

# Tenant Design Criteria Manual

**Park Place  
666 Burrard Street,  
Vancouver, BC V6C 2X8**



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## Section 1: Introduction

The Tenant Design Criteria Manual is prepared to assist Tenants in the design and construction of leasehold improvements before, during and after the substantial completion of the tenant improvement project.

The manual contains information about procedures and requirements established by the Landlord for Tenants who undertake improvements within the leased premises; it also outlines the basic design specifications for the building. The information provided here applies as a general rule and should be made available to the Tenant's designers and contractors, who are urged to acquaint themselves thoroughly with the material herein, as it will form the basis of the Landlord's approval of all Tenant submissions.

The Landlord's review of all drawings is for the purpose of obtaining information about the intended design and use of the premises and the impact such design and use may have on the base building systems, structurally, electrically and mechanically.

The Landlord's review is not intended to agree with your consultant's design accuracy, only to review the impact on the base building systems and surrounding tenants.

It is recommended that the Tenant work and/or designer visit the site to inspect and verify all site conditions prior to commencement of design work.

The Landlord reserves the right to amend or add to the information in the manual at any time and the Tenant is obliged to abide by such changes upon notification thereof. All costs associated with the compliance shall be at the Tenant's expense.

This manual is intended to reflect only standard conditions or situations and does not amend the formal lease agreement, which is to govern in the event of any inconsistencies.

*Permission to deviate from the criteria contained herein must be obtained in writing. Notes on drawings in conflict with the design criteria have no validity.*

## Tenant Coordination

The Landlord will appoint a Project Manager, who will guide and assist the Tenant through the construction and renovation period and act as a point of contact within the Landlord's organization. All questions, comments and submissions are to be addressed to:

### **Cinesio Rocha**

QuadReal Property Group  
Suite 800 – Park Place 666 Burrard Street  
Vancouver, BC V6C 2X8  
Email: [cinesio.rocha@quadreal.com](mailto:cinesio.rocha@quadreal.com)  
Telephone: 604-975-9081  
Mobile Phone: 604-369-2284

Management & Administration is located in Suite 710 – 666 Burrard Street (Park Place)

## Landlord Consultants

### ARCHITECT

Musson, Cattell, MacKey Partnership  
1066 West Hastings Street  
Vancouver BC V6E 3X1  
604-687-2990  
[mwhitehead@mcmparchitects.com](mailto:mwhitehead@mcmparchitects.com)  
Attention: Mark Whitehead

### STRUCTURAL ENGINEERS

Read Jones Christoffersen  
#300 – 1285 West Broadway  
Vancouver, BC V6H 3X8  
604-738-0048  
[rsteers@rjc.ca](mailto:rsteers@rjc.ca) Attention: Roger Steers

### MECHANICAL

Integral Group  
#180-200 Granville Street  
Vancouver, BC V6C 1S4  
604-687-1800  
[kchen@integralgroup.com](mailto:kchen@integralgroup.com)  
Attention: Kai Chen

### ELECTRICAL

AES Engineering  
#9500 - 505 Burrard Street, Box 91,  
Vancouver, BC Canada V7X 1M4  
604-569-6500  
[Paul.Luhman@AESengr.com](mailto:Paul.Luhman@AESengr.com)  
[Sunny.Ghataurah@AESengr.com](mailto:Sunny.Ghataurah@AESengr.com)  
Attention: Paul Luhman/ Sunny Ghataurah

### ENERGY CONSULTANTS

Energy Profiles Limited  
#900 - 1112 West Pender Street  
Vancouver, BC V6E 2S1  
778-800-2723  
[kstirling@energyprofiles.com](mailto:kstirling@energyprofiles.com)  
Attention: Katrina Stirling

### FIRE CONSULTANTS

CFT Engineering Inc.  
#800 – 1901 Rosser Avenue  
Vancouver, BC V5C 6R6  
604-684-2384

### RISER MANAGEMENT - TECHNOLOGY CONSULTANTS

The Attain Group  
[client.services@theattaingroup.com](mailto:client.services@theattaingroup.com)  
1-866-439-9424

## Base Building Construction

Base Building construction includes all structural, mechanical, electrical, sprinkler systems and architectural finishes as stated in the basic construction contract between the Landlord and the Landlord's contractors.

The Landlord will provide drawings indicating all major elements of the Tenant's floor to the Tenant, if available. The Landlord at the Tenant's expense will supply any additional drawings requested by the Tenant.

Any alterations and/or additions to the base building construction that may be required to accommodate the Tenant's office layout shall be subject to the approval of the Landlord. The Landlord retains the right to have such alterations carried out by the Landlord's contractor, under the supervision of the Landlord's consultants, at the Tenant's expense. The cost of such work shall include labour, materials, applicable taxes, all architectural, engineering and contractors' fees and such reasonable fee for supervision as the Landlord may charge.

## Interior Design Guide

Tenant's designers are urged to use the basic building and its systems to avoid expense and delay to Tenants when creating their improvements and restoring them at expiry of the Lease.

This is intended as a guide to Tenants and their designers and contractors:

1. Take full advantage of the 5'0" x 5'0" grid to which the ceiling is built and the 20" x 60" x 5/8" sub-grid of ceiling tile and light fixtures.
2. Keep ceilings at standard height.
3. Do not request changes to the partitions, doors, ceiling heights or finishes in the rooms in the core (i.e., male and female washrooms, vestibules, stairs, janitor, electrical and telephone closets).
4. Ensure that any wall finishing material introduced by a full floor tenant in the elevator lobby does not require changes to the elevator doorframes, call buttons or signals. Cladding of door frames with special approved finishes will be permitted to full floor Tenants.
5. Ensure that any floor finish material introduced by a full floor tenant in the elevator lobby does not require changes to the elevator door thresholds.
6. Locate additional washrooms, sinks, etc., as close as possible to the soil stacks to ensure adequate slope of drains.
7. Advise the Landlord as soon as possible, and in writing, of any changes required to any base building elements.
8. Drilling of holes in the aluminum frames of the windows is not permitted.
9. Arrange for air return openings in every sound baffle in ceiling plenum above a partition, to



- permit return of air through the ceiling space to the return air ducts at the core.
10. Comply with city regulations, with respect to access to Fire Department valve cabinets and acceptable routing through Tenant premises for a person with a hose and maximum distance of water throw.

## Design and Working Drawings

The Tenant may wish to retain the Landlord's Architects or Consultants, under direct contractual arrangements for the production of working drawings. If the Tenant chooses to employ Consultants other than the Base Building Consultants for the design work, the Landlord will have their drawings reviewed by the Base Building Consultants in order to ensure compatibility with the building's systems. The cost of this review will be charged to the Tenant. A list of the Base Building Consultants is attached to this manual.

The Landlord will provide one set of base building information drawings indicating all the major elements of a typical floor to the Tenant. Any additional drawings that may be required by a Tenant, shall be provided by the Landlord, upon request by the Tenant, and at the Tenant's expense.

For the purpose of this manual, the drawings approved by the Landlord shall be called "Approved Drawings". Any revisions made to the Approved Drawings must be submitted to the Landlord for further approval.

The Tenant shall submit to the Landlord two sets of prints of the completed working drawings and specifications for final approval at least fifteen (15) working days prior to the Tenant's commencement of construction. This is to allow the landlord sufficient time to review the proposed modifications. The Tenant drawings must include the following information:

### 1. Floor Plans

- a) Drawing scale of 1/8":1'-0"; indicate the tenant area in relationship to the corridors, stairs, fire extinguisher cabinets, partitions, doors, etc.
- b) Location of all major fixed elements within the Leased Premises dimensionally related to grid lines and demising partitions.
- c) Locations, loads and layouts of rooms of unusual loading concentrations, such as centralized filing areas, Vaults, Safes, Etc.;
- d) Location of power and technology outlets;
- e) Room names or uses. The number of persons working in the room will help in calculations for the mechanical requirements;
- f) Floor materials and finishes throughout the Premises, including washrooms, kitchens/sinks if applicable;
- g) Where the Leased Premises occupy less than a full floor, a drawing of the entire floor showing the location (complete with dimensions) of Leased Premises and its relationship to the elevator lobby, exits, washrooms, etc., will be required.
- h) Door hardware and keying schedule. Two copies of the hardware schedule must be

submitted to indicate all elements including keying which must be to building standard.

- i) Location of inter-floor stairs, if any, (subject to approval by the Landlord's structural engineer);
- j) Clearly defining the extent of work of the Tenant.

## 2. Reflected Ceiling Plans

- a) Lighting layout, ceiling pattern, air transfer ducts, materials and suspension system details;
- b) Types and Wattage of any proposed special lighting fixtures;
- c) Locations and types of sound baffles above the ceiling, and clear identification of rooms requiring soundproofing.
- d) The locations of any access panels required to service building systems.
- e) The locations of any air transfer ducts through full height partitions. Cross talk silencers are required for all tenant and corridor demising walls.

**3. Construction sections and details**, at suitable scales, indicating all methods of construction, including partition details, baffles, doors, etc.

**4. Complete mechanical, electrical, sprinkler systems, building automation and life safety system drawings, at a scale of 1/8":1'-0"**, showing all alterations to, or additions to, the existing Base Building work as well as Base Building conditions which remain unchanged. Tie-ins and extensions to base building security, fire alarm, and communication systems must also be clearly shown. All electrical work in electrical rooms to be installed in conduit. Heat generating equipment and their heat output will be required on the mechanical drawings. Thermostat locations and connections to VAV's and valves are to be clearly shown.

**5. Structural drawings**, at suitable scales, where special conditions warrant the production of such drawings e.g. openings in the slab, libraries, file rooms, vaults, etc. These drawings must be created by the Landlord's Consulting Structural Engineer or coordinated by the Landlord.

**6.** Architectural, mechanical, electrical, and technology specifications must be submitted, describing the quality and performance standards for all the Tenant work.

**7.** The tenant is responsible for obtaining all necessary permits and approvals, from the Building Department, Health Department, Fire Marshall, the Ministry of Labour, and any other governing authority having Jurisdiction.

**8.** The Tenant shall engage, at the Tenant's expense, the Landlord's approved contractors, for any mechanical, electrical, sprinkler, controls and balancing modifications or additions to the base building systems.

**9.** Upon completing its review, the Landlord shall return the drawings stamped and endorsed with its approval along with all comments and required corrections of the Landlord and its Consultants. The Tenant shall revise the drawings to include all the comments and corrections and provide the Landlord with a revised set of prints prior to commencing the Tenant work.

Unapproved drawings shall be revised to conform to the Landlord's requirements by the Tenant and resubmitted to the Landlord for approval. The Landlord shall not be obligated to change or extend any of the dates contained in the lease as a result of the drawings being rejected by the Landlord or its consultants.

## Permits

The Tenant is responsible for all necessary permits and approvals required by government authorities for construction. The Tenant must provide the Landlord with copies of such permits and approvals prior to commencement of construction.

The Tenant is responsible for the correction of any items of work, which do not meet with the approval of the Municipality's building inspector, notwithstanding the fact that the drawings have been approved previously by the Municipality or the Landlord. The Tenant will be given a specified time to complete corrections. Should the Tenant or the contractor delay the required correction unduly, the Landlord will make the correction at the Tenant's expense. All Building, Occupancy and Permit drawings will be submitted to the Landlord upon completion of work.

The Tenant upon completion of the premises shall obtain an "Occupancy Permit" in writing from the Building Department.

## Insurance

The Tenant and its contractors are required to provide a copy of the insurance coverage at least equal to the itemized amounts stipulated in the Lease. For further information see Section 4 of this manual.

## Appointment of Contractors

All Tenant Contractors are subject to approval by the Landlord and MUST:

- a) have labour relations affiliations compatible to those on site at the time the Tenant's construction is to commence;
- b) furnish evidence of good standing with the WorkSafeBC (see Section 4);
- c) engage the services of the approved Base Building Sprinkler, Mechanical (HVAC), Building Automation and Controls, and Electrical subcontractors for approved Tenant work involving these trades;
- d) furnish the Landlord with a list of their Contractors' names, contacts and telephone numbers prior to construction and schedule a meeting of the General Contractor and designer with the Landlord's representative.



