

APPENDIX 4D

PLANT SERVICES

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APPENDIX 4D

PLANT SERVICES

PART 1. GENERAL REQUIREMENTS

1.1 Project Co will perform the Plant Services in compliance with this Appendix and all other requirements of this Agreement.

PART 2. SCOPE OF SERVICE

2.1 For convenience of reference, the Plant Services are separated into the following elements, as further described in the parts below:

- 2.1.1 Statutory Testing;
- 2.1.2 Building and Equipment Maintenance;
- 2.1.3 Life Cycle Replacement and Refurbishment;
- 2.1.4 Internal and External Site and Facility Condition/Environment;
- 2.1.5 Building Management System Reporting Requirements;
- 2.1.6 Elevators and Vertical Transportation Services;
- 2.1.7 Plant Services Information Management;
- 2.1.8 Security Services;
- 2.1.9 Custodial and Housekeeping;
- 2.1.10 Painting Services;
- 2.1.11 Waste Management and Recycling Services; and
- 2.1.12 Pest Control Services.
- 2.1.13 Communications Systems Maintenance and Support;

PART 3. STATUTORY TESTING

3.1 Project Co will:

- 3.1.1 attend upon and undertake insurance, statutory and regulatory tests which may be required by applicable Laws, the Authority Policies and Procedures or the Authority's insurers as outlined in Project Co's then current Annual Service Plan;
- 3.1.2 maintain records of all such insurance, statutory and regulatory tests;
- 3.1.3 commission all new plant operations, systems and equipment, installed or provided by Project Co, including those replaced under the Life Cycle Requirements, subject to prior review of all commissioning procedures by the Authority; and
- 3.1.4 conduct an annual review of maintenance manuals and concurrently update any changes or notifications by manufacturers/suppliers and report to the Authority on such changes annually.

PART 4. BUILDING AND EQUIPMENT MAINTENANCE

4.1 Project Co will:

- 4.1.1 carry out predictive, preventive and corrective Maintenance, including maintenance, repair, and updating where appropriate, of the Maintained Elements, such that they remain functional, safe, operationally sound and of good appearance at all times, and perform such replacement as required, using elements meeting or exceeding the standards set out in Schedule 3 [Design and Construction Specifications] and Good Industry Practice;
- 4.1.2 provide comprehensive and effective Maintenance Services on a day-to-day basis and in response to Demand Requisitions;
- 4.1.3 establish and maintain suitable systems and procedures to ensure that all fire prevention and detection equipment is examined and tested and that accurate records of all tests, including the dates thereof, are maintained in sufficient detail to permit verification by the Authority;
- 4.1.4 establish and maintain suitable systems and procedures to ensure that all predictive, preventive and corrective Maintenance is carried out at such times and in such a manner

that these Service Protocols and Specifications and all regulatory requirements are met in relation to the Facility and all Building Systems and Maintained Elements;

- 4.1.5 cooperate and reasonably assist the Authority with any capital development works undertaken by the Authority at the Facility; and
- 4.1.6 maintain appropriate CMMS records, equipment histories and reports relative to predictive, preventive and corrective Maintenance and make such records, histories and reports available for review by the Authority at all times.

PART 5. LIFE CYCLE REPLACEMENT AND REFURBISHMENT

5.1 Project Co will ensure the long-term integrity and ongoing operational serviceability of the Facility by complying with the Life Cycle Requirements, which define design life, specific replacement/refurbishment strategies, key assumptions, and annual cost provisions for all types of plant and equipment for which Project Co is responsible. The Life Cycle Requirements are categorized by major elements such as substructure, structure, enclosure, interior dividing, vertical finishes, fittings and equipment, mechanical, electrical, life safety, communications and Site. Project Co will renew the Facility, as required, such that, on the Expiry Date the Facility is fully functional to the standard specified in Appendix 4B [Handback Requirements].

5.2 Project Co will:

- 5.2.1 perform the Life Cycle Plan as described in Section 3.11 [Life Cycle Plan] of Schedule 4 [Services Protocols and Specifications];
- 5.2.2 upon request, provide advice, guidance and recommendations to the Authority with respect to the impact that replacement or refurbishment of, or additions or other modifications to, elements of the Facility which are not Maintained Elements, may have on: (i) the Maintained Elements; (ii) the performance of the Services, including the Life Cycle Requirements; and (iii) the operation of the Facility, if any; and
- 5.2.3 comply with the reporting and quality monitoring requirements of this Appendix and with all other reporting and quality monitoring requirements of this Agreement.

