

## **Invitation To Tender**

INVITATION TO TENDER NO. PS20200498 (the "ITT")

CONTRACTOR FOR 2020 PARKADE RESTORATION

AT 150 WEST PENDER STREET

ITT No. PS20200498

Issue Date: May 4, 2020

Issued by: City of Vancouver (the "City")

### IN RESPECT OF

Identifying a contractor for parkade restoration at 150 West Pender Street

Tenders are to be addressed to the Supply Chain Management office, 4<sup>th</sup> Floor, City of Vancouver, 453 West 12<sup>th</sup> Avenue, Vancouver, British Columbia, Canada, V5Y 1V4, and received at <a href="mailto:bids@vancouver.ca">bids@vancouver.ca</a> prior to 3:00pm, Vancouver Time (as defined in Note 3 below), on May 25, 2020 (the "Closing Time").

Tenders will be not be publicly opened. Tender results can be found within 48 hours of the Closing Time at the following website:

http://vancouver.ca/doing-business/unverified-tender-results.aspx

#### NOTES:

- 1. Tenders must be received at the email address specified above prior to the Closing Time.
- 2. "Vancouver Time" will be conclusively deemed to be the time indicated in the electronic timestamp the Tender receives upon receipt at the email address specified herein, which is in turn synchronized to Network Time Protocol (NTP) provided by the National Research Council of Canada adjusted to local Pacific Time Zone.
- 3. The City of Vancouver is open on business days from 8:30 a.m. to 4:30 p.m., Vancouver Time, and is closed Saturdays, Sundays, and holidays.
- 4. DO NOT SUBMIT TENDERS BY FAX.
- 5. All queries related to this ITT should be submitted in writing to the attention of:

Jason Lo, Contracting Specialist

Email: jason.lo@vancouver.ca

(the "Contact Person")

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## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET PART A - INTRODUCTION

#### 1.0 OVERVIEW OF PROJECT

- 1.1 The City of Vancouver (the "City") invites Tenders to engage a contractor that will complete parkade restoration at 150 West Pender Street. The Contractor shall provide all labour, materials, equipment and supervision necessary to prepare slab surface, slab soffit, column, wall, and beam repair areas and place new concrete repair material as specified. All repairs to painted surfaces are to be cleaned and repainted after the concrete repairs have been completed and sufficient time for concrete curing has lapsed, all in accordance with the drawings and specifications, and for the prices tendered in the Schedule of Quantities and Prices (Schedule A of Part C Form of Tender).
- 1.2 The Work generally includes, but is not limited to:
  - Structural repair of concrete deterioration due to corrosion of reinforcing steel (delamination repairs) where directed by Consultant; supply, install and remove shoring as required to support structure during delamination repairs; new drain installation in locations directed by Consultant; and
  - Reinstatement of parking lines and traffic markings to match existing layouts
- 1.3 The Work Site is located at 150 West Pender Street, British Columbia. The scope of work/technical specifications is further described in the Tender Documents attached as Appendix 3.
- 1.4 The purpose of this ITT is to select a Tenderer with the capability and experience to efficiently and cost-effectively perform and complete the Work.
- 1.5 IF A POTENTIAL TENDERER BELIEVES THAT THE CITY MAY BE UNABLE TO SELECT IT DUE TO A CONFLICT OF INTEREST, BUT IS UNCERTAIN ABOUT THIS, THE POTENTIAL TENDERER IS URGED TO CONTACT THE CONTACT PERSON AS SOON AS POSSIBLE WITH THE RELEVANT INFORMATION SO THAT THE CITY MAY ADVISE THE POTENTIAL TENDERER REGARDING THE MATTER. SEE SCHEDULE "L" FOR AN INDICATION OF THE TYPES OF CONFLICTS OF INTEREST THAT OFTEN ARISE.

