WORKER ACCOMMODATION PROJECT AGREEMENT

SCHEDULE 6, PARTS 1-4

SPECIFICATIONS AND DRAWINGS

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SPECIFICATIONS AND DRAWINGS

1 INTERPRETATION

1.1 Definitions

In this Schedule 6 [Specifications and Drawings], in addition to the definitions set out in Schedule 1 [Definitions and Interpretation]:

"**BC Building Code**" means the BC Building Code, including the BC Fire Code and the BC Plumbing Code;

"**Dark Fibre**" means unused optical fibre, available for use in fibre-optic communication that is not energized;

"**Dark Skies**" means minimizing exterior light pollution in accordance with the International Dark-Sky Association guidelines;

"**Energy Complex**" has the meaning set out in Section 2.2.3 of this Schedule 6 [Specifications and Drawings];

"**Evidence Based Design**" has the meaning set out in Section 3.1 of this Schedule 6 [Specifications and Drawings];

"**Field Sound Transmission Class (FSTC)**" means an integer rating of how well a building partition attenuates airborne sound;

"**Functional Program**" has the meaning set out in Section 2.2.5 of this Schedule 6 [Specifications and Drawings];

"**Indicative Designs**" has the meaning set out in Section 2.2.6(a) of this Schedule 6 [Specifications and Drawings];

"**Invasive Plant Infestation Area**" has the meaning set out in Section 10.1 of this Schedule 6 [Specifications and Drawings];

"**Lean**" means to work in a structured way of continuously exposing and solving problems to eliminate waste in systems that deliver value to customers;

"**Long Term Parking Lot**" means a long term parking lot to be constructed by Project Co as part of the Facility as set out in this Schedule 6 [Specifications and Drawings];

"**Project Design Principles**" has the meaning set out in Functional Program;

"**Waste Wood**" means all felled, dead and down timber, uprooted stumps or vegetation not being removed and utilized as merchantable wood; and

"**Worker Accommodation Area Plan**" has the meaning set out in Section 4.1 of this Schedule 6 [Specifications and Drawings].

1.2 Interpretation

This Schedule 6 [Specifications and Drawings] is written as a performance specification and defines Project Co's minimum obligations for Design and Construction. Except as expressly stated otherwise, Project Co will carry out the Design and Construction as required and contemplated by a provision of this Schedule 6 [Specifications and Drawings] whether or not the provision is written as an obligation of Project Co or is stated in the imperative form.

Terms such as "cost effective", "appropriate", "sufficient", "minimize" and related will be construed and interpreted in terms of whether they are cost effective, appropriate, sufficient, minimizing, etc. from the perspective of a prudent worker accommodation designer/operator who balances capital costs against maintenance, service delivery, operational efficiency and other non-capital costs over the life of the Facility.

Unless expressly stated otherwise, each reference to a standard in this document will be deemed to mean the latest version of that standard.

1.3 Acronym List

%ALCONS	–	Percentage Articulation Loss of Consonants
AAS	–	Aluminum Association Standards
AAMA	–	American Architectural Manufacturers Association
AATCC	–	American Association of Textile Chemists and Colorists
ACI	–	American Concrete Institute
ANSI	–	American National Standards Institute
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
AWCC	–	Association of Wall and Ceiling Contractors
AWI	–	America Woodworking Institute
AWMAC	–	Architectural Woodwork Manufacturers Association of Canada
AWWA	–	American Water Works Association
BCICA	–	British Columbia Insulation Contractors Association
BCLNA	–	British Columbia Landscape & Nursery Association
BCLS	–	British Columbia Landscape Standard
BCSA	–	British Columbia Safety Authority

BCSLA	–	British Columbia Society of Landscape Architects
BICSI	–	Building Industry Consulting Service International
CACF	–	Central Alarm Control Facility
CCTV	–	Closed Circuit Television
CCVE	–	Closed Circuit Video Equipment
CGSB	–	Canadian General Standards Board
CFC	–	Chlorofluorocarbon
CMCA	–	Canadian Masonry Contractors Association
CPTED	–	Crime Prevention Through Environmental Design
CSA	–	Canadian Standards Association
CSDFMA	–	Canadian Steel Door and Frame Manufacturers Association
CSSBI	–	Canadian Sheet Steel Building Institute
Cx	–	Commissioning
dB	–	Decibel
DVD	–	Digital Versatile Disc
DHI	–	Door and Hardware Institute
EOC	–	Equipment Operations Center
EIA	–	Electronic Industries Association
ePDU	–	Electronic Power Distribution
FSTC	–	Field Sound Transmission Coefficient
FUS	–	Fire Underwriters Survey
GCA	–	Glazing Contractors Association of British Columbia
HFC	–	Hydrofluorocarbon
HP	–	Horsepower
HOA	–	Hand-Off-Auto
HVAC	–	Heating, Ventilating and Air-Conditioning
IEEE	–	Institute of Electrical and Electronic Engineers
IESNA	–	Illuminating Engineering Society of North America

IAQ	–	Indoor Air Quality
IGMAC	–	International Glazing Manufacturers Association of Canada
IPv4	–	Internet Protocol version 4
KW	–	Kilowatt
KWH	–	Kilowatt hours
KV	–	Kilovolt
KVA	–	Kilovolt Ampere
LCD	–	Liquid Crystal Display
LED	–	Light Emitting Diode
LMS	–	Lodge Management System
MDF	–	Medium Density Fiberboard
MOTI	–	BC Ministry of Transportation and Infrastructure
MPI	–	Master Painters Institute
MSI	–	Musculoskeletal Injury
MWR	–	Municipal Wastewater Regulation - BC Ministry of Environment
NEMA	–	National Electrical Manufacturers Association
NFCA	–	National Floor Covering Association
NFPA	–	National Fire Protection Association
NIC	–	Network Interface Controller
OEL	–	Occupational Exposure Limits
OHS	–	Occupational Health and Safety
PC	–	Personal Computer
PFC	–	Perfluorinated chemicals
PPE	–	Personal Protective Equipment
PTAC	–	Packaged Terminal Air Conditioner
PVC	–	Polyvinyl Chloride
SMACNA	–	Sheet Metal and Air Conditioning Contractors National Association
SPD	–	Surge Protection Device

TAB	–	Testing, Adjusting, Balancing
TAC	–	Transportation Association of Canada
TDMM	–	Telecommunications Distribution Methods Manual
TIA	–	Telecommunications Industry Association
TTMAC	–	Terrazzo Tile and Marble Association of Canada
UL	–	Underwriters' Laboratories
ULC	–	Underwriters' Laboratories of Canada
UPS	–	Uninterruptible Power Supply
V	–	Volt
Vac	–	Volt (alternating current)
VAR	–	Volt Ampere Reactive power
VFD	–	Variable Frequency Drive
VLAN	–	Virtual Local Area Network
VOC	–	Volatile Organic Compounds
VoIP	–	Voice Over Internet Protocol
WAN	–	Wide Area Network
WFA	–	Wood First Act
WHO	–	World Health Organization
WMM	–	Wi-Fi Multimedia

2 GENERAL

2.1 Project Overview

A brief overview of the Facility (Accommodation Complex, Long Term Parking Lot and BC Hydro Offices) is set out below.

The Facility will include the following:

(a) the Accommodation Complex, including:

(i) Accommodation Building(s) with sufficient rooms to accommodate [redacted] Guests;

(ii) central core containing kitchen, dining, managed lounge, central laundry, recreational facilities and personal/professional services integrated with the dormitory complex;

(iii) power distribution as required for the operation of the Facility;

(iv) communications including telephone, fax, audio/video conferencing, cellular service and hi-speed wireless/wired internet connections;

(v) fibre optic and cable TV services;

(vi) potable water supply, treatment, storage and distribution system;

(vii) fire protection water supply, storage and distribution system;

(viii) sanitary sewage collection, treatment and disposal system;

(ix) waste disposal services;

(x) storm water collection and control system;

(xi) outdoor recreational facilities;

(xii) medical centre;

(xiii) surface parking; and

(xiv) associated works;

(b) the Long Term Parking Lot; and

(c) the BC Hydro Offices.

2.2 Scope of the Specifications

The descriptions of the Facility in this Schedule 6 [Specification and Drawings], including the Appendices attached to and referenced in this Schedule 6 [Specification and Drawings] set out the minimum requirements of the Facility, with emphasis on the identification of major components of the Accommodation Complex and the Long Term Parking Lot portions of the Facility (Schedule 29 [BC Hydro Offices – Specifications and Drawings] are applicable to the BC Hydro Offices portion of the Facility). The Specifications have not been written to include complete detail of the Design and Construction. This Schedule 6 [Specifications and Drawings] will be interpreted:

(a) considering Section 4.2 of the Agreement;

(b) in accordance with Schedule 2 [Design and Construction Protocols]; and

(c) to reflect any adjustments or refinements to the Facility made during the design review process.

The Specifications in Schedule 29 [BC Hydro Offices – Specifications and Drawings] will be applicable to the Design and Construction of the BC Hydro Offices.

2.2.2 Additional Rooms and Spaces

Notwithstanding anything in the Specifications, design and construct the Facility to include all rooms and spaces required to comply with the terms of this Agreement, including sufficient rooms and spaces necessary for the operation and maintenance of the Facility and for Project Co to perform the Services in accordance with this Agreement.

2.2.3 Energy Complex

"**Energy Complex**" means the collection of rooms and exterior spaces housing the mechanical and electrical plant required for the Facility.

The Energy Complex:

(a) may be designed as a stand-alone building or integrated into the Accommodation Complex; and

(b) will provide energy for the Facility and accommodate the phasing of the Facility without disruption to ongoing operations.

2.2.4 Standards

(a) Project Co will undertake the Design and Construction:

(i) in accordance with the standards set out in this Schedule 6 [Specifications and Drawings];

(ii) in accordance with the BC Building Code and all applicable Laws, specifying that all Design has been completed in accordance with Part 3 of the BC Building Code;

(iii) having regard for the concerns, needs and interests of all persons who will use the Facility;

(iv) in accordance with Good Industry Practice;

(v) to the same standards that an experienced, prudent, and knowledgeable long term owner of a similar facility in North America, whether to be operated publicly or privately, would employ;

(vi) to the same standard that an experienced, prudent and knowledgeable long term owner of a high quality remote Facility in North America would employ;

(vii) if Project Co wishes to make reference to a code or standard from a jurisdiction outside of Canada, then Project Co will demonstrate to BC Hydro's satisfaction that such code or standard meets or exceeds the requirements of this Agreement;

(viii) in accordance with the BC Hydro policy: *http://www.bchydro.com/about/suppliers/doing-business-with-bchydro.html*; and

(ix) if more than one standard is applicable then the highest such standard will apply.

(b) Project Co will undertake the Design and Construction in compliance with all applicable standards, including, but not limited to:

(i) ACI:

(A) ACI 315R: Manual of Engineering and Placing Drawings for Reinforced Concrete Structure.

(ii) ANSI:

(A) ANSI B16.1, Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250 and 800.

(iii) ANSI/ACI:

(A) ANSI/ACI 117, Tolerances for Concrete Construction and Materials; and

(B) ANSI/ACI 315, Details and Detailing of Concrete Reinforcement.

(iv) ANSI/AWWA:

(A) ANSI/AWWA B300, Hypochlorites;

(B) ANSI/AWWA B301, Water Treatment – Liquid Chlorine;

(C) ANSI/AWWA C104/A21.4, Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water;

(D) ANSI/AWWA C105/A21.5, Polyethylene encasement for Ductile-Iron Piping for Water and Other liquids;

(E) ANSI/AWWA C110/A21.10, Ductile-Iron and Gray Iron Fittings, 3 inches through 48 inches for Water and Other Liquids;

(F) ANSI/AWWA C111/A21.11, Rubber Gasket Joints for Ductile-Iron and Gray Iron Pressure Pipe and Fittings;

(G) ANSI/AWWA C150 Thickness Design of Ductile-Iron Pipe;

(H) ANSI/AWWA C151/A21.51, Ductile-Iron Pipe, Centrifugally Cast in Metal Moulds or Sand Lined Moulds for Water or Other Liquids;

(I) ANSI/AWWA C153/A21.53, Ductile-Iron Compact Fittings, 3 inches through 16 inches, for Water and Other Liquids;

(J) ANSI/AWWA C200, Water Pipe 6 inches and Larger, Steel;

(K) ANSI/AWWA C203, Coal Tar Protective Coatings and Linings for Steel Water Pipelines – Enamel and Tape-Hot Applied;

(L) ANSI/AWWA C205, Cement Mortar Protective Lining and Coating for Steel Water Pipe – 4 inches and larger – Shop Applied;

(M) ANSI/AWWA C206, Field Welding of Steel Water Pipe;

(N) ANSI/AWWA C207, Steel Pipe Flanges for Waterworks Service, 4 inches through 144 inches;

(O) ANSI/AWWA C208, Fabricated Steel Water Pipe Fittings, Dimensions for;

(P) ANSI/AWWA C210, Liquid Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines;

(Q) ANSI/AWWA C301, Pre-stressed Concrete Pressure Pipe Steel Cylinder Type for Water and Other Liquids;

(R) ANSI/AWWA C303, Reinforced Concrete Pressure Pipe Steel Cylinder Type, Pre-tensioned for Water and Other Liquids;

(S) ANSI/AWWA C500, Gate Valves for Water and Sewage Systems;

(T) ANSI/AWWA C502, Dry-Barrel Fire Hydrants;

(U) ANSI/AWWA C504, Butterfly Valves;

(V) ANSI/AWWA C509, Resilient-Seated Gate Valves for Water and Sewerage Systems;

(W) ANSI/AWWA C600, Installation of Ductile-Iron Water Mains, and their Appurtenances;

(X) ANSI/AWWA C602, Cement Mortar Lining of Water Pipelines – 100 mm and larger – In Place;

(Y) ANSI/AWWA C651, Disinfecting Watermains;

(Z) ANSI/AWWA C800, Underground Service Line Valves and Fittings;

(AA) ANSI/AWWA C900, Pressure Pipe, 4 inches through 12 inches for Water, Polyvinyl Chloride (PVC);

(BB) ANSI/AWWA C901, Polyethylene (PE) Pressure Pipe and Tubing, .5 inch through 3 inches for Water Service;

(CC) ANSI/AWWA C902, Polybutylene (PB) Pressure Pipe and Tubing, .5 inch through 3 inches for Water Service;

(DD) ANSI/AWWA C905, Pressure Pipe, 14 inches through 36 inches for Water, Polyvinyl Chloride (PVC);

(EE) ANSI/AWWA C906, Polyethylene (PE) Pressure Pipe and Fittings, 4 inches through 63 inches, for Water Distribution; and

(FF) ANSI/AWWA C907, Standard for Polyvinyl Chloride (PVC) Pressure Fittings for Water – 4 inches through 8 inches (100mm through 200mm).

(v) ANSI / EIA:

(A) 568-B.1 & 568-B.2 (CSA-0T529-M95) Commercial Building Telecommunications Cabling Standard – Parts 1 & 2;

(B) 568-B3 (CSA-T529-M95) Commercial Building Telecommunications Cabling Standard – Part 3;

(C) 569-B (CSA-T530) Commercial Building Standard for Telecommunications Pathways and Spaces;

(D) 606A (CSA-T528) Administration Standard for Telecommunications Infrastructure of Commercial Buildings; and

(E) 607A (CSA-527): Commercial Grounding and Bonding Requirements for Telecommunications.

(vi) ANSI / TIA;

(vii) 942 Telecommunications Infrastructure Standard for Data Centers; and

(viii) TSB-162: Telecommunications Cabling Guidelines for Wireless Access Points.

(c) ANSI / ESNA American National Standard Practice for Lighting:

(i) IESNA RP 29-06.

(d) ASHRAE (American Society of Heating, Refrigeration and Air-Conditioning Engineers):

(i) Handbooks: Fundamentals, Refrigeration, HVAC Systems and Equipment;

(ii) Design of Smoke Control Systems;

(iii) 52.2: Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size;

(iv) 55: Thermal Environmental Conditions for Human Occupancy;

(v) 62.1: Ventilation for Acceptable Air Quality;

(vi) 90.1: Energy Efficient Design for New Buildings;

(vii) 111: Practices for Measurement, Testing, Adjusting and Balancing of Building HVAC systems;

(viii) 129: Measuring Air Change Effectiveness; and

(ix) 135: Data Communication Protocol for Building Automation and Control Network.

(e) ANSI / ASME (American National Standards Institute / American Society of Mechanical Engineers):

(i) A13.1 Visibility Standard (Pipe Labeling);

(ii) B16 Piping Component Standards;

(iii) B31 Pressure Piping Code;

(iv) B36 Piping Standards;

(v) X358.1: Emergency Eyewash and Shower Equipment;

(vi) Section IX: Welding Qualifications; and

(vii) Unfired Pressure Vessels.

(f) ASPE (American Society of Plumbing Engineers):

(i) Plumbing Engineering Design Handbook, Volumes 1 – 4.

(g) ASTM (American Society for Testing and Materials):

(i) ASTM A36, Standard Specification for Structural Steel;

(ii) ASTM A48, Specification for Gray Iron Castings;

(iii) ASTM A53, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless;

(iv) ASTM A90, Test Method for Weight of Coating on Zinc-Coated (Galvanized) Iron or Steel Articles;

(v) ASTM A120, Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated (Galvanized) Welded and Seamless, for Ordinary Uses;

(vi) ASTM A121, Specification for Zinc-Coated (Galvanized) Steel Barbed Wire;

(vii) ASTM A283/A283M, Specification for Low and Intermediate Tensile Strength Carbon Steel Plates, Shapes and Bars;

(viii) ASTM A307, Specification for Carbon Steel Bolts and Studs, 60,000 psi Tensile;

(ix) ASTM A325, Standard Specification for High-Strength Bolts for Structural Steel Joints;

(x) ASTM A585, Specification for Aluminum-Coated Steel Barbed Wire;

(xi) ASTM A716, Specification for Ductile – Iron Culvert Pipe;

(xii) ASTM A746, Specification for Ductile – Iron Gravity Sewer Pipe;

(xiii) ASTM A775/A775M, Specification for Epoxy-Coated Reinforcing Steel Bars;

(xiv) A185-06 – Standard Specification for Steel Welded Wire Fabric;

(xv) A82/A82M-05 – Standard Specification for Steel Wire, Plain, for Concrete Reinforcement;

(xvi) ASTM B62, Specification for Composition Bronze or Ounce Metal Castings;

(xvii) ASTM B88M, Specification for Seamless Copper Water Tube;

(xviii) ASTM C14M, Specification for Concrete Sewer, Storm Drain and Culvert Pipe;

(xix) ASTM C76M, Specification for Reinforced Concrete Culvert, Storm Drain and Sewer Pipe;

(xx) ASTM C88, Test Method for Soundness of Aggregates by Use of Sodium Sulphate or Magnesium Sulphate;

(xxi) ASTM C109, Test Method for Compressive Strength of Hydraulic Cement Mortars (Using 2 inches or 50 mm Cube Specimens);

(xxii) ASTM C117, Test Method for Material Finer than 0.075 mm Sieve in Mineral Aggregates by Washing;

(xxiii) ASTM C123, Test Method for Lightweight Pieces in Aggregate;

(xxiv) ASTM C127, Test Method for Specific Gravity and Absorption of Coarse Aggregate;

(xxv) ASTM C128, Test Method for Specific Gravity and Absorption of Fine Aggregate;

(xxvi) ASTM C131, Test Method for Resistance to Degradation of Small Size Course Aggregate by Abrasion and Impact in the Los Angeles Machine;

(xxvii) ASTM C136, Method for Sieve Analysis of Fine and Coarse Aggregates;

(xxviii) ASTM C139, Specification for Concrete Masonry Units for Construction of Catch basins and Manholes;

(xxix) ASTM C171, Specification for Sheet Materials for Curing Concrete;

(xxx) ASTM C309, Specification for Liquid Membrane-Forming Compounds for Curing Concrete;

(xxxi) ASTM C332, Specification for Lightweight Aggregates for Insulating Concrete;

(xxxii) ASTM C443M, Specification for Joints for Circular Concrete Sewer and Culvert Pipe, Using Rubber Gaskets;

(xxxiii) ASTM C478M, Specification for Precast Reinforced Concrete Manhole Sections;

(xxxiv) ASTM C506M, Specification for Reinforced Concrete Arch Culvert, Storm Drain and Sewer Pipe;

(xxxv) ASTM C507M, Specification for Reinforced Concrete Elliptical Culvert, Storm Drain and Sewer Pipe;

(xxxvi) ASTM C827, Test Method for Early Volume Change of Cementitious Mixtures;

(xxxvii) ASTM C902, Specification for Pedestrian and Light Traffic Paving Brick;

(xxxviii) ASTM C939, Test Method for Flow of Grout for Preplaced-Aggregate Concrete;