5.3 Replacement of elements, Equipment and systems by Project Co must be consistent with the following principles:

- 5.3.1 the standard of replacement or refurbishment of specific elements in accordance with the Life Cycle Requirements will meet or exceed the requirements of this Appendix and all other requirements of this Agreement. Where elements are no longer available or those elements cannot be reproduced then elements may be replaced with elements of similar or equivalent form provided Authority approval is obtained, substance and quality that meet or exceed the requirements of this Appendix and all other requirements of this Agreement;
- 5.3.2 where new or alternative building and site equipment or systems are provided by the Authority, life cycle replacement will be the responsibility of the Authority;
- 5.3.3 where new or alternative building and site equipment or systems are provided by the Authority, Project Co will report on the impact of such additions or alternatives on existing systems or operational costs; and
- 5.3.4 Project Co shall make available to the Authority a full audit trail of life cycle activity and adherence to agreed standards.

PART 6. INTERNAL AND EXTERNAL SITE AND FACILITY CONDITION/ENVIRONMENT

6.1 Project Co will:

- 6.1.1 ensure the heating, air conditioning, humidity and mechanical ventilation systems (including local ventilation systems) function as required by Schedule 3 [Design and Construction Specifications] with the correct circulation rates and air filters installed and maintained as set out in Schedule 3 [Design and Construction Specifications] and the final commissioning report;
- 6.1.2 comply with, or exceed, the baseline measurements for the number of air exchanges required to be maintained in each room as per Schedule 3 [Design and Construction Specifications];
- 6.1.3 keep the Functional Units at the temperatures as per Schedule 3 [Design and Construction Specifications];

- 6.1.4 meet the standards for heating, ventilation, air conditioning, lighting, pressurization, sound and vibration as described in Schedule 3 [Design and Construction Specifications];
- 6.1.5 ensure all lighting systems remain fully functional, safe, and are maintained to provide illumination levels consistent with the benchmark levels established at Service Commencement and set out in Schedule 3 [Design and Construction Specifications]; and
- 6.1.6 ensure the public address system operates as designed.

PART 7. BUILDING MANAGEMENT SYSTEM (BMS) REPORTING REQUIREMENTS

7.1 Project Co will:

- 7.1.1 maintain the BMS and ensure the BMS is functional and available as specified in Schedule 3 [Design and Construction Specifications];
- 7.1.2 ensure that upon the occurrence of any event below or any other event identified by the Authority, the BMS will automatically and immediately notify the nominated Authority Persons of the incident particulars, including:
 - 7.1.2.1 where an alarm is triggered in accordance with an event covered by the fire or security system; and
 - 7.1.2.2 other installed alarms as required by the Authority from time-to-time including food freezers, fridges, cash card machines and server rooms.
- 7.1.3 without limiting any requirement of Schedule 3 [Design and Construction Specifications], connect all Equipment to the BMS that can be reasonably connected.

PART 8. ELEVATORS AND VERTICAL TRANSPORTATION SERVICES

8.1 Project Co will:

- 8.1.1 develop and implement appropriate Operational Policies and Procedures, relative to elevators and vertical transportation services, including with respect to:
 - 8.1.1.1 passenger and service elevators;
 - 8.1.1.2 associated elevators motor rooms; and
 - 8.1.1.3 escalators (if any); and

- 8.1.2 maintain each elevator so as to comply with the BC Safety Authority and requirements of this Appendix including as to Elevator Availability and to comply with all other requirements of this Agreement, including Schedule 3 [Design and Construction Specifications].

PART 9. PLANT SERVICES INFORMATION MANAGEMENT

9.1 Project Co will:

- 9.1.1 develop and implement appropriate operational policies, procedures and practices, relative to Plant Services Information Management, including with respect to the sections that follow;

- 9.1.2 collect, manage and update all Plant Services records and information on behalf of the Authority, including information regarding:

- 9.1.2.1 the physical characteristics of the plant and Equipment including:

- 9.1.2.1(1) the description and address of the Facility;

- 9.1.2.1(2) all area and buildings volume data;

- 9.1.2.1(3) condition surveys;

- 9.1.2.1(4) all location plans, boundaries and titles relating to the Site; and

- 9.1.2.1(5) up-to-date Record (CAD/BIM) Documents (in individually named pdf and electronic files complete with block references intact and attached).for the Site, Facility and Services, which are to be linked to the Authority systems to current CAD/BIM standards. Project Co will ensure that all systems provided are compatible with the Authority's systems and allow for access to information by the Authority;

- 9.1.3 ensure all CAD/BIM drawings and CAD/BIM Record Documents are kept up to date and a new set of drawings is provided to the Authority every six months in a format acceptable to the Authority (individual file pdf and electronic format (AutoCAD) complete with block references intact and attached), where changes have occurred. Otherwise Project Co will advise the Authority that no changes have occurred and that the drawings remain current for the forthcoming period;

