monitor	65" (For ref)	0	65" - Samsung QM65B	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)		RFx
12	TV Monitor	75" (For ref)	0	75" - Samsung QM75B	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)		RFx
13	Video Conference Unit	VCU for 1 up to 4 people	4	LOGITECH MEETUP	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
14	Video Conference Unit	VCU for 5 to 7 people	9	NEATBAR-SE	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
15	Video Conference Unit	VCU for 8 to 14 people	13	NEATBAR-PRO	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
16	Video Conference Unit	VCU for 14+ people	1	One (1) Yealink MVC840 (Design-Builder to provide custom Build-out in coordination with the Authority)	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	
17	Video Conference Unit, Desk Mount	Desk Mount Video Conference Unit	2	Cisco DCX 80	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
Telephones							
18	VoIP Multiple Line	Four line VoIP phone	260	Cisco 7841	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
19	VoIP Multiple Line	Dual line VoIP phone	0	Cisco 7821	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
20	Conference Phone	Conference Phone	27	Cisco 8832	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
21	Reception Phone	Reception Phone with KEM	2	Cisco IP 8851, 8800, 8841 (Part number for Reception and Registration phone TBD by the Authority)	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
24	Analogue Phone	Command Centre Phone, Other	5	Cisco SPA500	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
25	License	Single User License, One-time Fee	289	NEW-UWL-STD-SLED	IMIT Cat-1 (Authority Supplied - Authority Installed)	CA	SS
26	Voice Router	Voice Router	2	Cisco U ISR 4331	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
27	Licensing	Voice Router License	2	Cisco ISR 4331 Bundle, PVDM4-32, UC L-23 Months Service	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)		SS
28	Interface Card	4-port Network Interface Module - FXO	2	NIM-4FXO	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
29	Professional Services provided by 3rd party consultant/contractor		1		IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
30	CUCM Server		1	Cisco Business Edition 7000M (M5) Appliance	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
31	Wall Mounts (Phones)	To be determined at a later stage based on the bundle.	31		IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
Printers							
32	Printer, Multi-Function, Floor	Floor standing multi-function printer; analogue port for fax machine	16	HP Laserjet Enterprise 700 M725f	IMIT Cat-1 (Authority Supplied - Authority Installed)		
33	Printer, Multi-Function, Desktop	Desktop multi-function printer; analogue port for fax machine	9	HP Laserjet M725dn	IMIT Cat-1 (Authority Supplied - Authority Installed)		
34	Printer, Label, 4" Small		6	Zebra ZT410	IMIT Cat-1 (Authority Supplied - Authority Installed)		
35	Printer, Label, Large		45	Zebra ZT420	IMIT Cat-1 (Authority Supplied - Authority Installed)		
Access Points							
36	Wireless Access Point (Indoor)	Indoor Access Point	To be determined based upon design	MIST SYSTEMS : Superior Performance Multigigabit WiFi 6 802.11ax Access Point (6 stream) with Adaptive Bluetooth Low Energy Array for Advanced Location Based Services, with built-in Internal Antenna. For Worldwide	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
37	Wireless Access Point (Outdoor)	Outdoor Access Point	To be determined based upon design	Wi-Fi 6 (802.11ax) AP63	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS

Item #	General Item Description	Description	Quantity	Make/ Model	Responsibility Categories IMIT Cat-1 (Authority Supplied - Authority Installed) IMIT Cat-2 (Authority Supplied - Design-Builder Installed) IMIT Cat-3 (Authority Supplied - Vendor Installed - Design-Builder Coordinated) IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	Payment CA = Cash Allowance BB = Base Building	Procurement Responsibility SS = Sole Source SSMV = Sole Source, Multi-Vendor RFx = Competitive Procurement
Network Hardware							
38	Access Switch	48-port, PoE Switch (Based on 5000 Drops)	To be determined based on final quantity of data drops	JUNIPER NETWORKS : EX4100 48-Port 10/100/1000BaseT PoE+, 4x 1G/10G SFP/SFP+, 4x1G/10G/25G SFP/SFP+/SFP28+, redundant fans, 1 AC PSU JPSU-920-AC-AFO included (optics sold separately) with Standard S	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
39	License		To be determined based on final quantity of data drops	C9300-DNA-A-48-5Y C9300 DNA ADVANTAGE, 48 PORT, 5 YEAR TERM LICENSE	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
40	Spare Module		1	C9300- NM-2Y CATALYST 9300 2X 25 GE NETWORK MODULE, SPARE	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
41	LAN to L3 Distribution SFPs (to be determined based on the number of AP switch stacks)		To be determined based on the number of AP switch stacks	SFP-10/25G-CSR-S Dual Rate 10/25GBASE-CSR SFP Module	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
42	Core/Distribution Switches		2	JUNIPER NETWORKS : QFX5120-48Y, airflow in, redundant AC PSUs and FANs Ships with base S/W features.	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
43	Maintenance		1	CON-L1SWT-C9524QA CX LEVEL 1 SW SUB C 9500 DNA ADVANTAGE (60 MONTHS SERVICE)	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
44	Power Supply (redundant)		1	C9K-PWR-650-WAC-R/2 650W AC CONFIG 4 POWER SUPPLY FRONT TO BACK	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
45	Core Switch License		2	C9500-DNA-A-5Y DNA ADVANTAGE 5 YEAR LICENSE (60 MONTHS SERVICE)	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
46	PACS Server	PACS Server	2		IMIT Cat-1 (Authority Supplied - Authority Installed)		
47	PACS Licensing	PACS Licensing	2		IMIT Cat-1 (Authority Supplied - Authority Installed)		
48	WAN Router		2	MIST SYSTEMS : SSR130 HW only (8-core Atom, 16GB RAM, 120GB SSD, 2x1G combo RJ45/SFP, 6x1G RJ45) with LTE for AMER & EMEA (Check for homologation & carrier certs). SSN SW subscription license, optics & rackmounts sold separately	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
49	Maintenance		1	CON-SNT-C8304T2X SNTC-8X5XNBD Cisco Catalyst C8300 (60 Months Service)	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
50	License		1	DNA-P-T1-A-5Y CISCO DNA ADVANTAGE ON-PREM LIC 5Y- UP TO 200M	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
51	Wireless Network Controller		1	MIST SYSTEMS : Subscriptions for 2 services (specify from SUB-MAN, SUB-ENG, SUB-AST, SUB-VNA) for one access point for 5 years: includes software updates, upgrades, cloud function subscriptions and limited lifetime warranty benefits on access points	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
52	AP Licensing	AP Licenses	To be determined based on the number of APs	MIST SYSTEMS : Subscriptions for 2 services (specify from SUB-MAN, SUB-ENG, SUB-AST, SUB-VNA) for one access point for 5 years: includes software updates, upgrades, cloud function subscriptions and limited lifetime warranty benefits on access points	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
53	Out of Band (OOB) Management Device	To be provided by the Authority at a later date	2	To be provided by the Authority at a later date	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SS
Telehealth Carts							
54	Telehealth Cart		3	ERGOTRON SV41-6300-0 c/w monitor attachment, Logitech Meetup, Logitech touch screen	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	
Staff Communication System							
55	Vocera	Badges	100	B300N	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
56	Vocera	Licensing and Warranty	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
57	Vocera	Chargers and Accessories	1		IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
58	Vocera	Professional Services	1		IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
Digital Display System (Waiting Areas)							
59	BrightSign Media Player	Media Player	21	BrightSign	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
Electronic Inventory Management System							
60	EIMS Hardware	RFID Tags, Printers, Scanners, etc. Haas	1	Tecsys	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SSMV
61	Software as a Service (SaaS)	SaaS	1	Tecsys	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SSMV
62	Maintenance	Annual Maintenance	1	Tecsys	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SSMV
63	TAG Boards	RFID Tag Boards	1	Tecsys	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SSMV
64	TAG Board Maintenance	TAG Board Maintenance	1	Tecsys	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SSMV
65	Professional Services	PM, Tech Services, Implementation	1	Tecsys	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	CA	SSMV
Asset Tracking							
66	Barcode Scanner	Barcode Scanner	22	Zebra DS4608	IMIT Cat-3 (Authority Supplied - Vendor Installed - Design-Builder Coordinated)		
Misc. Equipment							
67	CBORD Printer	Allowance	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
68	ID Card Printer		1	Zebra ZC100	IMIT Cat-4 (Design-Builder Supplied - Design-Builder Installed)	BB	SSMV
69	Net Check-In	Kiosk	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
70	Net Check-In	Patient Queue Display	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
71	Net Check-In	SaaS	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
72	Net Check-In	Data Plan	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
73	Patient Education System	Software (Content)	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		
74	Patient Entertainment System	Software (Content)	1		IMIT Cat-1 (Authority Supplied - Authority Installed)		

NOTES:

1. See Appendix 1D(I) Technology Responsibility Matrix and Appendix 1D(iii) General Requirements and Cash Allowance for additional scope delineation information. All responsibility categories noted are for information only and will be confirmed with the Authority prior to use for any pricing, procurement or other.
2. The quantity of TV Monitors indicated does not include quantity of TV Monitors required for video conferencing/meeting rooms and specialty rooms.
3. The Design-Builder must submit shop drawings of equipment being procured under Cash Allowance and obtain written approval prior to proceeding with the installation.
4. Where licences are not bundled with the product procurement under Cash Allowance, the Authority will be responsible. Where the licences are bundled with the product procurement of Cash Allowance, the Design-Builder will provide and the Authority will not be responsible.

APPENDIX 1E

WOOD FIRST APPROPRIATE USE MATRIX

APPENDIX 1E – WOOD FIRST APPROPRIATE USE MATRIX

Area of Usage	Appropriateness	Justification
Substructure		
Forming/ Shutter (temporary)	Appropriate	The use of wood in this process is a traditional method of construction.
Structure		
Slab on grade	Inappropriate	Not permitted
Beams	Inappropriate	Not permitted
Columns	Inappropriate	Not permitted
Upper Flooring	Inappropriate	Not permitted
Roof (Penthouse)	Inappropriate	Not permitted
Heavy Timber Structure	Inappropriate/ Not Permitted	Although the base building structure for the Building may be required to be of non-combustible construction, proponents may consider a heavy timber design that could be integrated as a 'secondary' structure or decorative installation for specific feature areas.
Non-structural wood framing	Inappropriate	To be installed in compliance with BCBC and authority having jurisdiction requirements
Exterior Cladding		
Roof Finish (Flat Roof)	Inappropriate	There is no known wood product for this application.
Walls above ground level	Inappropriate	Not Permitted by the Authority
Exterior Windows	Inappropriate	Ability to clean and water/chemical resistance are paramount in this location.
Curtain Wall	Inappropriate	There is no known wood product for this application.
Exterior Doors and Screens	Inappropriate	Not Permitted by the Authority
Roof Accessories (parapet, cant strips, plywood backing)	Appropriate	Wood permitted for non-exposed and Code compliant applications.
Interior Partitions and Doors		
Partition Studding at Acute Care	Inappropriate	Not permitted by the BC Building Code.
Interior Doors	Appropriate for offices Inappropriate for ORs and MDR	Framing, core and facing of door can be wood for locations not requiring greater than a 90-minute fire resistance rating. Wood doors in high metal cart and material transport traffic areas and high humidity areas like the clinical and MDR areas would be inappropriate.

APPENDIX 1E – WOOD FIRST APPROPRIATE USE MATRIX

Area of Usage	Appropriateness	Justification
Vertical Movement		
Stairs (Structural)	Inappropriate	Not permitted by the BC Building Code.
Stairs (treads, risers)	Inappropriate	Not permitted by the BC Building Code.
Guardrails	Appropriate for non-exit stairs	Wood can be used in these locations where permitted by the BC Building Code and where there is a low to medium risk of impact.
Handrails	Appropriate	Wood permitted.
Fittings and Equipment		
Hardwood Floor	Inappropriate	Wood could be used in certain, non-clinical locations as a floor finish; this would be limited to high end finished areas which are not subject to low acoustic or high usage requirements. Building code requirements would have to be met.
Ceiling Tiles	Appropriate	Wood could be used in ceiling tiles for aesthetic requirements in certain, non-clinical areas within the building provided that they are not more than 25mm thick with a flame spread rating (FSR) not more than 25, and except for not more than 10% of ceiling area in a fire compartment is permitted to have an FSR of up to 150. This would be limited to high end finished areas which are not subject to low acoustic or high usage requirements.
Wall Finish	Appropriate	Wood could be used as an interior wall finish for aesthetic and acoustic requirements in certain, non-clinical areas within the building provided that they are not more than 25mm thick with a flame spread rating (FSR) not more than 150. This would be limited to high end finished areas which are not impaired by acoustic and high usage requirements. Beyond that permitted by the BC Building Code, interior finishes could be supported with an 'alternative solution' approach incorporating other considerations/features such as specific geometry/location of wood, potential fire exposure potential and enhanced fire suppression systems for the area.
Toilet Partitions	Appropriate	The core material for the partitions can be made from wood particles.
Signs	Appropriate	The base material on which the sign is mounted can be of wood.
Loose Equipment (Desks, chairs, etc.)	Appropriate	The core material for the desks, chairs, etc., can be made from particle and complete wood substrate except where CSA standards require non-porous materials.
Fixed Equipment (Millwork)	Appropriate	Frames, core material, doors and substrate for millwork can be constructed with wood. This includes show windows, aprons/backing, shelves, cabinets, and counters.

APPENDIX 1E – WOOD FIRST APPROPRIATE USE MATRIX

Area of Usage	Appropriateness	Justification
Modular Benches	Inappropriate	To be stainless steel in Lab
Specialized Equipment	Inappropriate	Clinical equipment and associated environment cannot utilise wood as these environments need to be inert.
Blocking within walls	Appropriate	For attachment of handrails, accessories and similar interior finish items mounted on the surface of walls.
Nailing Elements	Appropriate	Wood nailing elements attached directly to or set into a non-combustible backing for the attachment of interior finishes are permitted provided there is no air space of more than 50mm thick.
Mechanical		
None Known		
Electrical		
None Known		
Site Development		
Landscaping (Architectural, decorative, site furnishings, etc.)	Appropriate	Wood could be used in landscaped areas for art and architectural features.
Contractor		
Site Establishment	Appropriate	Where appropriate, Design-Builder is to endeavour to utilize materials of wood and wood derivative for their site establishment.

APPENDIX 1H(I)

LAUNDRY EQUIPMENT SPECIFICATIONS

APPENDIX 1H(I) – LAUNDRY EQUIPMENT SPECIFICATIONS

LAUNDRY EQUIPMENT SPECIFICATIONS

The following information and requirements form the basis from which all laundry equipment is designed, supplied and installed.

1 GENERAL LAUNDRY EQUIPMENT REQUIREMENTS

1.1 Laundry Equipment Specific

.1 Laundry Equipment to include all laundering equipment required in receiving, soiled holding, sorting, washing, drying, clean holding, labelling and tagging.

.2 All major equipment units shall comply with the Canadian Standards Association, Canadian Gas Association, Underwriters' Laboratories Canada Ltd. and Underwriters' Laboratories Inc. regulations and standards where applicable.

.3 Any equipment requiring "local approval" to be included / provided by the equipment contractor.

.4 All work and material shall be in full accordance with the latest rules and regulations of the Provincial and Municipal Departments.

.5 All latest Building Codes as well as all electrical, mechanical and seismic codes applying to this section shall be followed.

1.2 Laundry Equipment Classifications

.1 Catalogued Equipment

a. To include equipment that is manufactured to specific standards and of specific sizes by reputable manufacturers for the purposes listed above that have been proven to perform under the constant rigorous working conditions of an acute care hospital in northern British Columbia.

b. All catalogued equipment to include a minimum two (2) years parts and labor warranty/guarantee period – where not offered by the manufacturer, supplier to provide extended warranty/guarantee as required.

c. To include temperature and pressure gauges for hot water lines feeding washers.

d. PRV to be provided for all gas fired equipment – to be installed in individual gas feed lines by mechanical contractor.

e. Washers to be soft mount with ultra-high-speed (350G) extraction and automatic weighing system to ensure proper water to load weight and detergent management information system for ensuring proper detergent mix.

f. Dryers to be supplied with advanced microprocessor control (M720), humidity sensing auto dry, reversing cylinder and fire suppression system.

.2 Custom Manufactured Equipment

a. All fabricated equipment including tables and sinks, counter tops, etc. described in the following specifications shall be manufactured by an experienced equipment fabricator with plant,

personnel, and engineering facilities to properly design, detail, and manufacture high quality laundry equipment.

b. All work in the above category shall be manufactured by one manufacturer, with a minimum of five (5) years' experience in the manufacture of stainless steel commercial fabricated equipment, as his principal product.

1.3 Reference Standards

.1 Welding of mild steel shall conform to CSA-W59-1982 regulations. Welding for SS shall conform to CSA W48-2-M1980 regulations.

.2 Steel shaft - cold-roll commercial quality shall have a minimum coating to ASTM G-90-A526/A527 standard. Thickness as specified.

.3 Steel shaft, for painted surfaces, shall have a galvanneal coating to conform to ASTM A653/A653M-01a standard.

.4 Steel sections - structural quality shall have a galvanized coating having a minimum thickness of .05 kg/m2.

.5 SS shall be A.I.S.I. Type 304 unless specified, Grade 18-8. Finish shall be A.I.S.I. #2B or #4 as indicated. Thickness as specified.

.6 This section shall take precedence over the Laundry Equipment Drawings.

1.4 Materials

.1 General - SS shall be Type 304, 18-8 #4 polished finish or #2B bright finish as specified hereunder.

.2 The following thicknesses shall be adhered to throughout:

a. 2.0mm for all coved corner sinks, tables, counter tops.

b. 1.6mm for all overshelves, single pan doors, SS slides, SS grids, and undershelves over 1220mm long.

c. 1.2mm for all undershelves less than 1220mm long, SS bins (fixed or mobile), counter top sinks, and vertical surfaces.

d. Galvanized Steel - composition copper bearing sheet type heavily hot galvanized finish, one coat primer and one coat of grey hammerloid air dry enamel, and shall be used only on equipment in the unexposed locations, and where there is no excess water conditions.

.3 SS Tubing - to ASTM-A269-83, Type TP304 commercial grade, seamless, welded with A.I.S.I. #4 finish.

.4 Fastenings - for securing corrosion-resistant or plated metal parts, fastenings to be as corrosion-resistant as and color matched to materials being fastened. Fastenings used for securing unplated ferrous metal or wood parts are to have a minimum protective coating of cadmium or zinc. Where possibility of food or food acid contact, plating to be nickel/chromium, however, cadmium, zinc or other toxic coatings not acceptable. Where screws are necessary, use flat head screws.

.5 All SS legs to be supplied with SS adjustable foot inserts.

.6 Unless specified, fiberglass grating to be 38mm high x 38mm square:

a. Grey in color.

b. Grating to be a “grit” type surface.

1.5 Fabrication

.1 Fabricate work square, true and straight, to suit installation conditions, and as indicated. Design is to afford maximum sanitary conditions, and is not to have areas where disease-causing bacteria may accumulate.

.2 Fabricate equipment from SS, unless otherwise indicated.

.3 Fit and shop-assemble equipment ready for erection where possible.

.4 Deburr and smooth raw edges prior to forming.

.5 Straight lengths - counter tops, table tops, drainboards and the like to be one continuous piece.

.6 Welding - sound, non-porous, and free from imperfections. Weld metal to be color matched to and be as corrosion-resistant as the parent metal. Spot welds, if any, to be minimum 3mm diameter, and have full penetration. Grind exposed welds smooth, and polish to match parent metal. Grind other welds smooth. Welding or finishing is not to impair the corrosion resistance of the finished article. Welds, except spot welds, shall be continuous unless otherwise indicated.

1.6 Sink Units

.1 Sizes to be 610mm x 610mm x 305mm deep.

.2 Compartment material minimum 2.0mm thick SS.

.3 Construction - welded, no solder or fill accepted. All corners to be coved 19mm.

.4 Compartment bottom - slope 13mm down towards drain.

.5 Each sink shall be equipped with 40mm diameter drains with lever handle equal to Component Hardware Model D53-7100 c/w SS tailpiece and SS perforated strainer.

.6 Where multiple compartments are indicated, space between compartments shall be maximum of 25mm. Weld compartments into counter top or drainboards.

.7 Punch holes for hot and cold water faucets.

.8 Drainboards 2.0mm thick SS, integral with and sloping down towards compartments.

.9 Edges up and rolled, dished and boxed or boxed as specified.

.10 Top of sink edge and drainboard to be a straight horizontal line.

.11 Corners of tops - outside radius minimum 38mm or mitered.

.12 Splashback 2.0mm thick SS, rolled up and splayed, integral with sink, drainboard or top. Where counter top or drainboard meets splashback or upturn, cove 19mm unless otherwise indicated. Fill in and weld ends of splashback to 38mm below tops.

.13 Legs and bracing - demountable of SS tubing with SS socket welded to SS channel which is welded to sink bottom. Legs 41mm OD tubing. Bracing 41mm OD tubing. Feet as per 1.4.

.14 Dowelling - install SS pins in floors and feet for securing feet of equipment where vibration may occur. Dowelling to be installed in all SS tables and cabinets with mechanical or electrical connection. Note: Hole to be drilled in the center of SS foot, not through the SS flange.

.15 Skirting 1.0mm thick on single or multiple compartment sinks, skirting on exposed external surfaces to extend under sinks 25mm past the bottom radii, be spot welded under sinks, to follow vertical external radii at extreme ends or fitted and welded to integral components as appropriate. Space spot welds a maximum of 100 mm on centers.

.16 One-piece construction solid undershelf, 1.6mm thick with boxed edge on front with sides and back turned up 38mm and hemmed.

a. For items with a single undershelf, notch and weld to legs 250mm clear off floor at midway adjustment of feet.

b. For items with an intermediate shelf and undershelf, notch and weld undershelf to legs 150mm clear off floor at midway adjustment of feet. Unless otherwise stated, the distance between the underside of intermediate shelf and top of undershelf should be 375mm clear.

c. Reinforcing and leg channels 2.0mm thick SS.

1.7 SS Floor Drain Pans

.1 Sizes as indicated.

.2 Compartment material 2.0mm thick SS, sloped to minimum 100mm waste centre drain, integral with recessed “cup”.

.3 Construction - welded, no solder or fill accepted; perimeter edge to be formed to hold removable grate to flush to perimeter flange; where grating spans exceed 900mm, weld additional SS square tube support brackets to pan, enabling cleaning below.

.4 Removable grating to be FS-25 grit top chem grate; where grating exceeds 600mm x 600mm, provide sections of equal size (for ease of removal).

.5 Removable full-size 300mm deep 1.6mm perforated waste collection basket with lift out handles for washer drain pan; 1.6mm perforated waste collection cups with lift out handles for utility / cleaning floor drain pans.

.6 Install in floor structure with grate and flange flush with finished floor.

1.8 Removable Dryer Filler Panels

.1 Sizes as required to enclose dryer fronts to each other as well as to adjacent walls and finished ceiling above.

.2 Minimum 25mm sq. tube frame assemblies to frame opening and surround dryers.

.3 1.6mm SS filler panels with perimeter edges turned back 40mm and secured to tube framing, walls and ceiling.