(xxxix) ASTM D140, Method for Sampling Bituminous Materials;

(xl) ASTM D412, Test Method for Rubber Properties in Tension;

(xli) ASTM D624-86, Test Method for Rubber Property-Tear Resistance;

(xlii) ASTM D698, Test Method for Moisture Density Relations of Soils and Soil Aggregate Mixtures Using 2.49 kg Rammer and 304.8 mm Drop;

(xliii) ASTM D995, Specification for Requirements for Mixing Plants for Hot-Mixed, Hot-Laid Bituminous Paving Mixtures;

(xliv) ASTM D1248, Specification for Polyethylene Plastics Moulding and Extrusion Materials;

(xlv) ASTM D1557, Specification for Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures using 10 lb (4.54 kg) Rammer and 18 inch (457 mm) Drop;

(xlvi) ASTM D1559, Test Method Resistance to Plastic flow of Bituminous Mixtures Using Marshall Apparatus;

(xlvii) ASTM D1751, Specification for Preformed Expansion Joint Fillers for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types);

(xlviii) ASTM D1752, Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction;

(xlix) ASTM D1784, Standard Specification for Rigid Polyvinyl Chloride (PVC) Compounds and Chlorinated Polyvinyl Chloride (CPVC) Compounds;

(l) ASTM D2152, Test Method for Quality of Extruded Polyvinyl Chloride (PVC) Pipe by Acetone Immersion;

(li) ASTM D2241, Standard Specification for Polyvinyl Chloride (PVC) Plastic Pipe (SDR-PR);

(lii) ASTM D2310, Classification for Machine Made Reinforced Thermosetting Resin Pipe;

(liii) ASTM D2412, Standard Test Method for External Loading Properties of Plastic Pipe by Parallel-Plate Loading;

(liv) D3212, Specification for Joints for Drain and Sewer Plastic Pipes using Flexible Elastomeric Seals;

(lv) ASTM D2419, Test Method for Sand Equivalent Value of Soils and Fine Aggregate;

(lvi) ASTM D2774, Practices for Heat Joining Polyethylene Pipe and Fittings;

(lvii) ASTM D2680, Specification for Acrylonitrile-Butadiene-Styrene (ABS) and Polyvinyl Chloride (PVC) Composite Sewer Piping;

(lviii) ASTM D2774, Practices for Underground, Installation of Thermoplastic Pressure Piping;

(lix) ASTM D2837, Method for Obtaining Hydrostatic Design Basis for Thermoplastic Pipe Materials;

(lx) ASTM D2992, Method for Obtaining Hydrostatic Design Basis for Reinforced Thermosetting Resin Pipe and Fittings;

(lxi) ASTM D2996, Specification for Filament Wound Reinforced Thermosetting Resin Pipe;

(lxii) ASTM D3034, Specification for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings;

(lxiii) ASTM D3212, Specifications for Joints for Drain and Sewer Plastic Pipes using Flexible Elastomeric Seals;

(lxiv) ASTM D3139, Joints for Plastic Pressure Pipes using Flexible Elastomeric Seals;

(lxv) ASTM D3203, Test Method for Percent Air Voids in Compacted Dense and Open Bituminous Paving Mixtures;

(lxvi) ASTM D3405, Specification for Joint Sealants, Hot Poured for Concrete and Asphalt Pavements;

(lxvii) ASTM D4318, Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils;

(lxviii) ASTM E11, Specification for Wire Cloth Sieves for Testing Purposes;

(lxix) ASTM E1155M, Test Method for Determining Floor Flatness and Levelness Using the F-Number System;

(lxx) ASTM F477, Specification for Elastomeric Seals (Gaskets) for joining Plastic Pipe;

(lxxi) ASTM F679, Specification for Type PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fittings;

(lxxii) ASTM F714, Polyethylene (PE) Plastic Pipe (SDR-DR) Based on Outside Diameter;

(lxxiii) ASTM F794, Specification for Polyvinyl Chloride (PVC) Ribbed Gravity Sewer Pipe and Fittings based on Controlled Inside Diameter;

(lxxiv) BCLS – BCSLA and BCLNA – BC Landscape Standard;

(lxxv) ASTM E917.24401-1 Life Cycle Cost Assessment Methodology; and

(lxxvi) B88: Copper Piping.

(h) CAN3/CAN/CSA:

(i) CAN3-A165 Series, CSA Standards on Concrete Masonry Units;

(ii) CAN3-B137.3, Rigid Polyvinyl Chloride (PVC) Pipe for Pressure Applications;

(iii) CAN4-S543, Internal Lug, Quick-Connect Couplings for Fire Hose;

(iv) CAN3-B70, Cast Iron Soil Pipe and Fittings, and Means of Joining;

(v) CAN/CSA-086 Engineering Design in Wood;

(vi) CAN3-G401, Corrugated Steel Pipe Products; and

(vii) CAN3-A23.3: Design of Concrete Structures for Buildings.

(i) CAN/CGSB:

(i) CAN/CGSB-8.1, Sieves Testing, Woven Wire;

(ii) CAN/CGSB-8.2, Sieves Testing, Woven Wire, Metric;

(iii) CAN/CGSB-138.1, Fence, Chain Link, Fabric;

(iv) CAN/CGSB-138.2, Fence, Chain Link, Framework, Zinc-Coated, Steel;

(v) CAN/CGSB-138.3, Fence, Chain Link – Installation;

(vi) CAN/CGSB-138.4, Fence, Chain Link, Gates;

(vii) CAN/CGSB-37.2, Emulsified Asphalt, Mineral Colloid-Type, Unfilled, for Damp proofing and Waterproofing and for Roof Coatings;

(viii) CAN/CGSB-16.1, Asphalts, Liquids Petroleum, for Road Purposes;

(ix) CAN/CGSB-16.2, Asphalts, Emulsified, Anionic Type, for Road Purposes;

(x) CAN/CGSB-16.3, Asphalt Cements for Road Purposes; and

(xi) CAN/CGSB-16.5: Asphalt, Emulsified, High Float Type, for Road Purposes.

(j) CGSB:

(i) CGSB 1-GP-12c, Standard Paint Colours;

(ii) CGSB 1-GP-59M, Enamel, Exterior Gloss Alkyd Type;

(iii) CGSB 1-GP-5M, Thinner, Petroleum Spirits, Low Flash (R/84);

(iv) CGSB 1-GP-71, Method of Testing Paints and Pigments;

(v) CGSB 1-GP-74M, Paint, Traffic, Alkyd;

(vi) CGSB 1-GP-149M, Paint, Traffic, Reflectorized Alkyd, White and Yellow;

(vii) CGSB 1-GP-181M, Coating, Zinc-Rich, Organic, Ready Mixed;

(viii) CGSB 51-GP-51M, Polyethylene Sheet for Using in Building Construction; and

(ix) CGSB 41-GP-25M: Pipe, Polyethylene, for the Transport of Liquids.

(k) CAN ULC:

(i) S524 Standards for the Installation of Fire Alarm Systems; and

(ii) S537 Standards for Verification of Fire Alarm Systems.

(l) CSA (Canadian Standards Association):

(i) CSA A82.5, Structural Clay Non-Load-Bearing Title;

(ii) CSA A82.56, Aggregate for Masonry Mortar;

(iii) CSA A123.3, Asphalt or Tar Roofing Sheets;

(iv) CSA A257, Standards for Concrete Pipe;

(v) CSA A257, Standards for Concrete Pipe;

(vi) CSA B137.0, Definitions, General Requirements, and Methods of Testing for Thermoplastic Pressure Piping;

(vii) CSA B1337.1, Polyethylene Pipe, Tubing and Fittings for cold Water Pressure Services;

(viii) CSA B137.2, PVC Injection Moulded Gasketed Fittings for Pressure Applications;

(ix) CSA B137.3, Rigid Polyvinyl Chloride (PVC) Pipe for Pressure Application;

(x) CSA B137.6, CPVC Pipe, Tubing and Fittings for Hot and Cold Water Distribution Systems;

(xi) CSA B137.7, Polybutylene (PB) Pipe for Cold Water Distribution Systems;

(xii) CSA B137.8, Polybutylene (PB) Pipe for Pressure Applications;

(xiii) CSA B137.9, M91, Polyethylene / Aluminum / Polyethylene Composite Pressure Pipe;

(xiv) CSA B137.16, Recommended Practice for the Installation of CPVC Piping for Hot and Cold Water Distribution Systems;

(xv) CSA B181.12, Recommended Practice for the Installation of PVC Drain, Waste and Vent Pipe Fittings;

(xvi) CSA B182.1, Plastic Drain and Sewer Pipe and Pipe Fittings;

(xvii) CSA B182.11, Recommended Practice for the Installation of Plastic Drain and Sewer Pipe and Pipe Fittings;

(xviii) CSA B182.2, Large Diameter, Type PSM PVC Sewer Pipe and Fittings;

(xix) CSA B182.4, Large Diameter Ribbed PVC Sewer Pipe and Fittings;

(xx) CSA C22.1, Safety Standard for Electrical Installations;

(xxi) CSA C22.2, Canadian Electrical Code Part 2, General Requirements;

(xxii) CSA C22.3, Canadian Electrical Code Overhead Systems;

(xxiii) CSA G30.3, Cold Drawn Steel Wire for Concrete Reinforcement;

(xxiv) CSA G30.5, Welded Steel Wire Fabric for Concrete Reinforcement;

(xxv) CSA G30.12, Billet-Steel Wire for Concrete Reinforcement;

(xxvi) CSA G30.14, Deformed Steel Wire for Concrete Reinforcement;

(xxvii) CSA G30.15, Welded Deformed Steel Wire Fabric for Concrete Reinforcement;

(xxviii) CSA G30.16, Weldable Low Allow Steel Deformed Bars for Concrete Reinforcement;

(xxix) CSA G164, Hot Dip Galvanizing of Irregularly Shaped Articles;

(xxx) CSA S157, Strength Design in Aluminum;

(xxxi) CSA S269.3, Formwork;

(xxxii) CSA W59, Welded Steel Construction (Metal Arch Welding);

(xxxiii) CSA W186, Welding of Reinforcing Bars in Reinforced Concrete Construction;

(xxxiv) B651-95: Barrier Free Design;

(xxxv) C9-02 Dry Type Transformers;

(xxxvi) C22.1 & C22.2 Canadian Electrical Code as adopted in British Columbia;

(xxxvii) C282 Emergency Electrical Power Supply for Buildings;

(xxxviii) Z462 - Workplace Electrical Safety;

(xxxix) A23.4-09 – Precast Concrete – Materials and Construction;

(xl) W186-M1990 (R2002) – Welding of Reinforcing Bars in Reinforced Concrete Construction;

(xli) A370-04 (R2009) – Connectors for Masonry;

(xlii) A23.1-09/A23.2-09 – Concrete Materials and Methods of Concrete Construction / Methods of Test and Standard Practices for Concrete;

(xliii) S832-06 (R2011) – Seismic Risk Reduction of Operational and Functional Components (OFCS of buildings);

(xliv) S478-95 (R2007) Guideline on Durability of Buildings;

(xlv) S16-09 – Design of Steel Structures;

(xlvi) S136-07 – Design of Cold Formed Steel Members;

(xlvii) S157-05 (R2010) – Strength Design in Aluminum;

(xlviii) S304.1-04 (R2010) – Masonry Design for Buildings;

(xlix) CSA S832-06 Guidelines for Seismic Risk Reduction of Operational and Functional Components of Buildings;

(l) B45 Series – 94: Plumbing Fixtures;

(li) B64 Series 94: Backflow Preventers and Vacuum Breakers;

(lii) B52HB: Mechanical Refrigeration Code;

(liii) B125: Plumbing Fittings;

(liv) B139: Installation Code for Oil-Burning Equipment;

(lv) B149.1: Natural Gas and Propane Installation Code; and

(lvi) B651: Barrier Free Design.

(m) NFPA (National Fire Protection Association):

(i) 10: Standard for Portable Fire Extinguishers;

(ii) 13: Standard for Installation of Sprinkler Systems;

(iii) 14: Standard for Installation of Standpipe and Hose Systems;

(iv) 17: Standard for Dry-Chemical Extinguishing Systems;

(v) 20: Standard for the Installation of Stationary Pumps for Fire Protection;

(vi) 90A: Standard for Installation of Air Conditioning and Ventilation Systems;

(vii) 92A: Standard for Smoke Control Systems Utilizing Barriers and Pressure Differences;

(viii) 96: Standard for Ventilation Control and Fire Protection of Commercial Cooking Operations; and

(ix) 101: Life Safety Code.

(n) National Building Code of Canada.

(o) British Columbia Insulation Contractors Association (BCICA) Quality Standards Manual for Mechanical Insulation.

(p) IEEE:

(i) 802.1 series for Interworking, Security, Audio/Video Bridging and Data Centre Bridging;

(ii) 802.3 series of Ethernet Standards;

(iii) 802.11 series of Wireless Standards; and

(iv) IEEE 519-1992 Harmonic Limits.

(q) NETA:

(i) ATS International Electrical Testing Association (Acceptance Testing Specifications); and

(ii) MTS Standards for Maintenance Testing.

(r) ECABC Seismic Restraint Standards Manual.

(s) BICSI Telecommunications Distribution Methods Manual (TDMM).

(t) Master Municipal Construction Document (MMCD) and MMCD supplemental specifications, as authored or adopted by the applicable authorities that have jurisdiction.

(u) Ministry of Transportation and Infrastructure (MOTI) Standard Specifications for Highway Construction.

(v) BC Supplement to TAC Geometric Design Guide.

(w) Transportation Association of Canada TAC 1999.

2.2.5 Functional Program

The standards set out in the functional program prepared by BC Hydro (the "**Functional Program**") attached as Appendix 6A [Functional Program] will provide the minimum standards to which Project Co will Design and Construct the Accommodation Complex and the Long Term Parking Lot. The Functional Program is a critical component of the overall specifications and is to be used in conjunction with this Schedule 6 [Specifications and Drawings] in Project Co's Design and Construction.

2.2.6 Indicative Design

(a) BC Hydro has prepared indicative designs (the "**Indicative Designs**") for the Facility, including the Accommodation Complex and the Long Term Parking Lot which are attached at Appendix 6B

[Indicative Designs]. The Indicative Designs are based on the initial Specifications and reflects BC Hydro's preliminary consultations with potential users of the Facility.

(b) Project Co may refer to the Indicative Designs as a basis for its design, but BC Hydro makes no representation as to the accuracy or completeness of any aspect of the Indicative Design and Project Co will be responsible for all aspects of Design and Construction whether or not it uses all or any part of the Indicative Designs, and will independently verify the accuracy of any information contained in or inferred from the Indicative Designs.

3 DESIGN GUIDELINES AND PRINCIPLES

3.1 Evidence Based Design

Project Co will apply Evidence Based Design methodologies in undertaking the Design.

"**Evidence Based Design**" means that decisions about the design of the Facility will be based on credible research, information derived from comparable projects, and information about BC Hydro operations, in order to achieve the best possible outcomes. The goal of Evidence Based Design is to deliver optimal workflow outcomes, productivity, economic performance, and Guest satisfaction.

3.2 Visual Standards

All above around permanent structures are to be landscaped and painted to blend in with the character of the surrounding environment where appropriate.

4 WORKER ACCOMMODATION AREA DEVELOPMENT REQUIREMENTS

4.1 Worker Accommodation Area Plan

Project Co will develop and submit to BC Hydro for its approval a Worker Accommodation Area Plan ("**Worker Accommodation Area Plan**") based on the master planning principles described in the Functional Program and the Facility development requirements described in this Section 4.1 and each Worker Accommodation Area Plan will:

(a) illustrate the Worker Accommodation Area context to validate the Facility placement;

(a) describe in detail the implementation of all phased development at the Worker Accommodation Area, including the ground clearing and preparation;

(b) ensure that each component of the Facility is an integrated part of the Worker Accommodation Area, facilitating the delivery of services;

(c) indicate the access needed for major components of the Facility;

(d) provide a Facility servicing, parking and traffic master plan; and

(e) integrate the pedestrian pathways and emergency access routes.

4.2 Worker Accommodation Area Development

4.2.1 General Design

Project Co will Design the Facility:

(a) to minimize the impact of Worker Accommodation Area development and Site C construction activities on the Facility and adjacent neighbours;

(a) to provide smooth transitions between green space and hard space;

(b) to minimize the adverse micro-climatic effects arising from the location and configuration of parking, walkways and Facility, including effects of building entrance orientation on Guest comfort and safety;

(c) to control access to the Facility;

(d) to create natural open spaces which provide opportunities for recreation and relaxation;

(e) to design landscape and circulation routes to have clear unobstructed views of surrounding areas for safety surveillance; and

(f) to locate garbage and recycling bins within roofed/walled enclosures and/or screen them from public view.

4.2.2 Pedestrian and Vehicular

Project Co will Design the Facility:

(a) to functionally separate pedestrian traffic and vehicular traffic and to separate Facility User traffic and BCHO User traffic from Service traffic;

(a) to integrate vehicular circulation routes with pedestrian and recreation zones that promote safe travel, and minimize conflict between vehicles and pedestrians;

(b) to situate vehicular service entrances so that they are integrated into the design with minimal visual impact;

(c) to provide safe pedestrian crossings that are clearly designated using markings and signage;

(d) to provide clear, direct pedestrian routes that are unimpeded by vehicles;

(e) to provide walking trails areas on the Worker Accommodation Area and pedestrian access throughout the interior of the Worker Accommodation Area. Acceptable surfaces for walking trails include, but are not limited to: compacted gravel, 'Fibar' type playground surfacing, engineered wood fibre or asphalt;

(f) to provide pedestrian routes within and to/from parking that are clearly delineated and logical in terms of directness;

(g) to provide that all walkways and other surfaced areas have positive drainage to shed rain water quickly with minimum side slope gradients of two percent (2%);

(h) to provide walkways with a minimum width of 1.5 m (5 feet); and

(i) to provide energy efficient lighting on all walkways in proximity to the Accommodation Complex including the parking lot, the Long Term Parking Lot and the BC Hydro Offices.

4.2.3 Noise Protection

Project Co will Design the Facility:

(a) to orient the Facility to minimize the noise impact of service vehicles, construction traffic routes and construction activity on Guests and Visitors to the Facility;

(b) to locate and/or silence mechanical and electrical equipment, outside air intake and discharge openings and emergency generators' engine exhausts;

(c) to integrate noise attenuation devices such as earth berms into the design and construction so that the noise impact of on-going Site C construction activity will be minimized provided that any earth berms, if constructed, will be in accordance with the Ministry of Transportation & Infrastructure (MOTI) Impact Mitigation Policy; and

(d) to ensure that internal noise levels in the Guest Rooms do not exceed an A-weighted level of 39 – 44 dBa in accordance with the criteria for evaluating room noise found in ANSI/ASA 12.2-2008.

4.2.4 Outdoor Livability

Project Co will Design and Construct the Facility so that it includes outdoor areas within the Worker Accommodation Area adjacent to the Accommodation Complex that are sheltered from the sight and sounds of construction of the Project and, during the Construction of the Facility, either Phase 2 or the balance of the Facility, as the case may be, where a Guest can be outdoors without being disturbed by the Project construction activities.

4.2.5 Worker Accommodation Area Wayfinding and Exterior Signage

Project Co will Design the Facility:

(a) to provide external directional signage that:

(i) clearly identifies the Facility and its components including the, main entry, visitor entry, bus drop off area, parking;

(ii) clearly indicates points of access for the, parking areas and restrictions for various vehicle types; and

(iii) is well illuminated, backlit, reflective or high contrast and easily visible at night;

(b) to provide all necessary exterior signage to direct traffic from the access roads; and

(c) to provide such signage that it is visible for drivers of vehicles to identify at a far enough distance so that they can safely slow down and follow the signage to enter the Facility and find the parking areas.

4.2.6 Worker Accommodation Area Lighting

Project Co will Design and Construct the Facility:

(a) to provide outdoor lighting, with a hierarchy of fixture types designed according to functional and security needs (including CPTED), and reflecting the hierarchy of pedestrian corridors;

(b) so that lighting will not be facing nor disturbing to Guest Room occupants;

(c) with light fixtures within the reach of pedestrians will be vandal resistant;

(d) with lighting on Worker Accommodation Area roadways and pedestrian paths will meet the requirements of the latest version of IESNA RP-8 for the appropriate classification of roadway;

(e) lighting for parking lots, will meet the requirements of the latest version of IESNA RP-20;

(f) including Worker Accommodation Area lighting with flat lens HID or LED luminaries of the type and colour required by the application;

(g) with lighting on pedestrian paths to illuminate not just the path but also the surrounding area adjacent to the path; and

(h) with Worker Accommodation Area lighting that is Dark Skies compliant.