- 9.1.4 maintain records and details of specific license requirements where Project Co is responsible for obtaining any licenses. Where the Authority is responsible for obtaining such licenses, Project Co will only be obliged to maintain records that have been provided to it by the Authority;
- 9.1.5 ensure test certificates and appropriate documentation and records (in particular those relating to any aspects of safety or statutory compliance) are maintained accurately and are updated appropriately and are available for inspection by the Authority or any other relevant party;
- 9.1.6 use data and communications systems, which are compatible with the Authority's systems at all times;
- 9.1.7 ensure all information and records are complete, precise and clearly identifiable. Project Co will make all such information available for inspection at the reasonable request of the Authority;
- 9.1.8 maintain hazard notices and safety signs including those issued by the Authority and maintain a record of all deployments of such hazard notices and safety signs and put in place procedures to ensure such notices and signs are located and displayed correctly, and are fully serviceable; and
- 9.1.9 prepare and supply all information reasonably required by any Person, to whom the Authority is obliged to present information at any time in relation to the performance of the Plant Services.

PART 10. INTENTIONALLY DELETED

PART 11. CUSTODIAL AND HOUSEKEEPING

11.1 Project Co will perform all Custodial and Housekeeping Functions.

11.1.1 Project Co will perform all Custodial and Housekeeping Functions in all areas of the Facility except the kitchen component of food services, including the following:

11.1.1.1 classrooms;

11.1.1.2 offices, work stations and administrative areas;

11.1.1.3 washrooms;

- 11.1.1.4 conference rooms and theatres;
- 11.1.1.5 libraries;
- 11.1.1.6 gallery;
- 11.1.1.7 lobby;
- 11.1.1.8 hallways, corridors and stairwells;
- 11.1.1.9 studios; and
- 11.1.1.10 storage, loading, and recycling.

11.1.2 For the purpose of this part 11 [Custodial and Housekeeping] of this Appendix, Custodial and Housekeeping Functions include:

- 11.1.2.1 washing and waxing (and stripping as necessary) solid floor surfaces;
- 11.1.2.2 vacuuming of carpeted surfaces;
- 11.1.2.3 washing and dusting wall surfaces and wall vents;
- 11.1.2.4 cleaning door surfaces and adjacent jams;
- 11.1.2.5 cleaning door and vestibule entry mats
- 11.1.2.6 dusting and cleaning ceiling surfaces and ceiling vents, high dusting;
- 11.1.2.7 dusting and cleaning hardware surfaces;
- 11.1.2.8 cleaning light fixtures;
- 11.1.2.9 cleaning windows (interior and exterior) and glass enclosures;
- 11.1.2.10 cleaning and dusting counters, desks, chairs and work surfaces;
- 11.1.2.11 cleaning lavatory sinks and counters;
- 11.1.2.12 cleaning mirrors and polished surfaces;
- 11.1.2.13 cleaning toilets, urinals and toilet enclosures;

11.1.2.14 stocking of:

11.1.2.14(1) paper towel dispensers;

11.1.2.14(2) soap dispensers (electrical and manual);

11.1.2.14(3) double toilet paper dispensers; and

11.1.2.14(4) sanitary napkin dispensers;

11.1.2.14(5) removing garbage and recycling; and

11.1.2.14(6) championing and maintaining Green Seal of approval for housekeeping practices, processes and training.

11.1.3 Project Co will provide all necessary supplies and equipment, perform inventory control and provide storage of equipment and supplies required for Custodial and Housekeeping Functions performed by Project Co Persons. Project Co will promptly report any unexpected deviations to the Authority.

11.1.4 Project Co will maintain ultimate responsibility for ensuring the overall cleanliness of the Facility in accordance with these Services Protocols and Specifications.

PART 12. PAINTING SERVICES

12.1 Project Co will perform all of the following painting functions:

12.1.1 in all areas of the Facility, all classrooms, all employees' offices and work stations, and all other areas, including washrooms, conference rooms, corridors and hallways, doors, frames;

12.1.2 purchase, requisition, dispense and dispose of all painting supplies and materials required pursuant to this part 12 [Painting Services] of this Appendix;

12.1.3 use low VOC and non-toxic paints, supplies and cleaners;

12.1.4 dispose of paints, supplies and cleaners in keeping with environmentally friendly procedures and policies;

12.1.5 paint exposed pipes and ductwork (if any) in occupied areas;

- 12.1.6 include a detailed painting schedule for the Facility, including those areas requiring painting, in each Five Year Maintenance Plan;
- 12.1.7 ensure that all painting of administration areas, classrooms, studios, library, faculty areas, washrooms, computer labs, and offices is performed after normal working hours for the Facility;
- 12.1.8 provide all necessary supplies and equipment, perform inventory control and provide storage of equipment and supplies required for painting to be performed. Project Co will promptly report any unexpected deviations to the Authority; and
- 12.1.9 maintain ultimate responsibility for ensuring the quality and performance of all painting services throughout the Facility in accordance with these Services and Protocols Specifications.