## Commencement of Construction

Construction may proceed only after the Tenant has:

- a) Submitted acceptable evidence of insurance coverage to the Landlord as set out in the Lease and in this manual (Section 4).
- b) Posted all required permits on site and forwarded copies of the same to the landlord for record purposes. Permits will include but not be limited to Building permit, clearance certificate from the WorkSafeBC, liability insurance certificate, and Notice of Project from the Ministry of Labour (if applicable).
- c) Made available on the Leased Premises a complete set of prints of the local authorities approved Drawings for the duration of the construction period for reference by the Landlord's authorized representatives.
- d) Receipt of the reviewed drawings and written notice from the Landlord to proceed with construction.
- e) Provided two sets of construction drawings and specifications and copies of all Addenda.
- f) Provided the landlord with a list of contractors performing the work.
- g) Provided the Landlord with a copy of;
  - The construction schedules complete with commencement, completion, and tenant move-in dates.
  - Signed copy of the contract
- h) Copy of the contractors Safety Manual where the Leased Premises occupy less than a full floor, a drawing of the entire floor showing the location (complete with dimensions) of Leased Premises and its relationship to the elevator lobby, exits, washrooms, etc. will be required.
- i) Provide the Landlord with two copies of the hardware schedule must be submitted to indicate all elements including keying which must be to building standard.
- j) Location of inter-floor stairs, if any, (subject to approval by the structural consultant);
- k) Clearly defined the extent of work of the Tenant

### **During Construction:**

The following information must be provided to the landlord during the course of the Tenant's project.

- a) Copies of all site meeting minutes.
- b) Copies of all Contemplated Changes at time of issuance to the Contractor.
- c) Copies of all Architect or Designer's site visit reports.
- d) Copies of all site reports from authorities having jurisdiction.
- e) Copies of safety meeting minutes.

## TENANT'S Contractor(s) Requirements

1. The Tenant shall engage his own contractor(s) to execute its leasehold improvements.
2. The Tenant's contractor(s) are subject to the following conditions:
  - a) The Landlord reserves the right to approve all construction work carried out by the Tenant's contractors to ensure its compliance with approved drawings and building standards.
  - b) The Tenant contractor(s) shall be approved by the Landlord prior to award of contract(s).
  - c) The Tenant contractor(s) shall, prior to start of work, furnish evidence that they are adequately and properly covered by insurance; (See Section 4: Insurance & Indemnification)
  - d) The Tenant contractor(s) shall be restricted to the area of the leased premises for all work and storage of materials and equipment.
  - e) The Tenant contractor(s) shall arrange for the security of the Tenant leased area and equipment, materials, etc. during the construction period.
  - f) The Tenant contractor(s) shall enforce safety regulations during the construction period
  - g) The Tenant contractor(s) shall provide and maintain adequate first aid and fire prevention facilities during the construction period.
  - h) The Tenant contractor(s) shall give the Landlord at least 48 hours advance notice to reserve the use of the Landlord's freight elevator for tenant's construction materials and equipment.
  - i) The Tenant contractor(s) shall remove all garbage and debris from the Tenant premises in sealed containers on a daily basis to a designated location.
  - j) The Tenant contractor(s) shall not penetrate or fix to the exterior wall, windows, or window frames.**
  - k) The Tenant contractor(s) shall protect all finishes to basic building elements and reimburse the Landlord the cost to make good any damages.
  - l) The Tenant contractor(s) shall stack drywall over main beams at column lines. Piles not to exceed 12" in height.
  - m) Core drilling, hammer drilling, table saws, power actuated tools and other work of a noisy, dusty or vibrant nature must be carried out after normal business hours ie between 6:00 pm and 6:00 am weekdays, or any time on Saturday and Sunday. The tenant contractor(s) shall obtain the Landlord's approval in advance for any such work.**

**NOTE:** The Landlord may require x-rays of the concrete slab prior to drilling. The charge for any x-rays will be a Tenant's additional charge.

- n) All coring and drilling must be approved in writing by the structural consultant prior to work commencing. Fire proof all fire related penetrations to comply with all codes and the Vancouver bylaw.
- o) Contractors shall provide walk-off mats on construction side of elevator lobbies, into common areas and stairwells.
- p) No work will be permitted on the buildings fire alarm, life safety or sprinkler systems without first coordinating it with the Building Management Office at 604-975-3524 or the Building Operations Supervisor in writing at blake.johnson@quadreal.com. Base building Fire alarm system-related work is restricted to Johnson Controls.
- q) Welding, brazing and any heat or fume producing activities are not permitted unless coordinated with the Building Management Office.
- r) Fire watch procedures must be in place If additional security is required due to unloading facilities being open outside of normal building hours to accommodate contractor move-ins, such security shall be a Tenant's additional charge.
- s) No electrical circuits, fans or pumps are to be turned off without the prior permission of the Building Management Office.
- t) The Tenant contractor(s) shall not penetrate the suspended ceiling T-bar, mechanical diffusers, or light fixtures with screws, etc.
- u) The application of any products producing toxic and/or noxious fumes, such as contact cement, paint, etc. must be limited to times prearranged with the Building Operations Office contact blake.johnson@quadreal.com No application of these types of products is permitted during normal business hours, without exception.
- v) Before construction starts, the tenant contractor shall provide temporary filters to cover the pleated filters on each floor fan (2). When construction is completed, the contractor shall provide new pleated filters for both floor fans.
- w) When construction is completed, the contractor shall wash down the floor mechanical room floor to remove all construction dust. All mechanical equipment & panels must be dust free at completion of work.

## Completion of Tenant's Construction

The Tenant is required to submit an executed Statutory Declaration form to the Landlord on completion of the Tenant's work stating that the work has been completed in accordance with the approved drawings and all contractors have been paid in full. A copy of an occupancy permit from the City of Vancouver must also be submitted.

Also required are letters from the Tenant’s Designer/Professional Consultant stating that the installation has been completed in accordance with the contract drawings and specifications and authorities having jurisdiction.

The Tenant is required to carry out its construction work in strict accordance with the approved drawings. Variations must be approved and recorded on the "record" drawings. Copies of the “record” drawings, in AutoCAD and .PDF format, must be provided to the Landlord at the conclusion of construction.

Any elements of the Base Building such as, but not limited to, ceiling components, doors, door frames, hardware, security hardware, etc., which the Tenant removes with the approval of the Landlord, shall remain the property of and must be turned over to the Landlord. At the end of construction, the Tenant must confirm in writing to the landlord that all base building surplus equipment/material has been delivered to the Landlord in working order.

**Landlord Charges:**

- (a) Landlord Supervision/Project Management:  
 The tenant will be charged a fee based on the square footage and complexity of the project for landlord’s supervision and administration of their project. Should the Tenant exercise the option to have the Landlord act as Project Manager then a Landlord Fee shall apply, subject to scope of work. -
- (b) Building Charges  
 This charge includes such items as site and/or security personnel for the Tenant construction purposes. The Tenant’s charges for these items would be based at cost plus a 15% administration fee.
- (c) Drawing Review  
 As outlined previously in this manual, the Tenant is not obliged to utilize the Base Building Consultants. Should, however, the Tenant choose to use consultants other than the Base Building Consultants, the Landlord reserves the right to have the drawings reviewed by the Base Building Consultants. All costs associated with this review will be billed directly to the Tenant plus a 15% administration fee.

Please note that additional charges and/or fines will be levied for any false fire alarms that may be set off by the tenant’s contractor and/or sub-trades.

## Work Regulations:

### **Public Safety:**

It is the Tenant's responsibility to ensure that the Tenant Contractors observe and comply with all applicable construction safety regulations including W.H.M.I.S. Any additional safety regulations which may be imposed by an authorized representative of the Landlord must also be complied with immediately and fully. Should failure to comply result in any construction delay, the Tenant will be held responsible for all resulting costs. The Tenant's Contractors shall provide and maintain adequate First Aid facilities during the construction period.

The Tenant shall ensure that the Contractor and his Subcontractors observe and enforce all construction safety measures as contained in the requirements of any federal/provincial legislature, regulations, municipal by-laws and requirements and the requirements of all other Authorities having jurisdiction which may pertain to construction of the work.

***In the event of any conflict between any municipal by-laws, provincial or federal legislation, the provision that sets out the most onerous or stringent requirement shall apply.***

The Tenant must ensure that it's Contractor and Subcontractors:

Comply with, but not be limited to all ordinances, the requirements of all Acts and Regulations with respect to health and safety including Occupational Health and Safety Act, British Columbia (as amended) and Regulations for Construction Projects (as amended) made thereunder; and Workplace Hazardous Material Information System (WHMIS) Regulation, including the following:

Before commencement of work and throughout Contract, maintain on site and readily accessible to all those who may be exposed to hazardous materials, a list of all hazardous materials proposed for use on Site or Workplace together with current Material Safety Data Sheets (MSDS).

- Ensure hazardous materials used and/or supplies on site are labelled in accordance with WHMIS requirements.
- Provide detailed written procedures of safe handling, storage and use of such hazardous materials including special precautions, safe clean up and disposal procedures. Conform to Environmental Protection Act for disposal requirements.
- Ensure that those who handle and/or exposed to or are likely to handle or be exposed to, hazardous materials are fully instructed and trained in accordance with WHMIS requirements.

### **Minors:**

Minors are not permitted on the construction site at any time.

### **Emergency Contact:**

The Tenant Contractors are required to post on the Leased Premises three (3) names and telephone numbers for emergency contact. Copy to Head of Building Security.

### **Temporary Services:**

The Tenant's Contractor is responsible for the distribution and installation of temporary power and telephone within the Leased Premises during the construction period. Exposed electrical cords are not permitted outside of the Leased Premises. The Tenant is responsible for the installation of a telephone during the construction period. The Tenant and its contractors will not have access to the Landlord's telephone. The Tenant's contractors are to supply the necessary temporary heating units. Hook up and disconnect to the building supply line will be done by the base building mechanical trade to the Tenant's account. A consumption rate for recorded use will also be applicable to the Tenant's account.

### **Work Areas:**

All construction materials, tools, equipment and workbenches must be kept within the Leased Premises throughout construction. All public lobbies, washrooms and stairs shall be kept clean of construction materials. Should the contractors use the public washroom, such contractors will be responsible for cleaning and/or repair of damages. The contractor shall be responsible for the implementation and maintenance of Dust Control measures. Smoke detectors & other dust sensitive equipment (i.e. thermostats etc.) should be protected from dust thereby eliminating the possibility of a false fire alarm

### **Garbage Removal:**

The Tenant is responsible for ensuring that the Tenant Contractors remove all garbage and debris in approved containers from the Leased Premises, corridors and common areas after regular business hours. Garbage containers will not be provided by the Landlord. Should it be necessary for the Landlord to remove a Tenant's garbage or debris due to inaction by the Tenant, the Tenant will be invoiced for the cost thereof. Temporary storage of garbage or debris outside the Leased Premises is not permitted. The Tenant's contractor will not be permitted to dispose of construction debris in the building compactor.

The Tenant/Contractor shall make arrangements to provide a separate garbage container and place it in a suitable location agreed to by the Landlord. Removal of Tenant's construction debris will be scheduled between the hours of 6pm to 6am. Bins will only be accepted on site during these hours. Booking of the service elevator for down-loading must be co-ordinated through the Property Management Office with a minimum of forty-eight (48) hours' notice. The Tenant's contractor is responsible for the most efficient use of the service elevator at the Landlord's discretion. Any expense incurred due to misuse of the freight elevator, i.e. overloading or debris dropped in door track will be charged back to the Tenant. A building representative may be required, at the discretion of Management, after hours and the cost of it will be charged to the Tenant.

The cost of the extra garbage container and all tipping and disposal fees shall be the sole responsibility of the Tenant/Contractor.

The contractor is to ensure that the floor is not loaded in such a way that it may overload the structural capacity of the floor. i.e. Drywall to be stacked no higher than .5 meters and must be stacked over structural beams.

### **Salvage:**

All permanent improvements are the property of the Landlord and, as such, the Landlord holds exclusive salvage claims throughout the building.



### **Working Hours:**

Work including hoisting of materials shall be carried out in the Leased Premises from 6pm to 6am, with exceptions. Any work which is required to be carried out at times other than those stated above, will require approval from the Landlord prior to the work being performed. All work not contained within the demising walls and exposed to the public must be enclosed by full height, one side plywood boarding painted to match the Landlord's standard colour. No work is to proceed in areas exposed to the public during rush hours, these hours being the generally accepted hours of 6am to 6pm.