4.2.7 Facility Safety Through Design

Project Co will Design the Facility:

(a) so that the exteriors provide opportunities for people to easily view what is happening around them during the course of their everyday activities;

(b) to eliminate entrapment spots; and

(c) to incorporate CPTED principles in the design of all exterior areas of the Facility.

4.2.8 Energy Management

(a) Project Co, as part of the Design process, will utilize energy simulations performed using a detailed 8760 hour energy analysis program supported by typical meteorological year weather data for camps and site office buildings. Energy simulations will be done using eQuest version 3.65. All simulations must be done in accordance with the modeling procedures prescribed by ASHRAE 90.1 (2010) or National Energy Code of Canada for Buildings (NECB) (2011).

(b) The computer simulation tool will be used to calculate and model the Worker Accommodation annual energy consumption to validate the Design and compliance with the above standards.

4.3 Parking

4.3.1 General

Project Co will Design and Construct the Facility to provide parking for Facility Users and will Design and Construct the Long Term Parking Lot in accordance with the requirements of this Schedule 6 [Specifications and Drawings] and all other applicable standards.

4.3.2 Facility Specific Requirements

Project Co will Design and Construct the parking for the Worker Accommodation Area:

(a) the medical centre will have [redacted] parking/unloading stall for ambulances directly adjacent to the external entrance that offers effective access to transport patients and that is out of sight of the Guest population;

(b) the medical centre will have [redacted] parking stalls for 'Medical Professional' work vehicles;

(c) the medical centre will have a minimum of [redacted] parking stalls for patients which shall be 6.0 m x 3.5 m (20 feet by 11.5 feet) and the minimum driveway aisle widths of 8.0 m (26.25 feet); and

(d) having a total not less than [redacted] parking stalls for the completed Facility, provided that at any time the total number of parking stalls available is not less than [redacted] of the number of Rooms then constructed as part of the Facility.

4.3.3 Long Term Parking Lot

Project Co will Design and Construct the Long Term Parking Lot:

(a) having a total of not less than [redacted]; and

(b) within [redacted] walking distance of the Accommodation Building(s) entrance.

4.3.4 Parking Stall Sizes

Project Co will ensure that the parking stalls comply with the following:

(a) unless otherwise specified, the minimum parking stall dimensions will be 6.0 m x 3.5 m (20 feet by 11.5 feet); and

(b) the minimum drive aisle widths will be 8.0 m (26.25 feet).

4.3.5 Parking Design Principles

Project Co will Design and Construct both the parking for the Facility and the Long Term Parking Lot:

(a) to provide rails and 110 volt electrical plug-in:

(i) for every medical centre parking stall including the parking/unloading stall for ambulances;

(ii) for not less than [redacted] of the remaining parking stalls for the parking associated with the Accommodation Complex; and

(iii) for not less than [redacted] of the parking stalls located within the Long Term Parking Lot;

(b) automobile heater receptacles shall be installed as follows:

(i) for the Accommodation Complex, as close as possible to the mud room; and

(ii) for the Long Term Parking Lot, as close as possible to the security walk through point;

(c) automobile heater receptacles shall be controlled to limit energy consumption and demand, as defined by CSA C22.1;

(d) to provide adequate provision for ingress and egress to all parking spaces to ensure ease of mobility, clearances, and safety of vehicles and pedestrians;

(e) to clearly mark all parking spaces as directed by BC Hydro;

(f) to include parking lot layouts in an orderly and logical design to minimize confusion and excessive internal circulation;

(g) to provide HID or LED lighting sufficient to illuminate the entirety of each parking area; and

(h) to surface all parking lots with materials that minimize dust.

4.4 Facility Infrastructure

4.4.1 General

Project Co will Design and Construct the Facility to provide adequate and reliable infrastructure and necessary services to the Facility.

4.4.2 Extension of Off-Worker Accommodation Area Services

Project Co will be responsible for the following off-Worker Accommodation Area infrastructure as follows:

(a) arranging with telecommunication service provider(s) for telephone, internet and entertainment services;

(b) Project Co and their telecommunications service provider may choose to use the BC Hydro Dark Fiber between the WAA and the BC Hydro substation in Fort St. John, then Project Co and their service provider will be responsible for:

(i) interconnections at the substation or other mutually agreed location;

(ii) for providing an underground communications duct from the fiber optic cable drop point to the WA (BC Hydro will install the fiber drop cable). Refer to Schedule 6, Part 7, Section 7.7.3 for further information; and

(iii) use of the BC Hydro fiber by Project Co will be at Project Co's discretion and risk;

(c) [redacted]

(d) [redacted]

(e) [redacted]

4.4.3 Worker Accommodation Area Services Infrastructure

Project Co will Design and Construct the infrastructure for the Facility as follows:

(a) General:

(i) so that all Facility servicing meets or exceeds the design and quality requirements established by this Schedule 6 [Specifications and Drawings], or applicable laws and standards and to meet the needs of the Facility, the Guests and the Visitors;

(ii) to establish local agreements with third party providers to provide potable water and dispose of sewage. Such agreements are subject to approval by BC Hydro; and

(iii) at Project Co's discretion, to use electricity or natural/gas for heating, cooking, and other services, provided that while either choice is allowed, natural gas is the preferred choice by BC Hydro for safety reasons.

(b) Sanitary Sewage System: Project Co will Design and Construct the sewage system:

(i) to include a sewage (including grey water and black water or human waste) collection, treatment and disposal system;

(ii) such that the design, permitting, construction, operation and reporting will meet the requirements of MWR;

(iii) that uses a gravity sewage collection system wherever possible;

(iv) that is capable of collecting, treating and disposing of wastewater from the sewage collection system from the Facility, plus a 10% allowance of Worker Accommodation Area flows for treating and disposing wastewater received from other contractors operating at the Site;

(v) that uses sanitary collection sewers of a diameter, grade and depth to safely convey all sewage from the Accommodation Buildings;

(vi) so that the sanitary sewer system includes pipes, manholes and all other required appurtenances that comply with MWR;

(vii) so that the sanitary sewer collection system is buried;

(viii) so that the sanitary sewer system will convey all peak flows without surcharging the collection system where surcharging means the hydraulic grade line of flow exceeds the obvert of the pipe;

(ix) so that the sanitary sewer system will convey the flow from the Accommodation Buildings to the wastewater treatment and disposal system;

(x) so that the collected sewage effluent will be treated and disposed of in accordance with the MWR;

(xi) to provide, at the Worker Accommodation Area, a sewer drop off point for the discharge of sewage from tanker trucks from BC Hydro and other contractors operating at the Site (sized for sewage flow as described in Section 4.4.3(b)(iv) of this Schedule 6 [Specifications and Drawings]); and

(xii) to include a system/process/procedure to monitor, manage and report the activity concerning the discharge of sewage from tanker trucks for sewage received from other contractors operating at the Site.

(c) Storm Sewers and Drainage: Project Co will Design and Construct the storm sewers, storm sewer management strategies and drainage networks:

(i) to be of a size, grade and depth to safely manage and convey all Worker Accommodation Area storm water to the receiving system;

(ii) to include the pipes, manholes, catch basins (if required), inlets, outfalls, detention ponds and all other required appurtenances to comply with applicable laws, standards, and common industry standards;

(iii) to, at minimum, not exceed the pre-construction discharge rates after Facility completion for a 1 in 2 year storm;

(iv) to include 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;

(v) to include a Worker Accommodation Area storm water management system which complies with all federal and provincial land-development regulations and guidelines and "Storm Water Planning: A Guidebook for British Columbia" for storm water attenuation and runoff / recharge water quality;

(vi) to ensure that neighbouring lands are protected from flooding and nuisance runoff issues; and

(vii) to include adequately sized water quality/sediment control components for surface parking lots, before discharging to the Worker Accommodation Area retention systems, groundwater recharge facilities or the off-Worker Accommodation Area drainage system.

(d) If required, Project Co will provide pumping facilities for storm water to ensure that the Worker Accommodation Area and surrounding area are adequately drained.

(e) Project Co will Design and Construct water mains and appurtenances:

(i) to provide water supply, treatment, storage and distribution system for the provision of potable water;

(ii) so that the water system includes intakes and/or wells, pumps, treatment facilities, storage, piping, valves, services and all other appurtenances necessary to deliver potable water to the Facility, plus a 10% allowance of Worker Accommodation Area water requirements to provide water trucked to other contractors operating at the Site;

(iii) so that the water system design, permitting, construction, operation and reporting will meet the requirements of the Northern Health Authority and all other applicable federal and provincial regulations and guidelines. Water quality to meet or exceed the requirements of the Guidelines for Canadian Drinking Water Quality;

(iv) to provide fire protection for the Facility. Fire protection water systems can be combined with domestic water supply systems. If combined, adequate backflow prevention devices will be installed to eliminate the possibility of cross contamination;

(v) to include firefighting volumetric demands calculated using the FUS method unless alternative method(s) are approved by Hydro's Representative;

(vi) so that the water main systems include approved backflow preventers necessary to protect the Accommodation Buildings and the Worker Accommodation Area from contaminants;

(vii) to provide a water point for the loading of potable water into tanker trucks for delivery to other contractors operating at the Site; and

(viii) to include a system/process/procedure to monitor, manage and report the activity concerning the loading of potable water into tanker trucks.

(f) Road Works: Project Co will Design and Construct:

(i) the Worker Accommodation Area roadways, including the walkways, signage, roadway markings, and traffic calming devices;

(ii) to include a roadway, including walkways, signage, roadway markings, and traffic calming devices to connect the North Bank Road with the roadways within the Worker Accommodation Area, the Long Term Parking Lot and the BC Hydro Offices with such roadway, in addition to any other requirements of this Schedule 6 [Specifications and Drawings], to be designed in accordance with BC Supplement to TAC Geometric Design Code 2007 Edition (Revision 1) and to meet relevant and appropriate provisions from the MOTI standard specifications consistent with the road construction for the North Bank Road;

(iii) all roadways to provide safe passage between parking areas, loading areas, emergency vehicle areas and drop off;

(iv) so that the minimum width of the roadway surface is nine (9.0) metres (30 feet);

(v) all roadways will accommodate fire truck access in accordance with the requirements of applicable Laws and/or standards;

(vi) all roadways will accommodate WB20 type vehicles; and

(vii) internal roadways will include easily accessible loading bays for trucks.

(g) Street Lighting: Project Co will Design and Construct street lighting:

(i) to provide lighting for Worker Accommodation Area roadways, walkways and parking areas to ensure safe vehicle and pedestrian traffic with respect to collisions, personal safety, and Accommodation Buildings access/egress; and

(ii) All WAA lighting will carry the “Dark Sky Compliant” certification, in accordance with the Illuminating Engineering Society / International Dark-Sky Association’s Model Lighting Ordinance.

(h) Electrical Services: Project Co will Design and Construct electrical services:

(i) to provide electrical services to the Accommodation Buildings meet Canadian Electrical Code; and

(ii) with a service capacity to be determined in accordance with the requirements of Section 8 of CSA C22.1.

(i) Telecommunications Services:

(i) Project Co will Design and Construct the Facility to provide adequate telecommunication services to the Accommodation Buildings.

(j) Gas Services:

(i) Project Co will Design and Construct the Facility to provide natural gas/propane services to the Accommodation Buildings adequate to service the Facility.

(k) Fencing:

(i) Project Co will Design and Construct fencing around the perimeter of the Long Term Parking Lot with access for vehicular and pedestrian movement.

WORKER ACCOMMODATION PROJECT AGREEMENT

SCHEDULE 6, PART 5

SPECIFICATIONS AND DRAWINGS

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WORKER ACCOMMODATION PROJECT AGREEMENT

SCHEDULE 6, PART 5

SPECIFICATIONS AND DRAWINGS

5 WORKER ACCOMMODATION BUILDING DESIGN REQUIREMENTS

5.1 Incident Requirements

[redacted] Project Co will Design and Construct the Facility for the need to protect the life and safety of all Guests and for continuation of services following an incident including, but not limited to, earthquake, chemical spill, extended power interruption or contamination of water supply. Particular attention should be paid to the buildings, generators, transformers and service connections.

(b) Project Co will Design and Construct the Facility so that the following critical systems are fully functioning for a minimum period of [redacted] hours following an incident resulting in the loss of electrical power to the Facility:

[redacted]

[redacted]

5.2 Architecture

5.2.1 Building Form and Character

(a) General:

(i) the design of the Accommodation Buildings will be articulated, robust and aesthetically pleasing;

(ii) the facade elements will enhance the perception of the Guest when they arrive at the Accommodation Complex;

(iii) the glazing will optimize views, increase daylight penetration and reduce energy consumption;

(iv) the Accommodation Buildings will incorporate wood products in the design as contemplated by the British ColumbiaWood First Act (WFA); and

(v) [redacted]

(b) Exterior Building Materials and Colour:

(i) the exterior cladding materials of the Accommodation Buildings will exhibit a high quality finish and robust detailing;

(ii) the cladding materials will be durable and may be architectural concrete, brick or stone masonry, glass, phenolic panels, metal cladding, wood;

(iii) the number of exterior cladding materials will be minimized to reduce the number of envelope joints;

(iv) wood, if used on the exterior, will be selected, located and treated to minimize maintenance and optimize its life span; and

(v) Gymnasium may be a ‘sprung’ structure.

5.2.2 Building Configuration and Internal Circulation

(a) Accommodation Building Entrances:

(i) exterior entrances into the Accommodation Complex will be shielded from snow and rain by canopies or building overhangs;

(ii) shuttle bus pick-up and drop-off points in the front of the Accommodation Complex will be shielded from snow and rain by canopies or building overhangs;

(iii) the area from the exit to the mudroom through the bus pick-up/drop-off zone will be considered an “Ice Free Zone” and will be shielded from the elements;

(iv) Accommodation Complex entrances will be oriented away from direct prevailing winds and utilize wind mitigating measures;

(v) outdoor areas adjacent to the Accommodation Complex will be protected from the wind thereby extending the seasonal duration of outdoor activities;

(vi) the main entrance to the Accommodation Complex will be configured and sized to preserve the airlock effect for climate control;

(vii) a heated air curtain system will be provided over the mud rooms’ exterior sliding doors to control temperature loss during winter months;

(viii) there will be a minimum five (5) meter (16 feet) distance between the exterior doors and lobby/reception area;

(ix) automatic sliding doors is required for both the exterior and interior of the mudroom;

(x) wheelchair access will be provided at the main entrance;

(xi) the main entrance, mudroom, and lobby and reception area will be acoustically treated to:

(A) control excessive noise or sound reverberation that can prevent effective communication;

(B) eliminate the spread of noise from the main entrance mudroom, lobby and reception area to adjacent noise sensitive interior spaces; and

(C) make spending time in the mudroom, lobby and reception area comfortable; and

(xii) sufficient lighting will be provided to ensure safe operations when entering and exiting the Facility.

(b) Access: Project Co will Design and Construct the Facility:

(i) to minimize the potential of trips and falls; and

(ii) to ensure that all spaces, to the extent possible, are disabled accessible.

(c) Exit Stairs: Project Co will Design and Construct the Facility to locate exit stairs that are conveniently accessible from main circulation routes.

(d) Convenience Stairs:

(i) convenience stairs will be located to facilitate Guest movement between floors and to reduce dependence on elevator use; and

(ii) convenience stairs will provide convenient service access to the ceiling mechanical and electrical plenum/trays above corridors.

5.2.3 Building Envelope

(a) The building envelope will prevent the accumulation and stagnation of rain, snow, ice and dirt on the horizontal and vertical surfaces of the building envelope and in the area between the entrance to the mudroom and the bus pick-up/drop-off area.

(b) The building envelope will prevent both the ingress of exterior moisture and the trapping of condensation from infiltrating humid air within the envelope.

(c) The building envelope will 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.

(d) The building envelope will ensure continuity of the air vapour, thermal and moisture barriers across the entire envelope.

(e) The building envelope will avoid thermal bridging.

5.2.4 Interior Walls and Partitions

(a) Interior wall and partition systems will provide acoustic separations as required for the specific functions to be carried out in the spaces affected.

(b) Interior walls and partitions, partition systems and interior finishes will comply with the following criteria:

(i) facilitate cleaning, maintenance and hygiene;

(ii) be of permanence and durability including impact resistance; and

(iii) minimize adverse impact on indoor air environmental quality.

(c) Interior walls and partitions will provide fittings, attachments and internal bracing/backup as required to accommodate and support wall mounted equipment.

5.2.5 Ceilings

(a) Ceiling systems will comprise a major component of the sound attenuation function and will have the following minimum performance specifications, where applicable:

(i) noise reduction coefficient greater than 0.80; and

(ii) ceiling attenuation class rating of forty (40) or better.

(b) [redacted]

(c) [redacted]

[redacted]

Energy Complex

[redacted]

ft.

Interior Spaces

5.4.1 Main Entrance

(a) The main entrance landing will have open pattern, industrial floor grates with scrapers to facilitate the cleaning of boots prior to entry into the mudroom and will be an “Ice Free Zone”.

(b) The main entrance doors will be:

(i) motion activated;

(ii) double sliding with each door’s dimensions being 2134 mm by 1829 mm by 45 mm (84 inches by 72 inches by 1 ¾ inches); and

(iii) constructed of tempered glass.

(c) The Whole Door U-Value of the main entrance doors will be less than 0.7 W/m²K to assure thermal efficiency.

(d) The heated air curtain for the main entrance doors will be a minimum of eighteen (18) inches deep and extend beyond the door opening.

5.4.2 Mud Room

(a) A boot/shoe changing area or mud room and a separate waiting area will be located behind the main entrance heated air curtain and before the lobby/reception entry doors.

(b) Bench seating will be provided in the mud room and mud room waiting area to facilitate boot/shoe changing or as a comfortable place to wait prior to boarding the shuttle bus.

(c) The mud room will use a maximum of natural light.

(d) An anti-skid/slip proof, durable, oil resistant flooring material will be used in the mud room.

5.4.3 Reception Area

(a) The reception area will be positioned before the security control point/gate.

(b) The reception area will be designed to minimize the Guest’s queue time and get them to their room in the shortest time possible.

(c) The reception desk will be a hotel style counter with multi-functional queues, one being utilized by the concierge.

(d) The reception area will maximize the use of natural light.

(e) The reception entrance doors will be:

(i) motion activated;

(ii) double sliding with each door’s dimension being 2134 mm by 1829 mm by 45 mm (84 inches by 72 inches by 1 ¾ inches); and

(iii) constructed of tempered glass.

(f) The flooring in the reception area will include high end finishes such as laminates, ceramic tile or stained concrete.

(g) The reception area will include clear signage that provides direction to Guest Rooms, dining area, multi-use rooms, recreational complex, washrooms and other key areas.

(d) [redacted]

5.4.8 Kitchen

(a) The kitchen will be sized to support the food delivery model contemplated by this Schedule 6 [Specifications and Drawings].

(b) [Not used]

(c) The kitchen will have access to a loading dock to receive supplies.

(d) The kitchen design will include the following factors:

(i) *Spatial Planning*:

(A) the premises will be designed so that there is a continuous progression from delivery to storage, through to preparation and delivery of the finished product;

(B) storage of meats and poultry will be separate from dry foods, fruits, vegetables and pastry;

(C) raw meat preparation will be physically separated from the cooked food handling area;

(D) food storage and handling areas will be physically separated from the following areas: chemical storage, toilets, waste storage, office areas, and other areas used for activities that could contaminate food or food preparation areas;

(E) electrical outlets will be a minimum of 400 mm (16 inches) above the floor and kitchen counter outlets 1050 mm (42 inches) above the floor; and

(F) all switches and thermostats will be operable with one hand.

(ii) *Access and Egress*:

(A) no place in the kitchen should be more than twenty (20) meters (66 feet) from an exit; and

(B) as far as reasonable, the kitchen will allow safe, equitable and dignified access to individuals with disabilities.

(iii) *Fixtures, Fittings and Equipment*

(A) fixtures, fitting and equipment for the kitchen must be adequate for the safe production of food and support the food delivery model;

(B) installed kitchen equipment installed must be easily movable for cleaning, built into the wall so that it is completely vermin proof or built against the wall or other equipment and the joints sealed;

(C) kitchen sinks will be sized and be in sufficient numbers to suit the largest piece of equipment being cleaned; and

(D) hand basins, with appropriate cleaning supplies, will be located within 5 meters (17 feet) of any food preparation area and placed at all entrances to the kitchen where open food is handled or where staff return to food handling areas.

(iv) *Storage*:

(A) hazardous substances including cleaning chemicals and pest control chemicals will be stored in a separate room dedicated to that use and away from food storage and preparation areas.