PART 13. WASTE MANAGEMENT AND RECYCLING SERVICES

13.1 Project Co will:

- 13.1.1 be responsible for the removal of all waste, recyclable and compostable materials from the Facility, following City of Vancouver waste and recycling programs and initiatives, and including engaging all required third party contractors and managing applicable waste removal contracts, except that:
 - 13.1.1.1 the Authority will handle waste removal for the Student Grad show; and
 - 13.1.1.2 the Authority will handle hazardous waste removal;
- 13.1.2 track waste streams and provide related reporting, in compliance with the Environmental Management Plan, the Environmental Management System and all requirements under applicable Laws;
- 13.1.3 conduct periodic waste audits and recommend improvements and cost reduction strategies to the Authority;
- 13.1.4 participate in any Facility waste audits undertaken by the Authority;
- 13.1.5 implement security procedures to ensure that confidential shredding and the waste is disposed of in accordance with the Authority Policies and Procedures and applicable Laws;

- 13.1.6 monitor waste streams and work with the Authority to ensure that appropriate segregation is taking place at source or in the central waste area, as appropriate;
- 13.1.7 maintain facilities for recycling of glass, cardboard, plastics, wood, metal, electronics, batteries, light bulbs, green waste, newspaper, and paper as per, but not limited to, the City of Vancouver's recycling program;
- 13.1.8 maintain facility for recycling and waste disposal for chemical and hazardous waste as required by the Authority's Functional Program requirements;
- 13.1.9 work with the Authority to ensure that waste storage areas, both internal and external are kept:
 - 13.1.9.1 clean and free from litter, malodour, spillages and debris;
 - 13.1.9.2 clearly and visibly labeled;
 - 13.1.9.3 free from pests and vermin;
 - 13.1.9.4 secure, with access restricted to authorized personnel; and
 - 13.1.9.5 free of fire hazards;
- 13.1.10 have ultimate responsibility for the collection and segregation of waste, recyclable and other materials within the Facility; and
- 13.1.11 provide all necessary supplies and equipment, perform inventory control and provide storage of equipment and supplies required for performance of Waste Management and Recycling Services. Project Co will inventory all supplies and equipment before and after performance of any waste management functions and promptly report any unexpected deviations to the Authority.

PART 14. PEST CONTROL

14.1 General Requirements

14.1.1 Project Co will provide integrated vermin and pest control Services in compliance with the Authority Policies and Procedures, Operational Policies and Procedures, and applicable Laws. For the purpose of this Appendix, "pests" include insects, rodents and birds.

14.1.2 In carrying out the Pest Control Services, Project Co will:

- 14.1.2.1 provide effective and efficient management of the environment, in accordance with the requirements of Appendix 4H [Environment and Sustainability Services];
- 14.1.2.2 ensure collaborative working relationships with contractors and with Authority Persons; and
- 14.1.2.3 purchase, store, requisition, dispense and dispose of all pest control consumables.
- 14.1.2.4 Employ preventative measures as the first line of defence.

14.2 Service Requirements Project Co will:

- 14.2.1.1 provide comprehensive preventive, and reactive Pest Control Services, using personnel who are fully trained, qualified and able to provide high quality professional and practical advice and service;
- 14.2.1.2 provide emergency pest control advice and Pest Control Services on an on-call basis for dealing with Demand Requisitions related to pest control;
- 14.2.1.3 undertake all Pest Control Services in a safe and cost effective manner which maximizes availability of Authority resources and reduces, to an absolute minimum, the risks associated with pest infestation, including safety, food hygiene, infection control, damage to the Facility and Site and interference with Facility operations, and the Authority Activities.
- 14.2.1.4 provide safe and efficient methods of catching, destroying and disposing of pests (adopting safe and humane procedures in all instances);
- 14.2.1.5 ensure all pest control systems are tamper resistant;
- 14.2.1.6 use chemical treatment (including pesticides) only with prior Authority approval and only in circumstances where other forms of prevention are ineffective in controlling pests;