### **Temporary Fire Protection:**

Operable fire extinguishers of the proper classification and in sufficient numbers to combat a potential fire in the work area, must be kept in the Leased Premises throughout the construction period. Base building extinguishers are not to be removed from cabinets.

### **Security:**

The Tenant and its contractor are fully responsible for the physical security of the Leased Premises and the contents thereof throughout the construction period. If required, temporary door(s), frame(s) and hardware are to be installed at the Tenant/Contractors cost. A copy of the key must be left with the Landlord in case of emergency within the suite. Storage of materials in the areas other than the Leased Premises will not be permitted.

### **Access to Occupied Tenant Spaces:**

Contractors requiring access to occupied premises during construction will do so by appointment, to be arranged through the Landlord and at the reasonable convenience of the affected Tenant. Should access to other occupied premises be required after hours, a security guard may be required. The Landlord will arrange for the guard as required and all costs for this service will be billed directly to the Tenant.

### **Access and Deliveries:**

All material deliveries MUST be scheduled with the Property Management office and/or building security 48 hours in advance and be approved by the Landlord. Bookings of the service elevator are on a "first come first served basis". Personnel access and material deliveries to the Leased Premises are to be only by routes designated by the Landlord. Large deliveries must be made before 6am or after 6pm, or anytime on weekends and/or Statutory Holidays. Please note that under Section CSA B44 94 Elevator Code, the weight of any single piece of freight or of any single hand truck and its load cannot be more than 25% of the rated load of the service elevator. The handling of items, which may exceed this 25% rated capacity or due to their dimension require special treatment, must be reviewed and arranged with the Landlord. Any costs incurred as a result will be at the Tenant's expense. The Landlord or any of its agents will not be responsible for receiving or signing for any materials. No deliveries of any kind will be allowed through the Lobby without written approval from the Landlord in advance.

### **Access Panels:**

The Tenant must provide access panels in walls, ceilings and floor construction as directed by the Landlord to permit necessary access to equipment and/or services. All sizes and locations of access panels are to be approved by the Landlord prior to installation.

### **Testing and Tie-ins:**

The Tenant must obtain the Landlord's permission in writing prior to the installation of any tie-ins to the mechanical, controls, and fire protection or life safety systems and before testing any such tie-ins. Where any tie-ins are made to existing services i.e., domestic water, sanitary, etc. provisions for future accessibility and isolation must be made and are the responsibility of the Tenant or their contractor. At the sole expense of the Tenant, the Landlord's fire safety consultant shall be retained to verify any and all fire system alternations. The Tenant will be held fully responsible for any damages that may result from such tie-ins.

### **Fire Alarms:**

All revisions to the base building sprinkler system must be approved by the Landlord or authorized personnel. The sprinkler control valve will be closed and the sprinkler line drained down until completion of all Tenant revisions on each floor. All sprinkler systems components must be able to be made operable at the end of each day. The Landlord must be contacted forty-eight (48) business hours in advance of any proposed sprinkler work, and before commencing work on the site. All precautions must be taken to ensure false fire alarms do not take place. Charges will be levied against the Tenant's account.

Sprinkler work requiring isolation of occupied areas must be completed during normal maintenance staff hours 7am to 5pm, (With exceptions). The contractor must provide a fire watch person for occupied areas in accordance with the building fire plan.

After completion of all Tenants work the system must be water pressure tested at 150 p.s.i. for two hours. The Landlord's base building engineering consultant must witness the test and send the test certificate to the Landlord. The sprinkler system will be reactivated once all tests have been approved. The Tenant is responsible to ensure that the relocation or addition of heads conforms to all applicable N.F.P.A. standards, I.A.O. requirements and to all authority requirements.

- a) A temporary smoke detection system must be installed in the event that the sprinkler system and building smoke detection system becomes inoperable at the end of each day.
- b) A full set of approved hydraulic calculations and drawings must be forwarded to the Landlord from the sprinkler contractor prior to any work commencement.

Arrangements must be made with the Landlord prior to performing any work on the fire alarm system. Only building personnel are allowed to isolate the fire alarm panel when modifying, installing, and/or relocating any alarm devices (i.e. pull stations, communication speakers, fire alarm bells, etc.). The Fire Alarm System must be in an operable condition at the end of each day.

### **Plumbing:**

Where plumbing is removed from Tenant premises, all water supply, drain lines and vent connections must be removed from the ceiling spaces back to the core riser and properly capped. Installation of water meter(s) will be required on all incoming lines to the Tenant's premises servicing any kitchens, private washrooms and HVAC equipment. All water meters must be non-polymer bodied, NSF-61 certified (not just compliant), and shall be sized based on nominal flow rate with respect to peak design flow. Straight pipe lengths and meter orientation are to be coordinated with the installing contractor according to manufacturer specifications. Meters must be equipped with hardware for a non-encoded pulse output, M-Bus, Modbus, or BACnet communication and shall be connected to a data collection device, such that the data can be

transmitted directly via the Converged Building Network (CBN). Meters shall be installed in a location accessible to the Landlord.

### **Powder Actuated Devices:**

Powder actuated fasteners may not be used to support ceiling suspension systems or equipment suspended from the underside of slabs.

### **Drilling or Cutting:**

The Tenant Contractors are not permitted to drill, cut or chase openings of any description in any part of the Base Building Structure. If such work is deemed to be necessary and acceptable by the Landlord and the Landlords structural engineer, it will be carried out after regular working hours by the Tenant/Contractor to their account. X-Ray of core slabs or walls, is mandatory, and will be at the Tenant's / Contractor's cost.

All underslab hole penetration locations deeper than 3/4 of an inch shall be submitted on the drawings, accompanied by the x-rays for review and approval by the Landlord and/or Landlord's structural engineer prior to drilling. All x-raying and subsequent core drilling must occur between 6pm and 6am.

### **Fastenings:**

The Tenant's contractors are NOT permitted to fasten to curtain walls, window frames, mullions, heating radiation covers, or walls, which may contain vapour barriers or special fire rated structures. Clips in lieu of screws MUST be used to fasten interior or demising walls to the ceiling T-bars. No wall partitions will be permitted to butt up to the windows. All walls must end at an existing window mullion.

### **Welding & Any Open Flame Work:**

Open flames for welding, cutting or other purposes are not permitted without the prior consent of the Landlord. Proposed work of this nature must be approved by Base Building Operations in writing with at least 48 hours' notice before the work is to be done. An operational fire extinguisher must be available in the immediate vicinity of the work, in addition to those already present. The Tenant contractor shall co-ordinate shut off or covering of the smoke detectors with Building Operations. Should the Tenant contractor neglect to notify Operations regarding the above-noted work and a fire alarm is activated, resulting in a false alarm the Tenant contractor will be charged with all associated costs plus an administration fee of 15% per occurrence.

### **Damages:**

The Tenant Contractors shall protect all finishes to the Base Building elements and reimburse the Landlord the cost to make good any damages. Ram Board® will be applied to protect all Base Building Carpet surfaces. Pressboard will be used in all common areas for move-ins and moving of materials.

### **Storage:**

The Tenant Contractors will stack drywall in piles not exceeding 305mm in height over the main beams at column lines. Do not overload the structure.

**Noise:**

Any noise directly impacting tenants, **MUST** be carried out during non-business hours with the Landlord's approval in advance. The Landlord reserves the right to request any work that creates noise that could disrupt the surrounding tenant's right for quiet enjoyment of their own premises, to cease the activity and reschedule to an after-hours time frame. Under no circumstances will the Landlord be held accountable for any cost increases incurred by the tenant/contractor for alternate scheduling of the associated work.

**Odours:**

Any work that has the possibility of generating an odour which will offend other occupied area shall be moved to either after hour or weekend schedules (i.e. any painting operations utilizing paints, concrete sealing, glue applications for tile or carpet, etc.).

**Access to Premises:**

The Landlord shall have free access to the Leased Premises at all times for the Purpose of completing, correcting or inspection of any work.

**Parking:**

Parking for trades people is permitted, space permitting, in the parkade at the contractors' expense. Drop off and pick up of materials is from the loading dock. There is a 30-minute limit to drop off and pick up during normal business hours. With exceptions.

No vehicles may be parked, placed or worked from on the sidewalks, driveways, or any other property inside the street lines surrounding the property.

Where security card access is required for access to parking or other areas of the building it will be the Tenant Contractor's responsibility to obtain access from the Lobby Security Desk. Government-issued identification will be required.

**Work Conflict:**

Tenant Contractors work shall be performed in a manner that will not interfere or conflict with any activities of the Landlord, other Tenants or the operation of the Complex.

**Clean-Up:**

Prior to moving in, the Tenant and Contractor are responsible for cleaning the following:

- a) carpets and all other floor coverings which may have become soiled during the construction;
- b) light fixtures and lenses (including fixtures previously installed);
- c) inside face of windows and curtain wall mullions; perimeter radiation units (inside & out);
- d) public corridors adjacent to the Leased Premises, and service areas used during construction, including base building electrical and mechanical rooms;

- e) window coverings, i.e. blinds, control devices, ductwork;
- f) elevator(s) and loading area(s);
- g) installation of new filters in equipment within the premises and/or the compartment unit serving the floor.

NOTE: The Tenant/Contractor may choose to retain the Base Building cleaning contractor for this work, but all costs are a direct Tenant expense.

**Move In:**

It is the responsibility of the Tenant to advise the Landlord in writing, at least two weeks prior to the anticipated move in date, of the following:

- a) Name of the moving company, including a primary and secondary contact name and telephone number;
- b) Date and time of the move in;
- c) Elevator requirements;
- d) Any other special services or requirements.

## Section 2: Description of Finishes

### Finishes

#### **Floors**

Finished concrete floor slabs suitable to receive carpet. Carpet will be provided in multi-tenant corridors and elevator lobbies. Carpet for multi-tenant corridors and elevator lobbies will be a building standard maintained by the Landlord.

#### **Walls:**

**Core walls**, exterior walls, columns and Tenant demising partitions are taped and sanded drywall. The Landlord shall provide building standard demising partitions to delineate the Tenant's leased premises which shall be composed of 1 layer of 5/8" Type X GWB to both sides of 3 5/8" steel studs at 16" on centre to under side of slab, notched between ceiling grid. Fill with R-8 Batt insulation from slab to slab, seal all penetrations as required against sound transfer, seismically secure as required. Made ready to accept new finishes. Deviations will be allowed in finishes on the tenant side of the demising partitions subject to the Landlords approval and at the Tenants expense. On the multi tenant floors, the public corridors, if any, will be wallpapered. Minimum width of any public or Tenant suite corridor will be 1.1 meters unless the building code dictates otherwise due to the high occupancy loads. Clear width must take into account door obstruction. All interior partition walls must terminate at an existing building window mullion. No walls will be permitted to end in the middle of a window (fake mullions will not be permitted). All mullions are to remain the base building colour. No exceptions.

**Exterior walls** shall be drywall with painted finish. Tenants shall not fix to or puncture the exterior drywall membrane for the installations of partitions, furniture, electrical outlets, etc. **No exceptions.**

#### **Ceilings: (Tenant Space and Corridors)**

The ceilings in the tenant spaces will be Armstrong 773B Cortega Minaboard acoustical panels, size 20" x 60" on a standard white T-Bar at standard heights as follows:

2<sup>nd</sup> to 33<sup>rd</sup> floors – 8'9",  
34<sup>th</sup> to 35<sup>th</sup> floors – 10'0".

The ceilings in the common hallways will be Armstrong Cortega Fireguard MR8669 20" x 60". The Tenant and contractor will be responsible for all ceiling tiles previously installed. NO ceiling grid may be cut without the written authorization of the Landlord.

#### **Elevator Lobbies**

Elevator lobbies on multi-tenant floors will be wallpapered with base building standard wallpaper.

The elevator doors on the ground floor will be a stainless steel finish. On multi-tenant floors, the elevator doors will be colored to the building standard.

The floor finish on multi-tenant floors will be carpet to building standard.



## **Suite Entry Doors**

**Doors** (on multiple tenant floors only)

The Landlord shall provide one demising building standard (solid core wood) door 3'.0" x full height and wood frames (s) and a second standard door if required by Code for exiting. All doors will be equipped with building standard stainless steel Schlage "Grade 1 Lever" ", "D" Series latch set in brushed stainless finish. All doors will be keyed to the building standard key-code and master-key system. Doors are hung on 2 pairs of 4½" x 4½" stainless steel butts, complete with floor stops.