1.9 Utility and Work Tables

.1 Sizes as indicated.

.2 Tops and back / end splashes 1.6mm thick SS with top edges formed as indicated with splashes coved to top.

.3 Legs and bracing - refer to 1A.14.1.6; feet as per 1.4.

.4 Dowelling - refer to 1A.14.1.6.

.5 Undershelf - where indicated, 1A.14.1.6.

.6 Reinforcing and leg channels spaced to a maximum span of 1220mm between supports, constructed of 2.0mm thick galvanized, not to protrude beyond bottom edge of table top.

.7 Where receptacles are specified as part of fixture, any within 400mm of sink to include ground fault interruption (GFI) protection.

1.10 Installation

.1 The jobsite equipment installation shall be carried out by an “Approved” supervisor in conjunction with journeyman sheet metal workers, journeyman welders and/or apprenticed sheet metal workers employed by a recognized SS fabricating company duly registered within the jurisdiction of the project.

.2 Do all cutting, patching, and fitting as required for a complete installation, as well as to coordinate with the related trades all work under this section.

.3 Seal and caulk all equipment with silicone sealant after equipment is in location.

1.11 Equipment Installed But Not Supplied

.1 Owner supplied - this section to make all necessary provisions to allow for installation of these items as noted on drawings. Electrical and mechanical contractors to make all necessary connections to make all equipment operational.

1.12 Protection, Storage and Making Good

.1 Protect the work of other trades from damage due to performing this work.

.2 Damaged work shall be made good by those performing the work originally but at the expense of those causing the damage.

1.13 Operating and Maintenance Manuals

.1 Prior to orientation and training, submit one (1) hard copy and one (1) electronic copy of all operating and maintenance manuals (numbered in corresponding sequence to fixture drawings) for all major catalogue equipment and. include;

a. Cover page listing, in corresponding sequential order, indicating items number (corresponding with plans) all laundry equipment items identified on bid drawings together with respective quantities, manufacturers, models and serial numbers.

b. The names and addresses of those companies which are designated as “service depots” who will supply parts and continuing service for all equipment during the warranty period.

c. Reduced size (1:100 scale) copies of all plans.

d. Hard copy operating and maintenance manuals for all major equipment, to be separated with marked divider tabs indicating respective items.

e. Provide complete schedule of recommended maintenance of all equipment with frequency and specifics of the maintenance required for each noted accordingly.

1.14 Equipment Demonstration

.1 All equipment, except for custom fabricated, shall be tested and adjusted prior to any equipment demonstration.

.2 All laundry equipment shall be demonstrated by a competent representative of the laundry equipment supplier to train and orientate the laundry and facilities maintenance staff with the proper operation and maintenance of all equipment under this section.

.3 Arrange with the factory representatives of major equipment (catalogue items) to be present at the equipment orientation and training.

.4 Arrangements for the equipment orientation and training shall be coordinated with the Owner.

End of Section

APPENDIX 1H(II)

LAUNDRY EQUIPMENT SCHEDULE

northern health

	EQUIPMENT LIST			STANDARD OF ACCEPTANCE		ELECTRICAL SERVICES							MECHANICAL SERVICES									
													Water		Waste		Gas		Exhaust			
ID. NO.	Description	Qty.	CATEGORY	MANUFACTURER	MODEL	Load	120V	208V	Ph	Junc	Rec	Remarks	HW	CW	Size	To	Load MBH	Size	CFM	Size	S.P.	Remarks
	INSTITUTIONAL SOILED LAUNDRY HOLDING																					
	WALL BUMPER GUARDS	LOT	4																			
	WASTE RECEPTACLE	1	1																			
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	PERSONAL SOILED LAUNDRY RECEIVING, HOLDING & SORTING																					
	WALL BUMPER GUARDS	LOT	4																			
	WASTE RECEPTACLE	1	1																			
	SS PRE-WASH TABLE c/w TWO COMPARTMENT SINK & DRAINBOARDS	1	4	CUSTOM	MIN. 2400 x 700	15A	X		1		X	UTILITY OUTLET	13	13	38							
	SS OVERSHELF SHELF (ABOVE PRE-WASH TABLE)	2	4	CUSTOM	MIN. 2400 x 300																	
	RECESSED FLOOR SCALE	1	4	BRECHNEL	DSB4848-05	10A	X		1		X											
	SOILED LAUNDRY TRANSPORT CARTS c/w SPRINGFORM PLATFORMS	6	1		10 BUSHEL																	
	SOILED LAUNDRY SORTING CARTS	6	1		10 BUSHEL																	
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	CART CLEANING & SANITIZING																					
	SS WALL & CEILING CLADDING	LOT	4	CUSTOM																		
	WALL MOUNT HOSE & REEL	1	4	T & S	B-7122-CO1								13	13								
	SS RECESSED FLOOR DRAIN PAN c/w REMOVABLE GRATING	LOT	4	CUSTOM	MIN. 1200 x 1500 x 100 DEeP										50							
	SOILED LAUNDRY WASHING																					
	50KG WASHER	1	4	B & C TECH	SP-110	18A		X	3				25		75							
	35KG WASHERS	2	4	B & C TECH	SP-75	8A		X	3				19		75							SERVICES REQ'D FOR EACH
	20KG WASHER	1	4	B & C TECH	SP-45	5A		X	3				19		75							
	SS RECESSED FLOOR DRAIN PAN c/w REMOVABLE GRATING	1	4	CUSTOM	MIN. 2700 x 350										100							
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	CHEMICAL HOLDING & DISPENSING ROOM																					
	EYE WASH STATION	1	4										13	13	38							
	CONTAINMENT TUBS	6	3																			
	DETERGENT & RINSE AID PUMPS & DISPENSING SYSTEM	6	3			4A	X		1		X											
	CHEMICAL DISPENSING EQUIPMENT	LOT	2																			
	CHEMICAL CONTAINMENT BINS	LOT	2																			
	HAND TROLLY (TO MOVE CHEMICALS)	1																				
	CLEAN LAUNDRY DRYING																					
	55KG DRYER	3	4	B & C TECH	DE-120	10A		X	3	X		THREE CIRCUITS REQUIRED		19			375	25		305 DIA		SERVICES REQ'D FOR EACH
	23KG DRYER	1	4	B & C TECH	DE-50	6A		X	3	X				19			130	13		200 DIA		
	WALL MOUNT CENTRAL VACUUM	1	4	HOOVER	SH80730DS	10A	X		1		X											
	SS MACHINE FRONTS ENCLOSURE	1	4	CUSTOM	TO SUIT DESIGN																	
	LINT SCRUBBER IN CEILING FOR AUTOMATION PURPOSES	1	4																			
	HEPA VACUUM FOR MANUAL CLEANING	1	4																			
	CLEAN LAUNDRY FOLDING																					
	ADJUSTABLE HEIGHT MOBILE SS FOLDING TABLES c/w DOUBLE UNDERSHELVES	2	4	CUSTOM	MIN. 1830 x 760	15A	X		X		X	TWO UTILITY OUTLETS PER TABLE REQ'D											
	MOBILE WIRE SHELVING UNITS	5	1																			
	HIGH DENSITY CLEAN LINEN WIRE SHELVING	LOT	1																			
	DESK	1	1			15A	X															
	ZEBRA LABELLING WORK TABLE c/w DOUBLE UNDERSHELVES & DRAWER	1	4	CUSTOM	MIN. 1830 x 760	15A	X		1		X	UTILITY OUTLET										
	LABEL MACHINE	1	1			15A	X		1		X	UTILITY OUTLET										
	COMPUTER	1	1			15A	X		1		X	UTILITY OUTLET										

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	EQUIPMENT LIST			STANDARD OF ACCEPTANCE		ELECTRICAL SERVICES							MECHANICAL SERVICES									
													Water		Waste		Gas		Exhaust			
ID. NO.	Description	Qty.	CATEGORY	MANUFACTURER	MODEL	Load	120V	208V	Ph	Junc	Rec	Remarks	HW	CW	Size	To	Load MBH	Size	CFM	Size	S.P.	Remarks
	TELEPHONES	2	4			15A	X		1		X	UTILITY OUTLET										
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	PERSONAL CLEAN LINEN CART STORAGE																					
	WALL BUMPER GUARDS	LOT	4																			
	MOBILE WIRE SHELVING UNITS	LOT	1																			
	CART DRYING & HOLDING (CLEAN)																					
	WALL BUMPER GUARDS	LOT	4																			
	INSTITUTIONAL CLEAN LINEN CART STORAGE																					
	WALL BUMPER GUARDS	LOT	4																			
	COLLAPSABLE EXCHANGE CARTS (TO TRANSPORT LINEN)	10	2																			

APPENDIX 1H(III)

FOODSERVICE EQUIPMENT SPECIFICATIONS

APPENDIX 1H(III) – FOODSERVICE EQUIPMENT SPECIFICATIONS

FOODSERVICE EQUIPMENT SPECIFICATIONS

The following information and requirements form the basis from which all food and beverage equipment is designed, supplied and installed.

1 GENERAL FOODSERVICE EQUIPMENT REQUIREMENTS

1.1 Foodservice Equipment Specific

.1 Foodservice equipment to include all food and beverage equipment required in storing, handling, processing, texture modifying, cooking, venting (from cooking and dishwashing), patient meals assembly, handling and delivering as well as all equipment related to washing and sanitizing of cook wares, utensils and patient meal tray return components.

.2 All major equipment shall comply with the Canadian Standards Association, Canadian Gas Association, Underwriters' Laboratories Canada Ltd. and Underwriters' Laboratories Inc. regulations and standards where applicable.

.3 Any equipment requiring "local approval" to be included / provided by the equipment contractor

.4 All work and material shall be in full accordance with the latest rules and regulations of the Provincial and Municipal Departments.

.5 All latest Building Codes as well as all electrical, mechanical and seismic codes applying to this section shall be followed.

1.2 Foodservice Equipment Classifications.

.1 Catalogued Equipment

a. To include equipment that is manufactured to specific standards and of specific sizes by reputable manufacturers for the purposes listed above that have been proven to perform under the constant rigorous working conditions of an acute care hospital in northern British Columbia.

b. All catalogued equipment to include a minimum two (2) years parts and labor warranty/guarantee period – where not offered by the manufacturer, supplier to provide extended warranty/guarantee as required.

c. Dish and pot washers to include temperature and pressure gauge - expansion chamber and pressure regulating valve for installation on incoming hot water line to a hot water booster – to be installed in water supply lines by mechanical contractor.

d. Waste disposer units to include standard components and accessories including energy / water saving automatic reversing and water tight control panels – solenoid valves, syphon breakers and flow control valves to be installed in water lines by mechanical contractor and all components to be interconnected by electrical contractor.

e. PRV to be provided for all gas fired equipment for operation to 7" W.C. max. – to be installed in individual gas feed lines by mechanical contractor: all gas operated equipment to include gas regulators – to be installed in gas feed lines by mechanical contractor.

.2 Custom Manufactured Equipment

a. All fabricated equipment, food serving units, tables, sinks, counter tops, etc. described in the following specifications other than by name and catalogue number shall be manufactured by an experienced equipment fabricator with plant, personnel, and engineering facilities to properly design, detail, and manufacture high quality food service equipment.

b. All work in the above category shall be manufactured by one manufacturer with a minimum of five (5) years' experience in the manufacture of stainless steel equipment as their principal product.

1.3 Reference Standards

.1 Welding of mild steel shall conform to CSA-W59-1982 regulations. Welding for SS shall conform to CSA W48-2-M1980 regulations.

.2 Steel shaft - cold-roll commercial quality shall have a minimum coating to ASTM G-90-A526/A527 standard. Thickness as specified.

.3 Steel shaft, for painted surfaces, shall have a galvanneal coating to conform to ASTM A653/A653M-01a standard.

.4 Steel sections - structural quality shall have a galvanized coating having a minimum thickness of .05 kg/m2.

.5 SS shall be A.I.S.I. Type 304 unless specified, Grade 18-8. Finish shall be A.I.S.I. #2B or #4 as indicated. Thickness as specified.

1.4 Materials

.1 General - SS shall be Type 304, 18-8 #4 polished finish or #2B bright finish as specified hereunder.

.2 The following thicknesses shall be adhered to throughout:

a. 2.0mm for all coved corner sinks, dishtables, counter tops.

b. 1.6mm for all overshelves, single pan doors, SS slides, SS grids, and undershelves over 1220mm long.

c. 1.2mm for all undershelves less than 1220mm long, SS bins (fixed or mobile), counter top sinks, and vertical surfaces.

d. 1.0mm for all chassis of fixtures, double pan doors, and drawer fronts.

e. 1.0mm for all refrigerator linings, or as specified.

f. 0.8mm for all drawer bodies, and door linings.

.3 Galvanized Steel - composition copper bearing sheet type heavily hot galvanized finish, one coat primer and one coat of grey hammerloid air dry enamel, and shall be used only on equipment in the unexposed locations, and where there is no excess water conditions.

.4 SS Tubing - to ASTM-A269-83, Type TP304 commercial grade, seamless, welded with A.I.S.I. #4 finish.

.5 Fastenings - for securing corrosion-resistant or plated metal parts, fastenings to be as corrosion-resistant as and color matched to materials being fastened. Fastenings used for securing unplated ferrous metal or wood parts are to have a minimum protective coating of cadmium or zinc. Where possibility of food or food acid contact, plating to be nickel/chromium, however, cadmium, zinc or other toxic coatings not acceptable. Where screws are necessary, use flat head screws.

.6 All SS legs to be supplied with SS adjustable foot inserts.

.7 Unless specified, fiberglass grating to be 38mm high x 38mm square: Grey in color.

.8 Grating to be a "grit" type surface.

1.5 Fabrication

.1 Fabricate work square, true and straight, to suit installation conditions, and as indicated. Design is to afford maximum sanitary conditions, and is not to have areas where disease-causing bacteria may accumulate.

.2 Fabricate equipment from SS, unless otherwise indicated.

.3 Fit and shop-assemble equipment ready for erection where possible.

.4 Deburr and smooth raw edges prior to forming.

.5 Straight lengths - counter tops, table tops, drainboards, tray rails, shelving and the like to be one continuous piece if 3000mm or less in length; if over 3000mm, sections to be field welded, ground smooth and polished.

.6 Welding - sound, non-porous, and free from imperfections. Weld metal to be color matched to and be as corrosion-resistant as the parent metal. Spot welds, if any, to be minimum 3mm diameter, and have full penetration. Grind exposed welds smooth, and polish to match parent metal. Grind other welds smooth. Welding or finishing is not to impair the corrosion resistance of the finished article. Welds, except spot welds, shall be continuous unless otherwise indicated.

1.6 Sink Units

.1 Sizes; 510mm x 510mm x 250mm deep for prep sinks and 610mm x 610mm x 305mm and 610mm x 760mm x 305mm for pot wash sinks.

.2 Compartment material minimum 2.0mm thick SS.

.3 Construction - welded, no solder or fill accepted. All corners to be coved 19mm.

.4 Compartment bottom - slope 13mm down towards drain.

.5 Each sink shall be equipped with one of the following types of 40mm diameter drains unless specified

a. Corner type shall be Component Hardware Model E18-1822 c/w SS tailpiece, E15-0242 overflow tube and SS perforated strainer.

b. Centre type shall be Component Hardware Model E38-1012 c/w SS tailpiece and SS perforated strainer.

c. Lever handle shall be Component Hardware Model D53-7100 c/w SS tailpiece and SS perforated strainer.

.6 Where multiple compartments are indicated, space between compartments shall be maximum of 25mm. Weld compartments into counter top or drainboards.

.7 Punch holes for hot and cold water faucets.

.8 Drainboards 2.0mm thick SS, integral with and sloping down towards compartments.

.9 Edges up and rolled, dished and boxed or boxed as specified.

.10 Top of sink edge and drainboard to be a straight horizontal line.

.11 Corners of tops - outside radius minimum 38mm or mitered.

.12 Splashback 2.0mm thick SS, rolled up and splayed, integral with sink, drainboard or top. Where counter top or drainboard meets splashback or upturn, cove 19mm unless otherwise indicated. Fill in and weld ends of splashback to 38mm below tops.

.13 Legs and bracing - demountable of 41mm SS tubing with SS Component Hardware socket welded to SS channel which is welded to sink bottom. Adjustable feet as per 1.4.

.14 Dowelling - install SS pins in floors and feet for securing feet of equipment where vibration may occur. Dowelling to be installed in all SS tables and cabinets with mechanical or electrical connection. Note: Hole to be drilled in the center of SS foot, not through the SS flange.

.15 Skirting 1.0mm thick on single or multiple compartment sinks, skirting on exposed external surfaces to extend under sinks 25mm past the bottom radii, be spot welded under sinks, to follow vertical external radii at extreme ends or fitted and welded to integral components as appropriate. Space spot welds a maximum of 100 mm on centers.

.16 One-piece construction solid undershelf, 1.6mm thick with boxed edge on front with sides and back turned up 38mm and hemmed.

a. For items with a single undershelf, notch and weld to legs 250mm clear off floor at midway adjustment of feet.

b. For items with an intermediate shelf and undershelf, notch and weld undershelf to legs 150mm clear off floor at midway adjustment of feet. Unless otherwise stated, the distance between the underside of intermediate shelf and top of undershelf should be 375mm clear.

c. Reinforcing and leg channels 2.0mm thick SS.

1.7 SS Floor Drain Pans

.1 Sizes as indicated.

.2 Compartment material 2.0mm thick SS, sloped to minimum 100mm waste centre drain; integral with recessed “cup”.

.3 Construction - welded, no solder or fill accepted; perimeter edge to be formed to hold removable grate to flush to perimeter flange; where grating spans exceed 900mm, weld additional SS square tube support brackets to pan, enabling cleaning below.

.4 Removable grating to be FS-25 grit top chem grate; where grating exceeds 600mm x 600mm, provide sections of equal size (for ease of removal).

.5 Pan bottom to contain integral recessed drain with removable 1.6mm perforated waste collection cup with lift out handle.

.6 Install in floor structure with grate and flange flush with finished floor.

1.8 Utility / Work Tables and Mobile Stands

.1 Sizes as indicated.

.2 Tops and back / end splashes 1.6mm thick SS with top edges formed as indicated with splashes coved 19mm to top.

.3 Legs and bracing - refer to 1.6.

.4 Dowelling - refer to 1.6.

.5 Undershelf - where indicated, 1.6.

.6 Reinforcing and leg channels spaced to a maximum span of 1220mm between supports, constructed of 2.0mm thick galvanized, not to protrude beyond bottom edge of table top.

.7 Where receptacles are specified as part of fixture, any within 400mm of sink to include ground fault interruption (GFI) protection

1.9 Drawers

.1 Body material 0.8mm thick SS.

.2 Front material 1.0mm thick SS with SS channel longitudinal brace where lock goes through.

.3 Corners welded.

.4 End rolled up with 13mm SS hem at top.

.5 Sides rolled up on 19mm radius with 13mm hem at top.

.6 Rubber bumpers shall be secured at rear to prevent drawers from banging.

.7 Hardware - tracks with nylon rollers and SS ball bearings in SS channels with easily released stops. Adjust for free running action.

.8 Drawers in open equipment to be enclosed with 0.8mm thick SS.

.9 Unless otherwise specified, drawers to be equipped with Component Hardware P63-1012 SS drawer pull with full grip and framed beveled edge and removable liners.

1.10 Cabinets and Counters

.1 Tops and integral splashbacks to be of all welded construction with back and end splashes coved to top.

.2 Body 1.2mm thick SS.

.3 Pilasters 2.0mm thick SS.

.4 Legs and bracing - demountable of SS 40mm diameter tubing with SS Component Hardware sockets welded to SS channel welded to bottom of top.

.5 Feet as per 1.4.

.6 Curb mounted units (those encompassing waste and water connections) shall be positioned, levelled, and sealed with access provided to all drains. Curb bases custom fabricated of 1.6mm thick galvanized steel all welded channel framing 25mm x 150mm x 25mm lag bolted to floor. Coat upper and lower flanges with mastic sealant prior to final placement of counter/cabinet for complete seal.

.7 Sliding doors 25mm thick double pan, welded construction of 1.0mm thick SS, sound deadened. SS finish A.I.S.I. #2B is permitted for inside pan. Mount doors on sanitary overhead tracks and ball bearing roller equipped metal door hangers. Guide bottom of doors in open tracks or other sanitary non-accumulative guide method.

.8 Hinged doors 25mm thick double pan, welded construction of 1.0mm thick SS, sound deadened with door pull, magnetic catch, and pivot hinges.

.9 Shelves 1.2mm thick SS, edges boxed, backs up 50mm and folded at backs, adjustable on pilasters.

.10 Where receptacles are specified as part of fixture, any within 400mm of sink to include ground fault interruption (GFI) protection

1.11 Dish Wash and Pot Wash Tabling

.1 Dishtable tops to be completely welded, including garbage disposal bowl where shown. No soldering or riveting permitted. Dishtables to have built-in slope of 20mm per 3000mm with backsplashes level. All corners coved.

.2 Dishtables to have full channel support bracing across the short width at maximum 915mm intervals. Reinforcing and leg channels 2.0mm thick SS.

.3 Apply 3M mastic undercoating materials, or equal, to underside.

.4 All channel supports to have 3.0mm thick neoprene adhesive strips between them and the table for sound deadening.

.5 To have 38mm rolled front and ends unless ends butt up to wall, then match end to splashback. Radiused bends in all vertical and horizontal sections. All corners shall be bull nosed, ground smooth, and polished.

.6 Soiled dishtable to have 50mm x approx. 300mm high splayed backsplash (refer to drawings) where table adjoins wall. Secure backsplashes against walls with galvanized Z clips at 750mm maximum spacing.

.7 Legs and bracing - refer to 1.6; adjustable feet per 1.4.

.8 Dowelling - refer to.1.6.

.9 Cross-rails - refer to 1.6.

.10 Soiled dishtable to have 1.2mm SS cladding on wall, 610mm high, kinked 38mm to match splayed splash, and hemmed at top.

.11 Clean dishtable to have 200mm thick boxed type backsplash. Radiused bends in all vertical and horizontal sections.

1.12 Enclosure Panels

.1 Sizes as required to enclose open areas above and/or adjacent to exhaust and condensate hoods as well as walk-in coolers and freezers to adjacent walls and finished ceiling above.

.2 Exhaust and condensate hood enclosures to be fabricated from 1.6mm SS with perimeter edges boxed; panels exceeding 400mm in height to have rigid backing installed inside each panel.

.3 Walk-in cooler and freezer enclosure panels to be constructed of matching material to walk-ins. Vertical enclosure panels to have all edges hemmed; upper enclosure panels exceeding 300mm in height to have rigid backing installed behind each panel.

1.13 Walk-in Coolers, Freezers and Mechanical Refrigeration Systems

.1 Refrigerated compartments shall be manufactured and installed by a company having personnel competent in the manufacturing and installation of pre-fab walk-in freezers and coolers, and having at least five (5) years continuous experience.

.2 The manufacturer shall warrant that all parts and components of all walk-in boxes with the exception of the refrigeration systems shall be free from defects and/or poor workmanship for a period of two (2) years from the date of the final acceptance of the total installation. Actual panels shall be warranted for a period of ten (10) years against delamination and/or insulation failure. Such faulty panels shall be repaired or replaced within sixty (60) days after receiving a written request within the warranty period without any cost to the owner. Damaged and/or faulty panels shall not be erected.