(v) *Walls and Ceilings*:

(A) the kitchen will have a minimum ceiling height of 2400 mm (95 inches) from the floor;

(B) the food preparation, display and service areas must have finished ceiling surfaces without any perforations, exposed joints, cracks or crevices;

(C) suspended acoustic tile ceilings are not permitted in food preparation areas or where food is being displayed or served;

(D) the wall to ceiling junction in food preparation, display and service areas must be tightly joined and sealed and constructed so that no dust, grease or food particles can collect at the joint; and

(E) the finished surface in the food preparation, display and service areas must be smooth and even, impervious to food, grease and water particles and easy to clean.

(vi) *Ventilation*:

(A) an adequate supply of air must be provided and maintained in the kitchen as prescribed in ASHRAE standards for both ventilation and fresh air;

(B) exhaust fans in the kitchen must be capable of removing the collected airborne waste as a rate equivalent to their generation. The make-up air unit in the kitchen will be capable of replacing an equivalent volume of the extracted waste fumes;

(C) all exhaust gases in the kitchen will be discharged to the atmosphere, after being filtered through ducts; and

(D) exhaust discharge in the kitchen will be separated from air intakes and neighbouring Accommodation Buildings.

(vii) *Lighting*:

(A) the lighting system in the kitchen will take into account the following: available natural light, required luminance levels (lux) for the work being performed, reflectance of surfaces and emergency lighting requirements;

(B) the minimum required luminance levels for specific tasks will be in accordance with the IESNA Lighting Handbook; and

(C) the kitchen ceiling reflectance coefficient will be between 0.65 and 0.75.

(viii) *Water Supply and Drainage*:

(A) water pressure must be adequate to meet the demand of the kitchen; and

(B) hot water must be stored at a minimum of 60 degrees Centigrade (140 degrees Fahrenheit) to prevent the growth of bacteria.

(ix) *Flooring*:

(A) the following floor types are acceptable for the kitchen: stainless steel with a non-slip profile and welded joints, ceramic tiles with epoxy grouting, quarry tiles with impervious sealer, polyvinyl sheet or tiles with heat welded joints and case hardened concrete with epoxy sealant;

(B) the flooring coefficient of friction will be 0.93 or greater in both dry and wet conditions;

(C) drainage outlets will be located adjacent to water supply points including, but not limited to, sinks, basins and dishwashers; and

(D) the junction between wall and floor surfaces will be coved with an impervious and easy to clean material.

(x) *Waste*:

(A) the kitchen's waste disposal system will be developed to prevent the occurrence of injuries resulting from manual handling tasks;

(B) a central waste collecting and processing facility will be located outside of the kitchen area. Waste from other areas of the Accommodation Complex will not pass through the kitchen area;

(C) grease arrestors will not be co-located where food, equipment or packaging materials are located; and

(D) bear-proof waste containers will be provided and used.

(xi) *Pest Control*:

(A) the food storage, preparation, display, service and waste areas will be designed to minimize the possibility of any animal or pest entering or harbouring within.

(xii) *Staff Amenities*:

(A) kitchen staff will be provided with dedicated changing rooms and lockers near the kitchen; and

(B) the kitchen staff washrooms will not open directly into food storage or food preparation, display or service areas and will be accessed via air locks with self-closing doors.

5.4.9 Food Service Area

(a) The food service areas will maximize the availability of self-serve food stations.

(b) The food service areas will minimize the appearance of stainless steel on coolers, food displays, serving lines, self-serve equipment and food warmers.

(c) The food service areas will optimize arrangement of food delivery points to avoid Guests backtracking (that is going against the flow of Guest traffic) for dishes, utensil, beverages and condiments.

(d) The food service areas will optimize configuration of lunch pack-up/pick-up area to ensure the flow of Guests from the entrance of the lunch pack-up/pick-up area to the exit of the lunch pack-up/pick-up area.

(e) The food service area will accommodate the following food stations for the dinner meal:

(i) Food Station #1: main line, rotating entree offering with three proteins, starch and vegetables;

(ii) Food Station #2: grill items such as burgers, hot dogs, french fries fried chicken;

(iii) Food Station #3: salad and soup bar;

(iv) Food Station #4: hot and cold beverage station;

(v) Food Station #5: pastry, desert and ice cream station; and

(vi) Food Station #6: sandwich bar.

5.4.10 Dining Room

(a) The dining room entrance and exit will be separate from each other.

(b) The dining room will provide the ability to break up the large dining area into several smaller spaces using full height feature walls, painted in contrasting colour and coordinated with matching battens.

(c) The dining room area will include a minimum of one (1) 1524 mm (60 inch) LCD/LED television, with appropriate mounting bracket, per fifteen (15) linear meters (50 linear feet) of wall with any window areas subtracted from total linear wall length.

(d) The dining room walls will have varying and contrasting finishes coordinated in a manner that promotes restaurant ambiance and atmosphere.

(e) The dining room columns will be minimized through the use of innovative roof supporting structures.

(f) The dining room will maximize the use of natural light and window walls.

5.4.11 Shops and Sundries

(a) The Accommodation Complex will have a dedicated area for retail shops within the core area that maximizes Guest access and complements overall Accommodation Complex objectives.

(b) [Not used]

(c) The Accommodation Complex will include infrastructure services that are appropriate for a typical retail coffee shop (e.g., Tim Horton's) including electrical power, natural gas/propane, low voltage

communications, fire alarm, paging, phone, hot and cold water, sanitary drainage and grease trap and mechanical HVAC.

(d) The Accommodation Complex will include infrastructure services that are appropriate for a typical retail commissary space including electrical power, natural gas/propane, low voltage communications, fire alarm, paging, phone, hot and cold water, and mechanical HVAC.

(e) The Accommodation Complex will provide for appropriately sized ventilation, make-up air and exhausting for the shops and sundries.

(f) Any commercial space in the Accommodation Complex must complement the overall Facility objectives.

(g) The Accommodation Complex will include two (2) soft drink and two (2) snack machines in the core for every five-hundred (500) Guest rooms.

5.4.12 Fitness and Exercise Rooms

(a) General:

(i) each fitness area will be plumbed for a filtered, cooled water supply.

(b) Cardio Training Areas:

(i) the gym equipment will consist of a mix of treadmills, upright bikes, recumbent bikes, elliptical, stair climbers and rowers;

(ii) the gym machines will be of commercial quality;

(iii) the gym will have a sufficient quantity of equipment to minimize Guest waiting time; and

(iv) the gym will have one wall mounted LCD/LED for every two pieces of cardio equipment.

(c) Weight Training Areas:

(i) the gym weight training equipment will include a mix of fixed free weights such as dumbbells, curls, squats, bench press, leg press, smith machine, fly and chest press; pulley style weights systems equivalent in depth and breadth to the free weights;

(ii) a sufficient quantity of gym weight training equipment will be provided to minimize Guest waiting time;

(iii) the free weight area will be mirrored with shatter resistant safety glass beginning two (2) feet off the floor; and

(iv) the gym will have metal protective covering under the mirrored surfaces in the free weight area to protect the walls from damage.

5.4.13 Gymnasium

The Accommodation Complex will have a gymnasium with the following components:

(a) regulation size basketball court with lines for basketball, badminton and volleyball;

(b) spectator seating;

(c) roll-out protective floor covering for gymnasium hardwood floor;

(d) gym equipment storage room; and

(e) a running/jogging/walking track.

5.4.14 Washrooms

(a) Gender specific washrooms will be located adjacent to the gymnasium.

(b) The gymnasium flooring coefficient of friction will be 0.93 or greater in both dry and wet conditions.

5.4.15 Theatre

(a) The theatre will have “quiet rock” wallboard or equivalent to mitigate sound transmission.

(b) The theatre floor will be inclined and represent a tiered seating arrangement.

(c) The theatre will include a high-end theatre audio visual system with the following minimum standards:

(i) ceiling mounted, 1080p projector;

(ii) a fixed mount screen with minimum dimensions of 3962 mm wide by 2134 mm wide (13 feet wide by 7 feet high);

(iii) a Blue Ray disk player; and

(iv) a 7:1 speaker system.

5.4.16 Recreation Area

(a) The Accommodation Complex will have a recreation area with pool tables, ping pong, card tables, foosball and other recreational items.

(b) The Accommodation Complex will have a video games room with any of the following video game equipment including appropriate cable and controllers: Microsoft Xbox One, Sony PlayStation 4 and/or Nintendo Wii U.

5.4.17 Training/Meeting Room

(a) The Accommodation Complex will have training/meeting room positioned pre-security control point/gate.

(b) The Accommodation Complex’s training/meeting room will be provisioned with phone, wired Ethernet, wireless connections and electrical outlets.

(c) The Accommodation Complex’s training/meeting room will be provisioned with the following: audio/video conferencing capability, microphone, wall mounted speakers, ceiling mounted projector and multiple white boards.

5.4.18 Business Centre

(a) The Accommodation Complex will have a business centre provisioned with three (3) PC’s, wired Ethernet and wireless connections and multi-functional copier/printer/scanner.

5.4.19 Administrative Offices

(a) The Accommodation Complex will have administrative offices provisioned with phone, wired Ethernet and wireless connections and electrical outlets including a centrally located multi-functional copier/printer/scanner.

5.4.20 Controlled Lounge

(a) The Accommodation Complex will have a lounge where “pub style” food, wine, beer and soda will be served on a “pay for use” basis.

(b) The lounge will have space and equipment to support pay for view sporting events.

5.4.21 Multi-Use Room

(a) The Accommodation Complex will have multi-purpose rooms that will be provisioned with TV outlets, wired Ethernet, video/audio conferencing capability and wireless connections and storage closets.

5.4.22 First Aid Station

(a) The Accommodation Complex will have a staffed first aid station.

(b) The first aid station will be located in proximity to the kitchen area.

5.4.23 Medical Centre

(a) The Facility will include a medical centre appropriately sized with infrastructure relevant to support the services described below:

(i) first aid response to accidents and emergencies;

(ii) initial assessment of injuries;

(iii) treatment of “everyday” illnesses e.g., colds, flu and food poisoning;

(iv) treatment of known, ongoing medical issues;

(v) secure storage of pharmaceuticals;

(vi) dispensing of emergency pharmaceuticals;

(vii) overnight care and observation services;

(viii) capability to provide medical gasses e.g., oxygen;

(ix) ongoing care of chronic conditions and disabilities;

(x) provision of diagnostic monitoring e.g., heart rate/O2 levels;

(xi) cleaning of dirty and soiled linen, towels and bedding;

(xii) externally provided doctor/nurse provided diagnostic services; and

(xiii) performance of clerical, administrative and record keeping tasks.

(b) [redacted]

[redacted]

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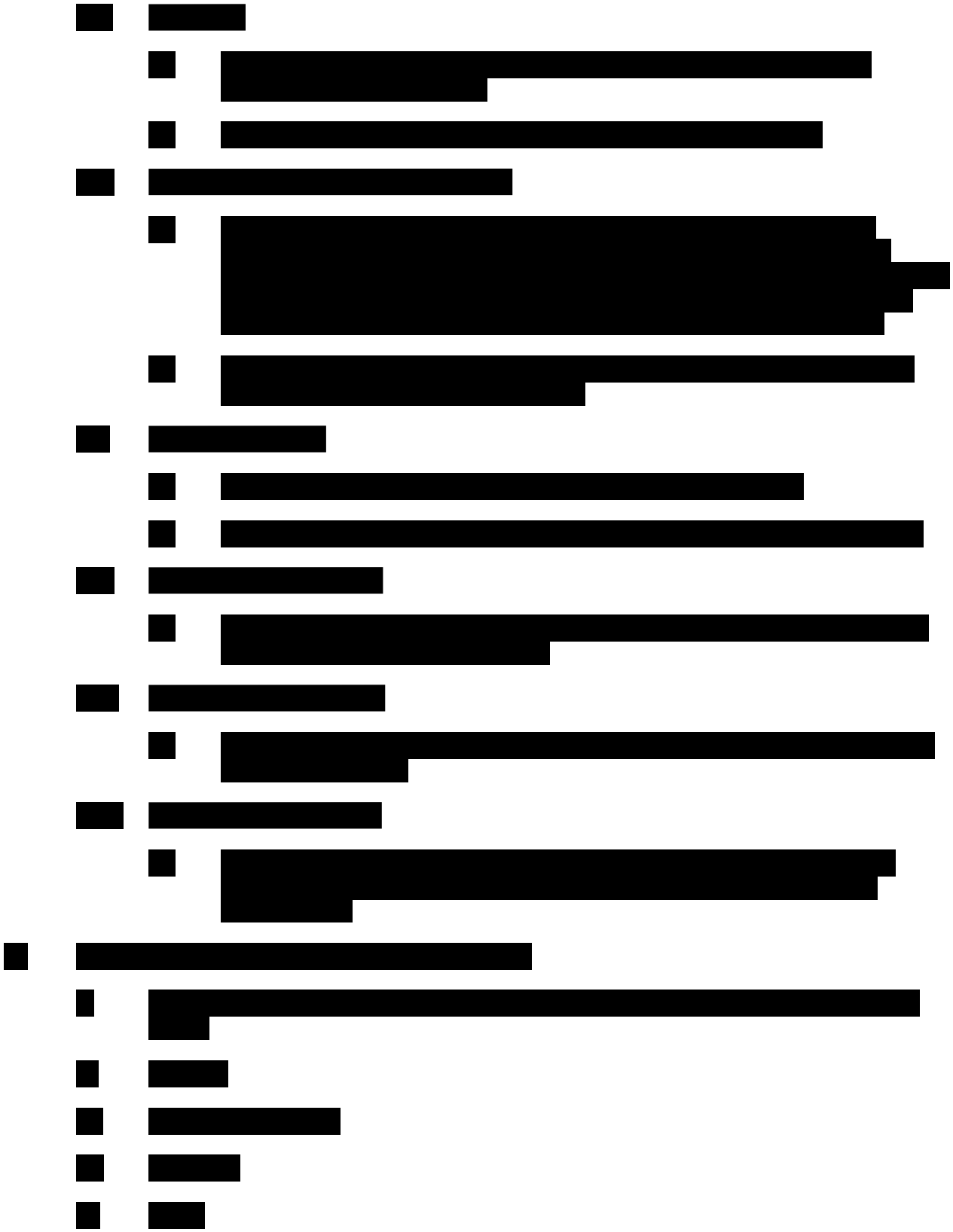

5.5.2 Ergonomic Design

(a) The Facility will incorporate detailed design features, which expressly facilitate the physical activities of the Guests and increase their safety, and efficiency.

(b) The Facility will employ ergonomic design, consistent with good industry practice, of all work spaces including millwork, furniture, lighting and finishes to eliminate strain and injury to cleaning/maintenance and to Guests.

5.5.3 Colour

(a) The Accommodation Complex will be finished in colour palettes that contribute to the creation of a welcoming environment.

(b) The Accommodation Complex will avoid glare-creating finishes.

5.5.4 Art Works

(a) The Accommodation Complex will incorporate art in the common areas.

(b) The Accommodation Complex will have lighting that enhances the display of all art works.

(c) The Accommodation Complex will provide all necessary structural support, vandal-proof mounting and other protective measures required for particular art works.

5.5.5 Interior Signage

(a) General Principles:

(i) the Accommodation Complex will be configured so that circulation systems and functions make wayfinding inherently easy;

(ii) major Accommodation Complex destinations such as dining room, exercise room, Hoteling shower room, will be located directly off the lobby and/or along primary circulation paths for easy access;

(iii) the lobby/reception area will be as open as possible to circulation routes; and

(iv) Guest circulation routes will be distinct from service routes.

(b) Signage will adhere to the following:

(i) signage will be highly visible (day and night), clear, concise, and well-differentiated from surrounding information, notices, advertising;

(ii) utilize consistent and descriptive terminology;

(iii) signage will be installed at each point at which a directional decision is required;

(iv) signage will be designed in consultation with the BC Hydro such that the materials, colours, letter fonts, sizes and other aesthetic and functional considerations, are coordinated and consistent;

(v) acceptable materials for signs include: aluminum, acrylic, vinyl and stainless steel;

(vi) signage will be resistant to graffiti and physical damage; and

(vii) avoid multi-layered naming hierarchies and complex numbering systems.

(c) At a minimum, the following signage will be incorporated into the design process:

(i) building directories at main entrance and major corridor junctions;

(ii) room signage, for all rooms, will distinguish room functions. Administrative space signage requires a pocket to insert specific information such as name of occupant. Provide small door tags for all door frames;

(iii) overhead directional signage will either be suspended from a ceiling or bulkhead or be mounted directly over doors. No directional signage will be incorporated into flooring; and

(iv) feature signs and information panels at various locations throughout the Accommodation Complex e.g., signs to locate information desk.

(d) The Accommodation Complex will have a room numbering/labelling system consistent with the following protocols:

(i) each room and space with walls and or a door requires a unique identifier number for service reasons;

(ii) room numbers will be determined early in design and maintained following occupancy; and

(iii) rooms are numbered in a manner that reflects normal movement through the Accommodation Complex.

5.6 Exterior Spaces

5.6.1 Bus Staging and Pick-Up Area

(a) Bus Staging Area:

(i) the bus staging area will be seal coated; and

(ii) each parking stall in the bus staging area will have one electrical outlet sufficient for an engine heater.

(b) Bus Pick-Up/ Drop-Off Area:

(i) the bus pick-up area will be seal coated;

(ii) the bus parking will be angled to allow busses to pull-through;

(iii) one electrical plug per bus parking stall required;

(iv) a dedicated smoking area will be covered and screened;

(v) bus waiting area(s) will have 1016 mm (40 inch) LED/LCD monitors that display bus schedule information, with one (1) monitor required for every four (4) busses; and

(vi) will accommodate B-12 standard single unit busses based on TAC 1999 with each bus having a capacity of approximately 50 to 55 passengers.

(c) Covered Waiting Area for Shuttle Busses:

(i) covered waiting area able to accommodate up to [redacted] people who have passed through Site security for pick up and drop off by internal Site shuttle busses;

(ii) staging area able to accommodate B-12 standard single unit busses based on TAC 1999 with each bus having a capacity of approximately 50 to 55 passengers; and

(iii) located in close proximity to the BC Hydro security building for the Site that is adjacent to the Long Term Parking Lot with the final location of the covered waiting area to be agreed with Hydro's Representative.

5.6.2 Building Landscaping

(a) The landscaping will include a minimum of the following:

(i) 38 mm (1 ½ inches) gravel with less than ten percent (10%) fines used in non-paved and non-grass areas;

(ii) pathway system provided around perimeter of entire Facility that connects all entrances;

(iii) pathways will be surfaced and be provided with markers indicating edges of pathways that can been seen above anticipated snowfall levels; and

(iv) grass around the front entrance with trees and shrubs to enhance the ambiance of the Facility.

(b) The ground will be sloped from the centre of the dormitories to the mid-point between the dormitories to facilitate proper drainage.

5.6.3 Outdoor Recreation

(a) The Accommodation Complex will have flex space that can be turned into ice hockey surfaces e.g., tennis/basketball courts.

(b) The Accommodation Complex will have easy access to walking trails from the dormitory complex.

(c) The Accommodation Complex will have a BBQ fire pit.

(d) The Accommodation Complex will have a covered gazebo.

(e) The Accommodation Complex will have a dedicated outside smoking area that is covered and screened.

(f) The Accommodation Complex will have light recreation areas in and around dormitories e.g., badminton, horseshoes, bocce ball and basketball hoops.

5.7 Structural Design

5.7.1 Structural Design

The Facility's structural design, including minimum design loads and general provisions and material specifications, will satisfy the more stringent requirements of applicable or referenced design standards, loading criteria required by equipment suppliers or construction technique and the principles detailed in this Schedule 6 [Specifications and Drawings].

5.7.2 Vibration limitations

The Accommodation Complex's structural system will minimize the effects of floor vibration due to use, occupancy and equipment. Vibration limits will meet or exceed the recommendations of the National Research Council of Canada, Construction Technology Update No. 22 – Control of Floor Vibration.

5.7.3 Durability

(a) The Facility's structure and structural components will minimize the effects of corrosion and deterioration due to the environment.

5.7.4 Member Design Criteria

(a) The Accommodation Complex's floor and roof structural framing members will have sufficient strength and stability so that the factored member resistance is equal to or greater than the effects of the factored loads.

(b) The Accommodation Complex's floor and roof structural framing members will have sufficient stiffness so as to remain serviceable under the specified gravity loads.

5.8 Mechanical Systems Design

[redacted]

[redacted]	[redacted]
[redacted]	[redacted]
[redacted]	[redacted]

[redacted]

(b) [redacted]

(vii) [redacted]

5.9 Electrical Systems Design

[redacted]

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WORKER ACCOMMODATION PROJECT AGREEMENT

SCHEDULE 6, PART 6

SPECIFICATIONS AND DRAWINGS

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WORKER ACCOMMODATION PROJECT AGREEMENT

SCHEDULE 6, PART 6

SPECIFICATIONS AND DRAWINGS

6 FACILITIES CONSTRUCTION SUBGROUP SPECIFICATIONS

6.1 Intentionally Omitted

6.2 Intentionally Omitted

6.3 Concrete (Division 3)

6.3.1 Overriding Principles

(a) If applicable, design and construct cast in place or precast concrete of appropriate properties for the intended use in accordance with the requirements of all applicable Laws, standards and specifications.