As an alternative to the standard single door application, the Landlord may approve the installation of a combination wood door and glazed sidelight in wood frames. The door is Appalachian Red Oak, flat sliced and boom matched in grain and structure. The cost of this door would be a Tenant's cost.

## **Hardware**

Hardware will be locksets on the stairway doors and exterior doors to premises and locksets and passage sets within the suites/or acceptable lever handle with finish to match base building.

All door locks installed by the Tenant, on both entrance and interior doors must be keyed to the building Master Keying System. The system, while allowing complete versatility and freedom for the Tenant regarding the locking arrangements for their offices, provides access to each office at all times for both normal cleaning and especially emergency situations. It is the contractor's responsibility to ensure the correct keyway is installed to accommodate the Master Key System.

Suite entrance/exit/access door hardware will be **Schlage** with a brushed stainless steel finish. Closers will be mounted on the tenant side of doors and will have a brushed stainless finish.

All locking hardware must be compatible with existing base building Schlage type.

Outside locksmiths or lock manufacturers are NOT permitted to change the bitting or keying of the locks. Base building door closers are **LCN Type 4030 series**.

## **Keys and Cylinders**

The Landlord will provide building standard cylinders and two keys for each demising doors supplied by the Landlord. All additional locks supplied by the Tenant shall be key-coded to **the Building's Master Key System** and can be purchased from the Buildings Locksmith Al Scott Lock and Safe 604-581-5000.

## **Window Coverings**

Building standard window coverings and necessary hardware will be provided by the Landlord and must not be removed (exterior glazing only)

If the Tenant so chooses to replace the building standard window coverings, the Tenant may submit a request to the Landlord in writing and below specifications must be followed:

### **Standard Manual Single Roller Shade**

Solarfactive Manual Teleshade system  
Shade Style: Allure 3 % openness  
Shade Color: P14 Oyster / Pearl Grey  
Fascia size: 4" Height  
Fascia / hembar color: Ceiling White  
Installation Detail: T-1 (see Appendix)

### **Optional: Manual Double Roller Shade**

Solarfactive Manual Double Teleshade System  
Shade Style: Allure 3 % openness + Advantage black out fabric  
Shade Color: P14 Oyster / Pearl grey  
Black out Shade Color: A05 Light Grey  
Fascia size: 4" Height  
Fascia / hembar color: Ceiling White  
Installation Detail: T-8 detail (see Appendix)

For more information, contact Damien Reed with Cascadia Design Products at (604) 739-0966.

## **Exterior Glazing**

Solarban 575-20 (copper) reflective double glazed thermal units in aluminum frames.

## **Signage**

- (a) A building standard identification sign for Tenant's entrance door shall be provided by the Landlord at Landlord's expense.
- (b) Tenant identification shall be provided on the main floor digital lobby directory shall be provided by the Landlord at Landlord's expense.
- (c) Standard base building elevator lobby directional signs shall be provided by the Landlord at the Landlord's expense.
- (d) All other Tenant signage must be approved by the Landlord before installation and at Tenant's expense.

## Structural Systems

No coring of slab is permitted without written approval of the structural consultant. X-raying of the slab for penetrations is mandatory and must be performed after hours and coordinated with the building operation's staff. All costs related to structural penetrations, including consultant's review and security arrangements will be the sole cost of the tenant.

General floor framing systems are included in the drawings supplied by the Landlord. Unusual loading situations, such as filing rooms, safes, computer installations, etc. must be brought to the attention of the Landlord. The Landlord will not be responsible for any partitioning layout revisions necessitated by unusual loading conditions.

Design loads are as follows:

Live Load: 65lbs. per square foot  
 Partitions: 20 lbs. per square foot

## Mechanical Systems

### Heating, Ventilation and Air Conditioning (H.V.A.C.)

The heating, ventilation and air-conditioning system is provided by two separate fan systems located in the mechanical room on each floor. Supply air is distributed through ductwork to linear slot ceiling diffusers. Air is returned through slots in the base building luminaries into the ceiling plenum return air system, back to the air handling equipment in the mechanical rooms.

The interior system provides air at a constant volume with two control zones to maintain optimum year-round ventilation.

The perimeter system is variable air volume (VAV) reheat design. Thermostat controlled VAV boxes are located along the perimeter exposures serving maximum 2-3 typical perimeter offices. The mechanical system operation is controlled and monitored by a programmed central computer system.

Heating is provided by supplying hot water to thermostat controlled reheat coils at the perimeter VAV boxes. (approximately 20 per floor) Cooling is provided by chilled water supplied to coils in the interior and perimeter fan systems from the central chiller.

Filtered air is introduced separately to the mechanical rooms on each floors.

Two washroom exhaust connections are provided, capped at the core area for Tenant usage. The capped connections will accommodate approximately 100 CFM each of exhaust for additional Tenant washrooms.

Offices are designed to maintain 21°C – 24°C during occupied hours.

The Tenant's engineers will be supplied with information about air supply quantities, which the Tenant design shall not exceed.

Balancing of the air system will be done by the Landlord's Balancing Contractor at the Tenant's cost. A copy of the balancing report will be forwarded to the tenant for their use.

It is required that controls be installed and set by the Building Controls contractor at the Tenant/Contractor's expense. Air transfer grilles must be installed in all sound baffles above the ceiling. Engineered air transfer ducts must be installed in all demising walls

### **New Equipment Installation:**

Should a Tenant require supplemental cooling continuously i.e. computer room, an independent system should be installed at the Tenant's sole expense subject to the written approval of the Landlord. Electrical meters are to be installed and connected to the building automation system, for monitoring purposes, at the Tenant's expense. See 'Section 2: Electrical Systems: Meters' on page 30 for details. All electrical wiring must be installed in conduit unless otherwise approved by QuadReal Operations in writing.

### **Plumbing:**

Core area washrooms where shown on the drawings are complete with all fixtures.

In order to provide a maximum of flexibility for adding private Tenant washrooms or sinks, two additional sanitary and wet stacks will be provided; one set in the north half of the floor area and one set in the south half at columns J-33 and U-19. In addition, connection points to the main sanitary stack system have been provided at the core.

Two water supply connections and two exhaust duct connections have been provided at the core to serve specific Tenant needs.

Tenants requiring hot water must provide their own hot water tanks equipped with drip pans and leak detection control system.

### **Fire Protection:**

Fire cabinets are supplied with 10 lb. fire extinguishers which are shown on the mechanical drawings, one sprinkler control valve and one drain valve are provided on each floor.

The office space is protected with a full sprinkler system. Each sprinkler head covers an area of 12.07 sq.m - 16.7 sq.m. One alarm valve is provided on each floor. Sprinkler heads are concealed.

Tenants shall relocate heads or provide additional heads and must utilize the base building sprinkler contractors to suit their partitioned space and to conform to provincial fire safety codes.

Dry sprinkler systems are incorporated throughout the parking garage.

### **Welding:**

Insurance regulations dictate that a welding and burning permit (Hot Work) be obtained from the Landlord prior to performing this type of work on site. This permit must be attached to the equipment at all times. No welding is to be carried out without the approval of the Project Manager. This will ensure that the necessary Fire Protection Systems are bypassed. Any costs incurred by the Landlord due to the neglect of the Tenant/Contractor will result in these charges being forwarded to the Tenant/Contractor's account.

### **Cross-Over Floors:**

Cross over floor will be located on floors 2, 7, 12, 15, 20, 22, 26 and 31.

### **Electrical Systems:**

#### **General:**

The telephone/electrical rooms, which are provided on each floor, are intended only for basic communications and electrical services and are not accessible to tenants or their contractors. Any space of this nature that a Tenant requires for their own equipment, or use, must be provided within the Leased Premises.

#### **Lighting:**

The Landlord will supply base building lighting fixtures, complete with modular wiring system, for the Tenant areas on the basis of one fixture per 66 sq. ft. The lighting fixtures are 20" x 60" to provide maximum flexibility for location in a 5 x 5 grid system.

All base building lighting fixtures shall be Everline T8LDR4F10/835C 1650 Lumen lamps, 3500K finish with Electronic Low Harmonic 347 Volt Ballasts with louver cover.

Tenants will be required to provide any local switching within their Leased Premises. Each single tenant office floor is divided into multiple lighting zones.

Lighting is controlled throughout by the Delta Lighting Controller located in the building's mechanical/electrical room on every alternate floor and performs the following functions:

- i. Automatic time scheduling of all base lighting and Tenant lighting loads, except emergency lights
- ii. Manual override at select locations
- iii. Special holiday and vacation scheduling

**\*\*All lighting modifications must be commissioned with ESC Automation**

Lighting fixtures utilize a plug-in system, which provides the least costly method for future additions and/or relocations and affords maximum flexibility on an open floor basis.

All lighting will be wired into the central programmer at the Tenant's cost. All lighting relays must be located in mechanical/electrical room (not in ceiling plenums).

**In order to conserve energy**, all new lighting must be L.E.D tenants will be permitted to install pot and track luminaries, provided that they are 3500K.

The Landlord's base building electrician, along with ESC Automation, must be retained to ensure that the lighting zone(s) are appropriately divided or additional relays installed to ensure the Tenant's sector(s) does not encroach outside of the Leased Premises. This will be at the Tenant's/Contractor's cost.

## **Power:**

All Tenants shall have their own dedicated panels capturing all loads associated with their space. Such loads include, but are not limited to, plug/receptacle, HVAC/auxiliary heating/cooling, and auxiliary/miscellaneous loads dedicated to the Tenant space.

Single tenant floors may locate dedicated service panels in the floor electrical rooms. On multi-tenant floors, dedicated tenant panels must be located within the Tenant's suite and fed direct from that floor's electrical room. Such services will be to the Landlord's approval. Large facilities (computer rooms, etc.) requiring an exceptionally large service will require detailed review by the Landlord to determine the feasibility of providing such a service. If the service proves feasible, the service shall be provided by the Tenant.

All heavy-duty services will require check power consumption metering by the Tenant. It may also be necessary for heavy-duty services to be fed directly from the main electrical vault, a situation that will require both Landlord and Tenant review.

All electrical outlets must be labeled to corresponding service panel breakers and updated when required.

Any / all dedicated Tenant electricity loads shall be submetered and integrated with the existing Base Building metering system. See 'Section 2: Electrical Systems: Meters' on page 30 for details. All electrical wiring must be installed in conduit unless otherwise approved by QuadReal Operations in writing.

Extra 120/208 volt and/or 347/600 volt 3 phase, 4 wire power other than that provided through the ceiling junction box system may be installed if available, at the Tenant's expense. Any pull box that has to go through the slab should be mounted on the underside of the slab.

## **Communications Systems:**

### **Telecom and Technology Systems:**

There is a riser room on each floor in the Building core. All Tenant equipment must be within the Tenant's leased space. Any additional space the Tenant may require for equipment of this nature must be provided within the Tenant's premises. In addition, any special cooling or ventilation equipment required to accommodate the Tenant's telephone or computer equipment, will be at the Tenant's expense and, upon prior written approval, will be tied to the base building condensing loop.

The Landlord's Riser Management - Technology Consultants, shall first approve all backbone cabling installations. Communication wiring shall be secured to the underside of the ceiling slab within an approved pathways and labelled with the origination, destination, cable pair/strand count and ownership. Any fire barriers penetrated for this installation shall be restored using an UL rated firestop assembly equal to the rating of the barrier.

All costs are at the tenant's expense.



### **Meters:**

Park Place has an existing submetering system. In-suite electricity costs (lighting, receptacle and in-suite HVAC loads) are submetered and charged back from all tenants.

Tenants are responsible for installing, at their own expense, submeters to measure their in-suite electricity consumption (lighting, receptacle and in-suite HVAC loads, as applicable). All meters will be integrated into the base building network.