- 14.2.1.7 ensure that the use of chemicals is strictly controlled and monitored and fully compliant with the requirements of all applicable Governmental Authorities;
 - 14.2.1.8 ensure that records of all chemical use for pest control are available for inspection by the Authority and other authorized organizations/personnel; and
 - 14.2.1.9 advise the Authority's Operating Period Representative at least once every 12 months (or as the need arises if new chemicals are intended for use) of all chemicals Project Co is using or that it intends to use.
- 14.2.2 If Project Co wishes to use any form of chemical product that has not been formally authorized by the Authority in writing, it must provide advance notice with exact location and timings to Authority and obtain written permission from the Authority prior to use. Project Co will ensure that under no circumstances will any chemicals used in connection with the Pest Control Services come into contact with any persons present in the Facility or otherwise on the Site.
- 14.2.3 Project Co will maintain all Material Safety Data Sheets (MSDS) current and available at the Facility and will at all times comply with the applicable requirements of the Workplace Hazardous Materials Information System (WHMIS).
- 14.2.4 Project Co will provide to the Authority's Operating Period Representative, on an agreed date during each Payment Period, a Pest Control Services report detailing all pest control activity within the Facility and on the Site during the immediately preceding Payment Period and identifying future action that Project Co intends to take.
- 14.2.5 Project Co will provide prompt notice to the Authority's Operating Period Representative of any pest infestations, and will in each case:
- 14.2.5.1 provide signed and dated reports detailing the locations and areas of the Facility and Site inspected and treated and the product names and product numbers of the chemicals used, if applicable;
 - 14.2.5.2 measure, record and report the number, type and location of infestations; and

14.2.5.3 measure, record and report any evidence of pests and any belief that an infestation is associated with any other premises, whether Authority owned or otherwise, that may affect the Facility or the Site.

14.2.6 Project Co will recommend and implement preventive measures to minimize re-infestation.

PART 15. COMMUNICATIONS SYSTEMS MAINTENANCE AND SUPPORT

15.1 Project Co will maintain and provide support for the Wireless WiFi communication system, such that the system will continuously meet the applicable design and performance requirements specified in Section 5.11 [Communications] and Appendices 3E [Communications Specifications] and 3G [Systems Responsibility Matrix] of Schedule 3 [Design and Construction Specifications]. Without limiting the preceding sentence, Project Co will:

15.1.1 maintain the operability of the wireless communications system so as to, at all times, meet or improve upon the applicable baseline measurements established through the applicable commissioning procedures at Service Commencement;

15.1.2 maintain continuous communications with all WiFi network equipment throughout the Facility;

15.1.3 respond to and correct trouble tickets;

15.1.4 respond to and rectify all communication failures in accordance with the applicable Response Times and Rectification Periods; and

15.1.5 without limiting the Life Cycle Requirements, carry out wireless communications systems software upgrades, including patches and other improvements, as and when required to ensure that (i) the WiFi Systems software and other software, hardware, firmware, applications and other components employ the latest proven technology and remain at all times manufacturer supported, manufacturer supportable and otherwise compliant with the requirements of the Design and Construction Protocols, the Design and Construction Specifications and the Services Protocols and Specifications; and (ii) all manufacturer product software and other software, hardware, firmware, applications and other components that interface with the Authority's systems remain compatible with the applicable Authority systems, provided that any changes required and resulting solely from an upgrade to, or change by, the Authority to such Authority systems will be treated

as a Change and paid for in accordance with Schedule 6 [Changes Minor Works and Innovation Proposals]; and

15.1.6 provide training, as reasonably required by the Authority, to designated Authority Persons with respect to the use and operation of the Telephone and WiFi communication systems.

15.1.7 maintain the wireless network(s) such that it does not materially compromise the performance or integrity of the Authority's Network Infrastructure. In consultation with others, as necessary, notify the Authority promptly of violations of the Authority Policies and Procedures, violations of system security, and all other applicable policies by service users of which Project Co Has Knowledge.

15.1.8 Project Co will continuously monitor the health of the WiFi network and make the necessary changes to ensure the network is working at the optimum performance level at all times.

15.2 Project Co will, upon request, provide the following to the Authority with respect to the Telephone and WiFi Communication Systems:

15.2.1 a list of all critical incidents;

15.2.2 daily, weekly and periodic status reports;

15.2.3 exception reports by element status;

15.2.4 for all Telephone and WiFi Communications System alerts, time of occurrence, Response, and Rectification of the alert; and

15.2.5 any other report required to demonstrate that all systems are functioning effectively.

15.3 Project Co will provide the physical network and WiFi equipment and the Authority will utilize the Structured Cabling System as described in Section 5.11.2 [Communications] Schedule 3 [Design and Construction Specifications].