(b) If applicable, design for the applicable concrete exposure class and provide high sulphate resistant performance where applicable.

(c) Maximize the fly ash content of the mix.

(d) Use wood formwork for cast in place concrete.

6.3.2 Quality Requirements

(a) Cause cast in place concrete and concrete materials to be inspected and tested by a CSA certified testing laboratory.

(b) Cause 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 all applicable standards.

6.3.3 Performance Criteria

(a) Finish concrete floors with a smooth, dense, steel trowel finish with a Class F2 Flatness Classification in accordance with CAN/CSA A23.1/A23.2-09, except where more strict 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.

(b) Repair cracks in concrete floors and walls to suit the floor finish and long-term serviceability requirements for the floor.

(c) Water proof all foundation walls for below-grade occupied spaces and crawl spaces to prevent groundwater ingress. Construction joints will have purpose-made water stops. Install perimeter draining system around the exterior of earth-retained foundations if recommended by a geotechnical engineer.

(d) Exposed architectural concrete will comply with CAN/CSA A23.1/A23.2-09 to minimize honey combing or patching.

(e) All concrete exposed in areas used by Guests will be architectural concrete.

(f) Provide vapour barrier under slabs-on-grade in the form of continuous, cross-linked, minimum ten (10) mil polyethylene sheet.

(g) Provide weeping tile as required to ensure proper drainage of the sub surface foundations and walls.

6.4 Masonry (Division 4)

6.4.1 Basic Requirements

(a) 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 Accommodation Complex.

(b) 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.

6.4.2 Concrete Masonry Units

(a) 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.

(b) 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.

(c) Unpainted concrete unit masonry will not be used as an exposed finish on interior surfaces.

(d) Where concrete unit masonry is used as the exposed finish, all exposed corners will have rounded or chamfered corners.

(e) Masonry design and construction will comply with Canadian Masonry Contractors Association (CMCA) Masonry Practices Manual and all applicable standards.

6.4.3 Brick Masonry

(a) 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.

(b) Brick masonry below grade for exterior applications is not permitted.

(c) Brick masonry in interior applications is to have integral finish and construction compatible with control requirements.

6.4.4 Stone Masonry

(a) 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.

(b) Stone masonry 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.

6.5 Metals (Division 5)

6.5.1 Basic Requirements

(a) Structural steel, steel deck, and cold-formed steel stud design and construction may be considered for building elements and systems, where appropriate.

6.5.2 Performance Criteria

(a) Design structural steel, steel deck, and cold-formed steel stud systems to comply with the deflection and vibration criteria outlined in this Schedule 6 [Specifications and Drawings].

(b) Erection tolerances for steel construction will be in accordance with all applicable CAN/CSA standards.

(c) 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.

(d) Concrete topping slabs will be finished with a smooth, dense, steel trowel finish. 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.

(e) Steel floor/roof decking is to 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.

(f) Fire proof structural steel floor/roof framing and supporting members will meet the fire rating requirement. Spray on or applied fireproofing material is not to be used to achieve required floor deck fire rating.

6.5.3 Structural Steel and Steel Joists

(a) Quality Requirements:

(i) quality assurance testing and monitoring of workmanship to be carried out by an approved testing laboratory using testing procedures as specified in the CAN/CSA standards listed in Section 2 of this Schedule 6 [Specifications and Drawings] to verify soundness of representative shop and field welds;

(ii) material quality including sourcing and welding quality will be monitored by an independent testing agency; and

(iii) the specification for preparation and painting of Structural Steel components will conform to the MPI Standards.

6.5.4 Load Bearing Steel Studs

(a) Overriding Principles:

(i) load bearing steel studs may be considered as a component of the exterior wall systems to support exterior wall finishes and form an integral part of the perimeter envelope; and

(ii) load bearing steel studs may be part of the structural framing or may be independent of the principal structural system.

(b) Quality Requirements:

(i) design, detail and construct load bearing steel stud design and construction to comply with all applicable CAN/CSA standards;

(ii) the steel stud manufacturer will be certified in accordance with CSSBI Standard 30M-06 and all applicable CAN/CSA standards;

(iii) the steel stud fabricator and erector will be experienced in the type of work undertaken; and

(iv) conform to the Association of Wall and Ceiling Contractor's Specification Standards Manual (AWCC).

(c) Performance Requirements:

(i) 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;

(ii) design components to accommodate erection tolerances of the structure;

(iii) design wind bearing stud end connections to accommodate floor/roof deflections and to ensure that studs are not loaded axially; and

(iv) 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.

(d) Corner Guards and Bumper Rails:

(i) provide heavy duty steel corner guards and bumper rails in utility areas, including:

(A) material management, storage and loading lock areas;

(B) utility corridors with heavy utility cart and pallet jack traffic; and

(C) other areas with high risk of impact from utility cart traffic.

(e) Guardrails & Handrails:

(i) provide guardrails and handrails with a minimum diameter of 42 mm (1.7 inches) or as required;

(ii) all guardrails will be designed for their usage classification and per applicable codes;

(iii) provide a durable painted finish for steel guardrails; and

(iv) provide a manufactured pre-finish for stainless steel or aluminum guardrails.

6.6 Wood, Plastics and Composites (including Millwork) (Division 6)

6.6.1 Basic Requirements

(a) The use of wood and plastic products will be within the limitations of combustible content restrictions for the specific occupancy classification of the Accommodation Complex.

(b) Timber is considered an acceptable product for Accommodation Complex structure.

(c) Do not use urea formaldehyde containing materials in the Accommodation Complex.

(d) As required, 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 exterior fascia's, cabinets, casework (excluding laboratory casework), frames, panelling, ceiling battens, trim, installation of doors and hardware, and other wood-related products and applications:

(i) to support functionality as required for operation of the Accommodation Complex; and

(ii) for wood products exposed to view in finished interior and exterior installations.

(e) Wood studs will comply with applicable CSA standards for lumber. Provide solid polymer fabricated or stainless steel surfacing for:

(i) counters that incorporate integral sinks; and

(ii) 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.

(f) Provide acrylic plastic products or other products as required for wall cladding, wall protection, corner protection, casework finishing, trims, ornamental elements, and other applications to achieve a quality of interior finish suitable for use by Guests.

(g) Prepare and propose locations and types of all handrails, bumper guards, and wall protection.

(h) Use pressure treated wood for any exterior exposed wood.

6.6.2 Wall Guards and Corner Guards, Handrails, Wall Protection, Door Edge and Door Frame Protection

(a) Wall and Corner Guards:

(i) provide protection of walls and exposed wall corners in Guest areas, service areas, and other areas where needed to protect walls and exposed corners; and

(ii) select materials appropriate to the amount and degree of impact anticipated.

(b) Handrails:

(i) provide handrails in all stair areas of an appropriate type; and

(ii) select materials and shapes appropriate for the use and provide continuous uninterrupted supports.

(c) Wall Protection:

(i) apply sheet wall protection to wall areas where the impact damage anticipated is of a larger area than would be protected by bumper guards;

(ii) provide wall bumper guards in high traffic Guest areas;

(iii) provide wall splash back protection behind and surrounding hand sinks, scrub sinks and housekeeping sinks;

(iv) apply sheet wall protection to faces of doors where impact damage is anticipated. Use sheet wall protection that complements the installation of door edge and frame protection;

(v) 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; and

(vi) use handrails and corner guard products that are stain-resistant to pen marks, paint, and graffiti, and are able to withstand commercial cleaners without fading or staining. Use products containing anti-microbial additives to retard mildew and bacterial growth.

(d) Door Edge and Door Frame Protection:

(i) protect door edges and door frames from impact damage caused by the regular movement of carts and other wheeled vehicles;

(ii) protect door edges and door frames in service areas from impact damage caused by regular and non-regular service vehicles; and

(iii) use bumper guards, crash rails, handrails, and corner guards that are high impact-resistant extrusion conforming to ASTM D4226 and with anti-microbial additive.

6.6.3 Finish Carpentry, Millwork and Architectural Woodwork

(a) Conform to AWMAC Quality Standards Manual for minimum “Custom Grade” and DHI standards for the design, fabrication, materials, installation, and workmanship of finish carpentry and architectural woodwork.

(b) Adhesives will be non-toxic, non-solvent glue to comply with AWMAC Quality Standards Manual, Canadian ‘Eco-Logo’ program, and Canada Green Building Council.

6.7 Thermal and Moisture Protection (Division 7)

6.7.1 Basic Requirements

(a) Design construction assemblies according to sound building envelope principles.

(b) 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.

(c) Design construction assemblies to prevent the ingress of moisture through foundation walls below grade, both subject and not subject to Hydrostatic pressure.

(d) Provide thermal protection to resist the transfer of heat through exterior walls and roofs to create comfortable, liveable interior environments.

(e) Provide resistance to the propagation and spread of fire for exterior walls and interior walls designated as fire-resistance rated separations where appropriate.

6.7.2 Performance Criteria

(a) Damp Proofing:

(i) damp proofing is not to be used as a means to prevent moisture ingress.

(b) Waterproofing:

(i) provide waterproofing to prevent moisture ingress to basement and crawlspaces below grade;

(ii) use membrane waterproofing to prevent water ingress over suspended slabs and decks and associated walls over habitable spaces where water collection is anticipated;

(iii) use fluid-applied waterproofing for mechanical room floors;

(iv) provide waterproof membranes in exterior walls as part of the building envelope and integral with rain screen or cavity wall assemblies;

(v) dam the floor under key mechanical equipment in the mechanical rooms and mechanical shafts with a continuous curb and waterproofing to contain the water; and

(vi) provide floor drains.

(c) Vapour Barriers:

(i) prevent water vapour transmission and condensation in wall assemblies, roofing assemblies, and under concrete slabs-on-grade within the Accommodation Complex perimeter by means of a continuous vapour barrier membrane.

(d) Air Barriers:

(i) prevent air leakage caused by air pressure across the wall and roof assembly by means of air barrier assemblies; and

(ii) provide air barrier assemblies that:

(A) limit air exfiltration and infiltration through materials of the assembly, joints in the assembly, joints in components of the wall assembly, and junctions with other building elements including the roof; and

(B) prevent air leakage caused by air pressure across the wall and roof assembly, including interruptions to the integrity of wall and roof systems such as junctions with dissimilar constructions.

(e) Thermal Protection:

(i) if applicable, provide 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;

(ii) use thermal protection materials of a type and quality that will provide consistent environmental quality to enclosed spaces;

(iii) minimum insulation values are to be determined by ASHRAE 90.1, either through the prescriptive method, or through energy modeling (please see Section 4.2.8 of this Schedule 6 [Specifications and Drawings]); and

(iv) design will consider the trade-offs associated with higher insulation values and overall, long term operating costs.

(f) Roofing:

(i) comply with the Roofing Contractors Association of British Columbia (RCABC) Guarantee Roof Star latest standards and requirements for a five (5) 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;

(ii) comply with Roof Star Roofing Practices Manual “Acceptable Materials List,” including;

(A) flexible membrane for reflective roofs – Elastomeric or Thermoplastic (single-ply system), Energy Star compliant (highly reflective) and high emissivity (of at least 0.9 when tested in accordance with ASTM 408);

(iii) if used, foamed plastic insulation will be CFC- and HCFC-free and comply with the province of British Columbia Ozone Depletion Substances Regulations;

(iv) provide a complete horizontal barrier to weather;

(v) roofing systems will include:

(A) flashings;

(B) thermal insulation;

(C) roofing specialties and accessories required for completion;

(D) protection from solar radiation; and

(E) roof drainage, including overflow scuppers;

(vi) 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;

(vii) metal roofing systems, if used, will be complete with continuous waterproof membrane as part of the assembly and provide clear internal paths of drainage to allow any trapped moisture to drain to the exterior and avoid the staining of architectural finishes, forming of puddles, forming of icicles, and dripping on pedestrians; and

(viii) in designing the Accommodation Complex, including any roof systems, ensure that entrance ways are protected from sliding snow and ice and that there are no accumulations of snow and ice in roof valleys.

(g) Fire and Smoke Protection:

(i) if required, use spray-applied cementitious fireproofing to achieve a fire resistance rating;

(ii) integrate barriers into vertical and horizontal space separations to protect against the spread of fire and smoke. Apply protection to exposed building elements, both structural and non-structural, susceptible to fire and subsequent damage;

(iii) apply protection around penetrations through vertical and horizontal fire-resistance rated separations;

(iv) consider the following recommendations of FireSmart Canada when designing the Accommodation Complex:

(A) roofing materials will be Class A;

(B) siding will be a minimum of twelve (12) millimeters thick, as measured between the low and high points of the profile;

(C) eaves, attics, under floor openings will have solid, non-flammable exterior protective shutters; and

(D) https://www.firesmartcanada.ca/resources-library/protecting-your-community-from-wildfire;

(v) use fire stopping and smoke seal systems that consist of asbestos-free materials and systems, capable of maintaining an effective barrier against flame, smoke, and gases;

(vi) use fire stopping that:

(A) is compatible with substrates;

(B) allows for movement caused by thermal cycles; and

(C) prevents the transmission of vibrations from pipe, conduit or duct to structure and from structure to pipe, conduit or duct;

(vii) when more than one product is required for an assembly, use products that are compatible with one another and from the same manufacturer; and

(viii) use fire stopping 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.

(h) Sealants:

(i) all sealants and sealant primers used on the interior of the Accommodation Complex will be low VOC;

(ii) apply sealant materials to:

(A) seal the building envelope systems and around openings in the building envelope systems as required to prevent water ingress;

(B) seal around and over cavities in or behind surface elements to allow effective hygiene control. Sealant around door frames must include joints at bottom of door frames between floor finish and frames;

(C) seal joints between dissimilar or similar materials to allow a smooth or even transitions; and

(D) seal expansion or controls joints in the building envelope systems or structural systems to allow movement;

(iii) for the exterior use, sealants will completely and continuously fill joints between materials;

(iv) for the interior use, sealants at frames such as those at doors, windows and skylights, to completely fill joints between dissimilar materials using one component, acrylic emulsion, paintable type;

(v) use silicone caulking that is mildew-resistant and impervious to water for caulking washroom plumbing fixtures;

(vi) use sealants with self-levelling properties for expansion and control joints in concrete floors using two-component epoxy urethane sealants;

(vii) use non-sag sealants for exterior vertical expansion and control joints in masonry or wall cladding;

(viii) use sealants that allow for minimum twenty-five (25%) movement in joint width; and

(ix) 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.

6.8 Cladding (Division 7)

6.8.1 Acceptable cladding materials include

(a) Section 6.3 Concrete & Precast Concrete.

(b) Sections 6.4.2, 6.4.3 and 6.4.4 Concrete Masonry Unit, Brick and Stone Masonry.

(c) Section 6.9.2.(h) Glass & Glazing.

(d) Section 6.8.2 Phenolic Panels.

(e) Section 6.8.3 Metal or Composite Aluminum Cladding.

(f) Section 6.8.3 Aluminum Curtain Wall.

(g) Section 6.8.4 Wood Cladding.

6.8.2 Phenolic Panels

(a) Phenolic panels will be high density phenolic resin with acrylic resin finish.

(b) Phenolic panels will comply with all applicable CSA standards.

6.8.3 Metal Cladding

(a) Metal panel cladding can be integrated into aluminum curtain wall system or be a stand-alone system.

(b) Metal panel will have baked enamel finish. Aluminum to be prefinished aluminum or baked enamel finish.

(c) Maximum panel deviation (flatness) to be 3 mm (0.12 inches) in 1530 mm (60.2 inches) in any direction for assembled units (non-accumulative – no oil canning).

6.8.4 Wood Cladding

(a) Wood cladding will comply with the *Wood First Act* (WFA) - (British Columbia) and all applicable CSA standards.

6.9 Openings (Division 8)

6.9.1 Basic Requirements

(a) Except where wire glass is required, construct interior windows, sidelights and glazing forming part of doors of tempered glass. For exterior glazing at doors and sidelights, use laminated glass.

(b) Installation methods and locations for doors, frames and hardware will conform to the standards of the DHI.

(c) Doors:

(i) doors are to be sized, fabricated and installed to suit the intended function of the space or room requiring acoustic, visual privacy, security, special HVAC requirements, fire-resistance rated separations or other closures;

(ii) size Requirements for Doors:

(A) size door openings to accommodate movement of both people and equipment;

(B) provide door openings of adequate width to suit the intended purpose of rooms on either side of the doors and allow for the movement of people and equipment associated with those rooms;

(C) no single door will have a width of less than 750mm (30 inches);

(D) no single door will have a height less than 2032 mm (80 inches) unless specifically required for access to services or other purposes where height is restricted; and

(E) Provide double doors into rooms where large pieces of equipment will be moved in or out and where said equipment cannot pass through a single 1200 mm (48 inch) wide opening;

(iii) doors may swing into Guest bathrooms, provided they allow for ease of Guest use. Equip such doors with appropriate hardware to allow the door to be opened out into the room in an emergency situation. Alternatively “barn type” sliding doors may be used for Guest bathrooms;

(iv) for doors into or between activity areas where cart traffic is anticipated on a routine basis, provide automatic activation by an electronic device or manual push button, without the necessity to stop movement;

(v) avoid doors swinging into corridors in a manner that may obstruct traffic flow or reduce the corridor traffic flow or to spaces that are used infrequently and are not subject to occupancy such as small closets;

(vi) provide all doors with appropriate hinges, edge protection and face protection that minimizes damage and resulting disruptive maintenance;

(vii) finish doors and frames with a suitable finish that prevents dirt and fingerprint accumulation, and can be easily cleaned and disinfected;

(viii) provide doors and door frames with the capability to withstand the varying and high levels of humidity and impact that may occur within specific rooms and maintain their inherent aesthetic and functional capacities; and

(ix) Guest Room doors to the corridor will:

(A) use lever style door handle;

(B) equipped with lockable passage sets, mortise and accessible by key and access card swipe;

(C) contain a peep hole;

(D) have threshold with an automatic door sweep;

(E) use compressible seals on sides of door frame;

(F) have self-closing hinges or door closures;

(G) require positive pressure to close the door; and

(H) be solid core doors.

(d) Windows:

(i) size, configure, and adequately construct windows to suit rooms that require daylight, views and/or natural ventilation;

(ii) provide non-operable windows in all Guest Rooms and spaces where acceptable for the functionality of the room or space;

(iii) window framing systems will be thermally-broken and designed based on pressure equalized rain screen principles;

(iv) coordinate glazing heights with adjacent wall protection, handrails, and other accessories to achieve functional and aesthetic cohesiveness; and

(v) [redacted]

6.9.2 Performance Criteria

(a) Hollow Metal Doors and Frames:

(i) materials and manufacture of hollow metal doors and frames will comply with the requirements of the Canadian Steel Door and Frame Manufacturer's Association (CSDFMA);

(ii) provide interior metal doors with flush face construction;

(iii) provide exterior metal doors with:

(A) flush face construction;

(B) edge seams that correspond with door function and minimize maintenance needed; and

(C) finishes that resist corrosion from exposure to weather;

(iv) provide pressed metal frames or knock down expandable frame with:

(A) fully welded construction;

(B) thermally-broken door frames for exterior door; and

(C) each jamb anchored to suit wall type and to receive the frame.

(b) Door Glazing:

(i) for exterior hollow metal door glazing, use sealed units with warm edge, in thermally-broken frames to prevent heat loss; and

(ii) for interior hollow metal door glazing use tempered glass.

(c) Wood Doors:

(i) all wood doors will comply with all applicable standards, including the Quality Standards for Architectural Woodwork published by the AWMAC;

(ii) wood doors will have hardware and finishes that suit the intended function and aesthetics of the Accommodation Complex;

(iii) construct, finish, and install wood doors to minimize the requirement for maintenance and resulting disruption to Accommodation Complex operations;

(iv) provide wood doors in flush design, Architectural Grade quality as defined in the AWMAC standards with a solid particleboard core;

(v) fire-resistance rated doors will have a homogeneous incombustible mineral core and meet AWMAC Quality Standards Option 5 blocking;

(vi) install finish hardware securely to resist loosening over time. Fasten to solid wood backing, except where hardware is designed to be through-bolted;

(vii) use paint grade hardwood veneer with AWMAC No. 3 edge, finish to suit the intended use; and

(viii) do not use wood veneer-faced doors in areas for reasons of cleanliness and infection prevention and control, unless suitably finished to mitigate such concerns.