.3 Condensing units and evaporator coils shall carry a two (2) year parts and labor warranty – compressors shall carry an additional three (3) year warranty.

1.14 Materials

.1 SS Sheet Metal: 22ga. to ASTM-A167-82, Type 304 with AISI #4 finish.

.2 Galvanized Steel Sheet Metal: 14ga. commercial grade to ASTM-A526-71 with galvanized zinc coating to ASTM-A525-79, designation G90.

.3 Mild Steel: Cold rolled sheet to SAE1010 to 1020 suitably prepared for specified finish.

.4 White enamel baked on 26ga. galvanized stucco / embossed steel or galvanized steel.

.5 Insulated floor finish, when face of panel is the final floor finish, 14ga. textured aluminum.

.6 Insulation for Panels and Screeds: 100% rigid Urethane shall be foamed-in-place (poured not frothed), with a density of 2.2lbs / cu.ft. – 35 kg / cu.m. and a flame spread of 25 or lower and 450 for smoke developed per ASTM E84

.7 Each joint shall have factory installed polyvinyl chloride (PVC) double lined compression gaskets, for application in temperatures ranging between minus 20C and plus 10C, to ensure tightly sealed joints and eliminate water vapor permeability. Gasket shall be resistant to oil, fats, water and detergent.

1.15 Fabrication

.1 Panel Sections: To consist of precision die formed metal pans placed in heated molds with liquid urethane injected between them; all coved corner construction. Formed tongue and groove panel edges and panel to be poured in one operation. No wood or synthetic hard rail framing or reinforcing will be used in the wall or ceiling panels. Once heat-cured, the insulation shall bind tenaciously to the metal skins to form a rigid panel 4 in. / 100mm thick.

.2 Locking Devices: Panel sections to have cam-action locking devices, spaced at not over 1,000mm. Male and female lock pockets, complete with interconnecting minimum 50mm wide strap, as an assembly, are to be set into position prior to urethane insulation being poured, and are to provide continuous perimeters of steel when panels are erected.

.3 Corner panels to incorporate tongue and grove joints with internal locking devices as per panel sections and be provided with coved corners.

.4 Insulated floor panels to be 14ga. textured aluminum; recessed into floor as per detail drawing; provide 14ga. SS freezer door threshold to cover insulated panel “breaker strip”, heater cable as well as mortar joint (between panel and building floor); break threshold edges to provided tapered fit to floors.

.5 Door Panels: Insulated and finished as per exterior and interior panels with 915mm x 1980mm clear door opening unless otherwise specified, reinforced to prevent door panels from twisting, racking or warping. Ensure that doors will close and seal opening. Equip each door panel with:

a. One (1) in fitting flush mounted type door (swing indicated in item description) to fit door opening, insulated and finished same as panels, having 1220mm high x 16ga. SS push/kickplates on both exterior and interior, and having soft thermoplastic gasket with magnetic steel core at top and both sides, adjustable rubber wiper gasket at bottom. Gaskets to be oil, fat, water and sunlight resistant and be replaceable.

b. Hinges, spring loaded, self-closing type, with SS pin and nylon cam-type bearing, of polished aluminum.

c. One (1) latch, to match hinges, for opening door by breaking force of trigger-action door closer and magnetic gasket. Latch to have cylinder type lock and have inside safety release handle.

d. One (1) hydraulic action positive door snubber located on top, exterior of each door panel.

e. Two (2) built-in heater cables on freezer doors, to prevent condensation or frost forming around perimeter of door and door opening; one (1) cable inside top and both sides of door under magnetic gasketing. Heaters to be thermostatically controlled.

f. One (1) 26 watt compact fluorescent light, with guard, mounted over door on interior of panel, operated from toggle switch with pilot light, mounted 1100mm from floor on exterior of panel, adjacent to latch. All factory pre-wired and terminating in vapor-tight junction box that light is mounted on.

g. One (1) 50mm dia. flush-face dial-type thermometer to provide temperature readings from -51 °C to 27 °C, and mounted on hinge side of panel approximately 1500mm from floor. Cover sensing bulb with protective SS molding.

h. Foot treadles to be furnished with each door.

i. Observation window; to consist of hermetically sealed glass, heated for walk-in freezer doors.

.6 Ceiling Panels: To include coved corners and be reinforced externally as required, to support blower coils. Where external reinforcement is needed and through-fasteners are used, fasteners are to be of low heat conducting material such as Teflon. Insert fasteners in Teflon sleeves to prevent compressing of insulation.

.7 Removable Closure Panels: From top of erected prefabricated ceiling panels to finished building ceiling. Cover strips or angles to extend from building floor to ceiling closure panels between exposed ends of walk-in boxes and building walls. Closure panels, cover strips or angles finish to match exposed exterior wall panels.

.8 Two-Way Heated Pressure Relief Port: Installed in freezer door panel and pre-wired to light fixture junction box.

.9 LED lights to be Kason 1810LX4000. Standard configuration to include two (2) LED lights per box.

1.16 Workmanship

.1 Erect work true-to-line, plumb, square, and level with all joints aligned. Joints and intersecting members to be accurately fitted, made in true planes, and be adequately fastened.

1.17 Installation (Walk-in Coolers and Freezers)

.1 Install units within 25 mm of building walls with minimum 25 mm clearance between top of unit and room ceiling. Fasten screeds to building and/or wearing floor as per manufacturer's instructions.

.2 General Contractor to provide dry sand bed compacted to 30psi, leveled to suit pre-fab floor panels, for all walk-in recesses (in building floor slabs).

.3 Caulk around perimeter of panels.

.4 Fill space between perimeter of floor panels and edge of floor depression with concrete or non-shrink grout, and trowel flush with floor slab – by general contractor.

.5 Cut or drill holes in panels, as required to accommodate electrical and mechanical services, runs or connections. Holes to have Teflon sleeves inserted and sealed. After installation of services, remaining space to be filled with insulation.

.6 Cap all wrench access holes with an in-fitting, flush, removable plug.

.7 Install removable closure panels (when required), cover strips, and angles.

.8 Provide thresholds, heaters, and urethane insulation for floors, and supervise installation.

1.18 Cleaning and Adjusting

.1 Upon completion of work, clean equipment apparatus, remove protective coverings, and test and adjust operating equipment. Re-finish damaged coatings and finishes.

1.19 Remote Refrigeration Equipment

.1 Quality and Source:

a. Comply with National, Provincial and Municipal Codes. Conform to current CSA-B52 Code for Mechanical refrigeration, current CSAB-31.5, Code for Refrigerant Piping, current HRAI standards and current Environment Canada standards.

b. Refrigeration equipment shall be the product of manufacturer regularly engaged in the production of refrigeration equipment on a continuous basis for a minimum of ten (10) years. Manufactured equipment shall be tested and rated in accordance with ARI standard 210.

c. Systems shall be installed by qualified tradesmen holding valid British Columbia or Alberta Certificates of Proficiency as refrigeration mechanics.

d. The refrigeration systems will hold compartments at design temperatures as follows: Freezers: -23.5°C, Coolers: +4°C. Summer Condenser ambient: +40°C, Winter Condenser ambient: -40°C

.2 Refrigeration equipment for remote installation fully automatic in operation, and to conform to the following minimum requirements:

a. Outdoor condensing units: Condensing units with factory air cooled condensers to be complete with motor, compressor, compressor suction and discharge service valves, winter-sized heated and insulated receiver equipped with inlet/outlet service valves and safety pressure relief valve, flooded head pressure control, isolation valves, and all other necessary components. Compressor to be hermetic or accessible-hermetic type. Freezer and cooler units to be provided with crankcase heaters. Units shall be designed for 16 to 18 hour operation for coolers, and 20 to 22 hours for freezers, at specified evaporator temperature and 32.2 °C condenser ambient temperature. Standard of acceptance: Comparable to Russell, Copeland, Larkin, Tecumseh or Bohn.

b. Indoor air cooled condensing units: Complete with motor, receiver, compressor, condenser and all other necessary components mounted in flexible manner on common base. Compressor to be hermetic or accessible-hermetic type. Unit shall be designed for 16 to 18 hour operation temperature for coolers, and 20 to 22 hour operation for freezers at specified evaporating temperature, in 32.2°C ambient temperature. Standard of acceptance: Comparable to Russell, Copeland, Larkin, Tecumseh or Bohn.

c. Evaporator: Forced-convection, unit-cooler type made to be suspended from ceiling panels complete with forced-air discharge in two directions parallel to ceiling. Air circulating motor, multi-fin and tube type coil (and grill) to be assembled within protective housing. Expansion valve with strainer and inlet and outlet connections also to be contained within this housing. Air circulation motors to be lifetime sealed and entire unit-cooler assembly readily accessible for cleaning. Provide drip pan and drain connection. Unit coolers to be equipped with mounting brackets for installation and controls for safe and satisfactory operation. Evaporator shall have a working T.D. of 5.6 °C when matched to the compressor unit at design operating conditions. Standard of acceptance: Bohn, Larkin, Keeprite, Ref-plus.

d. When walk-in is used for freezer applications, an automatic system for defrosting unit cooler including electric heaters and defrost termination control to be supplied.

e. Locate evaporator units at centre of refrigerated compartment ceilings or at locations shown on equipment plan.

.3 Medium temperature systems for walk-in boxes shall include the following accessories, furnished and installed:

a. Defrost timer. Standard of acceptance: Paragon 4000 series.

b. Externally equalized thermostatic expansion valves which shall have replaceable, temperature rated elements so as to provide peak performance and close control for each specific application. Sweat type connections are preferred, however, flared connections are permitted provided they are the frost proof, short forged type. Standard of acceptance: Sporlan or Alco.

c. Dual pressure controls. Regardless of manufacturer's standard supplied pressure control with condensing unit, the system will be fitted with a dual pressure control to protect compressor from operating at pressures hazardous to equipment. Standard of acceptance: Penn or Ranco.

d. Contactor mounted and pre-wired.

e. Filter drier unit shall be the molded, solid core type containing a crystalline form of activated aluminum and a molecular sieve for the elimination of water and acid from the system. Filter driers to be installed with sweat type connections. Standard of acceptance: Sporlan or Alco.

f. Liquid line sight glass: Liquid and moisture indicator complete with a plastic protector cap and sweat type connections. Standard of acceptance: Sporlan "See-all" or Alco.

g. Thermostats: Line voltage single stage electronic temperature control with single-pole double-throw relay output and thermistor sensor. Thermostats to be graduated in Celsius temperature. Dual Fahrenheit/Celsius scale is permitted. Mount thermostats on top of refrigerated compartments adjacent to compressor units. Locate thermistor sensor in refrigerated compartment and protect from damage. Standard of acceptance: Johnson A319ABC-24.

h. Liquid line solenoid valve complete with manual lift stem, replaceable, molded coil and sweat type connections. Locate at the evaporator blower coil. Standard of acceptance: Sporlan, Alco Danfoss.

.4 Low temperature systems for walk-in boxes shall include the following accessories, which shall be furnished and installed:

a. Defrost timer; minimum of two (2) per day – each not less than 45 minutes. Standard of acceptance: Patagon 8145 series.

b. Externally equalized thermostatic expansion valves which shall have replaceable, temperature rated elements so as to provide peak performance and close control for each specific application. Sweat type connections are preferred, however, flared connections are permitted provided they are the frost proof, short forged type. Standard of acceptance: Sporlan or Alco.

c. Dual pressure controls. Standard of acceptance: Penn or Ranco.

d. Contactor mounted and pre-wired.

e. Filter drier unit shall be the molded, solid core type containing a crystalline form of activated aluminum and a molecular sieve for the elimination of water and acid from the system. Filter driers to be installed with sweat type connections. Standard of acceptance: Sporlan or Alco.

f. Liquid line sight glass: Liquid and moisture indicator complete with a plastic protector cap and sweat type connections. Standard of acceptance: Sporlan "See-all" or Alco.

g. Thermostats: Line voltage single stage electronic temperature control with single-pole double-throw relay output and thermistor sensor. Thermostats to be graduated in Celsius temperature. Dual Fahrenheit/Celsius scale is permitted. Mount thermostats on top of refrigerated compartments adjacent to compressor units. Locate thermistor sensor in refrigerated compartment and protect from damage. Standard of acceptance: Johnson A319ABC-24.

h. Liquid line solenoid valve complete with manual lift stem, replaceable, molded coil and sweat type connections. Locate at the evaporator blower coil. Standard of acceptance: Sporlan, Alco, Danfoss.

i. Suction accumulator: Insulate accumulator with 12.5 mm Armaflex insulation or provide 1.2 mm SS drain pan under accumulator piped to nearest drain.

j. Condensate drain line heat trace: Provide self-regulating type heat tape on entire length of drain line within the low temperature compartment. Spiral wrap the tape on drain line at 12.5 mm centers. Insulate over heat tape with 12.5 mm Armaflex insulation. Standard of acceptance: Freezgard H610-120 Volt.

.5 Refrigerant

a. All refrigeration systems to operate on R448 & R449.

.6 Refrigeration Piping

a. Size piping for minimum pressure drops in the system. Minimum temperature drop in systems to be 1.0 °C for suction, hot gas, and for liquid line. Pipe sizing shall be in accordance with latest ASHRAE standards.

b. All tubing runs shall be pre-planned to ensure that runs are as short as possible using the minimum number of fittings. Crossovers will be kept to an absolute minimum, and the complete installation will provide maximum accessibility for service requirements.

c. Piping shall be hard drawn, bright annealed refrigerant grade ACR copper manufactured in accordance with ASME standards. Pipe material shall be cleaned, dried, nitrogen filled and sealed against contamination at the point of manufacture. The use of soft copper is prohibited.

d. Fittings shall be wrought type as manufactured by Mueller. Do not use cast type fittings. All elbows and return bends shall be 90° long radius, except for traps in risers, which may be formed of short sweep elbows or short return bends or factory built traps. Do not use 45° elbows.

e. Shut-off/isolation valves to be refrigeration grade angle, globe and ball type. Standard of acceptance: Mueller Streamline.

f. Extreme care shall be taken to keep the entire system clean and dry during installation. Hard drawn copper must remain capped and prior to assembly and must be inspected for visible signs of dirt, filings or moisture. Any foreign materials must be removed with a clean dry swab. Make joints with brazed copper-to-copper couplings.

g. Silver braze joints using copper-phosphorus alloy with melting point between 600 °C and 800 °C using current quality control procedures. To prevent copper-oxide (scale) on inside of piping, dry nitrogen must be passed through tubing while brazing at a rate of one cubic foot per hour.

h. All refrigeration lines shall be supported or hung using uni-strut with hydrosorb clamps. Piping shall be supported from solid surface at minimum 1500 mm intervals, and within 600 mm of each change in direction.

i. Slope horizontal lines minimum of 1:200 in the direction of flow. Provide oil traps at the base of all suction and discharge risers. Use double risers as required to obtain proper velocity in vertical risers to assure oil return. Provide staged oil traps in suction risers where the evaporator is below the compressor. Maximum oil lift in one stage shall be 6 m.

j. Arrange piping loops in evaporator suction lines to prevent liquid refrigerant from draining into the compressor during shut down and prevent oil in an active evaporator from draining into an idle evaporator.

k. Arrange piping to prevent compressor or condenser vibrations from being transmitted to piping. Run discharge lines at least 10 pipe diameters in each of three directions before first support or provide vibrasorber connectors. Provide vibrasorber pipe connections to spring isolated equipment.

.7 Refrigeration Piping Insulation

a. Suction lines for coolers shall be insulated with 12.5 mm wall Armaflex.

b. Suction lines for freezers shall be insulated with 19 mm wall Armaflex.

c. Indoor refrigerant condensate return lines returning from air-cooled outdoor condensers shall be insulated with 19 mm wall Armaflex.

d. Hot gas lines which have potential to be a safety hazard shall be insulated with 12.5 mm Armaflex.

e. Heat traced condensate drain lines within low temperature refrigerated compartments shall be insulated with 12.5 mm wall Armaflex.

f. All insulation joints to be glued.

g. Paint piping insulation exposed to outdoors with two coats of paint.

h. All suction line piping insulation and drain line piping insulation within refrigerated compartments shall be clad using white PVC cladding and white PVC molded elbows. Seal waterproof with white PVC adhesive tape and white PVC adhesive. Standard of acceptance: Proto-0.38 mm PVC cladding/PVC molded fittings/PVC adhesive tape/PVC adhesive.

.8 Testing, Evacuation, Charging, Start-Up

a. All leak testing and evacuation to be done to current Environment Canada and HRAI standards.

b. At completion of installation, pressurize system with nitrogen and check for leaks. Repair leaks and re-test.

c. Clean and dehydrate each system with a high vacuum pump. Do not use compressor. Each system is to be evacuated to below 500 microns, and that vacuum broken with dry nitrogen and re-evacuated until 500 microns can be held for 2 hours with the system isolated from the vacuum pump. Fresh oil must be used in the vacuum pump for each system evacuation.

d. Before any motor unit is operated, the lubrication shall be checked and rectified if improper. Use only oil as approved by the original equipment manufacturer. Re-check compressor crankcase oil level after 24 hours of operation.

e. Startup system. Charge and check out operation. Assure that refrigerant charge is adequate for winter operation of system. Submit refrigeration checklists to Consultant providing model numbers and serial numbers of equipment, refrigerant charge, pressures, temperatures, TXV superheat settings and defrost timer settings. Record voltage and amperage draws of compressors, evaporator fans and condenser fans under load conditions.

1.20 Exhaust Hoods

.1 The canopy ventilator(s) shall bear the Intertek E.T.L. label, E.T.L. listed range hood without exhaust fire damper per standard 710 and be fabricated in compliance with NFPA–96–2001, and shall bear the National Sanitation Foundation seal of approval.

a. The installation shall be in accordance with the manufacturer's recommendations and conform to NFPA–96 guidelines and all applicable local codes.

b. The perimeter size shall extend beyond the cooking equipment a minimum of 305mm on each end, 610mm beyond deepest cooking appliance front and approx. 200mm at the rear of the cooking line.

.2 The canopy shall be 18–gauge stainless steel where exposed, type 304 with #4 finish. The canopy shall have an integral exhaust duct collar. All seams of the inner liner shall have grease tight joints. Each canopy shall have a filter housing of the same material as the canopy inner liner. The filter housing shall be equipped with a concealed drip tray the full length of the back shelf and with a grease cup for easy removal and daily cleaning. Any exposed / unfinished back to be fully clad with SS.

.3 Exhaust plenums must be oriented to the rear of the hood.

.4 Demand Control System

a. System to come equipped with hood mounted infrared cooking activity sensors capable of measuring appliance surface temperatures. Infrared sensor will read appliance surface temperature which will be translated by the specific calculation algorithm for that appliance and will respond proactively to any change in cooking status. Infrared sensor and exhaust collar mounted temperature sensor work in concert on differential temperature reading back to the controller.

b. System to also come equipped with utility cabinet and VFD(s) to control fan speeds. System shall automatically control the speed of the exhaust fan (and supply fan if applicable) based on appliances status, cooking activities and exhaust air temperatures.

c. The system can be controlled with either manual On/Off switch, a 24hrs automated schedule with a manual override function, or the hoods can be automatically regulated based on the appliance status. The integrated PLC will analyze signals from the cooking activity sensors, temperature sensors and pressure transducers mounted in the hood and then send a signal to the VFD to adjust the exhaust fan (and supply fan if applicable) speed to satisfy current cooking load conditions. The system can be monitored and controlled with an internet connected PC from either a local or remote location.

d. Electrical and/or controls contractor will be responsible for wiring between the control panel and the hood mounted sensors. Electrical contractor will also be responsible for wiring between the control panel and the VFD's and then from the VFD's to the exhaust/supply fan motors. Halton to provide inter-connectivity cables between the hoods and associated control panels. Halton to provide room temperature sensor. Electrician to provide labor to run cables and required control power per submittal drawings.

.5 Installation (Exhaust Hoods)

a. All exhaust canopies and control panels at to be installed level and plumb; exhaust canopies supported from building components above, either in whole or in part, are to be installed in accordance with manufacturer's printed instructions.

i. Canopies may need to be further supported to the building floor if any work above by any trades is being done.

b. All electrical services / conduit to be concealed or enclosed in a SS Chase.

.6 Start-up and Commissioning

a. Upon completion of the "system installation", provide air balance report; air balancer and exhaust canopy manufacturer to work together in providing a properly operating ventilation system, per design intent.

1.21 Fire Suppression System

.1 To be supplied and installed in accordance with NFPA 96, NFPA 17A and to meet the standards set by UL300.

.2 The system shall be a pre-engineered, fixed pipe, automatic wet agent fire suppression system covering the canopy, plenum, ductwork and cooking appliances that require protection.

.3 The system control equipment shall be capable of all functions associated with automatically and manually discharging the wet agent from all cylinder and valve assemblies, including automatically shutting off the fuel to all protected cooking appliances upon system discharge.

a. Fuel to include both gas (natural or propane) as well as electrically operated equipment.

b. Electrical equipment must be shut down by means of either contactors, or shunt breaker.

i. If an annunciation panel is within the premises, a double switch is required.

c. Confirm with local authorities whether all electrical equipment is to be shut down within the kitchen or only equipment covered by the fire suppression system.

.4 System detection shall be fusible link.

.5 Provide manual remote actuator in path of exit (refer to tender drawings for location placement). Contact authorities via fax should any changes be required.

.6 All wiring and services to be concealed.

.7 Cylinder shall be located in the control cabinet or its own SS enclosure.

.8 Provide energy shut-off(s) (electrical and gas) as per NFPA 96 Code.

.9 Combination of extinguished system and canopy shall be approved by ULC.

.10 Piping to be concealed above exhaust canopies with only drops and nozzles exposed. All exposed piping to be chrome or stainless steel.

.11 Micro switch at control head for tie-in, by electrical, to building fire alarm system.

1.22 Installation (Fire Suppression)

.1 The jobsite equipment installation shall be carried out by an “approved” supervisor in conjunction with journeyman sheet metal workers, journeyman welders and/or apprenticed sheet metal workers employed by a recognized SS fabricating company duly registered within the jurisdiction of the project.

.2 Do all cutting, patching, and fitting as required for a complete installation, as well as to coordinate with the related trades all work under this section.

.3 Seal and caulk all equipment with silicone sealant after equipment is in location.

1.23 Equipment Installed But Not Supplied

.1 Owner Supplied - this section to make all necessary provisions to allow for installation of these items as noted on drawings. Electrical and mechanical contractors to make all necessary connections to make all equipment operational.

1.24 Protection, Storage and Making Good

.1 Protect the work of other trades from damage due to performing this work.

.2 Damaged work shall be made good by those performing the work originally but at the expense of those causing the damage.