15.3.1 The Authority will be responsible for all maintenance, repair and replacement of the Authority data network devices.

15.3.2 The Authority will be responsible for the programming of the WiFi network.

15.3.3 Project Co will be responsible for maintaining the Structured Cabling System for data services to be supported as described in Schedule 3 [Design and Construction Specifications] and maintained at all times including all copper and fibre work area and patch cords.

15.4 Project Co will provide a telephone system for use by the Authority in accordance with Schedule 2 and Schedule 3 of this Agreement. The Authority will maintain, repair and replace the telephone devices and associated switch gear, storage and software as necessary.

15.4.1 The Authority will maintain the telephone system infrastructure and utility ensuring that all physical connections and structured cabling for telephone and data services are provided and maintained at all times.

15.4.2 Project Co will operate the telephone system including unified messaging servers and telephone system servers.

15.5 The Authority is responsible for the security server for access to the Authority's network

PART 16. SERVICE STANDARDS

16.1 The Service Standards for Plant Services are described in the tables below.

Table 1: Service Standards – Building and Equipment

Maintained Element	Standard
<p>General</p>	<ul style="list-style-type: none"> • In general, all elements of building fabric, fixtures and fittings, floor and floor coverings, and furniture and equipment will at all times be functional, operational and satisfy the design and performance requirements as required for Service Commencement. • All Maintained Elements are to be maintained, repaired and refreshed as required to meet the performance specifications and the design criteria as set out in Schedule 3 [Design and Construction Specifications] and consistent with a building maintained in accordance with all applicable Laws, Authority Policies and Procedures and Good Industry Practices. • Access to all mechanical & electrical equipment rooms and service areas will be restricted to authorized personnel. • All Maintained Elements will be subject to Availability Conditions.

Maintained Element	Standard
Building Fabric, External	<ul style="list-style-type: none"> • Functional, safe, operationally sound, of good appearance and, where appropriate, weatherproof. • Maintained to comply with the Building Envelope section of Schedule 3 • Substantially free from damp penetration, cracking, spalling, peeling and lifting. • Substantially free from stains, graffiti and other cosmetic faults. • Substantially free from debris, algae, moss growth (where not used as a planting medium) and bird droppings. • Exterior window surfaces cleaned periodically in addition to scheduled cleaning to maintain a good appearance in accordance with Good Industry Practice. • Claddings, copings and parapets, soffits/fascia are structurally sound and secure. • Free from vermin and/or pests. • Chimney stacks/flues are structurally sound and secure, flues free from blockages/excess soot. • Free from asbestos and other Hazardous Substances. • Thermographic scans (and cut samples, if necessary) to confirm roof system is watertight. These will be repeated every 3 years, or more frequently as deemed necessary by Project Co, with appropriate repairs made based on the results.
Building Fabric, Internal	<ul style="list-style-type: none"> • Will function and operate as intended without fault. • Substantially free from structural cracks, deflection and other defects. • Substantially free from damp penetration, cracking, spalling, peeling and lifting. • Substantially free from stains, graffiti and other cosmetic faults. • Substantially free from damage including scratches or blemishes, whether or not hampering operations. • Finishes are complete, free from surface degradation and maintained within an acceptable level of normal wear and tear. • Free from vermin and/or pests. • Free from asbestos and other Hazardous Substances. • Free from volatile off-gassing. • Maintain fire and security rating. • Maintain security integrity as required by Schedule 3 [Design and Construction Specifications] and the initial Design.
Fixtures and Fittings	<ul style="list-style-type: none"> • Operate as intended, in a safe way, without making undue noise, without observable stains on hinges, locks, catches and handles, and without binding, rubbing or catching in any way. Reset after tripping, if required. • Will function as intended, and will be substantially free from all but minor surface blemishes and wear and tear. • Signs, notices and warning signs are illuminated, intact and legible. • Free from corrosion
Floor and Floor Coverings	<ul style="list-style-type: none"> • The floor coverings are complete, in accordance with these Service Protocols and Specifications. • The floor coverings are fully fixed to the floor so as not to cause health and