The following procurement and installation process shall be followed:

1. **Tenant Electrical Consultant** shall provide electrical drawings showing new services, panels, metering points and network connections to **QuadReal Operations** for review.
2. **Tenant Electrical Consultant** shall confirm the location and availability of network switches with **QuadReal Operations** and the **Base Building Network Provider**.
3. **QuadReal Operations** will forward the drawings to the **Base Building Energy Consultant** (Energy Profiles Limited) for review and approval. The metering hardware (meter type and model) shall be specified by the Tenant's electrical consultant and verified by the Landlord's project manager and Energy Profiles Limited prior to the equipment being ordered or installed.
  - Approved Meter Hardware Type:
    - Triacta (PowerHawk and/or GATEWAY)
4. **Tenant Electrical Contractor** will procure the new meter(s) from a Measurement Canada approved vendor, install it/them, arrange for the vendor to commission the new meter(s), integrate it/them into the base building network such that the meter data will be sent directly to the **Base Building Energy Consultant**, and finally, coordinate that the necessary Measurement Canada S-E-04 inspections are performed by the approved metering vendor.

All costs associated with these meter installations are at the sole expense of the Tenant or its contractor. All documentation regarding the meter installation is to be handed to the Landlord's project manager to ensure certification of the meter has been performed and thus accurate billing.

### **Emergency Power:**

The building is equipped with an emergency diesel generator and automatic transfer switch located in the generator room adjacent to the main electrical vault to provide power for only the elevators and building life safety systems.

## Section 3: (Tenant/Contractor's Responsibility)

### Mechanical

#### **Labour, Materials & Fees**

Provide all labour and new materials for the complete installation of the systems. Ensure that complete installation meets with the approval of all authorities having jurisdiction in accordance with all codes, etc.

Arrange and pay for all permits and fees required for this installation.

Use materials that are C.G.A. & U.L.C. listed and C.S.A. approved for the intended application. Materials shall conform to the requirement of the British Columbia Building Code and comply with flame spread, smoke development and fuel contribution ratings for the application.

Comply with the intent of the base building specifications.

#### **Examine the Site**

Examine the site and be familiar with all the conditions covered by these specifications. Extras will not be allowed for failure to properly evaluate conditions.

Take field dimensions prior to any installation.

#### **Compliance with Codes**

Comply with all latest Municipal, Provincial and National relevant codes and regulations having jurisdiction.

#### **Debris & Clean Up**

Keep premises clean as work progresses, avoid accumulation of debris, ensure that during construction all open vents are sealed and any controls (thermostats etc.) are covered. On completion of the work, clean up and remove from site all scrap materials resulting from the work. Clean all equipment prior to final inspection.

Manufacturer's specifications for cleaning of products such as wall coverings, partition glass, and flooring shall be provided to the Building Management office.

Damaged ceiling tiles and any other part of the building affected by the Tenant's work shall be repaired.

When electrical / mechanical rooms are soiled with construction dust from drywall etc. the Tenants contractor is responsible for having them cleaned at the Tenants expense.

### **Co-ordination & Co-operation**

Co-ordinate the work with all trades to ensure work may progress without delay. Arrange the schedule of all work in co-operation with the General Contractor.

Co-ordinate the work with all trades and co-operate to ensure services do not conflict with the other services and/or structure.

### **As Built Drawings**

Tenant's mechanical contractor shall indicate in red ink on an extra set of white prints all changes and deviations from locations on plans as job progresses. On completion of the work provide the landlord with one set of completed drawings (prints) showing location of all equipment, piping, ducting etc. and one electronic copy in Autocad and .pdf format of same.

### **Warranty**

Guarantee all work, equipment and materials for one year from substantial completion of the contract..

Ensure that all equipment is properly guaranteed by the manufacturer.

### **Shop Drawings**

Submit shop drawings of all fixtures and equipment (including wiring diagrams) to the Landlord for his records. Landlord review of shop drawings is gratuitous and does not relieve the tenant or his contractor of his responsibilities.

### **Cutting and Patching**

Provide cutting and patching for work. Allow for x-ray of concrete slabs to ensure that steel reinforcing is not cut. Arrange to provide for the making good to finishes and include for the cost of this work. Any cutting of the roof and related curbing and repair will be done by the landlord's designated contractor at the tenant's expense.

### **Data and Voice Cabling**

The Landlord shall first approve all data and voice cabling installations. Communication wiring shall be secured to the underside of the ceiling slab with hooks and labeled. All costs are at the Tenants expense. All abandoned cabling must be removed back to its source.

### **Demonstration**

Allow for demonstration of all equipment to the Landlord and the Landlord's operating staff.

### **Miscellaneous**

Provide structural steel support members as necessary to hang equipment, fans, ductwork, and piping from the building structure.

Paint all miscellaneous bare metal one coat grey oxide primer.

### **Maintenance & Operating Instructions**

Prior to hand-over of the premises to Property Management, the tenant's contractor is to commission all thermostats to ensure accurate operation.

Provide the landlord with a hard copy and soft copy of manufacturers' maintenance and operating instructions for all equipment.

Present the instruction in indexed three ring hard cover binders, with spine label project indicator, and index sheet. Including all shop drawings, permits, warranty details, certificates, contractor names, and telephone number lists for all project trades in this manual.

### **Interruption of Services**

Any interruptions of the base building systems shall be coordinated with the Landlord for the time and duration and shall strictly adhere to the Landlord's instructions in this regard. The Tenant or Contractor must inform the Landlord at least 48 business hours prior to the event.

Include cost of premium time in tender price for the work outside normal working hours to maintain all mechanical services in operation without disruption to existing tenants.

### **Workmanship**

Employ a responsible foreman to supervise the work and retain for duration of construction period.

Employ only skilled plumbers, steamfitters, and sheet metal workers for the execution of the work. Workmanship shall be first class as regards to durability, efficiency, safety, and neatness of detail.

## Plumbing

### Piping Materials

Drainage and Vent Piping: DWV copper pipe with drainage fittings and solder joints. No ABS pipe allowed.

Domestic water piping: Type 'L' or Type 'K' copper. Exposed piping in finished areas shall be chrome plated.

### Sprinkler System

Pipe & Fittings: Must meet NFPA 13 requirements and base building specifications

Valves: Jenkins, Crane, or CheckRite valves for sprinkler system must be as per the following schedule:

Gate Valves:

- (a) 50 mm and smaller – 1400 kpa [200psi] w.o.g. Jenkins 820, bronze screwed 1210 kpa [175psig] cold water, OS&Y, Underwriters pattern.
- (b) 65 mm and larger – Grinnell listed gear operated butterfly valves, steel flanged, 1210 kpa [175psig] cold water with downstream flange removed.
- (c) Where Victaulic piping systems are used, provide Victaulic Fireball Series 708 or 727 valves with built-in supervisory switch and Victaulic No. 710/714 check valves. All components shall be ULC and FM labeled.

Check Valves: (a) 65 mm and larger – Check-Rite ULC approved wafer style.

Provide Potter OSYS-UA1 tamper-proof supervisory alarm contact switch for each valve.

### Piping Supports

Support all piping using Clevis type hangers and riser clamps. Use hangers of the same material as pipe, or insulating inserts between hanger and pipe. Hanger to be Grinnell Fig. 260 adjustable clevis for steel piping, and Grinnell Fig. CT-65 plastic coated adjustable clevis for copper piping up to and including 100 mm dia, or equal. Riser clamps to be Grinnell Fig. 261 for steel piping and Grinnell Fig. CT-121-C plastic coated for copper piping, or equal.

Provide pipe covering protection saddle at each hanger where pipes are insulated.

### Escutcheon Plates

Provide escutcheon plates at all walls where pipes are exposed to view. Escutcheons shall be satin finish stainless steel, or stain finish chrome, or nickel-plated brass escutcheons with non-ferrous setscrews.

### Unions

Provide unions to connect all piping to equipment to facilitate ease of maintenance.

**Pipe Insulation**

Insulate all domestic cold water piping and horizontal condensate drain lines with 1" thick fiberglass heavy density pipe insulation with all service jacket (ASJ). Adhere a factory applied vapour barrier jacket, lap smoothly and securely at the longitudinal seams with vapour barrier adhesive. Adhere 3" butt joint strips over all end joints to ensure a continuous vapour barrier.

Insulate domestic hot water piping with 1" thick fiberglass heavy density pipe insulation with full service jacket.

Clearly label pipes contents on pipe surface (i.e. D.H.W. or D.C.W.) and identify flow direction.

**Access Doors**

Provide access doors to all otherwise inaccessible valves. Access doors shall suit the surface of application and must be approved by the landlord.

**Drains**

Provide Series Z-401B or 2010-AJ floor drain (manufactured by Zurn of J.R. Smith) where shown.

All interior floor drains shall be piped and connected to Zurn Z-1022A or P.P.P.=p0500 bronze trap seal primers with integral vacuum.

**Cleanouts**

Floor cleanouts shall be cast iron construction with gas tight non-seizing plugs. Tops shall be round, heavy duty, scoriated nickel bronze, adjustable to floor finish. Cleanouts shall be complete with recessed tops where required to suit floor finishes.

**Plumbing Vents**

Plumbing vents are not necessarily shown on drawings. However, install vent system in accordance with Provincial Code / Regulations.

**H.V.A.C.**

**Ductwork**

Provide ductwork as indicated on drawings.

Provide all ductwork to "SMACNA" standards. Fabricate all ductwork from galvanized steel to the clear inside dimensions as noted on the drawings, with all flat surfaces cross broken.

Install all ducts free from leaks and seal all holes with sealant.

Duct thickness as follows:

Maximum Size	Gauge
up to 12"	26
13" to 30"	24
31" and over	22

Where any construction impediment or requirement renders the dimensions impossible, alter ductwork so as to give an effective cross sectional area equal to that originally shown without exceeding an aspect ratio of 4:1. Make changes at no additional cost to the owners.

Use long radius bends where possible. Use square elbows c/w turning vanes wherever bends are impractical, (Duro Dyne "Durovane Rail" or "Ducturn" or equal).

Brace ducts so they do not vibrate or sag. Support horizontal ducts up to 20" wide with 1" x14 ga. galvanized straps passing under ducts, on 8'0" centres to meet SMACNA or ASHRAE Standards. Use angle iron support for ducts over 20" wide or deep.

Provide approved access doors to all balancing and fire dampers etc.

Supply and install splitter dampers at all supply air branch take-offs. Dur-Dyne SRP or equal hardware.

Paint inside ductwork black where visible through grilles, etc.

Flexible ducting to be class 1 air duct connectors as listed and labeled by Underwriter's Laboratories of Canada, with flame spread of not more than 25 and smoke development classification of not more than 50.

All round duct through 24" diameter shall be United Sheet Metal spiral lock-seam Uni-seal duct manufactured from galvanized steel meeting ASTM A-527-71 in the following gauges:

<u>Diameter</u>	<u>Metal Thickness</u>
3" - 8"	28 Ga.
9" - 14"	28 Ga.
15" - 24"	26 Ga.

All fittings shall be United Sheet Metal standard, or equal, uniform fittings manufactured from galvanized steel meeting ASTM A-527-71 with continuous weld or standing seam construction in the following gauges:

<u>Diameter</u>	<u>Metal Thickness</u>
3" - 8"	24 Ga.
9" - 14"	24 Ga.
15" - 24"	22 Ga.

**Duct Insulation**

Insulate ductwork with 1" thick internal neoprene coated fiberglass duct liner where indicated. Adhere with min 50% covering of fire retarding adhesive and supplement with welding pins.

Make provisions for duct liner so that sizes shown on drawings are clear inside dimensions inside the insulation.

All exposed fiberglass duct insulation must be foil-wrapped.

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### **Fire Dampers**

Provide Nailor, Ruskin or controlled air ULC rated Type B fire dampers.

Install in accordance with N.F.P.A. 90A rated to suit fire rating of membrane to be protected.

### **Fans**

Adjust fans and motors to operate quietly, and make dampers tight to prevent vibration. Provide fans with spring isolation to give a minimum 95% efficiency.

Provide flexible connections at each fan 24 oz. per yard tensile strength of not less than 500 lbs. with metal to 3" fabric to metal "Grip-Loc" duct connections.

### **Balancing**

Engage the services of the Landlord's balancing contractor to balance and test all air handling systems under this section.

Install any additional devices required by the balancing contractor to facilitate effective air balancing.

Ensure that air handling systems are free from obstructions, that dampers are positioned correctly, that moving equipment is lubricated in accordance with manufacturer's recommendations, and that filters are clean prior to commissioning balancing.

Make modifications to the air handling system and adjust variable speed pulleys and volume control dampers where necessary until each diffuser and grille supply or exhaust quantity is within +/-5% of specified quantities.