1.25 Operating and Maintenance Manuals

.1 Prior to orientation and training, submit one (1) hard copy and one (1) electronic copy of all operating and maintenance manuals (numbered in corresponding sequence to fixture drawings) for all major catalogue equipment and include;

a. Cover page listing, in corresponding sequential order, indicating items number (corresponding with plans) all laundry equipment items identified on bid drawings together with respective quantities, manufacturers, models and serial numbers.

b. The names and addresses of those companies which are designated as “service depots” who will supply parts and continuing service for all equipment during the warranty period.

c. Reduced size (1:100 scale) copies of all plans.

d. Hard copy operating and maintenance manuals for all major equipment, to be separated with marked divider tabs indicating respective items.

e. Provide complete schedule of recommended maintenance of all equipment with frequency and specifics of the maintenance required for each noted accordingly.

1.26 Equipment Demonstration

.1 All equipment shall be tested and adjusted by a competent representative of the food service equipment supplier together with electrical and mechanical sub-trades prior to any equipment demonstration. The design-build team must coordinate respective sub-trades to work with equipment providers to ensure all equipment is connected (electrically and mechanically) properly and that all equipment is operating as designed. Written confirmation of this process completion is required prior to owner demonstration and orientation.

.2 Once the facility has been turned over to the owner, all food service equipment shall be demonstrated, in person, by a competent representative of the manufacturer and food service equipment supplier to train and orientate the food services and facilities maintenance staff with the proper operation and maintenance procedures of all equipment under this section. A full eight (8) hour time allowance must be provided, in person at a pre-arranged date coordinated with the owner.

.3 An additional food service equipment demonstration training session must be provided 30 to 60 days after initial owner demo, with competent manufacturer representatives for all cooking, processing, blast chilling – freezing equipment and dishwashing. The owner will determine whether a single day for all equipment or an organized schedule of different dates are more suitable. This demonstration also must be “in person.”

APPENDIX 1H(IV)

FOODSERVICE EQUIPMENT SCHEDULE

Appendix 1H(IV) - Foodservice Equipment Schedule

	EQUIPMENT LIST			STANDARD OF ACCEPTANCE		ELECTRICAL SERVICES							MECHANICAL SERVICES									
													Water		Waste		Gas		Exhaust			
ID. NO.	Description	Qty.	SUPPLIER	MANUFACTURER	MODEL	Load	120V	208V	Ph	Junc	Rec	Remarks	HW	CW	Size	To	Load MBH	Size	CFM	Size	S.P.	Remarks
	KITCHEN RECEIVING & BREAKDOWN AREA																					
	WALL BUMPER GUARDS	LOT	4																			
	WASTE RECEPTACLE c/w DOLLY	1	1																			
	RECYCLE RECEPTACLE c/w DOLLY	1	1																			
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	MOBILE UTILITY CARTS	3	4	HATCH	C444-A-HD																	
	PLATFORM CARTS	2	2																			
	HOUSEKEEPING ROOM																					
	JANITORS SINK	1	4										13	13	38							
	MOP AND BUCKET/BROOM	1	2																			
	WASTE RECEPTACLE	1	1																			
	WALL MOUNT TOOL RACK	1	2																			
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	CHEMICAL DISPENSER SYSTEM	1	2																			
	DUNNAGE SHELF	1	2	METRO																		
	MOBILE STORAGE SHELVING; FOUR TIER	2	2	METRO																		
	CHEMICAL & CLEANING SUPPLY STORAGE																					
	EYE WASH STATION	1	4										13	13	38							
	SS MOBILE STORAGE SHELVING; FOUR TIER	2	2																			
	STAFF WASHROOMS	2																				
	FIXTURES TO BE CONFIRMED																					
	DRY STORAGE ROOM ONE																					
	HIGH DENSITY DRY STORAGE SHELVING; FOUR TIER	LOT	4	METRO	ANTI-MICROBIAL																	
	CAN RACKS SHELVING	2	4	NEW AGE	1250																	
	DUNNAGE SHELVING	1	4	NEW AGE	1048-TB																	
	ORGANIZATION SYSTEM FOR STORAGE (LABELLING BINS AND TRAYS)	LOT	2																			
	DRY STORAGE ROOM TWO																					
	DRY STORAGE SHELVING; MOBILE, FOUR TIER	LOT	4	METRO	ANTI-MICROBIAL																	
	FOOD SERVICE OFFICE																					
	WORK STATION	1	2			15A	X		1		X	TWO UTILITY OUTLETS										
	TELEPHONE	1	2			15A	X		1		X											
	PRINTER	1	1			15A	X		1		X	CONFIRM DATA REQUIREMENTS										
	LABEL MACHINE	1	1			15A	X		1		X											
	DESK TOP COMPUTER	1	1			15A	X		1		X	CONFIRM DATA REQUIREMENTS										
	FAX MACHINE	1	1			15A	X		1		X											
	TOUCHDOWN STATION																					
	WORK STATION	1	2			15A	X		1		X	TWO UTILITY OUTLETS										
	TELEPHONE	1	2			15A	X		1		X											
	PRINTER	1	1			15A	X		1		X	CONFIRM DATA REQUIREMENTS										
	LABEL MACHINE	1	1			15A	X		1		X											
	DESK TOP COMPUTER	1	1			15A	X		1		X	CONFIRM DATA REQUIREMENTS										
	WALK-IN FREEZER STORAGE																					
	WALK-IN FREEZERS c/w INSULATED FLOORS, ALARM SYSTEMS, DOORS WITH 300X300 WINDOWS & FOOT TREADLES	2	4	NORBEC	100MM THK MOD. PANEL	20A	X		1	X		LIGHTS, DOOR HEATER & HEAT TRACING										
	WALK-IN FREEZER EVAPORATOR COILS c/w HEAT TAPED, INSULATED & PVC WRAPPED CONDENSATE DRAIN LINES	2	4	BOHN	CENTER MOUNT	25A		X	1	X					19	FFD						
	WALK-IN FREEZER CONDENSING UNITS	2	4	BOHN	AIR COOLED	30A		X	3	X												
	WALK-IN FREEZER SHELVING; MOBILE, FOUR TIER	LOT	4	METRO	MAX Q																	

	EQUIPMENT LIST			STANDARD OF ACCEPTANCE		ELECTRICAL SERVICES							MECHANICAL SERVICES									
													Water		Waste		Gas		Exhaust			
ID. NO.	Description	Qty.	SUPPLIER	MANUFACTURER	MODEL	Load	120V	208V	Ph	Junc	Rec	Remarks	HW	CW	Size	To	Load MBH	Size	CFM	Size	S.P.	Remarks
	WALK-IN COOLER STORAGE																					
	WALK-IN COOLERS c/w INSULATED FLOORS, ALARM SYSTEMS, DOORS WITH 300X300 WINDOWS & FOOT TREADLES	2	4	NORBEC	100MM THK MOD. PANEL	20A	X		1	X		LIGHTS										
	WALK-IN COOLER EVAPORATOR COILS c/w CONDENSATE DRAIN LINES	2	4	BOHN	CENTER MOUNT	X	X		1	X					19	FFD						
	WALK-IN COOLER CONDENSING UNITS	2	4	BOHN	AIR COOLED	30A		X	3	X												
	WALK-IN COOLER SHELVING; MOBILE, FOUR TIER	LOT	4	METRO	MAX Q																	
	MEAT PREPARATION AREA																					
	SS MEAT PREPARATION TABLE c/w TWO COMP. SINK, UTILITY DRAWER , DOUBLE UNDERSHELF & OPEN AREA UNDER FOR WASTE RECEPTACLE	1	4	CUSTOM / T&S	MIN. 3100 x 760	15/20A	X		1		X	UTILITY OUTLETS - THREE EACH			38	GT						
	FAUCET	1	4	T&S	B-1117								13	13								
	SS OVERSHELF SHELF (ABOVE MEAT PREP TABLE)	1	4	CUSTOM	MIN. 3100 x 305																	
	WASTE RECEPTACLE c.w. DOLLY	1	1	RUBBERMAID	2620																	
	AUTOMATIC SLICER	1	4	HOBART	HS9	6A	X		1		X	15 AMP CIRCUIT REQUIRED										
	MOBILE SLICER STAND c/w PULL-OUT SHELF	1	4	HATCH	ST-M-2630																	
	MOBILE WARES & UTENSIL SHELVING UNIT; FOUR TIER	1	4	METRO	24"x48" MAX Q																	
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	MOBILE UTILITY CART	1	4	HATCH	C444-A-HD																	
	VEGETABLE PREPARATION AREA																					
	SS VEGETABLE PREPARATION TABLE c/w TWO COMP. SINK, UTILITY DRAWER , DOUBLE UNDERSHELF & OPEN AREA UNDER FOR WASTE RECEPTACLE	1	4	CUSTOM	MIN. 3300 x 760	15/20A	X		1		X	UTILITY OUTLETS - FOUR EACH	13	13	38	GT						
	PRE-WASH SPRAY c/w ADD ON FAUCET	1	4	T & S	B-0133-B								13	13								
	SS OVERSHELVES SHELF (ABOVE VEG PREP TABLE)	2	4	CUSTOM	MIN. 1000 x 305																	
	WASTE RECEPTACLE c/w DOLLY	4	1	RUBBERMAID	2620																	
	VEGETABLE PREP MACHINE	1	4	ROBOT COUPE	CL-50 GOURMET	12A	X		1		X											
	VEGETABLE PREP MACHINE CART	1	4	ROBOT COUPE	R199																	
	MOBILE WARES & UTENSIL SHELVING UNIT; FOUR TIER	1	4	METRO	24"x48" MAX Q																	
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	MOBILE UTILITY CART	1	4	HATCH	C444-A-HD																	
	BAKE & DESSERT PREPARATION AREA																					
	SS BAKE PREPARATION TABLE c/w TRIPLE DRAWER BANK & OPEN AREA FOR MOBILE BINS	1	4	CUSTOM	MIN. 2440 x 760	15/20A	X		1		X	UTILITY OUTLETS - THREE EACH										
	SS OVERSHELF SHELF (ABOVE BAKE PREP TABLE)	1	4	CUSTOM	MIN. 2440 x 305																	
	PORTION CONTROL SCALE	1	4	EDLUND	RMD-2	4A	X		1		X											
	WEIGH SCALES	2	4	EDLUND	E-160	4A	X		1		X											
	MOBILE INGREDIENT BINS	4	4	CAMBRO	IBS20																	
	COUNTERTOP MIXER	1	4	GLOBE	SP5	X	X		1		X	15 AMP CIRCUIT REQUIRED										
	30 QT. MIXER	1	4	GLOBE	SP30	X	X	X	X		X	15 AMP CIRCUIT REQUIRED										
	MOBILE HEATED PROOFING CABINET	1	4	METRO	C519-PFC-U	15/20A	X		1		X											
	MOBILE ANGLE RACK	1	4	EAGLE	OUR1820-3-N																	
	MOBILE WARES & UTENSIL SHELVING UNIT; FOUR TIER	1	4	METRO	24"x48" MAX Q																	
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	MOBILE UTILITY CART	1	4	HATCH	C444-A-HD																	
	WASTE RECEPTACLE c/w DOLLY	1	2	RUBBERMAID																		
	COOKING BATTERY																					
	MOBILE UTILITY TRANSPORT CARTS	2	4	HATCH	C444-A-HD																	
	EXHAUST CANOPY c/w VARIABLE EXTRACTION CONTROL DAMPERS & ENCLOSURE PANELS	1	4	HALTON	KVE		X		1	X		LIGHTING CIRCUIT							4200			VENTILATION REQUIREMENTS ARE APPROXIMATIONS ONLY
	FIRE SUPPRESSION SYSTEM	1	4	ANSUL	WET		X		1	X		TIE INTO BUILDING ALARM										SUPPLY & INSTALL IN ACCORDANCE WITH NFPA & AB CODES
	SS SPREADER CABINET c/w UNDERSHELF	1	4	GARLAND	460MM RANGE MATCHING	15/20A	X		1		X											

Appendix 1H(IV) - Foodservice Equipment Schedule

	EQUIPMENT LIST			STANDARD OF ACCEPTANCE		ELECTRICAL SERVICES							MECHANICAL SERVICES									
													Water		Waste		Gas	Exhaust				
ID. NO.	Description	Qty.	SUPPLIER	MANUFACTURER	MODEL	Load	120V	208V	Ph	Junc	Rec	Remarks	HW	CW	Size	To	Load MBH	Size	CFM	Size	S.P.	Remarks
	SINGLE OVEN RANGE c/w THERMOSTATIC GRIDDLE TOP w CASTERS (FRONT LOCKING)	1	4	US RANGE	PS-36G-26												95	19				
	SINGLE OVEN RANGE c/w 6 BURNER TOP	1	2	US RANGE													215	19				
	FLEXIBLE GAS CONNECTORS FOR SINGLE OVEN RANGES	2	4	T&S	1220L c/w QUICK DISCONNECT																	
	CONVECTION STEAM COOKER	1	4	CLEVELAND	24CGA10	2A	X		1	X				13	50	FFD						PLUMB WATER FROM FILTER
	WATER FILTER	1	4	3M/CUNO	BEV-140									13								PLUMB CW TO CONVECTION STEAMER
	FLEXIBLE GAS CONNECTOR FOR STEAM COOKER	1	4	T&S	1220L c/w QUICK DISCONNECT																	
	SS SPREADER CABINET c/w UNDERSHELF	1	4	GARLAND	460MM RANGE MATCHING	15/20A	X		1		X											
	COMBI OVENS c/w STANDS	2	4	RATIONAL	102G	37KW		X	3	X		SERVICES REQ'D FOR EACH		2@19	50	FFD						PLUMB WATER FROM FILTER
	FLEXIBLE GAS CONNECTOR FOR COMBI OVENS	2	4	T&S	1220L c/w QUICK DISCONNECT																	
	WATER FILTERS	2	4	3M/CUNO	BEV-140									13								PLUMB CW TO COMBI OVENS
	SS FLOOR DRAIN PANS w/ REMOVABLE GRATE (FOR COMBI OVENS)	2	4	CUSTOM	350X350										50	GT						
	CONVECTION OVENS c/w STANDS WITH RACK STORAGE & UNDERSHELVES	2	4	GARLAND	MCO-GS-10	10A	X		1	X		TWO CIRCUITS REQUIRED					60	19				TWO SERVICES REQUIRED
	FLEXIBLE GAS CONNECTOR FOR CONVECTION OVENS	2	4	T&S	1220L c/w QUICK DISCONNECT																	
	EXHAUST CANOPY c/w VARIABLE EXTRACTION CONTROL DAMPERS & ENCLOSURE PANELS	1	4	HALTON	KVE	0.3KW	X		1	X		LIGHTING CIRCUIT							4200			VENTILATION REQUIREMENTS ARE APPROXIMATIONS ONLY
	SS SERVICE WALL (BEHIND COOKING LINE) w/ REMOVABLE PANELS c/w SS SERVICE CHASE	1	4	CUSTOM	TO SUIT DESIGN	15/20A	X		1		X											
	VARIABLE EXTRACTION DEMAND CONTROL PANELS	2	4	HALTON	MARVEL / VFD	15A	X		1	X		TWO CIRCUITS REQUIRED										
	HOTEL PANS, STAINLESS STEEL, ALL SIZES AND ALL SMALL WARES	LOT	2																			
	MEAL ASSEMBLY AREA																					
	MOBILE HOT HOLDING CABINET	1	4	CRESCOR	H-135-WSUA-11A	18A	X		1		X											
	AIR CURTAIN COOLER	1	4	TRAULSEN	RAC37	14.7A			1		X	CORD REEL POWER FROM ABOVE										
	HIGH SPEED OVEN	1	4	MERRYCHEF	E3	4.7KW		X	1		X											
	MICROWAVE OVEN	1	2	PANASONIC	NE1064	12A	X		1		X											
	SS HOT ASSEMBLY COUNTER c/w SINK & CIRCULAR POT & UTENSIL RACK	1	4	CUSTOM	MIN. 2135 x 915	15/20A	X		1		X	UTILITY OUTLETS - 2EA	13	13	38	GT						
	ELECTRIC CAN OPENER	1	2	EDLUND	203	4A	X		1		X											
	FOOD PROCESSOR	1	4	ROBOT COUPE	CL-50	18A	X		1		X											
	BLENDER	1	4	ROBOT COUPE	BLIXER 4	18A	X		1		X											
	SS COLD ASSEMBLY COUNTER	1	4	CUSTOM	MIN. 2135 x 915	15/20A			1		X	UTILITY OUTLETS - 2EA										
	MOBILE UTILITY CARTS	2	4	HATCH	C444-A-HD																	
	MOBILE POT & UTENSIL SHELVING UNIT; FOUR TIER	1	4	METRO	24"x48" MAX Q																	
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	ROTARY TOASTER	1	2			17A		X	1		X	20AMP CIRCUIT REQ'D										
	MOBILE SS TOASTER STAND	1	2																			
	MOBILE AIR CURTAIN REFRIGERATOR	1	4	TRAULSEN	RAC37	14.7A			1		X	CORD REEL POWER FROM ABOVE										
	PATIENT MEAL CART LOADING & PARKING																					
	MOBILE FIVE WELL HOT FOOD TABLE	1	2	BURLODGE		30A		X	1		X	CORD REEL POWER FROM ABOVE	13		FD	GT						
	MOBILE REFRIGERATED TABLE	1	2	BURLODGE		10A		X			X	CORD REEL POWER FROM ABOVE										
	TRAY TABLE SHORT	1	2	BURLODGE																		
	MOBILE TELESCOPIC BIN CART	1		BURLODGE																		
	GRAVITY SHELF - 24"	1	2	BURLODGE																		
	MOBILE PLATE DISPENSER	2	2			14A	X		1		X	CORD REEL POWER FROM ABOVE										
	SOUP WARMER	1	2			10A	X		1		X	CORD REEL POWER FROM ABOVE										
	MOBILE BOWL DISPENSER	2	2																			
	MOBILE TRAY DISPENSER	1	2																			
	MOBILE INSULATED COVER STORAGE SHELF	1	2																			
	GRAVITY SHELF - LONG	1	2	BURLODGE																		
	GRAVITY SHELF - SHORT	1	2	BURLODGE																		
	PATIENT TRAY DELIVERY CARTS - DELIVER CLEAN TRAYS ONLY	4	2	BURLODGE	RTS-HL																	
	BURLODGE DOCKING STATIONS - B PODS	3	2	BURLODGE			X	X	3			40 AMP SERVICES REQUIRED FOR EACH										
	ICE & WATER DISPENSER	1	4	HOSHIZAKI	DCM-500BAH-OS	14A		X	1	X				13	FFD							PLUMB WATER FROM FILTER

Appendix 1H(IV) - Foodservice Equipment Schedule

	EQUIPMENT LIST			STANDARD OF ACCEPTANCE		ELECTRICAL SERVICES							MECHANICAL SERVICES									
													Water		Waste		Gas		Exhaust			
ID. NO.	Description	Qty.	SUPPLIER	MANUFACTURER	MODEL	Load	120V	208V	Ph	Junc	Rec	Remarks	HW	CW	Size	To	Load MBH	Size	CFM	Size	S.P.	Remarks
	WATER FILTER	1	4	3M/CUNO	ICE120-S									13								PLUMB CW TO ICE & WATER DISPENSER
	MOBILE POT & UTENSIL SHELVING UNIT	1	2																			
	ROLL-IN COOLER	1	4	TRAULSEN	ARI232HUT-FHS	16A	X		1	X												
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	SS BEVERAGE COUNTER c/w SINK, DRAWER & DOUBLE UNDERSHEVES	1	4	CUSTOM	MIN. 1830 x 760	15/20A	X		1		X	UTILITY OUTLETS - TWO EACH			38							
	FAUCET	1	4	T&S									13	13								
	COFFEE BREWER	1	3			X	X	X	1					13								PLUMB WATER FROM FILTER
	HOT WATER DISPENSER	1	4	BUNN	H5E	4KW		X	1					13								PLUMB WATER FROM FILTER
	WATER FILTER	1	4	3M/CUNO	ICE120-S									13								PLUMB CW TO COFFEE BREWER & HOT WATER DISPENSER
	MOBILE CUP DISPENSING RACK	1	2																			
	SS TEXTURE MODIFICATION COUNTER c/w SINK & FAUCET	1	4	CUSTOM / T&S	MIN. 1830 x 760	15/20A	X		1		X	UTILITY OUTLETS - TWO EACH	13	13	38							
	WASTE RECEPTACLE	1	1																			
	WAREWASHING																					
	MOBILE NESTING RACKS (FOR RETURNING SOILED TRAYS TO DISH ROOM)	5	2	BURLODGE																		
	WASTE & RECYCLE RECEPTACLES c/w DOLLIES	3	2	RUBBERMAID																		
	SOILED DISHTABLE (c/w INTEGRAL SCRAP STATION)	1	4	CUSTOM	MIN. 3300 x 760								13	13	3@38	GT						
	WALL MOUNT HOSE & REEL	1	4	T & S	B-7122-CO1								13	13								
	SS WALL CLADDING (610mm H BEHIND SOILED DISHTABLE PLUS END IF REQ'D)	1	4	CUSTOM	TO SUIT DESIGN																	
	WASTE & RECYCLE RECEPTACLE	1		RUBBERMAID	2620																	
	CONVEYOR DISHWASHER c/w HOT WATER BOOSTER EXTENDED VENT HOODS 610 HIGH CHAMBER, SHOCK ABSORBER, PRV, SINGLE POINT ELECTRICAL CONNECTION	1	4	HOBART	CLPS66eN-ADV	145A		X	3	X			13	13	50							
	SS PANTLEG CONDENSATE DUCT w SS DUCT DAMPER CONTROLS	1	4	CUSTOM	TO SUIT DESIGN														1200		0.2"	
	BLOWER-DRYER	1	4	HOBART	Cle	35A		X	3	X												
	CLEAN DISHTABLE c/w TABLE LIMIT SWITCH	1	4	CUSTOM	MIN. 2735 x 760										38	FD						
	MOBILE POT & UTENSIL SHELVING UNIT; FOUR TIER	1	4	METRO	24"x48" MAX Q																	
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							
	SOAP & TOWEL DISPENSERS	1	2																			
	SS SOILED POT WASH TABLE c/w THREE COMP'T POT SINK & INTEGRAL SCRAP STN	1	4	CUSTOM	MIN. 3600 x 760								13	13	3@38	GT						
	SCRAPPING STATION c/w WASTE DISPOSER	1	4	SALVAJOR	SM-300	13A		X	3	X				13	50							
	FAUCETS	2	4	T & S	B-0290								19	19								SERVICES REQ'D FOR EACH
	SS WALL CLADDING (24"H BEHIND SOILED POT WASH TABLE PLUS END IF REQ'D)	1	4	CUSTOM	TO SUIT DESIGN																	
	SS FLOOR DRAIN PAN c/w REMOVABLE GRATING	1	4	CUSTOM	MIN. 2000 x 400										38	GT						
	WASTE RECEPTACLE c/w DOLLY	1	2	RUBBERMAID																		
	CAN CRUSHER	1	2	EDLUND	CH-5000	16A	X		1		X											
	WALL MOUNT HOSE & REEL	1	4	T & S	B-7122-CO1								13	13								
	POT & UTENSIL WASHER	1	4	HOBART	PW10	48A		X	3	X			19		50							
	CONDENSATE COLLECTOR HOOD c/w UPPER SS ENCLOSURE	1	4	CUSTOM	1220 x 915 x 600H														1000		0.2"	
	CLEAN POT TABLE	1	4	CUSTOM	MIN. 1220 x 760											FD						
	SS HAND SINK c/w SIDE SPLASHES & HANDS FREE FAUCET	1	4	EAGLE/T&S	HSA10/EC-3105	4A	X		1		X		13	13	38							SERVICES REQ'D FOR EACH
	SOAP & TOWEL DISPENSERS	1	2																			
	ORGANIC WASTE DIGESTER	1	1	ORCA	OG25	15A	X		1		X			13	50	GT						
	CART CLEANING & SANITIZING																					
	SS WALL & CEILING CLADDING	LOT	4	CUSTOM																		
	WALL MOUNT HOSE & REEL	1	4	T & S	B-7122-CO1								13	13								
	SS RECESSED FLOOR DRAIN PAN c/w REMOVABLE GRATING	LOT	4	CUSTOM	MIN. 1200 x 2000 x 100										2@38	GT						

APPENDIX 1J

DOOR OPERATION MATRIX

Note: The information listed below is intended to provide high-level design intent. Detailed design requirements will be confirmed during the design process and may exceed the requirements listed below.