Maintained Element	Standard
	<p>safety hazard.</p> <ul style="list-style-type: none"> • The floor/floor coverings are free from tears, scoring, cracks or any other damage that is unsightly and/or could cause a health and safety hazard. • Floor coverings/surfaces will be maintained in such a way as to provide a suitable uniform surface, with minimal resistance, for carts and any other wheeled vehicle in use in the Facility. • Allow adequate drainage where necessary. • Free from vermin and/or pests. • Maintained in compliance with Section 4.9 [Finishes] of Schedule 3 [Design and Construction Specifications].
Decorative Finishes	<ul style="list-style-type: none"> • Decorative finishes are complete according to their specification. • Substantially free from all but minor surface blemishes or undue wear and tear. • Free from cracks, or any other surface degradation inconsistent with a building maintained in accordance with Good Industry Practice.
Equipment & Furniture	<ul style="list-style-type: none"> • Free from splits, cracks, and other defects (including squeaks) and free from all but minor surface blemishes or undue wear and tear. • Maintained in accordance with applicable Laws. • Maintained in accordance with manufacturer's requirements.
Locking and Glazing Systems	<ul style="list-style-type: none"> • Maintain in accordance with all applicable Laws, codes and standards, • Systems operational continuously, unless approved for interruption by the Authority. • Operate in accordance with the applicable Services Protocols and Specifications and Schedule 3 [Design and Construction Specifications]. • Fully operational within manufacturer's recommendations. • Function as intended.

Table 2: Service Standards – Systems

Maintained Element	Standard
General	<ul style="list-style-type: none"> • In general, all elements of Building Systems, including the elements outlined below, will at all times be functional, operational and satisfy these Services Protocols and Specifications. • All Building Systems will be maintained in compliance with the manufacturer's maintenance instructions.
Emergency Power Supply System	<ul style="list-style-type: none"> • Standby power supply will be operational, secure and tested regularly in compliance with CSA C282 and free from dust. • Batteries will be adequately ventilated, free from acid leakage and batteries will be topped up and fully charged.

Maintained Element	Standard
	<ul style="list-style-type: none"> • All generators will be tested to ensure reliability during power interruptions at full load in accordance with Good Industry Practice.
LV Distribution System	<ul style="list-style-type: none"> • Ratings will be clearly marked. • Secure to authorized access only. • Recording instruments operational. • Provide lock out procedure. • Thermographic scans (utilizing thermal imaging cameras) as required in accordance with Good Industry Practice. • Do injection testing as required in accordance with Good Industry Practice. • Test all alarm functions.
Electrical Distribution System	<ul style="list-style-type: none"> • Ratings will be clearly marked. • Secured to authorized access only. • Recording instruments operational where necessary. • Provide lock out procedure. • Provide coordination study and Arc Flash Hazard Analysis as required in accordance with Good Industry Practice or at minimum every 10 years. • Identify all current transformer and potential transformer ratios. • Thermographic scans (utilizing thermal imaging cameras) as required in accordance with Good Industry Practice.
Electrical Systems	<ul style="list-style-type: none"> • All normal and emergency power systems and associated gear will be operational, secure and tested in accordance with the Annual Service Plan and CSA requirements. • All panels, wiring, fittings, fixtures, controls and life safety systems and equipment will be properly housed, fastened securely and labelled. • All alarms, electrical communications, data transmission installations, cabling and associated equipment will be fully functional, operational and maintained in accordance with the Annual Service Plan. • All controls and Building Management Systems must be fully functional. • All lighting systems must be fully functional, safe and remain in accordance with the requirements of Section 5.10.13 [Lighting] and Appendices of Schedule 3 [Design and Construction Specifications].
Hot & Cold Domestic Water System (Plumbing System)	<ul style="list-style-type: none"> • Operate and maintain domestic hot water temperature and pressure design performance criteria and parameters as set out in Schedule 3 [Design and Construction Specifications] and the BC Plumbing Code. • Taps, valves and other related fittings and fixtures function as intended. • Pipe work and fittings will be fastened securely to their intended points of anchorage. Seismic restraints systems will be in place.