(d) Aluminum Entrances and Storefronts:

(i) use aluminum doors within aluminum entrances and storefronts;

(ii) use frames that are thermally-broken, flush glazed, aluminum sections, to accept insulating glass units;

(iii) incorporate in the frames a draining and venting system with a complete air and vapour seal which allows any moisture entering the frame to drain to the exterior and allowing air into the pressuring chamber;

(iv) use aluminum swing entrance doors that are heavy-duty commercial that may be automatically operated, motion-detector controlled; and

(v) apply aluminum finish to exposed aluminum surfaces. Finish will be permanent and resistant to corrosion caused by weather exposure and climate.

(e) Specialty Doors:

(i) *Overhead Rolling Service Doors*:

(A) restrain lateral movement of door curtain slats. Provide wind locks as required by door size or wind load requirements;

(B) provide interlocking flat slats, complete with bottom bar and contact type bottom astragal;

(C) for manually operated doors, provide inside lift handle and locking bar or chain hoist. Chain operation will be by means of reduction gears and galvanized hand chain; and

(D) for fire doors, provide automatic closing device operated by fire door release device connected to fire alarm system.

(ii) *Overhead Rolling Grilles*:

(A) provide grilles that allow visual access to secure areas;

(B) provide aluminum or steel guides that are: fabricated to withstand vertical and lateral loads; counterbalanced by helical torsion springs and sound-deadened; and

(C) for manually operated closures, provide inside lift handle and locking bar or chain hoist. Chain operation will be by means of reduction gears and heavy chrome plated hand chain.

(iii) Over*head Rolling Counter Shutters/Horizontal Sliding Grilles*

(A) provide shutter curtains fabricated with extruded aluminum, galvanized steel, or stainless steel interlocking flat slats, complete with guides of similar materials; and

(B) provide closures that are manually operated and with locking capability.

(iv) *Automatic Sliding Doors*:

(A) automatic sliding doors complete with break-away capability for exiting will be installed at main entrance;

(B) provide door operators, including the motion and presence detection system, that are capable of operating within the temperature ranges existing at the Accommodation Complex and are unaffected by ambient light or ultrasonic interference; and

(C) provide energy-saving devices to reduce conditioned air loss e.g., air curtains.

(v) *Automatic Swing Doors*:

(A) use automatic swing doors for interior and exterior locations where appropriate;

(B) if used, provide directional motion sensor control device that are unaffected by ambient light or ultrasonic frequencies; and

(C) equip all in-swing doors with an emergency breakaway switch that internally cuts power.

(vi) *Aluminum Curtain Walls*:

(A) if used, aluminum curtain walls will comply with all applicable standards, including the Aluminum Association Standards (AAS) and the American Architectural Manufacturers Association (AAMA) field testing specifications;

(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;

(C) provide curtain wall framing that incorporates a thermal-break;

(D) for exposed aluminum surfaces, provide a finish that is permanent and resistant to corrosion resulting from weather exposure and climate; and

(E) window wall framing relying on primary face seals is not allowed.

(f) Aluminum or PVC Windows:

(i) aluminum windows will comply with all applicable standards, including the AAS and the AAMA field testing specifications;

(ii) incorporate in windows a draining and venting 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;

(iii) incorporate a thermal-break; and

(iv) for exposed aluminum surfaces, provide a finish that is permanent and resistant to corrosion resulting from weather exposure and climate.

(g) Skylights:

(i) skylights will comply with all applicable standards, including the AAS, and the AAMA field testing specifications;

(ii) all skylights to be sealed double glazed in thermally-broken, internally drained rain screen type extruded aluminum frames; plastic skylights are not to be used; and

(iii) for exposed aluminum surfaces, provide a finish that is permanent and resistant to corrosion resulting from weather exposure and climate.

(h) Entrance Mat Wells:

(i) provide a recessed, integrated mat well at major entrances with built in drainage.

(i) Glass and Glazing:

(i) glass and glazing will comply with all applicable standards, including the Insulating Glass Manufacturers Association of Canada (IGMAC) Guidelines and the GCA Glazing Systems Specifications Manual;

(ii) exterior and/or interior glass and glazing may be provided as integral components of the exterior envelope, interior partitions, exterior and interior doors, handrail balustrades, skylights and decorative and ornamental glazing;

(iii) provide assemblies that resist local seismic conditions; and

(iv) use laminated safety glass in single-glazed skylights, entry doors and sidelights, or as the inboard light of a double-glazed skylight. Single-glazed skylights are not to be used when separating interior and exterior environments.

(j) Finish Hardware:

(i) finish hardware will comply with all applicable standards, including the quality standards of the DHI;

(ii) finish hardware will be selected that has a useful expected life of at least ten (10) years;

(iii) provide all finish hardware from one (1) supplier that is a member in good standing of the DHI and has in its employ one (1) or more AHC (Architectural Hardware Consultant);

(iv) hardware will be integrated with the security requirements and coordinated with electrical wiring and power requirements;

(v) select finishes that provide maximum longevity and preservation of the finish;

(vi) provide, where applicable, ULC-listed hardware for the required fire rating;

(vii) use heavy-duty commercial quality hardware; locksets and latch sets fully mortised type and lever handles of solid material;

(viii) all doors with magnetic locks must have a key override on both sides of the door;

(ix) for special areas provide hardware to suit the purposes unique to those areas; and

(x) keying:

[redacted]

6.10 Finishes (Division 9)

6.10.1 Basic Requirements

(a) Provide interior finishes that are capable of being maintained throughout a ten (10) year operating period.

(b) In areas where finishes and associated systems will come into contact with water as part of cleaning or other procedures, allow water to collect and exit without causing damage to the finishes or substrate.

(c) For areas where wear is a concern use durable finish materials able to withstand damage caused by pedestrian and wheeled traffic and that are easily replaceable/repairable if damaged.

(d) Give priority to infection prevention and control in the selection of finishes for all food preparation areas.

(e) Acoustic characteristics of finish materials will be a priority consideration.

(f) Select a finish appearance and colour that creates and promote a welcoming environment, prevents glare, and minimizes artificial lighting requirements.

(g) Select materials that promote sustainability principles.

(h) Select finish materials that do not use known carcinogenic material or chemicals in their manufacture or disposal.

6.10.2 Performance Criteria

(a) Interior Wall Framing:

(i) interior wall framing will comply with all applicable standards, including the CSSBI and the AWCC Wall & Ceiling Specification Standards Manual for materials and workmanship for interior walls, including steel studs and furring and gypsum board ceiling suspension systems;

(ii) system design and components will meet seismic restraint requirements where applicable;

(iii) construct 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. Provide reinforcement and backing throughout;

(iv) design 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; and

(v) coordinate with all equipment suppliers to confirm location of wall mounts for equipment and furnishings. Provide backing for handrails, grab-bars, wall protection and other similar items.

(b) Gypsum Board:

(i) gypsum board will comply with all applicable standards, including the AWCC Wall & Ceiling Specification Standards Manual;

(ii) performance specifications:

(A) gypsum board will be no less than 12.7 mm (1/2 inch) in thickness;

(B) type X rated gypsum board will be used in all areas requiring a one (1) hour (20 FSR) fire rating;

(C) gypsum board will be mold and mildew resistant and in wet areas. “Blue rock” or equivalent will be used; and

(D) utilize vinyl clad type X gypsum board or equivalent in dormitories and core;

(iii) when using ceramic wall tile in showers or other wet areas use cementitious backer board or glass mat water-resistant gypsum backing panels;

(iv) use vinyl battens to achieve a finished look;

(v) provide abuse-resistant gypsum board where needed to increase resistance to abrasion, indentation and penetration of interior walls and ceilings;

(vi) use glass mat surfaced gypsum sheathing board wherever exterior gypsum sheathing is required at exterior walls; and

(vii) provide airborne sound insulation for gypsum board/stud assembly to close off air leaks and flanking paths by which noise can go around the assembly:

(A) make assemblies airtight;

(B) do not locate back to back recessed wall fixtures such as cabinets or electrical, telephone and television outlets, which perforate the gypsum board surface;

(C) carefully cut any opening for fixtures to the proper size and appropriately seal piping penetration. Seal conduit/duct/piping penetrations with tape and fill at the plenum barrier;

(D) make the entire perimeter of a sound insulating assembly airtight to prevent sound flanking; and

(E) 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.

(c) Ceramic Tile:

(i) ceramic tile will comply with all applicable standards, including the TTMAC Specification Guide 09300 Tile Installation Manual;

(ii) in order to reduce opportunities for the spread of infection, avoid use of ceramic tile in food preparation areas;

(iii) use floor tiles that have the following static coefficients of friction as per the ASTM:

(A) level surfaces: not less than 0.50 for dry and not less than 0.93 for wet or greasy conditions;

(B) stair treads: not less than 0.50 for dry and not less than 0.93 for wet or greasy conditions; and

(C) ramp surfaces: not less than 0.50 for dry and not less than 0.93 for wet or greasy conditions;

(iv) if used for exterior installations, provide frost-resistant exterior tiles with a moisture absorption rating of three percent (3.0%) or less;

(v) provide control joints and expansion joints in conformance with the recommendations of the TTMAC Tile Installation Manual;

(vi) 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;

(vii) provide crack isolation membranes to resist crack transmission from the substrate due to lateral movement;

(viii) use elastomeric sheets or trowel-applied materials suitable for subsequent bonding of ceramic tile; and

(ix) set ceramic tile with latex modified mortar and grout with epoxy grout.

(d) Acoustic Tile Ceilings:

(i) *General*:

(A) install acoustic ceiling tiles, in a suspension system, that provide the highest level of sound attenuation required to suit the intended function of the room;

(B) all acoustic tile ceilings used in spaces which do not have special cleaning, maintenance or environmental needs will have a noise reduction co-efficient of 0.80;

(C) provide accessibility to the ceiling spaces where access is required to mechanical, electrical or other service systems;

(D) special surface-treated ceiling tiles, such as Mylar, vinyl-faced or metal-faced tiles, may be used where maintenance and ease of cleaning are priorities as well as the accessibility and acoustic requirements;

(E) provide acoustical panels that are appropriate for the internal design temperature of 20° C (68° F) and maximum seventy percent (70%) relative humidity. If these parameters are expected to be exceeded, consider use of acoustical units specifically designed for such applications;

(F) use ceiling tiles with scratch-resistant surfaces in any area where lay-in ceiling panels frequently need to be removed for plenum access; and

(G) for ceilings installed in food preparation areas, use acoustic panels capable of being cleaned without undue wear on the panel.

(ii) *Performance Specifications*:

(A) fine textured finish;

(B) anti-microbial;

(C) sag resistant;

(D) Class A flame spread rating; and

(E) light reflectance coefficient greater than 0.80.

(e) Hard Ceilings:

(i) in rooms where a fire rating is not required, construct hard ceilings of 16 mm (5/8 inch) gypsum board;

(ii) in rooms where a fire rating is required the thickness of the gypsum board is to be determined by the fire rating required;

(iii) provide hard ceilings for the following rooms: Guest Rooms, housekeeping and utility rooms, washrooms, shower rooms and other areas as needed; and

(iv) *Access Panels*:

(A) where hard ceilings are used, provide access panels to allow for mechanical and electrical servicing in the ceiling; and

(B) access panel will be prefinished in the same manner as the adjacent ceiling surface.

(f) Flooring:

(i) *Mudroom*:

(A) highly durable and low sheen;

(B) slip resistant; and

(C) acceptable finishes metal, solid sheet flooring, stained concrete.

(ii) *Reception and Lobby*:

(A) highly durable and high sheen;

(B) slip resistant; and

(C) acceptable finishes are laminates, ceramic tile, stained concrete.

(iii) *Wet Rooms*:

(A) use slip-resistant solid sheet flooring for all wet rooms;

(B) hot weld all joint seams; and

(C) use solvent based, low odour flooring adhesive.

(iv) *Stairs*:

(A) use slip-resistant solid sheet or rubber flooring;

(B) use one piece treads and sheet risers with carborundum strip or an alternate design for the visually impaired; and

(C) use water soluble, low odour adhesive.

(v) *Other Rooms/Areas*:

(A) use solid homogeneous sheet flooring or carpet unless specified otherwise;

(B) hot or cold weld all joint seams;

(C) use water soluble, low odour flooring adhesive; and

(D) finish flooring with high speed buffing as per manufacturers' specification.

(g) Flooring General Considerations:

(i) comply with all applicable standards, including the NFCA Specification Standards Manual and US Federal Specification RR-T-650d;

(ii) in selecting flooring materials, consider cleaning and maintenance, pedestrian and rolling traffic, acoustics and aesthetics;

(iii) use heavy-duty materials for flooring on which wheeled or service vehicle traffic is anticipated and where wear and damage may result;

(iv) where epoxy flooring is used in wet areas, use water and slip-resistant grade and prevent water or moisture transmission to the substrate;

(v) form coved bases 150 mm (4 inches) high, straight cut, finished with clear silicone caulking. Do not cap;

(vi) use permanent, heavy-duty integral materials such as seamless epoxy quartz flooring for flooring in areas subject to moisture and heat over extended periods of time;

(vii) use water resistant and slip-resistant flooring in Common Areas, staff washrooms and Guest washrooms;

(viii) consider resilient tile products for flooring in service corridors and service areas; and

(ix) use anti-static flooring material for telecommunication rooms.

(h) Flooring Performance Specifications:

(i) static coefficients of friction of not less than 0.50 for dry and not less than 0.93 for wet or greasy conditions per the ASTM;

(ii) carpets and carpet tiles:

(A) roll carpet or carpet squares may be used;

(B) carpet will be anti-microbial and stain resistant;

(C) minimum face weight of 0.68 kg per square meter (20 ounces per square yard);

(D) durability rating not less than 3.5; and

(E) minimum of 6.35 mm (¼ inch) pad will be used under carpeted areas.

(i) Acoustic Treatment:

(i) provide acoustic treatment where sound attenuation, soundproofing or other sound control measures are necessary to create a welcoming environment for Guest;

(ii) sound control will include:

(A) attenuation of sound within Guest environments;

(B) sound isolation between the exterior and interior spaces;

(C) sound isolation between interior spaces within the building at both horizontal and vertical separations;

(D) sound and vibration isolation of building service noises and sound isolation of building service rooms; and

(E) sound isolation as required for rooms such as training, multi-purpose, housekeeping and mechanical rooms;

(iii) design partition and ceiling construction to provide the same degree of sound control through each assembly;

(iv) design, to the extent possible, the integrity of all wall openings and maintain the same degree of sound abatement;

(v) optimum sound isolation requires that the integrity of gypsum board partitions and ceilings (mass) be minimally violated by vent or grille cut-outs or by recessed cabinets, light fixtures;

(vi) where penetrations are necessary:

(A) minimize placing them back-to-back and next to each other;

(B) stagger electrical boxes preferably by at least one stud space;

(C) use mineral fibre insulation to seal joints around all cut-outs such as electrical, TV and telephone outlets, plumbing escutcheons, recessed cabinets, and bathtubs; and

(D) use non setting acoustical caulking to seal where the gaps are too small to insert mineral fibre insulation;

(vii) minimize constructions such as ducts, air plenums, rigid conduits, or corridors that act as speaking tubes to transmit sound from one area to another. At common supply and return ducts, provide sound attenuation liners at the diffuser and/or grill to maintain assemblies' sound abatement standards and seal around conduit;

(viii) 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 they pass through walls, floors, or other building surfaces;

(ix) use acoustic screens, vibration isolators, and carefully selected exterior equipment to prevent exterior noise;

(x) Project Co will model and test the efficacy of the floor, ceiling and wall structures in reducing noise levels and achieving the FSTC ratings provided below. Upon BC Hydro's request, Project Co will provide said factual evidence that these FSTC standards are met;

(xi) *Performance Specifications*:

(A) FSTC rating of not less than 50 for interior walls, where required by BC Hydro;

(B) FSTC rating of not less than 50 for ceiling/floor interfaces; and

(C) FSTC rating of 55 for any construction separating a dwelling unit from an elevator hoist way or a refuse chute.

(j) Painting and Protective Coatings:

(i) use low emitting materials, paints and coatings (low VOC);

(ii) *Walls, Doors and Shelving*:

(A) use eggshell or semi-gloss for all walls, doors and painted shelving;

(iii) *Door Frames and Metal Doors*:

(A) use semi-gloss for all door frames and metal doors;

(iv) *Wood Finished Doors*:

(A) use clear coat interior rub varnish for all wood finish doors;

(v) *Paint Grade Doors*:

(A) use semi-gloss for all paint grade doors;

(vi) *Ceilings*:

(A) use eggshell paint for all painted ceilings;

(vii) conform to all applicable standards, including the material and workmanship requirements of MPI Architectural Painting Specification Manual;

(viii) use exterior paints of a quality designed to protect substrate materials from weather and climate conditions;

(ix) 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;

(x) treat exterior masonry materials such as brick and concrete block with water-repellent coatings to prevent water ingress into or through the material;

(xi) 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;

(xii) use interior paint materials of a quality to withstand regular or repeated cleaning as the function of the area dictates;

(xiii) do not use materials containing lead and mercury; and

(xiv) if seamless epoxy wall coatings are used, provide a two-component, high solids, zero or low VOC, solvent-free, epoxy glaze wall coating that is seamless and abrasion, chemical, and UV-resistant.

(k) Vinyl Acrylic Wall Covering:

(i) if vinyl/acrylic covering is used, provide vinyl/acrylic high impact rigid sheet gypsum board, nominal 10 mm (0.4") thickness with colour-matched vinyl/acrylic trim for joint/transitions. 5/16" thick vinyl covered gypsum board is acceptable as a second decorative layer; and

(ii) furnish complete packaged system containing all primers and adhesive. Use non water-based and non-hazardous primer and adhesive materials.

(l) Dry Erase Wall Covering:

(i) provide as required throughout the Accommodation Complex pigmented gloss vinyl wall covering presentation surfaces for dry erase markers; and

(ii) provide trim and other accessories including but not limited to wall covering trim of anodized aluminum, low profile trim, plastic marker dispensers, dry erase markers (set of 4 colours), low odour, and eraser, magnets, cleaner towels.

6.11 Specialties (Division 10)

6.11.1 Basic Requirements

(a) Provide specialty products manufactured for the specific purposes intended.

6.11.2 Tackboards and Whiteboards

(a) Provide, as required:

(i) tackboard surfaces that allow pin penetration of the surface materials and have reasonable resistance to deterioration; and

(ii) use whiteboard surfaces that allow use of felt-type writing instruments and allow erasing/cleaning with minimal effort. Use porcelain ceramic on steel surface, magnetic, scratch and abrasion-resistant and have maximum contrast, glare control, and reflectivity.

(b) Provide tackboards and whiteboards with extruded aluminum frames, accessory trays, map rails and map hooks.

(c) Use non-toxic, water based lamination adhesive for tackboards and whiteboards.

6.11.3 Projection Screens

(a) Provide, as required:

(i) projection screens mounted from recesses in ceilings or wall mounted; and

(ii) where appropriate, provide for motorized screens.

(b) Provide supports and power as required to coordinate with mobile or fixed projector units, including ceiling mounted projectors.

(c) Provide for trims and finishes compatible with the design of the rooms.

6.11.4 Compartments and Cubicles

(a) Provide compartments and cubicles including toilet partitions, change cubicles, shower partitions, and other compartments and cubicles requiring privacy and security.

(b) Provide exposed surfaces that are permanent, water-resistant, corrosion-proof, and readily cleaned and maintained.

(c) Secure partitions and standards to the floor or ceiling structure, and in a manner to resist lateral loading and impact.

(d) For compartment/cubicle doors, use material matching the partitions and include permanent, purpose-made hardware. Design doors and hardware to provide barrier-free access.

(e) Provide a mirror in all change compartments.

6.11.5 Toilet Partitions Composition

(a) For galvannealed sheet: conform to ASTM A653 with minimum ZF001 (A01) zinc coating. Finish in polyester, baked enamel or powder coating.

(b) For stainless steel: use Type 304 conforming to ASTM A240 with No. 4 finish.

(c) For plastic laminate: use Grade 10/HGS GP50, scuff-resistant, high pressure laminate that conforms to NEMA LD-3.

(d) For fibre-reinforced plastic (fibreglass): use a moisture resistant grade.

(e) Avoid use of particleboard core partitions.

6.11.6 Change Cubicle Partitions

(a) Where not adjacent to showers, change cubicle partitions will comply with the above requirements for toilet partitions.

6.11.7 Shower Partitions

(a) Use solid phenolic laminated thick stock, factory-laminated with decorative finish both faces of core and conforming to CAN3-A172 or NEMA LD3.

6.11.8 Metal Lockers

(a) Provide individual and shared storage facilities in designated Operator and Guest areas in the Accommodation Complex as described in these specifications and as appropriate for operation of the Accommodation Complex.