### **Variable (Constant) Air Volume Valves (V.A.V.) (if applicable)**

The valve shall be of Venturi shape and designed to achieve linear air flow to operator stroke relationship for precise control of air delivery. The valves shall have a tubular shock absorber to prevent any fluttering noise that may occur due to aerodynamic instability in the system or its components. The valves shall have mechanical means of achieving pressure independence.

V.A.V. valves shall have factory-mounted operators furnished by the base building controls contractor. Base building control system is ESC Delta Controls.

Valves shall be factory tested for minimum and maximum CFM settings as specified by use of actual airflow tests. V.A.V (CAV) valves shall be as manufactured by E.H. Price, Titus, or Nailor.

### **Controls**

Provide for new and relocation of existing control components as indicated on drawings.

Controls are Delta Controls and will be installed by the base building controls contractor (ESC Automation) and must be calibrated & cleaned at the expense of the Tenant.

## Electrical

### General

The Tenants electrical contractor shall be responsible for the installation and certification of any metered service. The fees and deposits for such metered service shall be the sole responsibility of the Tenant/Contractor.

Electrical contractors should note that existing metered services that have been disconnected for more than six (6) months are required by local hydro regulations to be re-inspected by BC Hydro regardless if any changes took place.

All work shall be in accordance with the latest edition of the Municipal and BC Building Code, and any other ordinance. Examine the site and all drawings and specifications of all trades and be familiar with the work of this trade. No allowances will be made for the failure to do so.

All electrical work shall comply with C.S.A. electrical bulletins applicable to tender close. Where specific bulletins are not named they are still considered an integral part of this specification.

Grounding shall be in accordance with the requirements of the BC Electrical Code. Provide all grounding required regardless if not shown on the drawings.

Provide all new materials having C.S.A. approval. All workmanship shall be first class in regard to standard practices, safety, accessibility, durability and neatness of detail for acceptance by the Landlord's representative.

Arrange and pay for all permits and inspection fees required for the work of this trade. It is the responsibility of this contractor to submit to the Electrical Inspection Department and/or supply authority any and all drawings and specifications required for permits, fees, approvals, examinations and services.

Provide all cutting and patching required for the work of this trade. All shop painted equipment damaged in transit shall be touched-up to match existing finish.

Avoid accumulation of debris as the work progresses. On completion of the work, clean up and remove from the site all scrap materials resulting from the work of this trade.

Co-ordinate the work of this trade with all other trades on the job so that the work may progress without delay.

Prior to final inspection, clean all electrical equipment. Clean all construction dust and dirt from installed equipment at the conclusion of the job.

Upon completion of the work, provide the final unconditional certificate of acceptance from the City of Vancouver electrical inspector to the Landlord.

Provide a one-year guarantee on all materials, and labour from the date of acceptance by the owner.

The Electrical Contractor shall adjust phase loading, such as not to exceed a 10% phase imbalance.

The electrical contractor shall submit shop drawings for power distribution equipment, fire alarm equipment, and all luminaries with associated equipment, i.e. poles, brackets etc. to the Landlord.

The shop drawings shall bear the name of the manufacturer, the manufacturer's catalogue number, and the engineer's designation, along with all pertinent information on each piece of equipment.

All equipment shall be mounted, plumbed true.

The electrical contractor shall obtain one set of blueprints, for 'as built' purposes, and make all necessary revisions on these blueprints to reflect actual on-site changes.

At the end of construction, prior to final inspection by the engineer, the electrical contractor shall submit the as built drawings for review. Final inspection will not be carried out until these drawings are submitted.

The base building specifications shall form an integral part of this specification and shall be strictly adhered to.

The interior design drawings are to be consulted for all locations of devices and mounting instructions. Where device styles, colour, or orientation are specified on the interior design drawings these shall be strictly followed. Where requests by the designer are in conflict with the applicable codes, the Landlord's engineer shall be contacted for a decision.

The Tenants electrical contractor shall be responsible for the installation and certification of any metered service. The fees and deposits for such metered service shall be the sole responsibility of the Tenant/Contractor.

Electrical contractors should note that existing metered services that have been disconnected for more than six (6) months are required by local hydro regulations to be re-inspected by BC Hydro regardless if any changes took place.

### **Conduits and Raceways**

Wire shall be installed in conduit and sized for the connected load(s) and protection as required, unless otherwise specified.

Conductor material to be annealed commercial grade, copper, 98 percent conductivity, up to #10 AWG solid, with T90 (NYLON) insulation, #8 and larger, stranded, with RW90 insulation, unless noted otherwise, 300V rating for Fire Alarm, security, and other low voltage circuits, 600V rating for 120/280V circuits, 1000V rating for 347/600V circuits.

Minimum wire size shall be #12 AWG unless otherwise stated. Home runs in excess of 25m (75ft) for circuits protect by a 15A over current device, shall be #10 AWG.

The current carrying capacity of the feeders, sub feeders and branch circuit conductors shall be sized to equal or better than shown on the drawings. If wire or cable sizes with equivalent current carrying capacity other than that specified are used, ensure that the voltage drop shall not be more than 2%.

All conductors are to be installed in raceways as described below:

- a) Interior exposed surface raceways, branch circuit wiring from panel, concealed in accessible ceilings and walls or in concrete block construction: E.M.T. Raceways.
- b) In metal stud partition walls, branch circuit wiring from panels in suite or Tenant occupancies, in concrete block walls for final drops and for final drops to fixtures in ceiling spaces. (Length not to exceed 3 M in this application); Armoured Cable (Bx).

All conduit and wiring is to be concealed in all finished areas.

Minimum raceway size for telephone and communication conductors is 19 mm (3/4 ").

## Devices

### Service and Distribution

The Landlord provides 347V distribution for the base building tenant space and hallway lighting on a ceiling grid system. Provide additional 347 V, 15A rated circuits to match existing for any fixtures which cannot easily be serviced through the existing grid system.

The Landlord provides 208/120 V, 3phase, 40KW power to a distribution panel located in the core electrical room on all floors. The Tenant shall provide the necessary transformers, breakers and feeders from the appropriate panel via EMT conduit to the Tenant panel. Manufacturer for the distribution shall match existing. All branch breakers shall be minimum of 10 KA at 250V and 14 KA at 600 V. All transformers shall be type "ANN", design factor of K13.

Provide and install complete secondary distribution system as detailed on the drawings. Acceptable manufacturers for the distribution equipment include:

Commander, Federal Pioneer Limited, ITE (Siemens), Square D, Westinghouse.

Label all disconnect switches, starters, and panels to clearly indicated equipment controlled or area serviced. Indicate fuse size and type on all fused disconnects.

Provide circuit breaker panels of the type, with ampere capacity, number of poles, branch breaker capacity etc., as specified in panel schedule. Mounting to be as indicated.

Provide a typed directory card on the inside of the panel door in a metal frame with clear plastic cover.

All branch breakers shall be thermal-magnetic trip indicated, ambient temperature compensated and bolted to the bus-bar.

All surface mounted equipment shall be mounted on 19 mm (3/4") fire rated plywood backboard.

### Lighting

Provide fixtures complete with all accessories and mounting hardware, and lamps as approved by the Landlord as an equal fixture. Products of equal quality by alternate manufacturers such as Sylvania, York, Peerless, Prescolite, Halo, C & M, Capri, Midday etc. are also acceptable.

All lighting control systems must be commissioned by ESC Automation.

### **Fire Alarm System**

The building fire alarm system is existing and operating. Before performing any changes to the system, alert the Landlord at least 48 business hours in advance to allow the zone to be isolated.

All devices, which are disconnected and reconnected to the fire alarm system, are to be verified for the operation prior to final inspection. Verification and testing must be performed by the Base Building Fire Alarm Contractor.

Provide certification of verification on project completion. Installation to ULC CAN4-5524-M82. Verification ULC CAN4-5537.

Sequence of operation shall be as designed for the base building.

### **Telephone/Data/Communications Raceway Systems**

A system of riser sleeves is provided in the Telco Riser Rooms.

- a) Tenants are required to make arrangements directly with their choice of telecommunications provider, for the supply and installation of telephone services to their premises.
- b) The main communication entry point is located on the B2 level of the Building.

### **Security System**

The security system used at Park Place is a Lenel Access Control System. All perimeter doors are secured via maglocks tied into and monitored by the security system. Tie in of Tenant Spaces to the building security system is available at the Tenants expense. Afterhours access is addressed by a proximity card reader system for all perimeter doors.

Access card distribution is conducted through the security desk upon proper authorization.

### **General**

The Landlord reserves the right, from time to time, to add to or to amend the foregoing information, procedures and regulations.

Regulations and procedures as amended from time to time will affect any Tenant work undertaken after the amendment is issued.

## Section 4: Insurance and Indemnification

### Indemnification and Insurance Requirements

In this section, the "Landlord" is defined as "1672 Holdings Ltd." and "QuadReal Property Group Limited Partnership" or its officers, agents, employees and representatives.

#### **Indemnification**

The Tenant/Contractor shall indemnify and hold harmless the Landlord, its agents and employees from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or attributable to the performance by the Tenant / Contractor(s) of the Tenant's work provided that any such claims, demands, losses, costs, damages, actions, suits or proceedings are:

- a) attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property.
- b) caused by a negligent act or omission of the Tenant / Contractor or anyone for whom the Tenant / Contractor may be legally liable.

Your liability under this section shall not extend to damage incurred by the Landlord where the primary cause of the injury or damage arises out of:

- a) the use of maps, drawings, reports, surveys, change orders, designs or specifications provided by the Landlord, its agent and employees.
- b) decisions or instructions by the Landlord.

#### **Insurance**

Prior to commencement of the Tenant's work, the Landlord must be provided with evidence that the insurance specified in this section is in place with an insurance company licensed to do business in the Province of British Columbia.

All insurance policies shall contain the following clause:

"It is understood and agreed that the coverage provided by this policy will not be changed or amended in any way to the detriment of any named insured or cancelled until 30 days after written notice of such change or cancellation shall have given to all named insured."

### Comprehensive General Liability

Without restricting the generality of the "Indemnification" section, above, the Tenant and Contractor, shall provide and maintain, either by way of a separate policy or by an endorsement to the existing policy, comprehensive general liability insurance acceptable to the Landlord, subject to the limits of not less than five million dollars (\$5,000,000.00) inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof.

The insurance shall be in the Tenant's name and anyone employed directly or indirectly by the Tenant to perform a part or parts of the work. The Owner and Landlord: **1672 Holdings Ltd and QuadReal Property Group Limited Partnership** shall be listed as an additional named insured.

The insurance shall preclude subrogation claims by the insurer against anyone insured thereunder.

The comprehensive general liability insurance shall include coverage for:

- a) premises and operations liability;
- b) products completed operations liability;
- c) blanket contractual liability;
- d) cross-liability;
- e) elevator and hoist liability;
- f) contingent employer's liability;
- g) personal injury liability arising out of false arrest, detention or imprisonment or malicious prosecution. Libel, slander or defamation of character, invasion of privacy, wrongful eviction or wrongful entry;
- h) shoring, blasting, excavating, underpinning, demolition, pile driving and caisson work, work below ground surface, tunneling and grading, as applicable;
- i) liability with respect to non-owned licensed vehicles.

All liability insurance shall be maintained continuously until twelve months after completion of the Tenant's/Contractor's work.

### Automobile Liability Insurance

The Tenant/Contractor shall provide and maintain liability insurance in respect to owned licensed vehicles subject to limits of not less than one million dollars (\$2,000,000.00) inclusive.

The Tenant/Contractor shall be responsible for any deductible amounts under the policies.

### Property Insurance

The Tenant/Contractor shall provide insurance acceptable to the Landlord insuring the full value of the Tenant's work and the full value as stated of products that are specified to be provided by the Landlord for incorporation into the work. The insurance shall be in the joint names of the Tenant and the Landlord and all others having an insurable interest in the Tenant's work. The policies shall preclude subrogation claims by the insurer against anyone insured thereunder.

Such coverage shall be provided for by either an "All Risks Builders' Risk Policy" or by a combination of a "Standard Builders' Risk Fire Policy" including "Extended Risk Difference in Conditions Policy" providing equivalent coverage.

The coverage referred to in this "Property Insurance" section shall apply to:

- a) all products, Labour and supplies of any nature whatsoever, the property of the insured or of others for which the insured may have assumed responsibility, to be used in or pertaining to the site preparation, erection and/or fabrication and/or reconstruction and/or repair of the insured project, while on the site or in transit.