Maintained Element	Standard
	<ul style="list-style-type: none"> • There will be no drips or leaks of water from pipes, taps, valves and/or fittings. • Water service will be maintained in such condition as to provide average, maximum and peak demand plus fire flow as prescribed by the local government design criteria. In the absence of such design criteria, the water system will provide a minimum of 40 psi for the average day demand and a minimum of 20 psi for maximum day demand, plus fire flow demand. • Normal operating pressures on Site will be maintained to be between 50 and 100 psi. • Water testing will be performed annually and the report will be provided to the Authority.
Sanitary and Other Drainage Systems	<ul style="list-style-type: none"> • Will function as intended, without undue noise or vibration. • Will ensure the storm water management system is maintained to provide the required quality of water entering adjoining streams and municipal drainage systems. • All pipe work and fittings fastened securely to their intended points of anchorage. • There will be no leakage of waste and/or foul water and/or rainwater. • Dual macerator systems, installed in parallel, will be maintained in a continuously operable condition.
Life Safety and Fire Management Systems	<ul style="list-style-type: none"> • Life safety, emergency spill kits, fire extinguishers and other firefighting equipment will be maintained in accordance with relevant Laws, codes and standards (e.g. CSA Standards).
Communications Systems	<ul style="list-style-type: none"> • All electrical communications and data and voice transmission installations to comply with all applicable Laws, codes and standards (e.g., CSA Standards). • Cabling and wireless system and equipment remain operational continuously. • Must meet EIA/TIA performance requirements at all times.
Utility Connections and Services	<ul style="list-style-type: none"> • Secure, safe, maintained and serviced in accordance with the Annual Service Plan and the applicable Utility Company's requirements.
Conveyance Equipment and systems	<ul style="list-style-type: none"> • All components to be fully functional, safe, secure, operationally sound and of good appearance, in accordance with the design criteria as set out in Schedule 3 [Design and Construction Specifications]. • Operate to manufacturer's specifications, the Design and Construction Specifications and these Services Protocols and Specifications.
Mechanical and Plumbing Systems	<ul style="list-style-type: none"> • All mechanical and plumbing systems will function as intended without unreasonable noise, vibration or leaks. • All elements and components are functional, safe, secure, operationally sound and of good appearance. • Free from dust and corrosion which has a negative impact on health or safety. • Substantially free from dust and corrosion which could have a negative impact

Maintained Element	Standard
	<p>on performance or which do not have a reasonable appearance.</p> <ul style="list-style-type: none"> • Substantially free from erosion and organic growth. • Mechanical ventilation and exhaust systems, units, ductwork and diffusers maintained and cleaned regularly per applicable Laws, codes and Good Industry Practice. • Maintained and tested in accordance with the Annual Service Plan. • Maintained to deliver to the design performance criteria and parameters as set out in Schedule 3 [Design and Construction Specifications]. • Propane System maintained in accordance with Annual Service Plan

Table 3: Service Standards – Heating, Ventilation and Air Conditioning

Maintained Element	Standard
General	<ul style="list-style-type: none"> • All ventilation systems will function as intended without undue noise or vibration. • Air changes and ventilation levels in accordance with baseline levels established through the applicable commissioning procedures at Service Commencement. • Ductwork, fittings and pipe work will be securely fastened to their intended points of anchorage. • There will be no leakages of water (or other heating/cooling medium) or air from ventilation systems. • Ductwork will be maintained so as to ensure efficient flow of air through the HVAC system. Project Co will submit details of its plan for verification of ductwork cleanliness and performance, including method and frequency of verification, to the Authority concurrently with the first Annual Service Plan. • Secured to authorized access only. • Free from corrosion, erosion and organic growth.
Temperature Control:	<ul style="list-style-type: none"> • Design Temperature within the applicable temperature range set out in Schedule 3 [Design and Construction Specifications] • Maintained to indoor Design Temperature set point, subject to the applicable control tolerances stipulated in Schedule 3 [Design and Construction Specifications]. • Selection of representative rooms to be logged is to be changed every reporting period and to be on continuous rollover assignment.
Humidity Control:	<ul style="list-style-type: none"> • Return air humidity (or space humidity where applicable) maintained to set point within control tolerance as per Schedule 3 [Design and Construction

Maintained Element	Standard
	Specifications] and confirmed through trend logging.
Supply and Return Air Volumes:	<ul style="list-style-type: none"> • Maintained to design airflow quantities, as set out in Schedule 3 [Design and Construction Specifications]. • Demonstrate that airflow quantities are maintained through periodic reporting using physical flow hood measurement.
Relative Pressurization:	<ul style="list-style-type: none"> • For rooms with critical relative pressurization requirements, maintain differential pressure within range as per design criteria and provide continuous monitoring and trend logging. • For all other spaces, maintenance of Positive (P), Negative (N) or Equal (E) relative pressurization requirements will be established by demonstrating that supply and return/exhaust air volumes are being maintained, and by annual visual smoke tests where required in accordance with Good Industry Practice.

Service Standards – Security

Patrols & Maintenance	<p>Conducted at minimum hourly</p> <ul style="list-style-type: none"> • Includes perimeter checks and internal checks • Includes car parks and bike cages every two hours • Includes after hours checks every 2 hours
Communications Systems	<ul style="list-style-type: none"> • All electrical communications and data transmission installations to comply with all applicable Laws, codes and standards (e.g., CSA Standards). • Cabling remains operational continuously. • Operate and maintain the cabling infrastructure as set out in the Schedule 3 [Design and Construction Specifications] and EIA/TIA performance requirements at all times. • Provide test reports and update the Cable Management Software program for all changes to the infrastructure. • The Wireless WiFi System will be fully functional and operational at an optimum performance level at all times.