(b) For sheet metal: use galvannealed steel conforming to ASTM A653 with ZF001 (A01) zinc coating.

(c) Lockers will be placed on minimum 150 mm (4 inch) high bases finished with cove bases integral with the floor finish.

(d) Lockers will fit tightly below gypsum board bulkheads or be complete with sloped metal tops.

(e) Finish steel surfaces with polyester baked enamel or powder coating.

(f) For single, double, or multiple-tier metal lockers for Guest use, include a provision for locking with padlock, and complete with number plates, and hanging hooks.

6.11.9 Storage Shelving Systems

(a) Provide storage systems for materials in designated storage areas.

(b) 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.

(c) 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 will be either power assisted or easily operable without undue required strength by any person.

6.11.10 Washroom Accessories

(a) Provide washroom accessories as specified below. Determine the type, size, and number of accessories and placement on walls with regard for the numbers and categories of users.

(b) Install washroom accessories to allow cleaning and maintenance of the accessory and surrounding wall area.

(c) Recessed dispensers will not be used e.g., paper towels, soap.

(d) Use commercial grade accessories free from imperfections in manufacture and finish.

(e) Use fittings with concealed fastening for security and discouragement of tampering.

(f) Common area washroom accessories will include the following:

(i) low flow toilet no greater than 6.0 litres (1.6 gallons) per flush;

(ii) low flow faucets no greater than 5.7 litres (1.5 gallons) per minute;

(iii) urinals will be wall-hung and low-consumption with electric hands-free flush valve operation;

(iv) soap dispensers – “hands free” type;

(v) toilet paper dispensers;

(vi) paper towel dispensers – “hands free” type;

(vii) paper towel/waste disposal containers built into countertop;

(viii) mirrors;

(ix) barrier-free grab bars (with integral tactile grip finish);

(x) coat hooks;

(xi) sanitary napkin dispensers in female washrooms;

(xii) sanitary napkin disposals in female washrooms; and

(xiii) utility shelf.

(g) Guest washroom accessories will include the following:

(i) low flow toilet no greater than 6.0 litres (1.6 gallons) per flush;

(ii) low flow faucets no greater than 6.0 litres (1.5 gallons) per minute;

(iii) Guest Room 1: metal low flow showerhead no greater than 5.7 litres (1.5 gallons) per minute;

(iv) Guest Room 2: Plastic low flow showerhead with rubber nozzles, no greater than 7.6 litres (2.0 gallons) per minute with the following shower head assembly: metal slide bar, metal handle, braided metal hose and metal top shell of shower head;

(v) mirrored surface medicine cabinet;

(vi) Guest Room 1: 762 mm (30 inch) vitreous china vanity with moulded-in sink. It is acceptable to substitute cultured marble or ceramic composites for the vanity top;

(vii) Guest Room 2: 916 mm (36 inch) vitreous china vanity with moulded-in sink. It is acceptable to substitute cultured marble or ceramic composites for the vanity top;

(viii) 610 mm (24 inch) wall mounted towel rack;

(ix) cup holder;

(x) soap dish;

(xi) wall mounted toilet paper dispenser;

(xii) utility shelf;

(xiii) sanitary napkin disposals in Guest Room 2; and

(xiv) handicaps grab bars in Guest Room 2 with integral tactile grip finish.

(h) Hoteling shower rooms or showers in Guest washrooms will include the following accessories:

(i) low flow showerhead no greater than 5.7 litres (1.5 gallons) per minute;

(ii) one piece or foldable glass shower door:

(A) shower curtains may be used in Hoteling shower rooms;

(iii) complimentary shampoo and conditioner;

(iv) towel service;

(v) fold-down shower seat in Hoteling shower rooms and Guest Room 2 only; and

(vi) handicaps grab bars with integral tactile grip finish in Hoteling shower and Guest Room 2 only.

6.11.11 Elevated Access Flooring

(a) Provide an elevated access flooring system where appropriate. The elevated flooring assembly will consist of modular floor panels laid out on a grid system, supported by and secured to the under-structure. Panels will be supported by an adjustable pedestal base that positively locates, engages and secures panels and that accommodates horizontal grid members as required.

(b) The elevated flooring is to facilitate electrical, communication and computer service lines and mechanical ducting, and may service various areas as air supply or return plenums in the cavity portion below; provided that it fully accommodates the functional uses it serves above. The area below the elevated flooring may be a pressurized area.

(c) Panels will be easily removable by one person with standard tools and a lifting device and will be interchangeable, except for cut-out panels. Cut-out panels will be interchangeable with solid panels.

6.11.12 Guest Room Beds

(a) Design the head wall of each bed:

(i) that provides a 610 mm (24 inch) thermafoil furnished headboard, flat against the wall;

(ii) that provides a light switch that turns off the main room light; and

(iii) that contains one wall mounted reading light at the head of the bed.

6.12 Equipment (Division 11)

6.12.1 Equipment Supports

(a) Provide equipment supports for equipment with proper backing and structural reinforcing as needed.

6.12.2 Window Washing Systems

(a) Provide equipment or appropriate anchors to facilitate window washing.

6.13 Furnishings (Division 12)

6.13.1 General

(a) Provide and install all millwork and casework accessories as required to support the programs and functions described in these Specifications or as required to support the operation of the Accommodation Complex.

(b) Furnishings will be designed and specified in accordance with all appropriate ergonomic design principles and will also meet minimum criteria set out in the Occupational Health and Safety Regulations and the Ergonomics (MSI) Requirements of Work Safe B.C.

(c) The Accommodation Complex and its components must be accessible by people with different functional capacitates. Universal design principles will be applied 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.

(d) Products, including foam and upholstery, will be fire retardant.

6.13.2 Millwork and Casework

(a) Design will consider a minimum useful life of ten (10) years.

(b) Millwork or casework means custom fabricated wood, thermafoil wrapped Medium-Density Fiberboard (**MDF**) or metal cabinetry/counter components and accessories that are installed with little or no modification. Millwork and casework may be used interchangeably.

(c) Millwork or casework components can include but are not limited to work surfaces (such as counters, desks and work benches) and storage (such as cabinetry, files, drawers, wardrobes and cabinets). Typical applications will include: Guest Rooms, kitchen, and other rooms.

(d) Provide the following as millwork/casework:

(i) kitchen food preparation and delivery: counters, upper and lower cabinets, dry food storage, drawers and shelving;

(ii) utility, housekeeping and medical centre: counters, storage cabinetry and shelving;

(iii) Guest Room 1 & 2: wardrobes, bed platforms, shelving, drawers, vanity counters/sink and cabinets;

(iv) reception stations;

(v) video room storage cabinet;

(vi) information desk;

(vii) security kiosks;

(viii) game lounge cabinets; and

(ix) any other millwork/casework required to deliver the Services.

(e) Performance Specifications:

(i) *General*:

(A) products suitable for commercial use;

(B) exposed components to be hardwood or thermafoil wrapped MDF, select quality, free of visual defects which impair appearance/serviceability;

(C) vertical surfaces will be thermafoil wrapped MDF, maple veneered plywood or birch veneered plywood;

(D) plywood or MDF are acceptable for the substrate under high pressure laminate or equivalent for horizontal surfaces;

(E) all materials used in the fabrication will be new and the best grade obtainable for their respective types;

(F) wood to be seasoned, kiln dried to a moisture content of five to seven percent (5-7%);

(G) all materials and components must be suitable for use in the climate where the Accommodation Complex is located, impervious to damage from cold, dryness and heat and not subject to rusting, corrosion, mildew, rot, de-lamination, cracking, warping or splitting;

(H) drawer bottoms and interior surround to be constructed of sturdy smooth sealed wood or thermafoil wrapped MDF, free from irregularities and splinters;

(I) for hardwood construction: (a) all joints will be glued, screwed and bolted; and (b) corner blocks will be glued and screwed;

(J) for thermafoil wrapped MDF construction, all joints will be doweled and glued;

(K) all supportive hardware will not be visible;

(L) drawers to have side mounted full extension ball bearing glides. Quality to be "Accuride" or better;

(M) exposed finishes to be heat and stain resistant;

(N) finishes will conform with AWI Finish System #TR-6;

(O) all hardwood surfaces are to be sanded and cleaned to remove dust and loose particles prior to sealing and finish application; and

(P) finishes and lacquers are to be sprayed for maximum coverage and colour continuity. Any highlighting, antiquing or distressing is to be done by hand.

(ii) *Guest Room-Bed Platform*:

(A) (1) for Guest Room 2: permanent frame construction enclosed to floor on three sides; and (2) for Guest Room 1: permanent frame construction at the head of the bed and the area encompassing the under bed drawer assembly;

(B) mattress platform support at 45 cm (18 inches) from floor;

(C) two (2) under bed storage drawers individually removable for under platform cleaning, minimum height of 36 mm (14 inches); and

(D) 33 mm (13 inch) double-sided pillow-top style mattress of medium firmness designed to be rotated/flipped periodically.

6.13.3 Furniture

(a) Provide and install all furniture and accessories as required to support the programs and functions described in these Specifications or as required to support the operation of the Accommodation Complex.

(b) All furniture will be designed to handle a 158 kg (350 pound) individual where applicable e.g., bed platform, desk chair.

(c) Furniture includes:

(i) desks;

(ii) coffee tables and side tables;

(iii) casual arm chair seating and couches; and

(iv) dining room seating.

(d) Flexibility:

(i) furniture pieces will allow for individualization;

(ii) have the ability to be used in different applications or flex easily for future use; and

(iii) use non-handed solutions that work in multiple configurations, when possible.

(e) Durability:

(i) activity, waiting, and dining room furniture will be engineered for high traffic use;

(ii) design will consider a minimum ten (10) year useful life; and

(iii) Guest Room furniture will be tested to ensure durability and function for the anticipated Guest profile.

(f) Cleaning and Ease of Maintenance:

(i) the size, shape, and design of the furniture will allow easy access for cleaning; and

(ii) 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 and able to withstand multiple applications of diluted disinfectants over time.

(g) Environmentally Sensitive:

(i) products will be GREENGUARD certified or GREENGUARD compliant, and be designed to achieve reduced environment impact; and

(ii) 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.

(h) Comfort, Ergonomics, and Safety:

(i) lobby/reception furniture will be designed to promote comfort;

(ii) seating will have the stability to assist the Guest in entering and exiting the chair;

(iii) all items of furniture will be stable and will not move or tip over when touched by a person requiring support;

(iv) furniture will not constitute a hazard for persons with varying abilities and disabilities;

(v) 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;

(vi) task seating will be ergonomically correct with respect to the seat height and pan depth. Task 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; and

(vii) general meeting room seating will have a backrest recline function, be stackable, mobile, cleanable and durable.

[redacted]

(o) Filing / Storage:

(i) filing is for letter filing, unless specified otherwise. In order to maximize filing capacity, files will be set up for side-to-side filing;

(ii) 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; and

(iii) filing will be equipped with hanging frames at the time of installation.

(p) Performance Specifications:

(i) *General*:

(A) suitable for hospitality/commercial use; and

(B) at a minimum meet California Technical Bulletin #117 and NFPA 260 standards.

(ii) *Upholstery*:

(A) smooth and tight, no puckering of fabric;

(B) be seamless where possible or have double stitched seams located on the non-contact areas of the furniture or sealed;

(C) upholstered furniture will be covered with fabrics that are fluid-resistant, non-porous and can withstand cleaning with industrial grade chemicals;

(D) interior components seat: Tight cushion with poly wrapped Dacron foam core with twenty-nine (29) kg per cubic meter (1.8 lb. per cubic foot) density encased in polyurethane foam and wrapped polyester fibres. Polyurethane seat foam has 44 lb.) indentation load deflection and forty-eight (48) kg per cubic meter (3lb. per cubic foot) density;

(E) interior components back: Tight cushion with poly wrapped Dacron foam core with 1.8 lb. per cubic foot density encased in polyurethane foam and wrapped polyester fibres. Polyurethane seat foam has 11.3 kg (25lb.) indentation load deflection and forty-eight (48) kg per cubic meter (3 lb. per cubic foot) density;

(F) be impermeable to water and quick-drying;

(G) seating will have removable seat cushions for cleaning and/or “clean-out” spaces between the seat and back for lounge seating applications;

(H) be anti-microbial, and/or have anti-microbial inhibitor technology;

(I) have a good abrasion rating for high-use areas (with a minimum of 100,000 DR (ASTM D4157-02 Wyzenbeek Test Method);

(J) have a high-rating for colour-fastness, exceeding forty (40) hours (AATCC Method 16A);

(K) be stain-resistant;

(L) be latex-free;

(M) have low VOC’s;

(N) contain no heavy metals;

(O) have no HFR’s and/or PFC’s; and

(P) have limited use of PVC’s, avoiding use of PVC’s where possible.

(iii) *Construction*:

(A) the quality and make of the product (its construction, finish materials, and maintenance requirements) will be suitable for a ten (10) year service life and be designed for intense use;

(B) products with replaceable components are preferred;

(C) seat deck is to be eight (8) gauge hand tied steel coil spring support Interior components;

(D) back deck will contain sinuous wire springs;

(E) joints will be double doweled, corner blocked, gusseted with rails as appropriate, assembled with screws, T-nails and resin coated staples after a generous glued application;

(F) material and methods of assembly will comply with the American Woodworking Institute (AWI) Premium Grade Requirements;

(G) material and components must be suitable for use in the climate where lodging, impervious to damage from cold, dryness and heat and not subject to rusting, corrosion, mildew, rot, de-lamination, cracking, warping or splitting;

(H) materials used in the fabrication will be new and the best grade obtainable for their respective types;

(I) exposed components to be hardwood, select quality, free of visual defects with impair appearance/service-ability. Wood to be fully seasoned, Kiln dried to moisture content of five to seven percent (5-7%). Parts to be sanded with no defects; and

(J) have glides suitable for floor surface where installed.

(iv) *Finishes*:

(A) conform with AWI Finish System #TR-6. Thermafoil wrapped MDF construction/product is exempt from this requirement;

(B) exposed finishes to be heat and stain resistant;

(C) all surfaces are to be sanded and cleaned to remove dust and loose particles prior to sealing and finish application; and

(D) finishes and lacquers are to be sprayed for maximum coverage and colour continuity. Any highlighting, antiquing or distressing to be done by hand.

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6.14 Special Construction (Division 13)

6.14.1 Cooler and Freezer Rooms

(a) Provide walk-in cooler and freezer rooms, with freezer room floors recessed into the slab for "flush" walk-in.

(b) Design room enclosure elements to accommodate movement in wall and structural movements without permanent distortion, racking of joints, breakage of seals, water penetration or glass breakage.

(c) Design temperatures for cooler and freezer rooms will be as follows:

(i) cooler rooms: + 2^{o} C to + 10^{o} C (35.6^{o} F to 50^{o} F); and

(ii) freezer rooms: -10^{o} C to - 25^{o} C (14^{o} F to -13^{o} F), with normal operation at + -4^{o} C +/- ½^{o} C (+/- 1.0^{o}F).

(d) Design floor, wall and ceiling panels to comply with ULC/ORD-C376 "Fire Growth of Foamed Plastic Insulated Building Panels in a Full-Scale Room Configuration".

(e) Design floor, wall and ceiling panels with tongue and groove joints to achieve a maximum air leakage rate and a water vapour permeance rate in accordance with ASTM E283 "Air Leakage Rate Testing" and ASTM E96" Water Vapour Permeance Rate Testing".

(f) Design ceiling panels with internal reinforcing to provide a maximum deflection of 1/240 of span under uniform loading of twenty (20) psf and to support refrigeration systems.

(g) Design room assembly to permit replacement of components.

(h) Allow for ceiling, piping, conduit and other interior dead loads imposed on the structure.

(i) Provide components and accessories as follows:

(i) floor, wall and ceiling panels: fabricated from commercial grade galvanized steel conforming to ASTM A526M with zinc coating to ASTM A525M, designation Z275, and finished on exposed surfaces with manufacturer's standard baked white enamel;

(ii) panel insulation: foamed-in-place polyurethane;

(iii) doors: 915 mm x 2115 mm (36 x 83 inches) of same panel construction as panels, with soft perimeter gaskets, manufacturer's standard pre-wired light switch, dial thermometer,

heavy duty door closer, spring loaded and self-closing hinges, latch, pull handles, kick plate and threshold plate. Furnish freezer doors with anti-condensate heater, heated vent and pre-wired sill;

(iv) provide self-supporting steel shelving racks in cooler rooms;

(v) refrigeration system: self-contained air cooled condensing units mounted on walk-in units, and forced-air evaporators mounted on interior of units. Capacities, air delivery and dimensions to manufacturer's design; and

(vi) lighting: CSA approved vapour proof box with standard incandescent light fixture pre-wired to switch on door frame.

6.15 Conveying Equipment (Division 14)

[redacted]

[redacted]

open at the next floor;

[redacted]

[redacted]

6.15.4 Loading Dock Equipment

(a) Provide pit style dock levellers in the Accommodation Complex, one per truck bay, in the loading dock area to facilitate deliveries.

(b) The loading dock is to be an external covered area, with a 4.3 meters (14 feet) high overhead clearance.

(c) Ensure lighting over the loading dock to allow night time functionality.

(d) The dock leveller is to be a hydraulic style lift system, equipped with a push button remote control.

(e) Assume an operational maximum tilt of ten (10) degrees for the dock leveller, based on a 132 cm - 140 cm (52” – 55”) high truck bed.

(f) Provide each dock leveller with a minimum lifting capacity of 22,727 kg (50,104 pounds).

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7 FACILITIES SERVICES SUBGROUP SPECIFICATIONS

7.1 Not Used.

Not used.

7.2 Fire Suppression (Division 21)

[redacted]

[redacted]

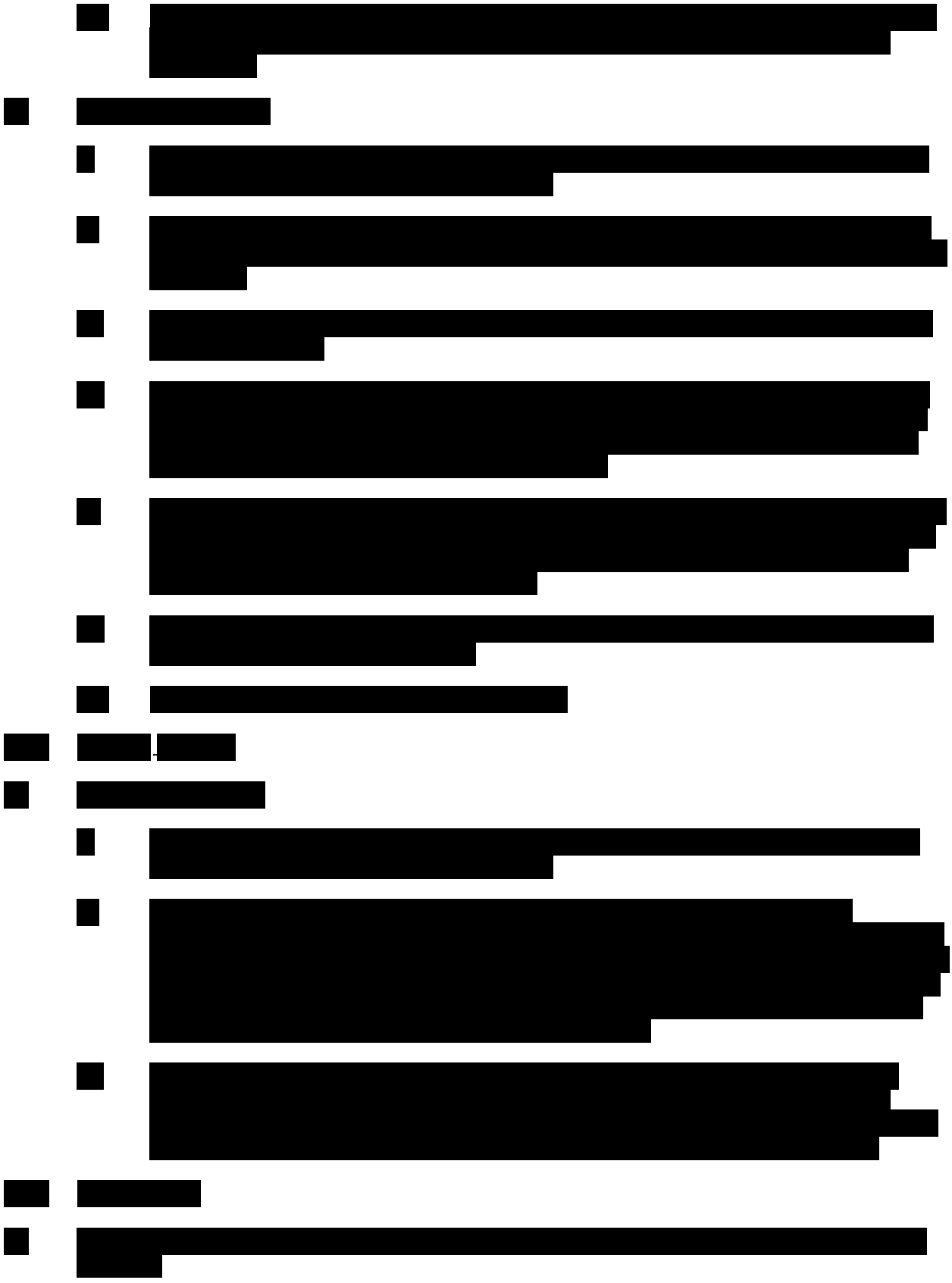
7.3 Plumbing (Division 22)