	Room or Area Type	High Level Description of Functional Intent	Swing or Slider	Card Reader Placement
Corridors & Departments	Exterior perimeter doors, non-entry	Secure, door positioning switch, card access as required		A
	Exterior perimeter doors, Main Building Entry and Emergency Entry	Door operator with motion sensor, to facilitate free flow during public hours, secure card access after hours from outside, free egressing from the inside. Provide video intercom and remote release	swing	A
	Department Boundary doors	Secure card access after hours, doors with operators and hold open during hours of operation		A
	Department Boundary doors - Inpatient Units, Emergency Department, Mental Health	Secure, locking capability after hours, card access, doors with operators. Provide video intercom and remote release.		A
	Double egress doors in corridors separating public areas from the remainder of the Building	Electric hold open to facilitate free flow, tied to fire alarm as required. If door has to remain closed, provide door operator with motion sensor		N/A
	Doors separating Staff-only areas from the remainder of the Building	Secure, with card access for staff, door operator		A
	Double egress doors in corridors separating Staff & Patient areas from the remainder of the Building,	Door operator with motion sensor, hold open to facilitate free flow during public hours, secure card access after hours		C
	Exterior doors accessing patient outdoor spaces from corridors and department areas	Secure card access with operator	swing	C
	Exterior doors accessing Staff outdoor spaces from corridors and department areas	Secure card access	swing	C
	Exit stair doors inside departments	Panic, key override/reset card reader both sides, audible alarm.		C
	Exit stair doors going into a department	Panic, key override/reset, card reader both sides		C
Clinical	Business Centres, all departments	Secure, with card access for staff		A
	Diagnostic Imaging, Typical Imaging Modalities, not including MRI	Secure, with card access for staff, door operator, remote release as required.	swing	A
	Exam Rooms, Consult Rooms Typical	Manual Latchset, locking capability from corridor, delayed door closer		N/A
	Exam Room Emergency	Manual Latchset, locking capability from corridor, delayed door closer	Slider	N/A
	Emergency, Trauma Resuscitation Room	Secure, with card access for staff, door operator, remote release as required.	Slider	A
	Medical Inpatient Room Isolation	Secure, with card access for staff, door operator, remote release as required, man trap function	swing	A
	Medical Inpatient Room, IPU, LDRP	Manual Latchset, locking capability from hallway, patient lock release from side room		N/A
	Procedure & Therapy Rooms	Latchset, door operator with push button control, occupancy light		N/A
	Medication Rooms	Secure, with card access for staff, door operator push button on inside		A
	Clean Utility Rooms	Secure, with card access for staff, closer with hold open function		A
	Storage rooms (including equipment, linen, supply storage), medical records rooms	Secure, with card access for staff		A
	Housekeeping & Storage Utility Rooms	Secure, with card access for staff, delayed closer		A
	Soiled Utility Rooms	Secure, with card access for staff, delayed closer, hands free latchset		A
	Staff Lounges, Washrooms	Secure, with card access for staff, closer		A
	Meeting / Education / Conference Rooms	Secure, with card access for staff, closer		A
	Staff Private Offices	door operator push button on inside; keyable		N/A
	Administration and registration areas (i.e. Registration Booth);	Secure, with card access for staff, closer		A
	All elevators (both hall call and inside the cab), with floor by floor control;	Card Access to interrupt Hall Call Button. Elevator control module in Elevator Machine room and card reader within cab. 6C#22 in traveler cable Coordinate with Elevator Vendor		C
	Areas and rooms where cash is handled	Secure, with card access for staff, closer		A
	Rooms utilized telehealth or video conferencing	Secure, with card access for staff, closer		A
	Support rooms and spaces	Secure, with card access for staff, closer		A
	Areas and rooms used for storing of blood.	Secure, with card access for staff, closer		A
	Ambulance entrance(s)	Secure, with Pinpad card access for staff, door operator		D
	Ambulance Patient transport locations	Secure, with Pinpad card access for staff, door operator		D

	Room or Area Type	High Level Description of Functional Intent	Swing or Slider	Card Reader Placement
Support & Service	Lab, Confidential Garbage	Secure, with card access for staff		A
	HIMS, Medical Records	Secure, with card access for staff		A
	Biomedical Engineering, Workshop	Secure, with card access for staff		A
	Biomedical Engineering, Parts Storage	Secure, with card access for staff		A
	Facility Maintenance, Business Centre and Plan Room	Secure, with card access for staff, closer		A
	Staff meeting rooms	Secure, with card access for staff		A
	Staff Facilities, locker area	Secure, with card access for staff		A
	Supply Chain, Loading Dock	Secure, with card access for staff, door operator		C
	IMIT, Server Room	Secure, with card access for staff, closer		A
	Laboratory, Biosafety Cabinet Station	Secure, with card access for staff, door operator, push button release as required.		A
	Laboratory, Various Modalities	Secure, with card access for staff, door operator, push button release as required.		A
	Biomedical, Food Services; Walk in Cooler Room	Manual latchset, lockable		N/A
	Laboratory, Food Services; Walk in Freezer Room	Manual latchset, lockable		N/A
	Flammable Storage	Secure, with card access for staff, closer		A
	On call Sleep Rooms	Secure, with card access for staff, closer		A
	Roof access doors	Secure, with card access for staff, closer		A
	Mechanical Rooms	Secure, with card access for staff, closer		A

- Door Typical - Card reader placement
  (A) Single Card Reader on the Public side
  (B) Single Card Reader on the Secure side
  (C) Dual Card Readers on both the Public and Secure side
  (D) Combination pin code / proximity card readers

- Every Door with an electromagnetic lock will have key override both sides of door
- Every Door with a latch set to have key core capability
- Man Trap function is defined as a vestibule with interlocked doors to prevent one door from opening before the other door is shut
- PTZ - Pan to Zoom camera
- ID - Identification camera

APPENDIX 1K

FIXTURES AND DISPENSERS LIST

				Responsibility Code:			
Fixture Type	**Description**	**Spec Sheet Available?**	**Typical Areas of Use**	**1 (AA)**	**2 (AD)**	**3 (AV)**	**4 (DD)**
Waste Container	Various sizes and locations. Assume 1 per room/area. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	Most rooms. Common areas will receive larger receptacles with higher grade finish (e.g. SS).	X			
Recycling Container	Various sizes and locations. Assume 1 per room/area in administrative (i.e. office-type) locations. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	Most rooms. Common areas will receive larger receptacles with higher grade finish (e.g. SS).	X			
Confidential Waste Bin, Mini	Mini console, 31 Gal. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	Administrative / office areas. 1 bin serves multiple areas/offices.			X	
Confidential Waste Bin, Standard	Standard console, 32 Gal. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	Administrative / office areas. 1 bin serves multiple areas/offices.			X	
Confidential Waste Bin, Tote	Tote, wheeled, 65 Gal. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	Administrative / office areas. 1 bin serves multiple areas/offices.			X	
Soap Dispenser	At all handwash sinks per SoR.	Yes	Handwash sink locations.		X		
Paper Towel Dispenser	At all handwash sinks per SoR.	Yes	Handwash sink locations.		X		
Toilet Paper Dispenser	At all WC's	Yes	All WC's.		X		
Mirror	Per SoR and FF&E list	No	In handwash locations.				X
Glove Box Dispenser	Medline. S, M, L sizes typically grouped together.	Yes	In exam rooms, patient rooms, treatment rooms.		X		
Biohazard Waste Containers	3 types. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings and provide wall-backing where wall-mounted types will be required.	Yes	Patient treatment areas.	X			
Biohazard Waste Containers	Daniels Cytoxic Waste Container	Yes	Patient treatment areas, and in all Medication Rooms.		X		
Sharps Disposal	2 types including Cytotoxic / Non-Cytotoxic. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	Patient treatment areas.		X		
PPE Holder	Wall-mounted, for gowns, etc. The Design-Builder should finalize the room locations (and eventual deployment) during coordination meetings.	Yes	In-patient unit areas, outside of patient rooms.		X		
Alcohol Dispenser	Wall-mounted, placement based on final design layouts coordinated with IPC.	Yes	At entrance to most clinical rooms/spaces.		X		
Steri-Cycle CsRx Container	Pharma Waste Container	Yes	In-patient unit areas; required in all med rooms.	X			
Cavi-Wipes Dispenser	Oxivir Bracket – order# 5160070 Catalog # 53-903820 by ARAMARK	No	In-patient unit areas		X		

Legend:

Responsibility Code (PC)	Responsibility Code Description
1	AA: Authority Supplied Authority Installed
2	AD: Authority Supplied - Design-Builder Installed
3	AV: Authority Supplied - Vendor Installed - Design-Builder Coordinated
4	DD: Design-Builder Supplied - Design Builder Installed

Fixture Type	Fixture ID Number	Specification/Make/Model	Mounting	Dimensions/Capacity, as applicable (verify to cutsheet)
Waste Container	K100	Public spaces - 1961621 Rubbermaid	Floor	14.4" x 18.5" x 38", 15 Gal
	K105	Office - FG295600 Rubbermaid	Floor	14.4" l x 10.3" w x 15.0" h
	K110	Medium Size - 1883600 Rubbermaid	Floor	16.7" l x 10.6" w x 21.1" h
	K115	Large Size - 1883460 Rubbermaid	Floor	19.7" l x 12.2" w x 31.6" h
Recycling Container	K120	Public spaces - 1961615 Rubbermaid	Floor	14.4" x 18.5" x 38"
	K125	Private/Admin spaces - FG295073	Floor	26.9 cm x 18.5 cm x 29.7 cm
Confidential Waste Bin	K130	Shred-It. Mini-Console, 31 Gal	Floor	26" H x 20.25" W x 19.75 D, 31 Gal
	K135	Shred-It. Standard Console, 32 Gal	Floor	36" H x 20.25" W x 16 D, 32 Gal
	K140	Shred-It. Tote, Wheeled, 65 Gal	Floor	46" H x 24.5" W x 27.5" D, 65 Gal
Soap Dispenser	K145	SC Johnson WRM1LDSEN	Wall	235mm x 132mm x 117D
Paper Towel Dispenser	K155	Kruger 0970 NOIR Mini Touchless Mechanical Roll Towel Dispenser	Wall	11.8" x 14" x 9.1" (29.97 cm x 35.56 cm x 23.11 cm)
Toilet Paper Dispenser	K160	Wood Wyant. Order # 6309655 Kruger – Designer model. Holds 2 jumbo rolls	Wall	
Mirror	NA	As identified per SOR/Equipment List	Wall	
Glove Box Dispenser	K165	Double - Medline #053-MDS192096B	Wall	
	K170	Triple - Medline MDS193196B	Wall	
Biohazard Waste Containers	K175	Daniels Biomedical Waste Pail - 23L	Floor	457mm x 305mm
	K180	Daniels Cytoxic Waste Container	Wall	14L
	K185	Justrite Biohazard Waste Container Model SD501 10 gallon	Floor	13 15/16 x 18
	K190	Biohazard Waste - Large Model Rubbermaid FG614400	Floor	15.0" x 16.3" x 23.6" h
Sharps Disposal	K195	Multipurpose Sharps Container; Cardinal Health KDL8991H	Wall	16.5" x 15.6" x 25.5"
	K200	BD Sharps; Collector Prod# 300450, Accessory # 305475	Wall	
PPE Holder	K205	Medline, type TBD - base spec NONLD007	Wall	TBD - variable
Alcohol Dispenser	K210	SC Johnson SAN1LDSEN	Wall	235mm x 132mm x 117D
Steri-Cycle CsRx Container	K215	Stericycle - 1 Gal Pail	Floor	1 Gal.
Cavi-Wipes Dispenser	K220	Oxivir Bracket – order# 5160070 Catalog # 53-903820 by ARAMARK	Wall	

APPENDIX 1L(I)
UBC Clinical Skills Rooms

FACULTY OF MEDICINE

Design Guidelines and Functional Requirements for Learning Spaces: Clinical Skills and Enhanced Clinical Skills Rooms

MAY 2, 2022

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1 INTRODUCTION

1.1 FACULTY OF MEDICINE DISTRIBUTED MEDICAL PROGRAM

In 2004, the University of British Columbia (UBC) Faculty of Medicine (FOM) initiated its Distributed Medical Program (DMP), the purpose of which is to provide equal access to medical teaching and training for students, residents, and practicing physicians across BC. The DMP is made possible by technology-enabled learning spaces located at university sites (UNBC, UBCO, UVic, and UBC) as well as Clinical Academic Campuses and Affiliated Regional Centres located across the province. Many of these spaces are also videoconference (VC)-enabled and are connected to each other via the central VC Bridge, all of which rests on a dedicated network called the Distributed Medical Program Audiovisual (DMP-AV) network. The requirements laid out in this document support the Accreditation standards defined by the Royal College of Canada.

1.2 DOCUMENT PURPOSE AND APPLICABLE SPACES

This document is part of a collection of documents referred to as the **UBC FOM Design Guidelines and Functional Requirements for Learning Spaces** (henceforth referred to as AV Design Guidelines and Functional Requirements). They provide requirements for technology-enabled learning spaces based on best practices and extensive organizational experience developed since 2004. Each learning space type has an associated AV Design Guideline and Functional Requirements document about that space type.

This document provides the design guidelines and functional requirements for the Clinical Skills rooms (commonly called CSRs) and Enhanced Clinical Skills rooms (commonly called ECSR) as they are identified in Appendix 1A: Clinical Specifications.

1.3 PROCESS AND APPROVAL

The UBC FOM Project Team (FoM Team) will be involved as part of the User Consultation Groups to review at each design stage and construction phase milestones, as specified in Schedule 2 (Review Procedure) in the Design-Build Agreement (DBA) and as required, to ensure architectural, infrastructure, AV systems, and all supporting systems are designed and implementation as specified. The provisions of Schedule 2 (Review Procedure) will govern for all references to the UBC FoM team reviewing and approving material within this document.

1.4 ROOM USAGE AND BOOKING PROCESS

Clinical Skills Rooms (CSRs) and Enhanced Clinical Skills rooms (ECSRs) are used in different ways throughout the medical program. Typically, the rooms are used by 8 students, plus 1 instructor/clinician and 1 volunteer or standardized patient and sometimes 1 family member.

These rooms are used by UBC FoM undergraduate medical learners and post-graduate resident trainees to practice performing clinical procedures within a safe learning environment. Procedures are conducted on volunteer or standardized patients (actors), or for more sensitive procedures, on task trainers or advanced clinical skills devices. They are also used to conduct exams, such as the objective structured clinical exam (OSCEs) for years 1 - 4. CSRs are

regularly used by students in years 1 & 2 for “Clinical Skills” and, at some distributed sites for “Doctor, Patient and Society” courses.

This component will be shared between UBC Faculty of Medicine learners, post graduate resident trainees, faculty, and staff internal and external to the Hospital and therefore access to these rooms should be from a public corridor.

As part of the CACMS (Committee on Accreditation of Canadian Medical Schools) Accreditation Standard for Medical Schools, the UBC Faculty of Medicine must demonstrate how the medical education program has priority in shared educational spaces required for learning experiences in medical curriculum. The UBC Faculty of Medicine room booking policy, advanced booking process, and provincial-wide booking system must be used to demonstrate that the medical school meets the accreditation standard for priority scheduling in shared academic learning spaces across the province.

The CSRs will be designed as activity-observation pairs: One CSR will function as control-observation room and the adjacent CSR as the activity room. The ECSR will be designed with one activity room and an adjacent dedicated control-observation room. The Observation CSR/room will be used as an observation to the activity room by a group of students and or an instructor to watch and listen to a colleague during a presentation and make notes for learning opportunities whilst the procedure is taking place. The use of control-observation room allows the student performing the procedure to do so without the distraction of their colleagues looking on in the room, and also provides a level of comfort for the patient. Learning opportunities are very similar to recording.

1.5 FUNCTIONAL REQUIREMENTS

Clinical Skills Rooms can be configured in one of two ways; as independent CSR spaces, or as part of an observation pair set. In either scenario all CSRs must meet core CSR requirements. A part of a CSR observation pair, there are some additional requirements to satisfy the additional functionality.

A CSR observation pair will be comprised of two CSR rooms adjacent to each other with a one-way mirrored glass window connecting the two spaces. One observation pair room will be designated the activity side (where doctor-patient interactions occur). The other observation pair room will be designated the observation side (where the observer(s) sit to observe and listen to the interactions occurring in the activity side). The mirrored glass will be orientated such that the observation side can see into the activity side, and the activity side can only see a reflection. A bi-directional audio system will be installed to facilitate the observation side listening to the activity side and inject audio from the observation side to the activity side.

Enhanced Clinical Skills Rooms (ECSRs) are designed to accommodate simulation mannequins and task trainers. ECSRs are compromised of an ECSR activity room and a control-observation room. Because task trainers and mannequins require fluids, gasses, power, and data, the ECSR spaces must be outfitted with the same equipment and services as a typical trauma bay. ECSR control-observation rooms are not functional CSR spaces, they are purpose built for monitoring the ECSR activity room and remotely operating simulation mannequins. For the purposes of this documentation, ECSR activity rooms will incorporate CSR & ECSR core requirements, but ECSR Control-Observation rooms will not.

1.5.1 CSR & ECSR Core AV Requirements

1.5.1.1 Display (AKA: Side display) – This is used to review procedural instruction videos, prior to launching into a clinical skills class; review exhibits to enhance the students' ability to correlate diagnostic information with case history (x-rays, lab results, photographs, medical records, etc.).

1.5.1.2 In-room PC connection to hospital network for patient records access.

1.5.1.3 A bidirectional audio system will be installed between CSR Activity and CSR Observation rooms or between ECSR Activity and ECSR Control-Observation rooms.

1.5.1.3.1 CSR & ECSR activity rooms to have centrally located ceiling mounted boundary microphone, a suitably sized ceiling mounted speaker.

1.5.1.3.2 CSR & ECSR activity rooms to have an indicator light to inform room occupants of when the audio system is actively listening to the room.

1.5.1.3.3 CSR & ECSR observation rooms to have a non-latching push to talk microphone for injecting audio into the activity room with a volume knob to control the audio volume level.

1.5.2 Additional requirements for CSR Observation rooms:

1.5.2.1 Provide a wall attached foldable table sufficient for note taking, below the CSR observation room window.

1.5.2.2 Provide all services, conduits, and back box infrastructure necessary for AV system design.

1.5.3 Additional requirements for ECSR / CSR Activity rooms:

1.5.3.1 Mannequin vitals display to be mounted on articulating arm on headwall near bed.

1.5.3.1.1 An HDMI output will be mounted to the headwall near the vitals monitor to provide video signal to the vitals monitor.

1.5.3.1.2 A USB extender will be mounted to the headwall near the vitals monitor to pass touch input to the mannequin control PC.

1.5.3.1.3 A point-to-point CAT6 RJ-45 LAN port will be mounted to the headwall near the vitals monitor to pass control data between the mannequin and control PC.

1.5.3.2 Voice of patient (audio from control room through mannequin)

1.5.3.2.1 A 3.5mm audio output connector will be installed on the headwall near the vitals monitor to pass audio from the mannequin control PC to the mannequin.

1.5.3.2.2 A flat flexible speaker will be placed under the neck area of the mannequin and connected to the 3.5mm audio output connector.

1.5.3.3 Room side display to have local HDMI input as well as control-observation room HDMI input.

1.5.3.3.1 Side display inputs to be facilitated via a 12' HDMI cable terminating behind display.

1.5.3.4 The ECSR activity room will be equipped with infrastructure to support future simulation recording cameras. See electrical - cables and infrastructure.

1.5.3.5 Provide all conduits and back box infrastructure necessary for AV system design.

1.5.3.6 Provide trauma bay equivalent services (fluids, gasses, power, data, and diagnostic equipment) to support the use of simulation task trainers and simulation mannequins for the intended use cases.

1.5.4 Additional requirements for ECSR control-observation rooms:

1.5.4.1 Provide millwork wide enough for two workstations and three computers below the ECSR observation room window.

1.5.4.1.1 Millwork to extend left or right to cover an AV half rack without impeding workstations.

1.5.4.2 Below the window and above the millwork provide a HDMI input to feed the side display in the ECSR activity room.

1.5.4.2.1 Input in ECSR Control-Observation room to supersede in room side display input.

1.5.4.3 Below the window and above the millwork provide HDMI input to feed the vitals display in the ECSR activity room.

1.5.4.4 Below the window and above the millwork provide USB extender outputs to provide the mannequin control PC USB input from the vitals monitor.

1.5.4.5 Below the window and above the millwork provide a 3.5mm audio input jack to supply audio from the control PC to the mannequin (Voice of Patient).

1.5.4.6 ECSR Control-Observation rooms will require the bi-directional audio system described in core requirements.

1.5.4.7 The ECSR will require a 15U, 24" deep equipment rack located under the millwork to facilitate the AV systems equipment.

1.5.4.8 Space will be provided to facilitate a second half rack under the millwork (next to the AV rack) to facilitate a future simulation recording/debrief system.

1.5.4.9 A primary AV pull box will be installed behind the AV rack location. All AV conduits will be connected to the AV pull box.

2 ROOM ENVIROMENTAL DESIGN

The rooms require teaching and learning and VC-appropriate architecture, acoustical treatments, lighting, cooling, power and data ports, and cable pathways. The following sections describe requirements for additional aspects of rooms and VC system design.

UBC FoM clinical skills, enhanced clinical skills and control-observation rooms have active AV equipment 24 hours per day, 7 days per week. Spaces are primarily used during business hours (6am-6pm Monday-Friday) but can be used at any time.

2.1 ARCHITECTURE & INTERIOR DESIGN

2.1.1 General Description

Applies to CSRs (observation and activity) and ECSR activity rooms.

2.1.1.1 Room location:

2.1.1.1.1 The location needs to be in a centralized area to enable efficient and safe flow of medical staff, learners, patients and guests.

2.1.1.1.2 The location must ensure movement of patient bed to and from this location including elevators, all entrance ways and corridors.

2.1.1.2 Room size and aspect ratio (app 1:1.45)

2.1.1.3 Minimum clearance of 1m required around stretcher/exam table to provide appropriate working space. This clearance must not be intruded upon by fixed equipment, millwork or door swings, although portable equipment may be placed within the clearance limit, as appropriate.