- b) the installation, testing and any subsequent use of machinery and equipment including boiler(s) or pressure vessel(s) forming part of the Tenant's work.
- c) damage to the Tenant's work, caused by an accident to and/or the explosion of any boiler(s) or pressure vessel(s) forming part of the Tenant's work.

Such work shall exclude construction machinery, equipment, temporary structural and other temporary facilities, tools and supplies used in the construction of the Tenant's work, which are not expendable under the contract. Such coverage shall be maintained continuously until completion of the Tenant's work.

The Tenant/Contractor shall be responsible for any deductible amounts under the policies maintained pursuant to this "Property Insurance" section, and for providing such additional insurance as may be required to protect the insured against loss on items excluded from the policies.

### **WorkSafeBC**

Prior to commencing the Tenant's work and until the completion thereof, the Tenant/Contractor shall provide evidence of compliance with all requirements of local Provincial statutes with respect to WorkSafeBC including assessments or payments due thereunder.

At any time during the performance of the Tenant's work when requested by the Landlord, the Tenant/Contractor shall provide such evidence of compliance by the Tenant/Contractor, and any or all of your contractors and/or sub-contractors.

## Section 5: Sustainable Tenant Design

### Sustainable Tenant Design

QuadReal Property Group, and the owners on whose behalf it manages, support and encourage sustainable design in the buildings we operate. Sustainable-design offers a host of advantages to office tenants including a reduction in their operating costs, a healthier workplace for their staff as well as improving the environment with the right choices for materials and office equipment.

It is now easier than ever to make sure that your office renovations have as little negative impact on the environment as possible, while providing a more comfortable place to work. Here are some things to consider before starting your renovation:

- **Hire Interior Designers, Engineers, and Contractors that are knowledgeable about sustainable design and construction practices.** One good place to start is the Canada Green Building Council's website where they have a directory of accredited professionals expert in sustainable design/construction ([www.cagbc.org](http://www.cagbc.org)).
- **Install low VOC (Volatile Organic Compounds) materials.** Make environmentally conscious choices when selecting carpets, adhesives, paints, finishes, sealants and composite wood products.
- **Incorporate sunlight and access to views in the design** of the space so all of your employees reap the benefits. Day-lighting, or allowing abundant natural light indoors, enhances interior light quality and reduces energy demands. The use of glass in sustainable-design office space should be selected with consideration given to visible light transmittance, heat loss and gain, ultraviolet ray transmittance, and color. The use of high-performance glazing systems in the design of interior or private office placement admits more light while simultaneously rejecting a higher percentage of solar heat gain, resulting in better day-lighting and reduced cooling loads.
- **Insist that contractors recycle as much construction waste as possible.** Did you know that contractors can recycle concrete, metal, glass, wood drywall, plastics and even packaging waste? Demolition and construction waste accounts for over 30% of total waste sent to landfills. Recycling construction waste can also be less expensive than sending waste to the land fill, as tipping charges are much lower at recycling depots than landfills.
- **Install materials with high recycled content.** Building construction accounts for over 40% of raw materials used globally. By using materials with a high recycled content, you are reducing the need for raw material extraction and reducing the amount of waste that ends up in a landfill. Again, materials with a high recycled content are becoming readily available at little or no additional cost.
- **Take stock of what you already have.** Is there something in your existing space that could be reused or adapted in your new space?
- **Save energy! Put occupancy sensors and/or light switches** in rooms that aren't constantly used (kitchens, supply rooms, meeting rooms) so the lights automatically shut off when staff aren't around. Minimize or eliminate specialty lighting. Advances in lamp, ballast, and fixture technology produce more light with less energy. Good lighting design

uses as little as 0.5 to 0.75 1P watts per sq. ft. of floor space, compared to lighting loads of 2.5 to 3 watts in traditional office design. Furthermore, sensors that measure indoor light levels can raise and lower artificial lighting in response to changing outdoor conditions, and occupancy sensors turn lights off when not needed.

- **Ventilation systems.** Tenant design should take into consideration improved ventilation with well-designed mechanical and electrical systems to deliver air-flow effectiveness, provide plentiful fresh air, and reduce exposure to bio-contaminants such as microbial diseases, fungi, and moulds. High-efficiency filtration systems are very effective in reducing air quality. Improved ventilation also removes indoor pollutants generated by the off-gassing of materials such as carpet, adhesives, sealants, furniture coverings, and paints and varnishes, as well as reduces carbon dioxide levels.
- **Reduce water use.** Many cost-effective options can reduce water use by up to 30 percent. Toilets now use 1.6 gallons per flush versus 3 to 5 gallons per flush on older models. Sensor-operated faucets and urinals help save water and improve sanitary conditions.
- **Materials Selection.** Building and finish materials should be selected with regard to renewability, recycled content, manufacturing processes, packaging, and shipping (i.e., using materials that are locally manufactured or harvested). Sustainable-design practices also incorporate less-toxic premises materials and furnishings. Carpets and floors, paints, varnishes, furniture, and other materials should be carefully and researched prior to specification. Life-cycle cost analyses of materials should also be conducted to compare not only a system or material's first cost but also to consider its cost over the building's entire life span. An increase in the manufacturing of such products has reduced their costs while increasing selection and quality.

### **Sustainable Tenant Design: The Bottom Line**

Sustainable design does not come from employing piecemeal changes that create minor reductions in resource use and total life-cycle costs. Tenants can benefit the most from sustainable design if they work with qualified designers, construction managers and building management to take a holistic approach to planning, designing, and construction of their space. Simultaneously considering design, construction, and interlinked issues, such the building electrical/mechanical and lighting systems optimizes all aspects of a project. In the end, an integrated approach often creates multiple benefits for both the building owner and the tenant.

### **Energy Conservation**

Energy conservation begins and ends with all of us – the building's Operations Team and Park Place tenants. Reduced energy use lowers our tenant's utility costs, reduces Park Place's environmental impact, increases equipment service life, promotes sustainable building practices within the commercial real estate industry, and ultimately helps Canada meet the Paris Climate Agreement targets. Everyone at Park Place can affect its energy use, and in turn everyone plays a role in helping us achieve our energy targets.

Park Place not only monitors energy consumption internally, it also shares this information in real-time with tenants whose loads are measured with a special energy meter. The platform we use is called "RealSuiteData," To know more about this platform, or how we manage energy, please contact the Property Management Office through QuadReal CONNECT.



QuadReal Property Group  
Suite 800, 666 Burrard Street  
Vancouver, BC V6C 2X8  
Canada

T 604-975-9500  
www.quadreal.com

**QuadReal Sustainability Policy  
Park Place Policy Adoption Statement**

The Park Place team recognizes, understands and strives to comply with all aspects of QuadReal's Sustainability Policy.

We will ensure that our team is provided with the information and resources needed to meet our building energy targets.

We will comply with building energy-related requirements set forth by the City of Vancouver and our current building energy efficiency certifications, and other legal requirements; we will set and review objectives and energy targets at regular intervals as outlined in the Park Place EnMS; we will purchase energy efficient products and services; and we will consider energy performance in all capital- and operating-expenditure design activities.

  
Frank Vecchio, General Manager

Jan 15 / 21  
Date

## Section 6: List of Pertinent Contacts and Approved Contractors

### **ELECTRICAL CONSULTANT**

AES Engineering	604-569-6500	Paul Luhman	<a href="mailto:Paul.Luhman@AESengr.com">Paul.Luhman@AESengr.com</a>
		Sunny Ghataurah	<a href="mailto:Sunny.Ghataurah@AESengr.com">Sunny.Ghataurah@AESengr.com</a>

### **MECHANICAL CONSULTANT**

Integral Group	604-687-1700	Kai Chen	<a href="mailto:kchen@integralgroup.com">kchen@integralgroup.com</a>
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### **TECHNOLOGY CONSULTANT**

The Attain Group	1-866-439-9424	Client Services	<a href="mailto:Client.services@theattaingroup.com">Client.services@theattaingroup.com</a>
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### **STRUCTURAL ENGINEER**

Read Jones Christoffersen	604-738-0048	Roger Steers	<a href="mailto:rsteers@rjc.ca">rsteers@rjc.ca</a>
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### **ELECTRICAL CONTRACTORS**

MDE Mechanical/Electrical	604-291-1995	Mel Di Nunno	<a href="mailto:mel@mde-electrical.com">mel@mde-electrical.com</a>
Mott Electric	604-683-5752	Howard Smith	<a href="mailto:hsmith@mottelectric.com">hsmith@mottelectric.com</a>
Sassco	604-299-1640	Craig Paquin	<a href="mailto:cpaquin@sascocontractors.com">cpaquin@sascocontractors.com</a>
Centre Group	778-379-0770	Tony Brock	<a href="mailto:tony.brock@cecgrp.ca">tony.brock@cecgrp.ca</a>

### **FIRE PROTECTION SYSTEMS**

#### Fire Alarm

Johnson Controls	778-229-7784	Ben Koslowsky	<a href="mailto:ben.koslowsky@jci.com">ben.koslowsky@jci.com</a>
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Priority Fire Systems	604-255-4591	Cyle Lappin	<a href="mailto:estimator@pfsltd.ca">estimator@pfsltd.ca</a>
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#### Sprinkler

Johnson Controls	604-345-4387	Nicholas Boorman	<a href="mailto:Nicholas.boorman@jci.com">Nicholas.boorman@jci.com</a>
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## List of Pertinent Contacts and Approved Contractors (cont'd)

### **BUILDING CONTROL SYSTEM**

ESC Automation	604-575-5912	Brad Kowal	<a href="mailto:bkowal@escautomation.com">bkowal@escautomation.com</a>
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### **BALANCING CONTRACTOR**

KD Engineering	604-872-8651	Richard Salary	<a href="mailto:richardsalary@kdengineering.com">richardsalary@kdengineering.com</a>
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Western Mechanical Services	604-324-1434	Emily Mudry	<a href="mailto:emudry@westernmechanical.ca">emudry@westernmechanical.ca</a>
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### **MECHANICAL – HVAC**

MDE Mechanical/Electrical	604-291-1995	Mel Di Nunno	<a href="mailto:mel@mde-electrical.com">mel@mde-electrical.com</a>
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Mott Electric	604-683-5752	Howard Smith	<a href="mailto:hsmith@mottelectric.com">hsmith@mottelectric.com</a>
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Davidson Bros.	604-522-4798	Wayne Davidson	<a href="mailto:w davidson@davidsonbros.ca">w davidson@davidsonbros.ca</a>
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Pacific Mechanical Systems	604-251-3766	Kirk Johnson	<a href="mailto:kirk@pacificmechanical.ca">kirk@pacificmechanical.ca</a>
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### **PLUMBING**

MDE Mechanical/Electrical	604-291-1995	Mel Di Nunno	<a href="mailto:mel@mde-electrical.com">mel@mde-electrical.com</a>
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MCR Mechanical	604-939-8258	Mario Iorio	<a href="mailto:mcrprojects@telus.net">mcrprojects@telus.net</a>
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Davidson Bros.	604-522-4798	Wayne Davidson	<a href="mailto:w davidson@davidsonbros.ca">w davidson@davidsonbros.ca</a>
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Pacific Mechanical Systems	604-251-3766	Kirk Johnson	<a href="mailto:kirk@pacificmechanical.ca">kirk@pacificmechanical.ca</a>
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### **LOCKSMITH**

Al Scott Lock & Safe	604-581-5000	Vivian Anderson	<a href="mailto:vivian@alscottlock.com">vivian@alscottlock.com</a>
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## Section 7: COVID-19 Best Practices

### Masks and Hygiene Etiquette

In all QuadReal properties, in line with the municipal bylaws and per the Public Health Order dated November 19<sup>th</sup> 2020, wearing masks or face coverings in common areas of the building, such as lobbies, elevators, washrooms, parkades and any common public gathering areas will be mandatory (this applies to tenant employees, visitors, QuadReal employees, contractors, vendors, delivery personnel and couriers). Reusable cloth masks are encouraged, however, individually wrapped masks are available in all building lobbies.

#### **Good hygiene is one of the best defenses against COVID-19. Everyone should:**

- Regularly wash your hands for minimum of 20 seconds or use hand sanitizer.
- Avoid touching your face.
- Cover coughs and sneezes with the inside of your elbow or upper arm.
- Stay home when sick.
- Safely dispose of tissues and used PPE.