[redacted]

[redacted]

7.4 Heating, Ventilating and Air Conditioning (Division 23)

[redacted]



[redacted]

7.5 Reserved for Future Expansion (Division 24)

7.6 Electrical (Division 26)

[redacted]

[redacted]

7.6.2 Raceways

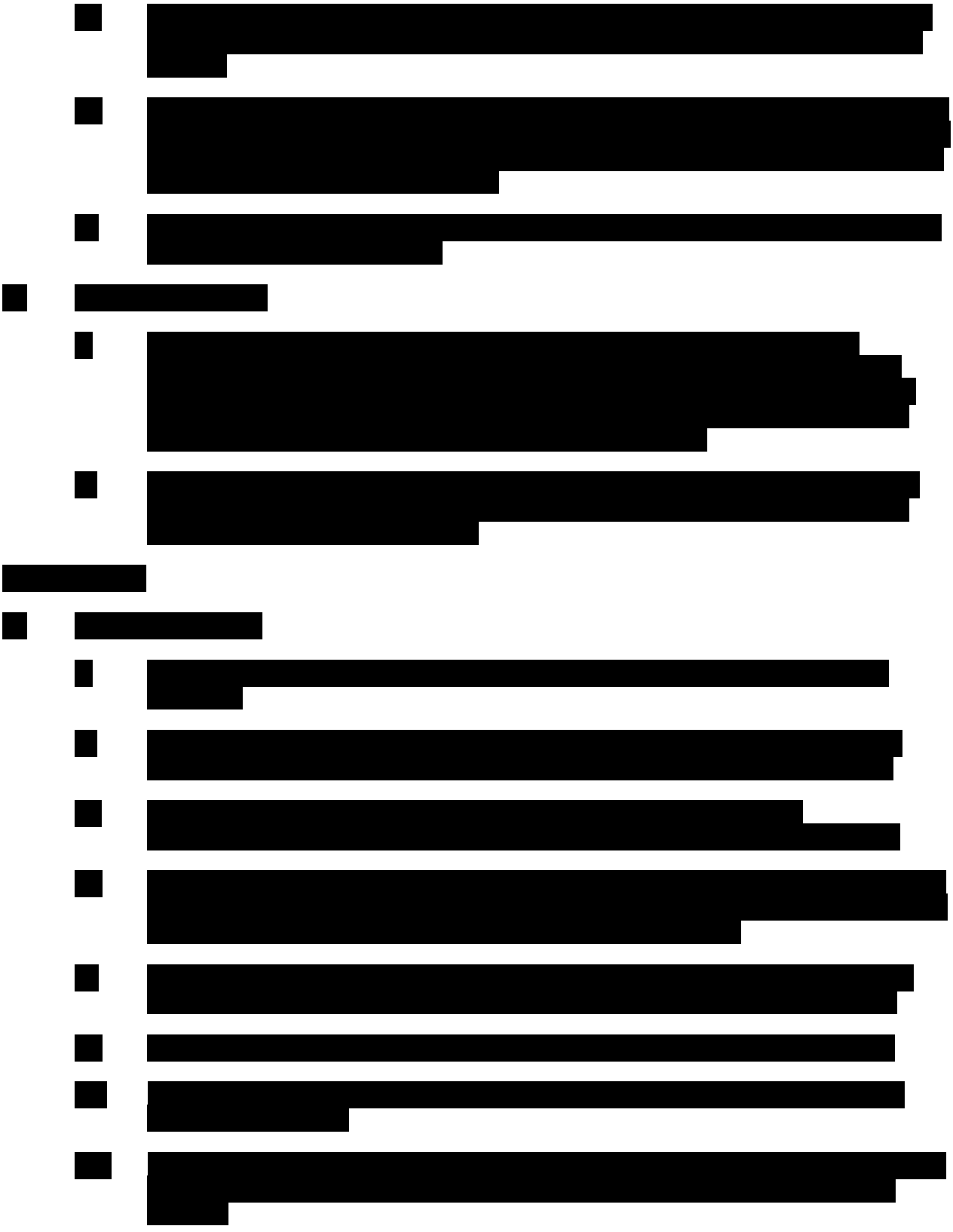
[redacted]

[redacted]

(i) [redacted]

nd

[redacted]



[redacted]

7.7 Communications (Division 27)

[redacted]

[redacted]

7.8 Electronic Safety and Security (Division 28)

[redacted]

[redacted]

(i) [redacted]

[redacted]

(iv) [redacted]

[redacted]

[redacted]

(vii) [redacted]

[redacted]

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SCHEDULE 6, PART 8

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8 BUILDING DESIGN REQUIREMENTS

8.1 Exterior Improvements

8.1.1 Aggregate Base Courses

(a) Basic Requirements:

(i) utilize granular sub-base for stability of surface treatment through freeze thaw cycles and for its ability to stop rainwater penetration. Sub-base material to meet MMCD 31 05 17, Clause 2.8 – Select Granular Sub Base, or approved equivalent; and

(ii) utilize granular base for stability of surface of surface treatment through freeze thaw cycles and for its ability to stop rainwater penetration. Base material to meet MMCD 31 05 17, Clause 2.10 – Granular Base, or approved equivalent.

8.1.2 Seal Coat

(a) Basic Requirements:

(i) utilize asphaltic seal coat on roadways and parking lots to control dust.

(b) Performance Criteria:

(i) seal cost mix is to be suitable for use in climatic conditions found at the Worker Accommodation Area. Seal coat will meet or exceed MOTI Specification 508 – Graded Aggregate Seal Coat – Class A.

8.1.3 Unit Paving on Sand Bed

(a) Basic Requirements:

(i) utilize unit pavers in areas where a high level of finish is desired.

8.1.4 Concrete Paving

(a) Basic Requirements:

(i) utilize concrete paving in areas that require firm, long lasting hard surfaces for activities such as pedestrian pathways, loading docks and the Accommodation Complex entrances.

8.1.5 Prevailing Winds

(a) Basic Requirements:

(i) protect pedestrians at Accommodation Complex entrances and high activity pedestrian areas from the negative effects of the prevailing winds.

(b) Performance Criteria:

(i) design and install the landscape with trees, shrubs, hedges, fencing, walls or other elements to protect pedestrians from the prevailing winds.

8.1.6 Tree Retention and Protection

(a) Basic Requirements:

(i) existing trees and mature vegetation will be retained where they do not conflict with Worker Accommodation Area development or grading; and

(ii) to reinforce the image of a well-established landscape, retention and incorporation of mature trees and landscaping into the development is encouraged.

(b) Performance Criteria:

(i) trees and mature vegetation that will be retained must be protected during construction with fencing as defined in the BC Landscape Standard (BCLS).

8.1.7 Outdoor Art

(a) Basic Requirements:

(i) the Worker Accommodation Area Plan should include areas for outdoor art/sculptures.

(b) Performance Criteria:

(i) provide areas for outdoor art.

8.1.8 Tree, Shrubs and Groundcover

(a) Basic Requirements:

(i) provide landscape plans for the Worker Accommodation Area;

(ii) plant selection and placement will address micro-climates surrounding the Accommodation Complex and mitigation of heating and cooling loads;

(iii) planting will provide habitat for birds and other animals;

(iv) provide landscape treatments for the complete Worker Accommodation Area that contributes to the creation of a livable, welcoming environment; and

(v) use of indigenous flora will be considered a priority.

(b) Performance Criteria:

(i) all planting is to be per BCLS;

(ii) trees to be no smaller than 7 cm (2.76 inches) diameter for deciduous shade trees, 2 meters (6.6 feet) in height for ornamental/understory trees and 2.5 meters (8.2 feet) in height for coniferous trees upon installation;

(iii) shrubs will be no smaller than #3 pot size upon installation;

(iv) to ensure safety and security, sightlines must be provided through any cluster of tall growing vegetation by keeping all under storey plants to a maximum of 1.2 meters (3.9 feet) in height;

(v) at least fifty percent (50%) of the total plants on the Worker Accommodation Area are to be native to the Central Interior of British Columbia;

(vi) use some flowering and fruiting bearing trees and shrubs to promote natural avian habitat;

(vii) the trees on Worker Accommodation Area will be a combination of small trees, medium-sized trees and large trees (in terms of mature size) with no less than fifty percent (50%) of the total number of trees being large trees;

(viii) do not install any plants listed as poisonous to humans by the Canadian Government's Canadian Poisonous Plants Information System; and

(ix) shrubbery within 2 meters (6.6 feet) of walkways will not exceed 50 cm (20 inches) in height.

8.1.9 Utility Visibility

(a) Basic Requirements:

(i) locate refuse/recycling areas, shipping, loading or utility areas, satellite dishes, and other similar structures, such as outdoor vents, mechanical equipment, or transformers out of Guest view;

(ii) in cases where the above items cannot be located out of view, they must be screened out of Guest view; and

(iii) garbage and recycling bins must be easily accessible, and contained within roofed/walled enclosures or screened from Guest view.

(b) Performance Criteria:

(i) refuse/recycling areas, shipping, loading or utility areas, satellite dishes, and other similar structures, such as outdoor vents, mechanical equipment, or transformers must be screened out of Guest view;

(ii) garbage and recycling bins must be easily accessible, and contained within roofed/walled enclosures, or screened from Guest view; and

(iii) bury electrical wires.

8.2 Landscaping

8.2.1 Minimize the amount of impervious surfaces

8.2.2 Fire Resistance

(a) Follow the recommendation of FireSmart Canada in designing the landscaping:

(i) adhere strictly to the recommendation for Priority Zone 1 in Chapter 3; and

(ii) consider the recommendations provided for Priority Zone 2 in Chapter 3.

(b) Reference: https://www.firesmartcanada.ca/resources-library/protecting-your-community-from-wildfire.

8.2.3 Outdoor Courtyards

(a) Basic Requirements:

(i) provide outdoor spaces in the design of the Accommodation Complex to accommodate activities;

(ii) typical activities are:

(A) volleyball;

(B) horseshoes;

(C) badminton;

(D) basketball; and

(E) walking.

(b) Performance Criteria:

(i) provide outdoor spaces in the design of the Accommodation Complex to accommodate a variety of activities; and

(ii) space and hard landscape elements are conducive to establishing a suite of diversionary activities other than remaining within the confines of the Accommodation Complex.

8.2.4 Worker Accommodation Area Slopes and Retaining Walls

(a) Basic Requirements:

(i) grade the Worker Accommodation Area to provide positive drainage throughout except where required for storm water detention/retention; and

(ii) avoid over-steepened slopes that cannot hold growing medium and plants.

(b) Performance Criteria:

(i) ensure adequate gradients to avoid ponding throughout the Worker Accommodation Area except where required for storm water detention/retention;

(ii) slopes that are no steeper than 2:1 will be finished with growing medium and plant material. Provide riprap on slopes where required; and

(iii) slopes steeper than 2:1 will be retained using retaining walls e.g., cast-in-place C.I.P concrete, precast concrete.

8.2.5 Fencing

(a) Basic Requirements:

(i) provide a minimum 2.4 m high chain link fence, plus 0.3 m of barbed wire that restricts access to, and surrounds the perimeter of the Worker Accommodation Area; and

(ii) provide gates at locations and of a size/dimension to accommodate the movement of vehicles and pedestrians.

(b) Performance Criteria:

(i) strong and durable (e.g., able to resist wind, snow and unauthorized access);

(ii) project straight lines, and perpendicular to the ground; and

(iii) design, assembly and operation meets the security, access control and surveillance performance requirements of this Agreement.

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9 DECOMMISSIONING SPECIFICATIONS

9.1 Worker Accommodation Area Services Infrastructure

(a) General Requirements:

(i) prepare and submit for approval a decommissioning, salvage, and disposal plan complete with schedule for the works;

(ii) the decommissioning, salvage and disposal plan will include input from an environmental consultant with demonstrated experienced in decommissioning activities;

(iii) the decommissioning, salvage and disposal plan will include a list of salvageable equipment and materials and options for the handling, temporary stockpiling and subsequent off-Worker Accommodation Area disposal or salvage of equipment and materials;

(iv) remove all above ground infrastructure/chattels within the Worker Accommodation Area;

(v) Project Co will leave the above ground Worker Accommodation Area in a clean and tidy state, free from all debris and rubbish;

(vi) Worker Accommodation Area clean-up will meet or exceed the quality requirements of BC Hydro and the Ministry of Environment regulations;

(vii) Project Co will provide BC Hydro with an environmental site assessment report upon completion of removal of Worker Accommodation Area infrastructure;

(viii) the environmental site assessment report will be prepared by an independent consultant designated or approved by BC Hydro;

(ix) Project Co will implement any measures identified in the environmental site assessment report as being required to remove or rehabilitate Worker Accommodation Area contamination; and

(x) removal or rehabilitation of Worker Accommodation Area contamination (excluding any pre-existing or naturally occurring contamination) will meet or exceed the quality requirements of BC Hydro and the Ministry of Environment.

(b) Facilities:

(i) disassemble and remove all above ground components of the Facility;

(ii) cap and cover remaining surface infrastructure with soil including all foundations which projected above the existing grade during the operating period; and

(iii) remove all other above ground appurtenances around the Facility.

(c) Sanitary Sewage System:

(i) remove all above ground sewage system infrastructure: treatment plants, control systems, and all other above ground appurtenances;

(ii) salvage or dispose of all above ground materials in a suitable disposal location; and

(iii) contaminated soils will be disposed of in accordance with the*Environment Management Act*.

(d) Water System:

(i) remove all above ground water system infrastructure: hydrants, reservoirs, booster stations, treatment plants, and all other above ground appurtenances; and

(ii) cap all well sources in accordance with Provincial health requirements, salvage or dispose of all above ground materials in a suitable disposal location.

(e) Road Works and Parking Areas:

(i) cap and cover all walkways, roadways and parking areas with soil including pavement, walkways, and all other above ground appurtenances and associated works; and

(ii) salvage or dispose of all above ground materials in a suitable disposal location.

(f) Fencing & Signage:

(i) remove all sign and fencing posts, gates, associated above ground concrete works and all other above ground appurtenances and associated works; and

(ii) salvage or dispose of all above ground materials in a suitable disposal location.

(g) Electrical Services:

(i) remove the following above ground electrical infrastructure: generators, transformers, switch gear, street lighting, parking lot plug-ins, concrete works, and all other above ground appurtenances and associated works; and

(ii) salvage or dispose of all removed materials.

(h) Telecommunications:

(i) remove all above ground telecommunications infrastructure: antennas, cabling and all other above ground appurtenances and associated works; and

(ii) salvage or dispose of all above ground materials in a suitable disposal location.

(i) Gas servicing:

(i) remove all above ground natural gas/propane infrastructure: meters, valves, tanks, associated concrete works and all other above ground appurtenances and associated works; and

(ii) salvage or dispose of all above ground materials in a suitable disposal location.

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SCHEDULE 6, PART 10

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SCHEDULE 6, PART 10

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10.0 INVASIVE PLANT MANAGEMENT, CLEARING AND GRUBBING

10.1 Cleaning Procedures

Project Co will ensure that equipment and personnel working within the Worker Accommodation Area and entering and leaving that portion of the Worker Accommodation Area identified on the sketch attached as Appendix 6C [Invasive Plant Infestation Area Plan] (the "**Invasive Plant Infestation Area**"), a small portion of which extends beyond the boundary of the Worker Accommodation Area, and the haul route between the Invasive Plant Infestation Area and the disposal areas are properly isolated and cleaned to effectively contain and isolate the invasive plant. Project Co will establish and enforce cleaning procedures which:

(a) will take into account the time of year;

(b) will ensure contaminated vehicles, equipment and personnel do not cross back into cleaned areas during the excavation and disposal operations;

(c) will ensure that all equipment does not leave the Invasive Plant Infestation Area and the disposal areas until it has been thoroughly washed and decontaminated and removed in a manner that will not spread the seed source;

(d) include a wash and decontamination location which will be established by Project Co at the disposal areas;

(e) will require that all equipment use a designate haul route between the Invasive Plant Infestation Area and the disposal areas, at least 30m from the Ordinary High Water Mark (as defined in the CEMP) of any body of water;

(f) will treat used wash water to prevent seed dispersal and release of contaminants; and

(g) will comply with each Environmental Protection Plan applicable to such procedures.

10.2 Clearing and Grubbing

Project Co will perform all clearing and grubbing on the Worker Accommodation Area in accordance with the Environmental Protection Plan and the provisions of Schedule 7 [Environmental Obligations] and the following:

(a) Procedures:

(i) Project Co shall complete clearing in accordance with the following:

(A) Felling Method

Heavy equipment may be used to cut down timber. Timber that cannot be reached with heavy equipment must be cut by using hand held equipment.

(B) Felled Timber Management

Heavy equipment may be used to remove felled timber. Timber that cannot be reached with heavy equipment must be cut by using hand held equipment. Where it is not possible to fall timber within reach of mechanical equipment it is permissible to leave timber on site as long as Waste Wood is managed according to Section 10.2(a)(i)(C)(II) of this Schedule 6 [Specifications and Drawings] Part 10.

(C) Waste Wood Management

Heavy equipment may be used to collect and pile Waste Wood as per Section 10.2(b) of this Schedule 6 [Specifications and Drawings] Part 10. Waste wood that cannot be reached with heavy equipment must be hand piled until such time as approval to grub and rough grade is attained from Hydro's Representative.

Open burning will not occur, unless directed by Hydro's Representative.

(I) Waste Wood Classification

Waste Wood includes the following:

- All felled, dead and down timber;
- All branches and tops;
- All uprooted stumps and roots; and
- All felled brush.

(II) Waste Wood Tolerances

When clearing and piling of Waste Wood is complete (removal of merchantable timber and pile of Waste Wood), all Waste Wood remaining on the clearing area must be left in a safe manner (lie flat and scattered) and must not exceed the following quantities:

- less than 1.0 m long with a diameter of 15 cm or less is not restricted by quantity;
- less than 1.0 m long with a diameter greater than 15 cm shall not exceed 5 pieces in any given 100 m² area;
- 1.0 m to 2.0 m long with a diameter of 15 cm or less shall not exceed 5 pieces in any given 100 m² area;
- 1.0 m to 2.0 m long with a diameter greater than 15 cm is not permitted; and
- greater than 2.0 m is not permitted.

(b) Waste Wood:

Unless specified otherwise in Section 10.2(a) of this Schedule 6 [Specifications and Drawings] Part 10, Project Co shall:

(i) for rights-of-way, maintain 0.5 m on either side of centerline clear of all Waste Wood, timber and logs at all times for emergency and safety access;

(ii) not open burn any Waste Wood unless authorized by Hydro's Representative;

(iii) not use tires for burning;

(iv) not bury any Waste Wood;

(v) follow any applicable Waste Wood management guidelines for the Worker Accommodation Area;

(vi) remove all introduced Waste Wood from creeks, watercourses and wetlands. Naturally occurring woody material in creeks, watercourses and wetlands shall be left in place and shall not be disturbed;

(vii) locate Waste Wood piles in designated areas within the Worker Accommodation Area as approved by Hydro's Representative such that standing timber, logs, the Construction activities and the Facility will not be impacted;

(viii) in areas designated by Hydro's Representative, establish a minimum 4 m wide fireguard to mineral soil around all Waste Wood piles to be burned in mechanical clearing areas prescribing Waste Wood burning;

(ix) in riparian management areas, establish a minimum 2 m wide fireguard free of all flammable material such as Waste Wood, trees and brush around all piles prescribed to be burned if required by Hydro's Representative;

(x) locate the edge of Waste Wood piles prescribed for burning at least 25 m from any proposed or existing structure; and

(xi) locate the edge of Waste Wood piles prescribed for burning at least 10 m, measured horizontally, from the nearest conductor of any existing power line or proposed new transmission line.

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APPENDIX 6A

FUNCTIONAL PROGRAM

(See attached)

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APPENDIX 6B

INDICATIVE DESIGN

(See attached)

WORKER ACCOMMODATION PROJECT AGREEMENT

APPENDIX 6C

INVASIVE PLANT INFESTATION AREA PLAN

(See attached)

[redacted]