2.1.1.4 CSRs and ECSRs hold up to 11 people (8 students + 1 tutor + 1 patient + 1 family member). Control-observation holds up to 4 people (1 technicial+1 tutor+2 Learners).

2.1.1.5 Columns or other obstructions within the room envelope will increase the NSM requirement. This is necessary to maintain the usability and orientation of the space.

2.1.1.6 An additional doorway (standard size) between ECSR and control-observation with twist lock on the passage set (Control room side).

2.1.1.7 Doors:
- 2.1.1.7.1 Width of 1200mm minimum.
- 2.1.1.7.2 Key card access.
- 2.1.1.7.3 Doors to include a kick plate on both sides to 1000mm AFF.
- 2.1.1.7.4 Door hold-open.

2.1.1.8 Closely model a patient examination room, (e.g.: sink, soap, and paper towels are required for hand washing, cleaning materials, and teaching specific procedures, such as dialysis).

2.1.1.9 All of the walls must have wall protection to the height of the patient bed. From the height if the patient bed to 2100mm AFF the walls must be reinforced to permit secure mounting of equipment.

2.1.1.10 One wall to be dedicated as the 'head wall' with the diagnostic set, examination table, and ample standing room are available. The display, window, and whiteboard must not impede this area.

2.1.1.11 Medical diagnostic equipment panel including Blood Pressure cuff (left side), otoscope (with tip dispenser) ophthalmoscope (right side) and wall mounted thermometer.

2.1.1.12 Ceiling mounted exam light.

2.1.1.13 Code blue button or nurse call button (signage must indicate whether fully operational for hospital drills, connected to control room only for simulation, or completely inactive).

2.1.1.14 Upper and lower cabinetry, lockable (for small items used in clinical procedures such as hospital linens, hospital gowns, gloves, otoscope tips, tongue depressors, sutures, etc.) and counter top.

2.1.1.15 A utility sink to clean task trainers and hand washing.

2.1.1.16 Privacy curtain around exam table/patient bed.

2.1.1.17 Wall mounted computer with height adjustable mounting bracket.

2.1.1.18 It is preferable not to have any exterior windows, to preserve patient privacy. If non-observation windows are unavoidable:
- 2.1.1.18.1 Window coverings must be provided 90% or better blackout blinds.

2.1.1.19 Additional for Bariatric CSR: patient lift.

2.1.1.20 Additional for CSRs observation pairs and ECSRs:
- 2.1.1.20.1 One-way glass between the Observation CSR and the Activity CSR and the ECSR and the control-observation.
- 2.1.1.20.2 Location of the window to provide an unobstructed view of the entire room.
- 2.1.1.20.3 Minimum size: 10' wide by 4' high. The bottom edge of the frame must be 36" above finished floor.
- 2.1.1.20.4 The observation window must have retractable blinds on both sides of the window for patient confidentiality.
- 2.1.1.20.5 The orientation of the bed or exam table is such that the feet point toward the observation window, so the line of site is not obstructed when the learners are tending to the patient or task trainer.

2.1.2 Additional for ECSR Activity room:

2.1.2.1 Head wall to include the diagnostic set (as detailed in the CSR) and: gas, ports, and valves, patient vital signs monitor, compressed air of 50psi (Required to drive mechanical functions on some task trainers) and suction.
- 2.1.2.1.1 To reduce noise and complexity, centrally supplied air is preferred over local air compressors (located in the control room's gasses closet).
- 2.1.2.1.2 Gas outlets must be identified as simulated or actual.

2.1.3 Additional for ECSR control-observation room:

2.1.3.1 Lockable acoustically treated closet is required to house the air compressor, tanks, vacuum pump, and related equipment.

2.1.4 Additional for Storage rooms:

2.1.4.1 Location of the storage rooms must be close to the ECSR.

2.1.4.2 Install backing on all walls for heavy duty shelving.

2.1.4.3 Install full height 60 cm deep shelving.

2.1.5 Furniture

2.1.5.1 Sharp container.

2.1.5.2 Patient stepper.

2.1.5.3 30"x60" Mobile flip tables (HPL worksurfaces) w/ rounded table corners (PVC edging).

2.1.5.4 9 armless mobile stackable chairs on casters

2.1.5.5 4'x8' whiteboard.

2.1.5.6 9 w/o arms stackable w/wheels chairs

2.1.5.7 Disposable clinical supplies.

2.1.5.8 Digital clock above patient bed/exam table

2.1.5.9 For observation-control: Table/millwork for 2 workstations with computers.

2.1.5.10 For CSRs: Examination bed 90° Fowler backrest and footrests.

2.1.5.11 For ECSRs: a patient bed as specified in the ICU.

2.2 MECHANICAL

2.2.1 HVAC and Heat Load

2.2.1.1 Ventilation should be appropriate based on intended clinical uses, expected equipment BTUs and if real medical gasses will be used.

2.2.1.2 Cooling systems must be designed for a heat load from the specified equipment and a team of up to eleven performing intensive work and one person dressed only in a hospital gown inside the room for one or more hours with all doors closed.

2.2.1.3 An individual locally temperature control within each room is required. This is especially important when students are working in smaller groups with one patient; the patient becomes very cold if the temperature cannot be adjusted to a comfortable level for someone dressed only in a hospital gown.

2.2.1.4 For rooms that will include an AV rack, a separated standalone HVAC unit is required for the observation room or observation-control room to provide cooling 24/07 and not operated by occupancy.

2.2.2 Plumbing

2.2.2.1 A sink, soap, and paper towels are required for hand washing, cleaning task trainer materials, and teaching specific procedures, such as gowning and gloving.

2.2.2.2 For observation-control room: A floor drain in the gasses closet will be required for the air compressor.

2.2.3 Protection from Water Damage

2.2.3.1 All AV equipment must be protected from damage caused by plumbing failures and excessive condensation.

2.2.3.2 If overhead pressurized water pipes exist, the designs should include a mitigation strategy in the event of a leak.

2.3 ELECTRICAL

2.3.1 Lighting

2.3.1.1 All lighting, including clinical lights need to be coordinated with the locations of the speakers and ceiling mics.

2.3.1.2 Lighting must meet or exceed 80 Foot candles at 30" AFF.

2.3.1.3 A separate zone for lights within 1 meter of the one-way mirror.

2.3.1.4 All lights will be dimmable. Dimmer shall have the following features:

2.3.1.4.1 Dimming range of 0% to 100% in steps of 5% or less

2.3.1.4.2 Lighting fixtures to have ballasts that support dimming steps of 5% or less.

2.3.1.5 Additional for observation pair and ECSR: All light control in the activity side needs to be duplicated in the observation CSR and the observation-control from the observation seating area.

2.3.1.6 Additional for observation-control room: The gasses closet will require its own light and switch.

2.3.2 Power outlets

CSR (activity and observation) & ECSR activity rooms:

2.3.2.1 Standard duplex power outlet located behind each display.

CSR Observation rooms:

2.3.2.2 One switched duplex power outlet located above the T-bar on observation window wall for audio system components. Switch to be located to left of observation window.

ECSR Activity rooms:

2.3.2.3 Equipment require power at the headboard: Task trainers, including patient mannequin, Physiological monitor, crash cart, diagnostic set, examination light, examination bed, and other equipment.

2.3.2.4 Power for the camera mounted above the control room window, looking out towards the feet of the stretcher or exam table.

2.3.2.5 Power for the ceiling-mounted camera facing down above the stretcher or exam table.

2.3.2.6 4x standard duplex outlets at standard height on each wall for Participants' personal devices, mobile ultrasound machine, PC, etc.

Additional to the ECSR Control-Observation rooms:

2.3.2.7 1 standard duplex power outlets at each ECSR control-observation operator station.

2.3.2.8 1 double duplex power outlet adjacent to the primary AV pull box at the AV rack location.

2.3.2.9 1 standard duplex power outlet for vacuum pump and air compressor in gasses closet.

2.3.3 Conduits and Cable pathways

CSR Observation Rooms:

2.3.3.1 Low voltage double gang back box for: microphone connector and volume control located under the observation window above the flip up table. 25mm Low voltage conduit to stub into ceiling space above T-bar.

2.3.3.2 Above T-bar cable pass through between CSR observation room and CSR activity room for audio cables. Cable pass through to include some form of acoustical barrier.

ECSR Activity Rooms:

2.3.3.3 One quad gang box with 3x 25mm conduits installed at headwall behind vitals display (Vitals video, PtP RJ45, USB extender, VoP)

2.3.3.4 One single gang box with 1x 25mm conduit will be installed on the underslab directly above the patient bed (for speakers)

2.3.3.5 One single gang box with 1x 25mm conduit will be installed on the underslab directly above the patient bed (for microphone)

2.3.3.6 One single gang box with 1x 25mm conduit will be installed on the underslab directly above the patient bed (for future simulation camera)

2.3.3.7 One single gang box with 1x 25mm conduit will be installed on the wall directly above the observation window (for future simulation camera).

2.3.3.8 One double gang box with 1x 25mm conduit installed at behind side display (Control room display inputs).

2.3.3.9 All conduits tie back to AV Pull Box in ECSR Control-Observation room.

ECSR Control-Observation rooms:

2.3.3.10 AV pullbox of sufficient size to accommodate up to 18 conduits, located behind AV equipment rack.

2.3.3.11 One single gang box with 1x 25mm conduit will be installed on the underslab directly above the operator stations (speakers).

2.3.3.12 One quad gang box with 3x 25mm conduits located below observation window and above millwork (vitals video, PtP RJ45, USB extender, VoP).

2.3.3.13 One triple gang box with 1x 41mm conduit located below observation window and above millwork for Side display input, microphone input and headphone amp output.

2.3.3.14 1x 25mm conduit from cable tray to AV pull box.

2.3.3.15 All AV conduits will route through the primary AV pull box.

2.3.3.16 Provide all services, conduits, and back box infrastructure necessary for AV system design.

2.4 DATA & TELEPHONE

2.4.1 Data

2.4.1.1 100% Wi-Fi coverage shall be provided in each room and density shall be calculated allowing for two (2) mobile devices per participant.

2.4.1.2 2 data ports for each computer station.

2.4.2 Telephone

2.4.2.1 Phone port by the door at standing height.

2.4.3 Additional for ECSR Activity:

2.4.3.1 Additional speaker phone (to the above) mounted on or immediately next to the headwall at standing height.

2.4.3.2 4 Data ports by the bed/exam tables.

2.4.4 Additional for observation-control:

2.4.4.1 One phone port at each operator station

2.4.4.2 Electrical systems and data conduit must support the equipment detailed below, including connections between this equipment and the systems noted in the ECSR. Note that some of the equipment below may optionally be placed in a separate server room, assuming on-demand access to this equipment is ensured.

2.4.4.3 Network design account for specific requirements of recording/debriefing system and task trainers. For example, recording/debriefing systems may have specific bandwidth requirements based on anticipated peak use and may require specific ports to be open on the network.

2.4.4.4 Access to the recording/debrief server VLAN will be available from the house VLAN to facilitate remote (within the building) connections and playback of recorded content.

2.4.4.5 4 house network ports at or near the equipment rack location.

2.4.4.6 4 house network ports above desk height for computer equipment (2 on each side of the observation window).

2.5 SECURITY

2.5.1 Room Access

2.5.1.1 All entrances to the CSR, ECSR and storage will include an RFID Card Reader

2.5.2 Equipment

2.5.2.1 The display mounts require a padlock secured via 4 digit combination lock.

2.6 ACOUSTICS

2.6.1 General Characteristics

2.6.1.1 Room acoustics play a key role in ensuring presenter and audience speech intelligibility.

2.6.1.2 Design characteristics intended to support the acoustical requirements and must be validated by a qualified and approved acoustical consultant. The acoustical report generated will address acoustical requirements for the HVAC system, ambient noise levels, lighting ballasts, reflective surfaces, treatments, reverberation, and other noise mitigation methodologies.

2.6.1.3 Acoustical consultant shall provide acoustical performance validation test and report at milestones as defined in the Design-Build Agreement to be issued to UBC FoM Team for approval.

2.6.1.4 There are three (3) primary factors for consideration:

2.6.1.4.1 Background noise which considers ambient noise from HVAC and other systems that may create continuous/intermittent noise in the space;

2.6.1.4.2 Sound isolation which considers noise transfer from outside the space to inside the space; and

2.6.1.4.3 Interior acoustics which considers the movement and reflection of sound waves within the room.

2.6.2 Background Noise

2.6.2.1 Noise control measures must be undertaken to achieve a background noise criterion of NC 30-35.

2.6.3 Noise Isolation

2.6.3.1 CSR and ECSR must achieve a Sound Transmission Class (STC) rating of STC 50-54.

2.6.3.2 Groups of students in adjoining rooms must be able to converse at normal levels and not interrupt their colleagues in adjacent rooms. This is including the designs of the doors, walls and observation one-way mirror.

3 REFERENCE DIAGRAMS

Figure 1: CSR & ECSR Display diagram

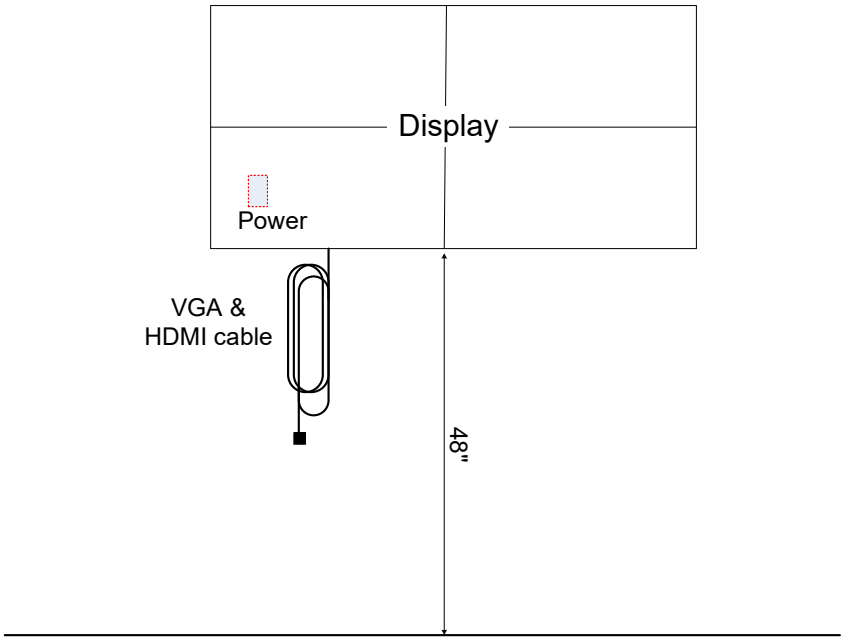
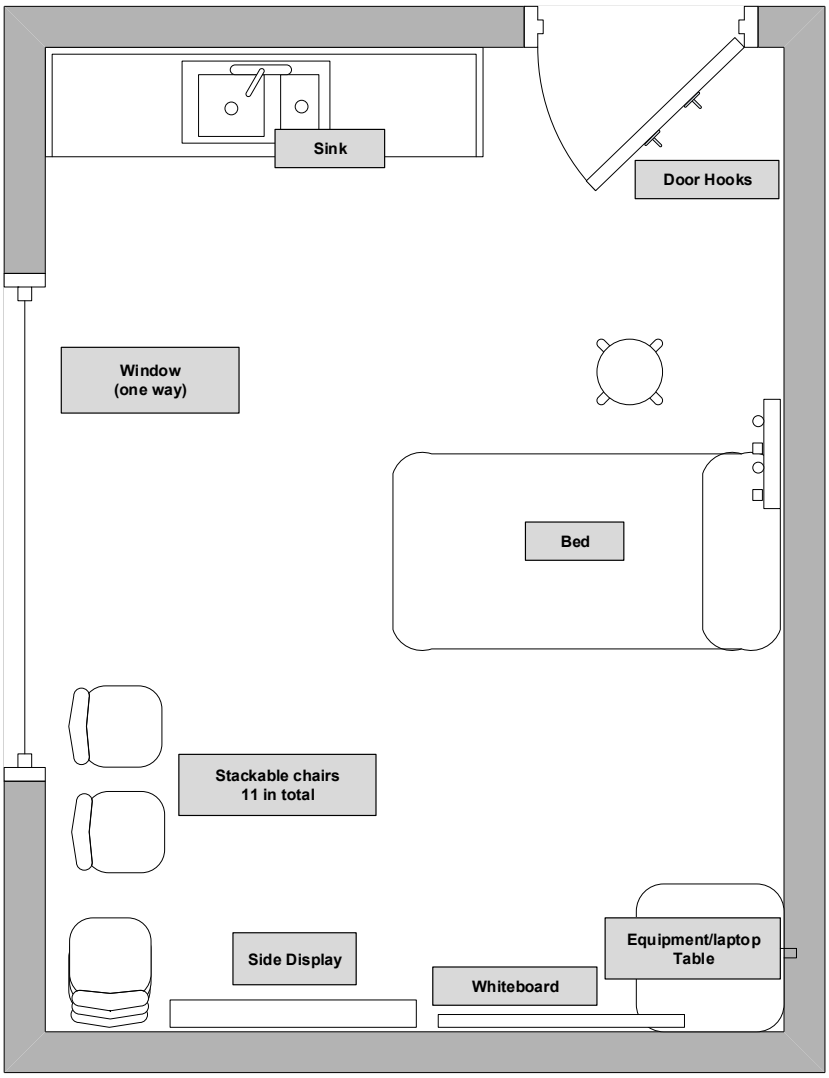
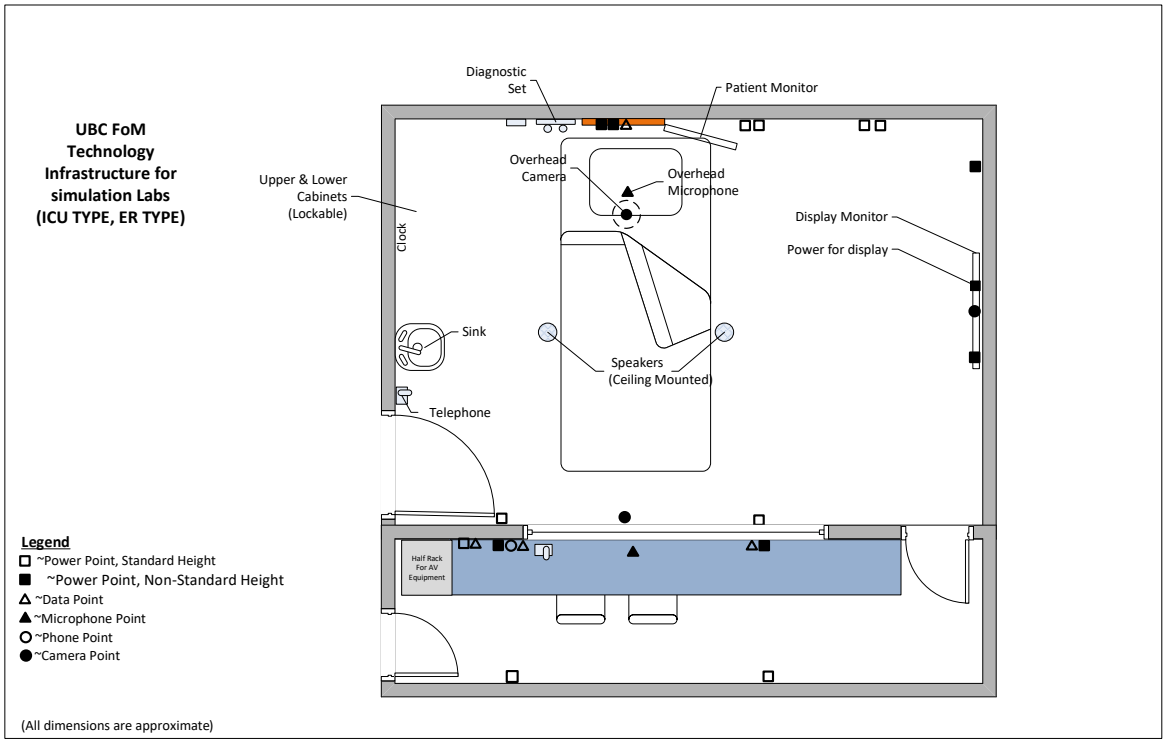


Figure 2: CSR Activity Room floor plan layout



Please note: Placement of the display and the window and general the room layout will depend on room geometry.

Figure 3: Enhanced Clinical Skills and control-observation room floor plan layout



Please note: Placement of the display and the window and general the room layout will depend on room geometry.

APPENDIX 1L(II)
UBC On-call Suite

FACULTY OF MEDICINE

Design Guidelines and Functional Requirements for Learning Spaces: On-Call Suite

MAY 10, 2022

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1 INTRODUCTION

1.1 FACULTY OF MEDICINE DISTRIBUTED MEDICAL PROGRAM

In 2004, the University of British Columbia (UBC) Faculty of Medicine (FOM) initiated its Distributed Medical Program (DMP), the purpose of which is to provide equal access to medical teaching and training for students, residents, and practicing physicians across BC. The DMP is made possible by technology-enabled learning spaces located at university sites (UNBC, UBCO, UVic, and UBC) as well as Clinical Academic Campuses and Affiliated Regional Centres located across the province. Many of these spaces are also videoconference (VC)-enabled and are connected to each other via the central VC Bridge, all of which rests on a dedicated network called the Distributed Medical Program Audiovisual (DMP-AV) network. The requirements laid out in this document support the Accreditation standards defined by the Royal College of Canada.

1.2 DOCUMENT PURPOSE AND APPLICABLE SPACES

This document is part of a collection of documents referred to as the **UBC FOM Design Guidelines and Functional Requirements for Learning Spaces**. They provide requirements for the design of the learning spaces including furniture and equipment.

This document provides the design guidelines and functional requirements for the spaces included in the on-call suite as they are identified in Appendix 1A Clinical Specifications.

1.3 PROCESS AND APPROVAL

The UBC FOM Project Team (FoM Team) will be involved as part of the User Consultation Groups to review at each design stage and construction phase milestones, as specified in Schedule 2 (Review Procedure) in the Design-Build Agreement (DBA) and as required, to ensure architectural, infrastructure, and all supporting systems are designed and implementation as specified. The provisions of Schedule 2 (Review Procedure) will govern for all references to the UBC FoM team reviewing and approving material within this document.

1.4 ROOMS USAGE DESCRIPTIONS

The on-call suite is dedicated for the UBC Faculty of Medicine undergraduate students and post-graduate resident trainees that are at the site and is used of the call activities including lockers (e.g., street clothes, books, stethoscope, laptops and backpack), relaxation, networking, and resting.

1.5 FUNCTIONAL REQUIREMENTS AND DESIGN CRETERIA

1.5.1 ON-CALL SUITE GENERAL

1.5.1.1 The on-call suite requires to be designed as a centralized suite including all spaces in this section and with the or immediate adjacent to the Learning Commons. If there is no Learning Commons, then the study stations should be with immediate adjacency to the Learner lounge.

1.5.1.2 The location must be carefully considered so that the route between this area and inpatient units and the Emergency Department is safe and secure, particularly after hours, and within 5 minutes walking time.

1.5.1.3 An enclosed space should be dedicated and outfitted for breastfeeding with a small fridge and a soft chair w/arms.