### Building Systems

As an additional precautionary measure our operations teams have implemented a number of proactive measures to improve the overall air quality in our buildings in accordance with guidance from the American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE)'s position on infectious aerosols including:

- Maximizing the use of outside air in our air handling units.
- Installing superior level air filters in all of our buildings.
- Increasing filter frame inspections to ensure that filters fit tight and are sealed to minimize air bypassing the filters.
- Increasing operation of the HVAC systems for 2 hours before and 2 hours after normal scheduled run times to enhance fresh air levels.
- Regularly inspecting air distribution devices (supply, return and exhaust air grilles and diffusers) to ensure they are clean.
- Increased testing of our water treatment in cooling towers, closed water systems and water features.

Please contact QuadReal Connect for more information on the building specifics.

### Common Area Rules

QuadReal has implemented various measures to ensure everyone's health and safety when in common areas, including:

- Floor decals and signage in building lobbies, parking vestibules, concierge desks and exterior entrances as well as in all common areas where people could gather and where visual cues are needed to maintain physical distancing.
- Waste disposal at building exits for the disposal of Personal Protective Equipment (PPE).
- Where municipal bylaws exist or if directed by QuadReal, the mandatory requirement of



- wearing masks or face coverings while being in a common area of the building.
- All furniture for public use except for food court seating is removed at this time.

## Elevators

The size of elevator cabs eliminates the ability to meet physical distancing protocols of 2m/6ft without limiting passengers to one person per cab. Recognizing that limiting elevator access to one person at a time could hinder your ability to operate by causing crowding at elevator entry points, we've made some changes and need your co-operation to ensure the safe use of elevators. Signage is posted communicating a maximum two passengers and the following elevator etiquette:

- Select your destination when entering the cab and move to the furthest open space from the door.
- Decals on elevator floors indicate where you should stand and which way to face.
- Wash your hands or use hand sanitizer immediately after using the elevator.
- With the reduced elevator occupancy, you should expect longer wait times. Lines will form in elevator lobbies providing space for physical distancing. Consider alternative shifts for employees to stagger traffic and avoid crowding during typical 9am to 5pm rush hours.
- Elevator touchpoints (buttons, doors, handrails) will be regularly disinfected throughout the day.
- All passengers must wear a mask or face covering when using the elevators.

## Hand Sanitizer

Where hand washing is not possible, the regular use of hand sanitizer is encouraged. Hand sanitizer stations can be found throughout common areas including active building entrances and elevator banks where sanitizer should be used before touching common surfaces.

## Building Occupancy Sensors

QuadReal has installed and implemented building occupancy sensors throughout the building to promote social distancing.

## Touchless Door Sensors

QuadReal has also installed and implemented touchless door sensors in our building to reduce touchpoints on doors and door handles.

## Screening Requirements for QuadReal Properties/Communities (Contractors and Essential Visitors)

QuadReal is required to screen all of the following persons entering a property/community through an entry point in QuadReal's control, including any outdoor or partially outdoor spaces:

- Contractors (e.g. janitorial, security)
- Essential visitors (e.g. delivery, maintenance)

Screening is administered either through a paper questionnaire, or an online form that can be accessed through QuadRealPlus, that has been developed based on the Screening Tool. The

paper questionnaire, or online QR code access, shall be required upon contractors' and workers' check-in with the Park Place Lobby Security Desk prior to access. The Questionnaire provides a place for the Screened Person to provide their contact information and express consent to the screening and data collection.

For greater certainty, this may result in a contractor hired by a tenant being screened twice (once at the main entry point of the building and again at the tenant's entry point).

## Summary

As you prepare your teams for returning to the workplace, the tips below are provided to support you in your preparation:

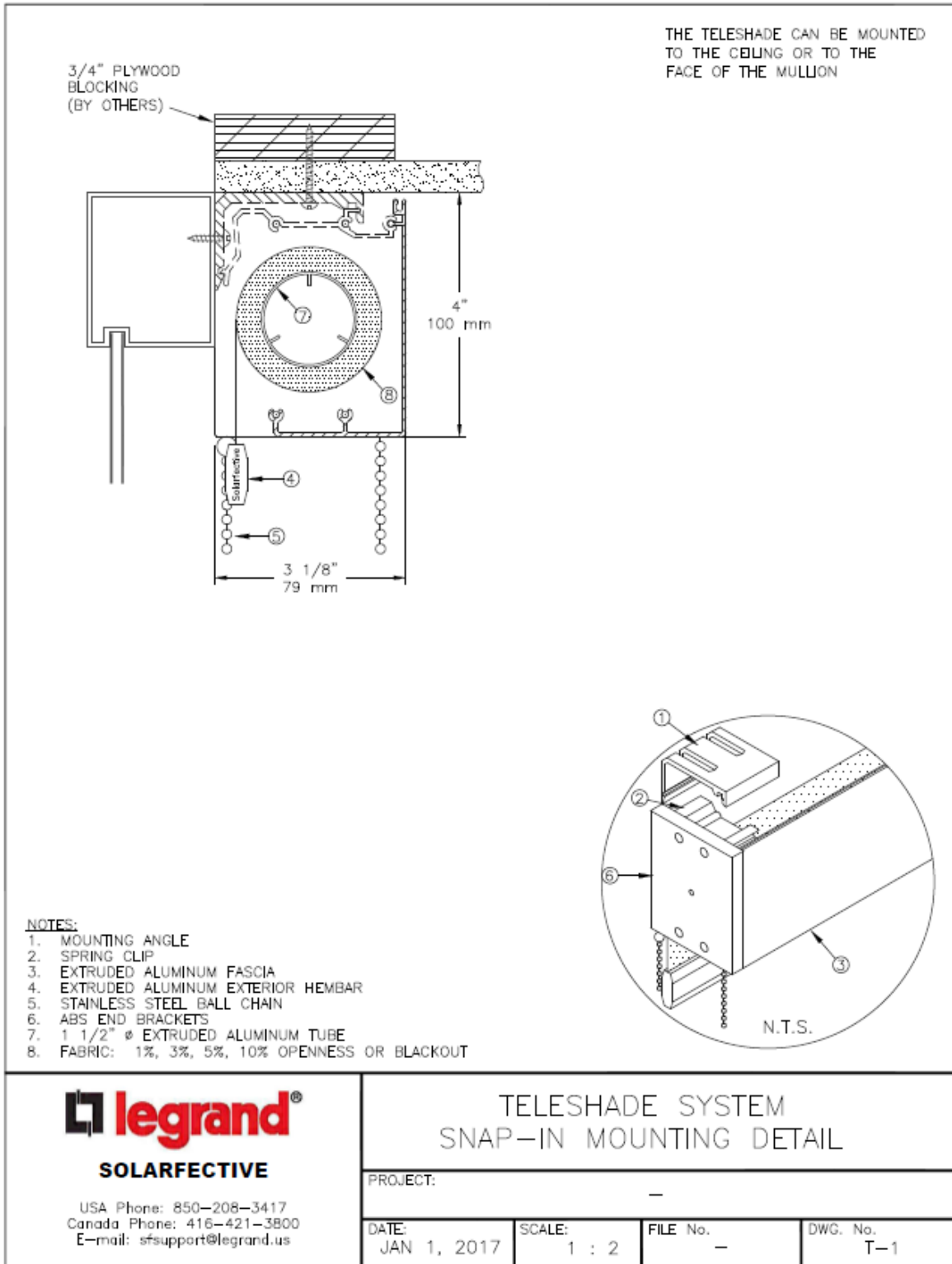
- Help avoid excessive wait times for the elevators by staggering start times.
- Reinforce hygiene recommendations, including handwashing regularly, not touching your face and coughing/sneezing into your arm/elbow.
- Provide employees with masks or face shields, gloves, and hand sanitizer.
- Monitor health for any symptoms of illness.
- Implement a clean desk policy to allow for greater cleaning and sanitization of surfaces.
- Remove chairs from meeting rooms to maintain physical distancing and limit the number of people in each meeting
- Limit the number of non-essential visitors to the premises
- Always follow local health guidelines, practice physical distancing, wash your hands, don't touch your face, and stay home if unwell.

We are committed to supporting you during what will undoubtedly be a new challenge for all of us. We appreciate your patience as we work through these challenging times together.

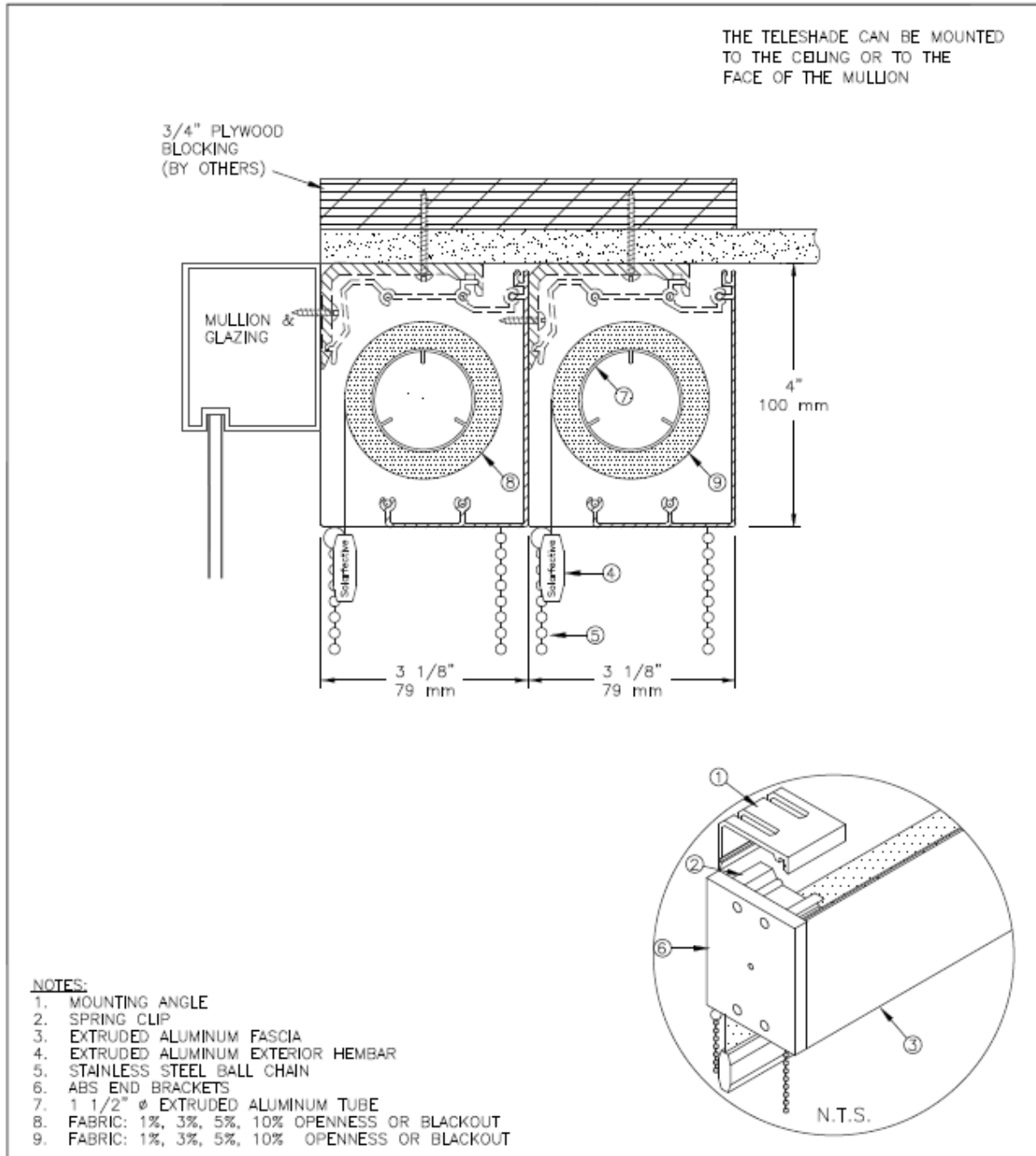
QuadReal will ensure that service excellence is always top priority so that everyone is confident that they are in a safe place.


# Appendix

## Standard Manual Single Roller Shade



**Optional: Manual Double Roller Shade**



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