1.5.1.4 Security: All entrances to this area must to be secured, 24/7 access via RFID Card Reader.

In addition, each of the rooms shall include:

1.5.1.4.1 24/7 access via RFID Card Reader.

1.5.1.4.2 Enable distress alerting Security without dialing a phone.

1.5.1.4.3 Security must identify immediately and easily the location of the room where the alert was made from.

1.5.1.5 All inside and outside walls and corners to include wall and corner protection from floor to 1000mm AFF.

1.5.1.6 Doors: All doors to have mechanical hydraulics to ensure quiet and soft closing.

1.5.1.7 Wi-Fi:

1.5.1.7.1 Provide a complete wireless network infrastructure throughout the spaces with no dead spots allowing any standard network applications or telephone applications to be utilized.

1.5.1.7.2 A wireless predictive survey shall be performed to provide 100% wireless coverage throughout each AV room with a minimum signal strength of 70dB for both 2.4GHz and 5GHz bandwidth. The predictive model shall consider building construction materials. Once the rooms are near completion, the predictive model shall be verified by performing a physical wireless study. Once complete, the model and results shall be handed over to the UBC FoM team for review and approval.

1.5.1.7.3 Density shall be calculated allowing for two (2) mobile devices per participant.

1.5.2 ON-CALL ROOMS

1.5.2.1 The on-call rooms to be organized in groups and further from the Lounge with a space for clean and soiled linen and scrubs carts.

1.5.2.2 Ref # XX on-call rooms must be designed as accessible room.

1.5.2.3 Location of the on-call rooms must consider concrete born vibrations and noises from adjacent spaces and floors. If this adjacency can't be avoided, measures must be taken to eliminate these vibrations and noises from reaching the on-call rooms.

Must not transfer noise in-between the rooms and between the corridors to the rooms with STC 45. Within the rooms Noise Criteria (NC) 25-30 with no pure tones.

The location of the HVAC compressor must not interfere with the acoustical requirements.

For further acoustical consideration refer to the acoustical paragraph below.

1.5.2.4 If exterior or interior windows exist, 90% or better blackout blinds shall be provided for these windows.

1.5.2.5 Access will be controlled by RFID Card Reader and the door hardware will be with a deadbolt from the inside and “Occupy/Vacant” indicator on the outside.

1.5.2.6 Support study and resting environment with a bed, study table and a comfortable chair.

1.5.2.7 For each room provide an individual thermostat, locally controlled.

1.5.2.8 Connect to the Hospital’s Dictation system.

1.5.2.9 Install a phone by the bed.

1.5.2.10 Secure personal belonging in a locker with a digital lock.

1.5.2.11 Install a full height mirror.

1.5.2.12 Dimmable room light control: one (1) by the door and one (1) by the bed.

1.5.2.13 Power outlet: one (1) duplex by the bed and two (2) duplex above table (1) duplex by the mirror.

1.5.2.14 Data ports above table for computer, phone and Hospital dictation system.

1.5.2.15 Network connection: 1x XX and 1x UBC.

1.5.3 LOUNGE

1.5.3.1 The Lounge must have access to natural light.

1.5.3.2 The noise from the Lounge must not interfere adjacent spaces. For further acoustical consideration refer to the acoustical paragraph below.

1.5.3.3 Wall mounted phone by the entrance, eating area and each work station.

1.5.3.4 A dedicated thermostat, locally controlled to be provided.

1.5.3.5 The room will be divided into: Eating area; Seating/relaxing and watching TV; and work area.

1.5.3.5.1 Eating area:

- Kitchenette for snack preparation with fridge, microwave, coffee maker, sink, dishwasher, durable and easily cleaned surface cabinets and countertop.
- Seating area around a table.
- Power to include all appliances and additional four (2) duplex convenience power by the seating area.
- Data port by the seating area for a wall mounted phone.

1.5.3.5.2 Seating/relaxing and watching TV:

- TV wall mounted. Size to calculate by the size of the seating area. Connected to the Entertainment system of the hospital.
- Power to include six (4) duplex convenience power distributed around in the seating area.
- One (1) Data port by the seating area for a wall mounted phone.

1.5.3.5.3 Work Area:

- Computer stations as specified in the space list.
- Printer.
- Each station:
    - Computer power and data
    - Data for phone.
    - Connection to the Hospital Dictation system.
    - 1x Health Authority network and 1xUBC network

1.5.4 LOCKER AREA

1.5.4.1 To be located by the main entrance to the suite.

1.5.4.2 Secure personal belonging including a backpack and coats in a locker with a digital lock.

1.5.4.3 Install a full height mirror, and/or half height with a shelf and power.

1.5.4.4 Include 1-2 small mobile benches.

1.5.5 SHOWER AND WASHROOMS

1.5.5.1 For further design parameters refer also to Staff washrooms and showers.

1.5.5.2 The shower and washrooms require to be in a non-public area.

1.5.5.3 At least one washroom and one shower need to be in a single room for Non-Binary individuals.

1.5.5.4 Shower to include “wet area” with shelf for soap and (2) hooks. “Dry area” with three (3) hooks and a bench. There will be a physical separation between the wet and the dry area.

1.5.5.5 Shower door to be lockable with occupancy indicator.

1.6 ACOUSTICS

1.6.1 GENERAL CHARACTERISTICS

1.6.1.1 Design characteristics intended to support the acoustical requirements must be validated by a qualified and approved acoustical consultant. The acoustical report generated will address acoustical requirements for the HVAC system, ambient noise levels, lighting ballasts, reflective surfaces, treatments, reverberation, and other noise mitigation methodologies.

1.6.1.2 Acoustical consultant shall provide acoustical performance validation test and report at milestones as defined in the Design-Build Agreement to be issued to UBC FoM Team for approval.

1.6.1.3 There are three (3) primary factors for consideration:

- 1.6.1.3.1 Background noise which considers ambient noise from HVAC and other systems that may create continuous/intermittent noise in the space;
- 1.6.1.3.2 Sound isolation which considers noise transfer from outside the space to inside the space; and
- 1.6.1.3.3 Interior acoustics which considers the movement and reflection of sound waves within the room.

1.6.2 BACKGROUND NOISE

1.6.2.1 Achieving low NC levels means very tight control of fan noise and air flow conditions.

1.6.2.2 Noise-producing HVAC equipment including mixing boxes, fan-powered mixing boxes, and fan coil units shall not be located inside rooms or within the ceiling plenum space.

1.6.3 ON CALL ROOMS AND LOUNGE NOISE ISOLATION

1.6.3.1 It is critical to achieve adequate sound isolation between these rooms and adjacent spaces.

1.6.3.2 The following targets are applicable for the on-call rooms and lounge:

1.6.3.2.1 All perimeter walls must achieve a Sound Transmission Class (STC) rating of STC 55. The door must be purpose built STC 45.

1.6.3.2.2 Noise isolation to rooms above and below are set at minimum STC 50.

1.6.3.2.3 A target Impact Isolation Class (IIC) 65 rating must be set for the floor/ceiling system.

APPENDIX 1L(III)
UBC Small Seminar Rooms

FACULTY OF MEDICINE

Design Guidelines and Functional Requirements for Learning Spaces: Small Seminar Rooms

MAY 26, 2022

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1 INTRODUCTION

1.1 FACULTY OF MEDICINE DISTRIBUTED MEDICAL PROGRAM

In 2004, the University of British Columbia (UBC) Faculty of Medicine (FOM) initiated its Distributed Medical Program (DMP), the purpose of which is to provide equal access to medical teaching and training for students, residents, and practicing physicians across BC. The DMP is made possible by technology-enabled learning spaces located at university sites (UNBC, UBCO, UVic, and UBC) as well as Clinical Academic Campuses and Affiliated Regional Centres located across the province. Many of these spaces are also videoconference (VC)-enabled and are connected to each other via the central VC Bridge, all of which rests on a dedicated network called the Distributed Medical Program Audiovisual (DMP-AV) network. The requirements laid out in this document support the Accreditation standards defined by the Royal College of Canada.

1.2 DOCUMENT PURPOSE AND APPLICABLE SPACES

This document is part of a collection of documents referred to as the **UBC FOM Design Guidelines and Functional Requirements for Learning Spaces** (henceforth referred to as Design Guidelines and Functional Requirements). They provide requirements for learning spaces based on best practices and extensive organizational experience developed since 2004. Each learning space type has an associated Design Guideline and Functional Requirements document about that space type.

This document provides infrastructure requirements for the design and construction of the Videoconference rooms (commonly called VC Rooms) as they are identified in Appendix 1A Clinical Specifications.

1.3 ROOMS USAGE AND BOOKING PROCESS

The VC rooms are video conferencing-enabled teaching, learning, and meeting spaces. They are used to connect a small group of people in a meeting-style room with other groups of people in other VC enabled rooms. All participants remotely and local must have equivalent ability to interact with the other participants. These rooms are located at University Sites, Clinical Academic Campuses, and Affiliated Regional Centres, and Community Education Facilities. VC rooms are used by students, instructors, and staff.

This component will be shared between UBC Faculty of Medicine learners, post graduate resident trainees, faculty, and staff internal and external to the Hospital and therefore access to these rooms should be from a public corridor.

As part of the CACMS (Committee on Accreditation of Canadian Medical Schools) Accreditation Standard for Medical Schools, the UBC Faculty of Medicine must demonstrate how the medical education program has priority in shared educational spaces required for learning experiences in medical curriculum. The UBC Faculty of Medicine room booking policy, advanced booking process, and provincial-wide booking system must be used to demonstrate that the medical school meets the accreditation standard for priority scheduling in shared academic learning spaces across the province.

1.4 INTERPERTATION

This document is written as an output specification and defines what the Design-Builder (D-B) must achieve in the design and construction needed to support the VC rooms as listed in section 1.2 above.

Except as expressly stated otherwise, the D-B will carry out the design, construction, testing and commissioning of the infrastructure for the VC rooms in cooperation with the UBC FoM Project Team (UBC).

Infrastructure - includes but is not limited to Ceilings, Drywall, Electrical, Flooring, HVAC, Lighting,Network, Wireless Access Points and Security.

1.5 ROLES AND RESPONSIBILITIES

The D-B, in coordination with the UBC project team (UBC), will design, construct, procure, deliver, setup, install, test and commission all infrastructure required to complete the UBC rooms, with the exception of what is outlined as UBC responsibilities. The UBC will design, procure, deliver, install and commission all AV/IT equipment required for the VC rooms.

Recognizing the close partnership required to deliver the project scope, the roles and responsibilities of the UBC and the D-B have been identified in the table below. The purpose of this table is to ensure clarity around project scope, to improve project communication and to ensure all design requirements are achieved.

The UBC will be the sole approver of all room configuration, design, infrastructure, materials, furniture, colours, and finishes for all rooms. Any changes made after approval must be re-approved by the UBC. The provisions of Schedule 2 (Review Procedure) will govern for all references to the UBC FoM team reviewing and approving material within this document.

Phase	UBC FoM Project team Responsibility	Design-Builder Responsibility
Project Initiation	• Develop and identify CAFs, AV/IT requirements stemming from the SoR, Specifications, Equipment List, etc., as wellas the location and funding provided • Ensure proposed location and space meetsrequirements as outlined in the SoR • Develop and manage AV/IT (not includingcomputers) technology budget and schedule	• Provide adequate location and space per SoR requirements
Project Planning (Schematic Designto Issue for Construction Drawings)	• Develop AV/IT designs based on functionalrequirements for the spaces • Coordinate with the D-B and HA AV/ITspecialist for the specific technology solution • Prepare and submit AV/IT infrastructuredrawings to the HA • Review, evaluate and approve all drawingsand specifications for each project stage toensure all UBC requirements are met • Approve furniture and equipment selection • Follow UBC change managementprocesses	• Meet regularly with UBC Point-of-Contact to review designs • Design UBC rooms in accordance to the SoR, design guidelines, and specifications, in coordination with UBC • Submit report from acoustical consultant to UBC at every design stage • Coordinate with HA AV/IT specialist to ensure UBC AV/ITtechnology are supported by HA technology • Provide CAD/REVIT files to UBC throughout thedesign phase • Obtain UBC sign-off at the end of each project phasebefore proceeding to next phase • Obtain UBC approval for any changes to the design,drawings, plans or schedule • Select non-VC equipment and furniture according to UBC specifications with the UBC

Facilities Constructio n	• Conduct site visits to ensure compliancewith UBC requirements • Validate that AV/IT and clinical equipmentinfrastructure requirements are correctly provisioned during construction • Approve installation of equipment, furniture and signage according to UBC specifications • Participate in final deficiency clearanceapproval before move-in	• Obtain UBC approval for any changes to the designs,drawings, plans or schedule • Provide access to UBC for site inspections at critical construction milestones, as specified during the design stage by UBC • Confirm with acoustical consultant that acoustic performancerequirements in all rooms are achieved and submit final reportto UBC for approval • Install signage according to UBC and HA guidelines. • Ensure deficiencies are cleared prior to move-in and start of AV/IT installation by UBC • If some deficiencies remain at the time that UBC is required to start AV installation, coordinate of critical infrastructure with UBC to enable AV installation with no damage to the AV and no additional cost to the AV installer
AV/IT Equipment Procuremen t and Implementa tion	• Confirm wired and wireless (e.g. Eduroam®) network and requirements (i.e. IP, VLAN, and switch configurations) • Liaise with HSSBC to confirm network configuration schedule • Prepare, issue, and award tender for AV/IT equipment, installation, testing and commissioning • Manage integration of all AV/IT systems with selected AV/IT contactor	• Liaise with UBC regarding any construction-related issues that affects AV/IT implementation
Move-in, Transition-to-opera tions and Project Close-out	• Update space in the UBC FoM Academic Space Inventory • Upload shared spaces to Resource Scheduler • Facilitate AV systems operational training • Submit handover AV/IT Technology documentation • Ensure Eduroam solution transition to operations process is followed	• Provide “as built” drawings • Ensure rooms are clean, secured and ready for handover to new owners • Conduct training/orientation of non-AV systems for UBC technical and administration staff and end-users

1.6 FUNCTIONAL REQUIREMENTS

VC rooms must enable all participants (located at all connected sites) to see, hear, and speak to the other participants, regardless of which site the participants are physically located. All participants must also be able to see (and hear, where applicable) other participants’ presentation material.

1.6.1 VC ROOM CAPABILITIES AND FEATURES (AV SYSTEMS ARE THE UBC SCOPE)

In order to meet the functional requirements, the VC rooms shall be equipped with a permanently installed VC system which includes the following capabilities and features:

1.6.1.1 The system will utilize two displays to show remote participants and content.
1.6.1.2 The video conferencing microphone(s) shall have the following features:
- 1.6.1.2.1 Designed for speech intelligibility and human voice frequencies.
- 1.6.1.2.2 Placement of microphones shall be at participant in order to avoid the introduction of environmental noises such as HVAC.
- 1.6.1.2.3 One (1) push-to-talk microphone per three (3) participants.

1.6.1.3 The video conferencing camera:

2 ROOM ENVIROMENTAL DESIGN

The room requires VC-appropriate architecture, acoustical treatments, wall and furniture colours, lighting, cooling, power and data ports, and cable pathways. The following sections describe requirements for additional aspects of room and VC system design.

UBC FoM technology-enabled learning spaces have active AV equipment 24 hours per day, 7 days per week. Spaces are primarily used during business hours (6am-6pm Monday-Friday) but can be used at any time.

2.1 ARCHITECTURE & INTERIOR DESIGN

2.1.1 GENERAL DESCRIPTION

2.1.1.1 The number of seats outlined in this document is for videoconferencing occupancy (all participants able to view the monitors and are viewed by the VC camera). There will be additional participants for local sessions and training. All infrastructure and furniture need to be designed to max participants occupancy and not only for the videoconferencing occupancy.
2.1.1.2 The space shall be rectangular with an aspect ratio of side walls to front/back walls of 1:1.13.
2.1.1.3 Site lines to the main screens (on display wall) required to be unobstructed from all seats.
2.1.1.4 Columns or other obstructions within the room envelope are not acceptable. This is necessary to maintain the usability and orientation of the space.
2.1.1.5 Because of the VC camera sensitivity to vibration, any structure born vibration should be avoided either by location of the room or by other mitigation strategies.
2.1.1.6 The seating design is a rectangular or U-shaped seating, depends on the size of the room, with loose tables.
2.1.1.7 The minimum distance from the front wall to the closest seated participant required to be 1600mm.
2.1.1.8 The ratio of distance from displays to the most distant viewer (MDV), to image height, will not exceed a factor of 6.0 (distance from display to MDV divided by image height) for all seats.
2.1.1.9 The horizontal viewing angle for all seats will not exceed 60 degrees for both displays (measured from occupant seat to display center).
2.1.1.10 The entire front wall must be reinforced to permit secure mounting of equipment. Exact weight load to be coordinated by the D-B with based on AV system design and display sizes in compliance with FoM requirements.
2.1.1.11 The entrance is required to be at the back of the room (opposite the wall with the displays and camera).

2.1.2 WINDOWS

2.1.2.1 If exterior or interior windows exist, 90% or better blackout blinds with side rails/tracks shall be provided for these windows to facilitate an optimal viewing and environment.

2.1.3 DOORS

2.1.3.1 Access to the room shall be card access controlled.
2.1.3.2 Install kick plate on both sides of the door.
2.1.3.3 Door width to accommodate patient bed.
2.1.3.4 Glass hatch with integrated blinds.
2.1.3.5 Door hold open.
2.1.3.6 Refer to the section below for required acoustical performance.

2.1.4 WALLS

2.1.4.1 Refer to section below for required acoustical performance of the walls.
2.1.4.2 Install wall and corner protection throughout the room from floor to 1000mm AFF.

2.1.5 FLOORING

2.1.5.1 Flooring throughout the rooms will be carpet for acoustical attributes.

2.1.6 EQUIPMENT AND FURNITURE

2.1.6.1 The participant table shall be either rectangular or U-shaped, based on number of occupants.
- 2.1.6.1.1 Tables will have a 12 inch modesty panel.
- 2.1.6.1.2 In a room with 4-10 Videoconferencing occupancy, a rectangular table configuration shall be used, with one table or a ganged set of tables suitable for the number of occupants.
- 2.1.6.1.3 In a room with 10-20 Videoconferencing occupancy, a U-shaped table configuration opening towards the camera shall be provided for best viewing angles.
- 2.1.6.1.4 Additional tables and chairs will be needed for non-VC occupancy.

2.1.6.2 UBC shall provide final approval on proposed tables required to form the seating arrangement that best suits the seating capacity and geometry of the space based on expected use-cases.

2.1.6.3 Floor box placement shall be coordinated with the approved furniture configuration. For floor box requirements refer to the electrical section of this document.

2.1.6.4 Phone, wall mounted by the entrance and a Tele-conference phone on the tables.

2.1.7 COLOURS

2.1.7.1 The colour of the walls, carpeting, and chairs must be neutral as either solid grey or solid blue to provide visual definition to the participants relative to the background. The purpose of the solid colour is to avoid the reflected light from the background affecting colour quality of the camera images.

2.1.7.2 The colour of the table surface must be either antique white, light grey, or light maple to maximize reflected light.

2.2 MECHANICAL

2.2.1 HVAC AND HEAT LOAD

2.2.1.1 HVAC designs must account for all AV equipment and maximum occupancy to maintain temperatures comfortable for occupants and safe for AV equipment and designed to the acoustical performance requirements as outlined in this document.
- 2.2.1.1.1 Long-term ambient room temperature target for these VC rooms to operate in is 21 degrees Celsius with a relative humidity level of 30-50%.
- 2.2.1.1.2 Maximum short-term (1 hour) sustainable ambient temperature for these rooms is 24 degrees Celsius with a relative humidity level of 30-50%.

2.2.1.2 Active cooling shall be provided to account for the equipment and occupancy heat gains. The minimum cooling capacity shall be calculated and coordinated by the D-B. Maximum occupancy must be factored in for all heating calculations.

2.2.1.3 The location of the compressor must not interfere with the acoustical requirements and must not introduce vibration into any wall or bulkhead that supports a camera or displace device.

2.2.1.4 A dedicated thermostat, locally controlled shall be provided.

2.2.2 PROTECTION FROM WATER DAMAGE

2.2.2.1 All VC rooms must be designed and constructed to protect the AV equipment from the potential any damage caused by plumbing failures and condensation.

2.2.2.2 If pressurized water lines run above the AV system components, install a drip tray in the ceiling to prevent equipment damage in the event of a leak.

2.3 ELECTRICAL

2.3.1 LIGHTING

2.3.1.1 Lighting is a key factor in a properly functional VC room. Minimum requirements are as follows:
- 2.3.1.1.1 All participants to be well illuminated for the VC cameras;
- 2.3.1.1.2 Minimize reflections on screens and video display surfaces;
- 2.3.1.1.3 Avoid an overly illuminated or glaring participant area;
- 2.3.1.1.4 No hot spots or shadows on participants;
- 2.3.1.1.5 All participants to easily control the lighting conditions;
- 2.3.1.1.6 Illuminate the entire participant area.

2.3.1.2 Light reflecting off the table surface require to be at 15-20 degree angle.

2.3.1.3 Colour temperature to be 3500 degrees Kelvin. Different colour temperatures will not be permitted.

2.3.1.4 Lighting to provide a minimum brightness of 80 foot-candles measured at table height.

2.3.1.5 Light switches to be located by the entrance.

2.3.1.6 Dimmer shall have the following features:
- 2.3.1.6.1 Dimming range of 0% to 100% in steps of 5% or less

2.3.1.7 Lighting fixtures shall have the following features:
- 2.3.1.7.1 Fixture ballasts to support dimming steps of 5% or less.

2.3.1.8 Minimum of three (3) lighting zones shall be provided:
- 2.3.1.8.1 Display device lighting within one (1) meter of the display devices
- 2.3.1.8.2 Wall wash lighting
- 2.3.1.8.3 Participant and ceiling lighting

2.3.1.9 Dimmer controller shall have a minimum of 5 lighting presets:
All on; All off; Receiving; Presenting; (Custom)

2.3.2 POWER OUTLET

2.3.2.1 Convenience receptacles shall be provided over and above receptacles required for AV equipment:
- 2.3.2.1.1 Provide four (4) convenience receptacles at each wall for a total of sixteen (16) receptacles.
- 2.3.2.1.2 Provide one (1) floor box convenience receptacle for every four (4) participants in local session.

2.3.2.2 AV equipment loads shall be calculated and coordinated by infrastructure designer.

2.3.2.3 Refer to section “Conduits and Cable Pathways” for AV equipment power receptacles locations.

2.3.3 CONDUITS AND CABLE PATHWAYS

2.3.3.1 IF there is a CTO on campus, then the basket tray shall be sized for communications and audio-visual cable density plus 25% future expansion capacity:
- 2.3.3.1.1 Continuous, rigid, welded steel wire mesh spaced 50mm x 100mm;
- 2.3.3.1.2 Continuous T-weld on top rail of tray;
- 2.3.3.1.3 And Finish: electroplated zinc coating.

2.3.3.2 Power connection shall be adjacent to audio-visual outlet boxes.

2.3.3.3 Pathways shall avoid potential sources of electromagnetic interference by maintaining clearances of at least:
- 2.3.3.3.1 305mm from fluorescent ballasts;
- 2.3.3.3.2 305mm from electrical distribution conduit and cable less than 1kV;
- 2.3.3.3.3 1000mm from electrical distribution conduit and cable more than 1kV;
- 2.3.3.3.4 1220mm from motors and transformers;
- 2.3.3.3.5 And 305mm from HVAC equipment, ducts and pipes.

2.3.3.4 Audio-visual outlet boxes shall be masonry back box with minimum depth of 90mm. Outlet box shall be recessed if wall mounted below finished ceiling. All outlet boxes shall have cover plates installed and colour coordinated with other outlets and services.

2.3.3.5 The maximum number of bends between cable pull boxes in a conduit run shall be two (2) 90 degree bends.

2.3.3.6 Conduit runs shall have no continuous sections longer than 30m between pull boxes.

2.3.3.7 If a conduit run requires a reverse bend between 100 degree and 180 degree, then a pull box shall be inserted into the bend but shall not be used as the bend.
2.3.3.8 Pull boxes shall be installed in fully accessible spaces.
2.3.3.9 Support and secure all boxes independent of the conduit connected thereto.
2.3.3.10 All conduit ends shall be protected by insulating bushings.
2.3.3.11 Conduit stub and insulating bushing shall be as short as possible inside the outlet box to ensure that it does not obstruct installation of the audio-visual device.
2.3.3.12 All conduits shall be left with a nylon pull string installed.
2.3.3.13 Each outlet box shall be clearly marked in back of box with an 'AV#' that corresponds to the riser diagram and floor plan.
2.3.3.14 Audio-visual conduits and outlet boxes shall be colour coded with paint or similar. The colour shall be different from other systems including communications pathway.
2.3.3.15 Quantity and size of conduits will be designed by the D-B to facilitate final AV system designs. At a minimum, the D-B will provide:

AV Infrastructure Table:

AV Source	AV Destination
Primary pull box or Rack	Microphones
Primary pull box or Rack	Displays
Primary pull box or Rack	Speakers
Primary pull box or Rack	Plenum Space
Primary pull box or Rack	VC Camera 1

2.4 DATA & TELEPHONE

2.4.1 WI-FI

2.4.1.1 Provide a complete wireless network infrastructure throughout the AV spaces with no dead spots allowing any standard network applications or telephone applications to be utilized.
2.4.1.2 A wireless predictive survey shall be performed to provide 100% wireless coverage throughout each AV room with a minimum signal strength of 70dB for both 2.4GHz and 5GHz bandwidth. The predictive model shall consider building construction materials. Once the AV rooms are near completion, the predictive model shall be verified by performing a physical wireless study. Once complete, the model and results shall be handed over to the UBC FoM team for review and approval.
2.4.1.3 The proposed solution shall be able to support the following criteria:
2.4.1.3.1 Density shall be calculated allowing for two (2) mobile devices per participant.

2.4.2 WIRED DATA PORTS

2.4.2.1 Each AV system shall have five (5) data drops behind the right display.
2.4.2.1.1 2x assigned to the VC VLAN
2.4.2.1.2 2x assigned to the house network
2.4.2.1.3 1x assigned to the UBC network
2.4.2.2 Two (2) convenience data drops for 2 wall for a total of four (4) convenience data drops.
2.4.2.3 One (1) data drop per floor box.
2.4.2.4 One (1) data drop directly opposite displays at 2134mm AFF for IP camera.
2.4.2.5 Enable access to both Health Authority and UBC network.

2.4.3 PHONE PORTS

2.4.3.1 One (1) VoIP phone data drop to be wall mounted by the door.
2.4.3.2 One (1) VoIP phone data drop to accommodate a conference speakerphone in centre of the room.

2.5 ACOUSTICS

2.5.1 GENERAL CHARACTERISTICS

2.5.1.1 Room acoustics play a key role in ensuring presenter and audience speech intelligibility.

2.5.1.2 Design characteristics intended to support the acoustical requirements must be validated by a qualified and approved acoustical consultant. The acoustical report generated will address acoustical requirements for the HVAC system, ambient noise levels, lighting ballasts, reflective surfaces, treatments, reverberation, and other noise mitigation methodologies.

2.5.1.3 Acoustical consultant shall provide acoustical performance validation test and report at milestones as defined in the Design-Build Agreement to be issued to UBC FoM Team for approval.

2.5.1.4 There are three (3) primary factors for consideration:

- 2.5.1.4.1 Background noise which considers ambient noise from HVAC and other systems that may create continuous/intermittent noise in the space;
- 2.5.1.4.2 Sound isolation which considers noise transfer from outside the space to inside the space; and
- 2.5.1.4.3 Interior acoustics which considers the movement and reflection of sound waves within the room.

2.5.2 BACKGROUND NOISE

2.5.2.1 Provide good speech intelligibility for local and remote listeners. The background noise target shall be Noise Criteria (NC) 25-30 with no pure tones.

2.5.2.2 Achieving these low NC levels means very tight control of fan noise and air flow conditions.

2.5.2.3 Noise-producing HVAC equipment including mixing boxes, fan-powered mixing boxes, and fan coil units shall not be located inside VC rooms or within the ceiling plenum space.

2.5.3 NOISE ISOLATION

2.5.3.1 It is critical to the proper operation of the VC room to achieve adequate sound isolation between the rooms and adjacent spaces and for dividable rooms, in-between the two sections.

2.5.3.2 The following targets are applicable to all VC rooms:

- 2.5.3.2.1 All perimeter walls must achieve a Sound Transmission Class (STC) rating of STC 55. The door must be targeted for a purpose built STC 45.
- 2.5.3.2.2 Noise isolation to rooms above and below are set at minimum STC 50.
- 2.5.3.2.3 A target Impact Isolation Class (IIC) 65 rating must be set for the floor/ceiling system.
- 2.5.3.2.4 The dividable wall shall have a rating of STC 55.

2.5.4 INTERIOR ACOUSTICS

2.5.4.1 VC rooms must have appropriate acoustical conditions to optimize the rooms for presentations, VC, and/or monitoring. Appropriate acoustical treatment must be installed to control reverberation, minimize reflections, flutter echo and other acoustical issues that may adversely affect the microphone pickup.

2.5.4.2 Reverberation time must be 0.45 to 0.55 seconds in the mid and high frequencies, with controllable low frequency energy.

2.6 SECURITY

2.6.1 ROOM ACCESS

2.6.1.1 All entrances to the VC rooms will include an RFID Card Reader

2.6.2 EQUIPMENT

2.6.2.1 The display mounts require a padlock secured via 4 digit combination lock.

2.6.2.2 The camera, codec, and Touch 10 require a 4 digit combination T-Lock style laptop cable lock.

APPENDIX 1M
MEDICAL SERVICES UNIT (MSU) MATRIX

Appendix 1M Medical Services Unit Matrix

With Headwalls

				Patient Care Classification	Electrical & Lighting Services									IMIT Services					Patient Care Classification	Mechanical										General Note
TO DEPARTMENT	TO RM#	TO ROOM NAME	ITEM DESCRIPTION	Electrical Standard CSA - Z32-21	Conditional Power Receptacles HE	Conditional Power (UPS) Receptacles HG	Vital Power Receptacles HG	UPS Power Receptacles HG	Vital Power Patient Bed Receptacle HG	Single Pole 3-Way Light Switches	Other	Notes	I.P. Nurse Call System Station Type	Data Outlet 4 Ports [2 Ports Wired & 1 Unallocated Data Port]	Patient Smart Bed 37 Pin Connector	Bedhead Digital Screen Data Outlet 4 Ports [2 Ports Wired PoE]	Notes	Mechanical CSA - Z7396.1-17 E3	Gas use category	O²	Vacuum	Med. Air	N2O	CO2	AGSS	N2	Notes	Architecture - Headwall Y/N
Emergency	01.3.01.01	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0	Nurse call system only on nurse zone side		C3	2	1	1	-				N2O not required; to be confirmed	Y
Emergency	01.3.01.02	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				N2O not required; to be confirmed	Y
Emergency	01.3.01.03	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				N2O not required; to be confirmed	Y
Emergency	01.3.01.04	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				N2O not required; to be confirmed	Y
Emergency	01.3.01.05	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				N2O not required; to be confirmed	Y
Emergency	01.3.01.06	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				N2O not required; to be confirmed	Y
Emergency	01.3.04.01	Exam/Treatment Room - Gyne	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0	Nurse call system only on nurse zone side		C3	2	1	1	-				1 headwall with O2 outlets, vacuum and Med.Air	Y
Emergency	01.3.06.01	Exam/Treatment - Isolation Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		With outlets on each side	Enhanced+CB+CW	Data Outlet x 3	No	0	Nurse call system only on nurse zone side		C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Emergency	01.4.01.01	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Emergency	01.4.01.02	Exam/Treatment Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Clinical Decision Unit	02.1.01.01	Clinical Decision Patient Area	HEADWALL, PATIENT, RECESSED CONSOLE (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	No	0	Nurse call system only on nurse zone side		C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Clinical Decision Unit	02.1.01.02	Clinical Decision Patient Area	HEADWALL, PATIENT, RECESSED CONSOLE (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	No	0			C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Clinical Decision Unit	02.1.01.03	Clinical Decision Patient Area	HEADWALL, PATIENT, RECESSED CONSOLE (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	No	0			C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Clinical Decision Unit	02.1.01.04	Clinical Decision Patient Area	HEADWALL, PATIENT, RECESSED CONSOLE (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	No	0			C3	2	1	1	-				No N2O required in Streaming (1.4.0)	Y
Diagnostic Imaging	12.2.11	Patient Holding	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2			Enhanced+CB+CW	Data Outlet x 3	No	0			E2	1	1	1	-				No N2O required in Streaming (1.4.0)	Y
Diagnostic Imaging	12.4.02	Patient Holding	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	2			Enhanced+CB+CW	Data Outlet x 3	No	0			E2	1	1	1	-				No N2O required in Streaming (1.4.0)	Y
Diagnostic Imaging	12.9.05	MRI Preparation Room	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	1	15A Duplex x 2	3			Enhanced+CB+CW	Data Outlet x 4	No	1			E3	1	1	1	-				No N2O required in Streaming (1.4.0)	Y
Surgical Services	11.4.01.01	PARR (Level 1) - Stretcher	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	3			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	2	2	1	-				Two (2) O2 outlets required.	Y
Surgical Services	11.4.01.02	PARR (Level 1) - Stretcher	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	3			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	2	2	1	-				Two (2) O2 outlets required.	Y
Surgical Services	11.4.01.03	PARR (Level 1) - Stretcher	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	3			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	2	2	1	-				Two (2) O2 outlets required.	Y
Surgical Services	11.4.01.04	PARR (Level 1) - Stretcher	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	3			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	2	2	1	-				Two (2) O2 outlets required.	Y
Surgical Services	11.4.11.01	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.02	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.03	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.04	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.05	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.06	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.07	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.08	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.09	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.10	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.11	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Surgical Services	11.4.11.12	Pre-Op/Day Surgery (L-2) Recovery Stretchers	HEADWALL, PATIENT, RECESSED CONSOLE (SINGLE HORIZONTAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	NA	2			Enhanced+CB+CW	Data Outlet x 3	No	0			C2	1	2	1	-					Y
Inpatient	07.1.2.01.01	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 5	Yes	Data Outlet x 1	Nurse call system only on nurse zone side		D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.02	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.03	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.04	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.05	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.06	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.07	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.08	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.09	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.10	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.11	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.12	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.13	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.14	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.15	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.16	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.17	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.18	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.19	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.20	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.21	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.22	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.23	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.24	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.25	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.26	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.27	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.28	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.29	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.01.30	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.04.01	Inpatient Bedroom (Bariatric)	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Nurse call system only on nurse zone side		D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.1.2.04.02	Inpatient Bedroom (Bariatric)	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Vertical headwalls with outlets on each side	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	-				2 vertical headwalls, one outlet per side	Y
Inpatient	07.2.2.01.01	Inpatient Bedroom	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0

Appendix 1M Medical Services Unit Matrix

With Headwalls

				Patient Care Classification	Electrical & Lighting Services									IMIT Services					Patient Care Classification	Mechanical										General Note
TO DEPARTMENT	TO RM#	TO ROOM NAME	ITEM DESCRIPTION	Electrical Standard CSA - 232-21	Conditional Power Receptacles HG	Conditional Power USB Receptacle HG	Vital Power Receptacles HG	UPS Power Receptacles HG	Vital Power Patient Bed Receptacle HG	Single Pole 3-Way Light Switches	Other	Notes	I.P. Nurse Call System Station Type	Data Outlet 4 Ports [2 Ports Wired & 1 Unallocated Data Port]	Patient Smart Bed 37 Pin Connector	Bedhead Digital Screen Data Outlet 4 Ports [2 Ports Wired PoE]	Notes	Mechanical CSA - Z7396.1-17 E3	Gas use category	O*	Vacuum	Med. Air	N2O	CO2	AGSS	N2	Notes	Architecture - Headwall Y/N
Maternal / Newborn Inpatient Unit	09.3.01.02	LDRP	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL) x 2	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	6			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1			C1	2	3	2	1		1		LDRP - Maternal and Infant headwall required in LDRP (O2, Vacuum and Med Air) N2O not included on infant headwalls. LDRP mother side 1 o2, 1 N2o, 2 vac, 1 med air, I AGSS. Baby side 1 o2, 1 vac and 1 med air	Y - Concealed Medical Gases
Maternal / Newborn Inpatient Unit	09.3.01.03	LDRP	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL) x 2	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	6			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1			C1	2	3	2	1		1		LDRP - Maternal and Infant headwall required in LDRP (O2, Vacuum and Med Air) N2O not included on infant headwalls. LDRP mother side 1 o2, 1 N2o, 2 vac, 1 med air, I AGSS. Baby side 1 o2, 1 vac and 1 med air	Y - Concealed Medical Gases
Maternal / Newborn Inpatient Unit	09.3.04.01	LDRP (bariatric)	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL) x 3	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	6			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1	Nurse call system on both infant (2) and maternal headwall		C1	3	4	3	1		1		LDRP mother side 1 o2, 1 N2o, 2 vac, 1 med air, I AGSS. For twins, show 2 o2, , 2 vac, 2 med air	Y - Concealed Medical Gases
Maternal / Newborn Inpatient Unit	09.3.10.01	Ante/Post-Partum Room	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL)	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	4			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1			C1	1	2	1	1		1		Infant headwall not required	Y
Maternal / Newborn Inpatient Unit	09.3.10.02	Ante/Post-Partum Room	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL)	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	4			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1			C1	1	2	1	1		1		Infant headwall not required	Y
Maternal / Newborn Inpatient Unit	09.3.10.03	Ante/Post-Partum Room	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL)	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	4			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1			C1	1	2	1	1		1		Infant headwall not required	Y
Maternal / Newborn Inpatient Unit	09.3.13.01	Holding Nursery	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL)	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	0	3			Enhanced+CB+CP+CW	Data Outlet x 3	TBC	0			C1	1	1	1	0				Infant headwall in this space, no maternal headwall required	Y
Maternal / Newborn Inpatient Unit	09.3.13.02	Holding Nursery	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (SINGLE VERTICAL)	Critical Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	0	3			Enhanced+CB+CP+CW	Data Outlet x 3	TBC	0			C1	1	1	1	0				Infant headwall in this space, no maternal headwall required	Y
Academic and Teaching	28.1.01.01	Simulation Room	HEADWALL, PATIENT, RECESSED FLATWALL, VERTICAL (DOUBLE VERTICAL)	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 9	0	15A Duplex x 1	4			Enhanced+CB+CP+CW	Data Outlet x 4	Yes	Data Outlet x 1			D	2	2	2	1		1		Designed like IPU-Dual oxygen outlet- 2 set of med gas outlet; Single outlet on each side, Dual O2 not required. Suction and Oxygen only	Y

Appendix 1M Medical Services Unit Matrix

With Outlets and Booms Only

						Patient Care Classification	Electrical & Lighting Services								IMIT Services					Patient Care Classification	Mechanical										General Note
TO DEPARTMENT	TO RM#	TO ROOM NAME	CONSTR #	ID/TAG	ITEM DESCRIPTION	Electrical Standard CSA - Z32-21	Conditional Power Receptacles HG	Conditional Power USB Receptacle HG	Vital Power Receptacles HG	UPS Power Receptacles HG	Vital Power Patient Bed Receptacle HG	Single Pole 3-Way Light Switches	Other	Notes	I.P. Nurse Call System Station Type	Data Outlet 4 Ports [2 Ports Wired + 1 Unallocated]	Patient Smart Bed 37 Pin Connector	Bedhead Digital Screen Data Outlet 4 Ports [2 Ports Wired PoE]	Notes	Mechanical CSA - Z7396.1-17 E3	Gas use category	O²	Vacuum	Med. Air	N2O	CO2	AGSS	N2	Notes	Architecture - Headwall Y/N
Mental Health	10.2.01.01	Inpatient Bedroom			Recessed, secure; NHA to confirm location in adolescent rooms	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	1	1	1	-				2 MH IPU Rooms require O2, Vacuum, Med Air - rooms located closest to Nursing Station; Adolescent?	No
Mental Health	10.2.01.02	Inpatient Bedroom			Recessed, secure; NHA to confirm location in adolescent rooms	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	1	1	1	-				2 MH IPU Rooms require O2, Vacuum, Med Air - rooms located closest to Nursing Station; Adolescent?	No
Mental Health	10.2.01.03	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.04	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.05	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.06	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.07	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.08	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.09	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.10	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.11	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.12	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.13	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.14	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.15	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.16	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.01.17	Inpatient Bedroom				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	2	2	2	-				No medical gases required.	No
Mental Health	10.2.04.01	Inpatient Bedroom-Bariatric			Recessed, secure	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	15A Duplex x 1	4		Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 4	Yes	Data Outlet x 1	Ant-ligature Requirements		D	1	1	1	-				MH Bariatric IPU Room requires O2 (1), Vacuum (1), Med Air (1)	No
Diagnostic imaging	12.3.03.01	CT Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.3.07	CT: Preparation Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.2.03.01	Radiology Imaging Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.2.03.02	Radiology Imaging Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.2.03.03	Radiology Imaging Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.4.04.01	Ultrasound Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.4.04.02	Ultrasound Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.4.04.03	Ultrasound Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.4.04.04	Ultrasound Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.5.04.01	Mammography Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.6.03.01	Bone Densitometry Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Diagnostic imaging	12.9.01	MRI Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				E2	1	1	1	-					No
Biomedical Engineering	16.05.01	Workshop												Need services for equipment testing and repair					The Design-Builder shall reference the SOR for the requirements of this room.			1	1	1					PER WORKSTATION, Oxygen and Medical Air.	No
Medical Device Reprocessing Department	21.2.09.01	Drying Station																			E2			1	-					No
Medical Device Reprocessing Department	21.2.09.02	Drying Station																			E2			1						No
Ambulatory Services-Cancer clinic	04.2.01.01	Chemotherapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1						Oxygen, med air and vacuum are required in Ambulatory Care. The Respiratory Therapy area will need an area for ventilator assessments – so the PF room, stress test room and the RT storage area (including data and electrical) will need this as well. Cancer care - requires oxygen and vacuum; med air not required. All exam room in Visiting Specialists with basic oxygen, vacuum, med air.. IV Therapy – basic oxygen and vacuum.	No
Ambulatory Services-Cancer clinic	04.2.01.02	Chemotherapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services-Cancer clinic	04.2.01.03	Chemotherapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services-Cancer clinic	04.2.01.04	Chemotherapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services-Cancer clinic	04.2.01.05	Chemotherapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services-Cancer clinic	04.2.02.01	Chemotherapy Exam/Treatment - Enclosed Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1						See above.	No
Ambulatory Services- IV Therapy	05.2.01.01	IV Therapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1						See above.	No
Ambulatory Services- IV Therapy	05.2.01.02	IV Therapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services- IV Therapy	05.2.01.03	IV Therapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services- IV Therapy	05.2.01.04	IV Therapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services- IV Therapy	05.2.01.05	IV Therapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services- IV Therapy	05.2.01.06	IV Therapy Exam/Treatment - Open				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	-					See above.	No
Ambulatory Services	06.2.01.01	Respiratory Exercise / Stress Testing Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No					1	1	1					See above.	No
Ambulatory Services	06.2.03.01	PFT Room				Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	No	TBC			Enhanced+CB+CW	Data Outlet x 4	No				C3	1	1	1					See above.	No
Surgical Services	11.3.20	Minor Procedure Room	E097		Services on Boom, headwalls not required - nurse call system will be fixed on wall	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No				A1	2	2	2	2	2	2	2	Designed for 2 stations. No Compressed Air req'd.	On ceiling mounted articulating arms
Surgical Services	11.3.01.01	Operating Room	E097 & E410		Services on Boom, headwalls not required - nurse call system will be fixed on wall	Critical Care			20A TSlot Duplex x 10	20A TSlot Duplex x 10	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No				A1	2	2	2	2	2	2	2	Designed for 2 stations. No Compressed Air req'd.	On ceiling mounted articulating arms
Surgical Services	11.3.01.02	Operating Room	E097 & E410		Services on Boom, headwalls not required - nurse call system will be fixed on wall	Critical Care			20A TSlot Duplex x 10	20A TSlot Duplex x 10	TBC				Enhanced+CB+CW	Data Outlet x 4	No				A1	2	2	2	2	2	2	2	Designed for 2 stations. No Compressed Air req'd.	On ceiling mounted articulating arms
Emergency	01.2.01.01	Resuscitation/Trauma Bay	E412		Services on Boom, headwalls not required - nurse call system will be fixed on wall	Critical Care			20A TSlot Duplex x 10	20A TSlot Duplex x 10	TBC				Enhanced+CB+CW	Data Outlet x 4	No				A3	2	2	2	2	2	2	2	Designed for 2 station - each station one set med gas	On ceiling mounted articulating arms
Emergency- Mental health area	01.5.01.01	Exam/ Secure Room				Basic Care	20A TSlot Duplex x 2	20A TSlot Duplex x 1	20A TSlot Duplex x 1	0	TBC			Ant-ligature Requirements	Enhanced+CB+CW	Data Outlet x 3	No	0	Ant-ligature Requirements										Refer to MOH Provincial Secure Rooms Guideline. This would need to be provided in a secure box.	No
Emergency- BioMedical Engineering	01.6.06.01	BioMed Workroom												Need services for equipment testing and repair					The Design-Builder shall reference the SOR for the requirements of this room.			1	1	1					Oxygen and Medical Air	No
Surgical Services	11.5.07	BioMed Workroom																	The Design-Builder shall reference the SOR for the requirements of this room.			1	1	1					Oxygen and Medical Air	No
Surgical Services	11.3.26.01	Endoscopy Suite	E097		Services on Boom, headwalls not required - nurse call system will be fixed on wall	Intermediate Care	20A TSlot Duplex x 3	20A TSlot Duplex x 1	20A TSlot Duplex x 3	0	TBC	TBC			Enhanced+CB+CW	Data Outlet x 4	No				A1	2	2	2	2	2	2	2	Designed for 2 stations. N2O, AGSS and N2 is required for Endoscopy. Typical is O2, Vacuum, med air and CO2.	On Booms