#### 2.0 SUSTAINABILITY

2.1 The City's Procurement Policy, Ethical Purchasing Policy and related Supplier Code of Conduct found at <a href="http://vancouver.ca/doing-business/selling-to-and-buying-from-the-city.aspx">http://vancouver.ca/doing-business/selling-to-and-buying-from-the-city.aspx</a> align the City's approach to procurement with its corporate social, environmental and economic sustainability values and goals. They evidence the City's commitment to maximize benefits to the environment through product and service selection, and to ensure safe and healthy workplaces, where human and civil rights are respected. Each Tenderer is expected to adhere to the supplier performance standards set forth in the Supplier Code of Conduct.

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## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET PART A - INTRODUCTION

2.2 A Contractor is to provide environmentally sensitive products or services wherever possible. Where there is a requirement that a Contractor supply materials, and where such materials may cause adverse environmental effects, each Tenderer should indicate the nature of the hazard(s) in its Tender. Furthermore, each Tenderer should advise the City of any known alternatives or substitutes for such materials that would mitigate such adverse effects.

#### 3.0 TENDER DOCUMENTS

- 3.1 The Tender Documents consist of the following and include the documents referred in Section 3.3 below):
  - (a) Part A Introduction, and its appendices:
    - (i) Appendix 1 Mandatory Information Meeting Attendance Form:
    - (ii) Appendix 2 Response Notification Form; and
    - (iii) Appendix 3 Scope of Work/Technical Specifications;
  - (b) Part B Terms and Conditions of ITT Process;
  - (c) Part C Form of Tender (including all schedules),
  - (d) Part D Form of Agreement (including all schedules);
  - (e) the Specifications (available separately and to be incorporated into the Contract when finalized);
  - (f) the Drawings (available separately and to be incorporated into the Contract when finalized);
  - (g) all addenda or amendments to the ITT, and all questions and answers in connection with the ITT, issued in writing by the City prior to the Closing Time, as well as any addenda, amendments or questions and answers issued in writing by the City after the Closing Time and accepted in writing by the Tenderers.
- 3.2 Specifications and Drawings will be made available on the City's website at <a href="https://bids.vancouver.ca/bidopp/openbid.htm">https://bids.vancouver.ca/bidopp/openbid.htm</a> and by searching for the ITT's reference number PS20200498.
- 3.3 The Specifications and Drawings include the "Master Municipal Specifications and Standard Detail Drawings" contained within Volume II of the Master Municipal Construction Document, as supplemented by the City of Vancouver Street Restoration Manual (rev. August 2008]. For certainty, all of Volume I and the following parts of Volume II of the MMCD are expressly excluded from the Tender Documents: Instructions to Tenderers Part

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II. General Conditions (including Schedule 17.5.3 Letter Agreement with Referee, Changes and Extra Work flow chart, and Dispute Resolution Process flow chart).

#### 4.0 MANDATORY INFORMATION MEETING

- 4.1 Tenderers are required to attend the mandatory information meeting (the "Mandatory Information Meeting") on Tuesday, May 12, 2020 commencing at 1:00 pm.
- 4.2 The location of the Mandatory Information Meeting will be: Parkade, 150 West Pender Street, Vancouver, British Columbia.
- 4.3 Tenderers are asked to pre-register for the Mandatory Information Meeting by submitting the Mandatory Information Meeting Attendance Form (Appendix 1) to the Contact Person by email prior to May 8, 2020.

#### 5.0 ADMINISTRATIVE REQUIREMENTS

- 5.1 Tenderers are asked to indicate their intentions to submit Tenders by submitting the Response Notification Form (Appendix 2) to the Contact Person by email on or before May 18, 2020.
- 5.2 It is the sole responsibility of each Tenderer to check the City's website at http://vancouver.ca/doing-business/open-bids.aspx regularly for addenda, amendments and questions and answers related to this ITT, which the City may issue at any time during the process, and for any reason, at its discretion.

#### 6.0 CONDUCT OF ITT - INQUIRES AND CLARIFICATIONS

- 6.1 The City will have conduct of this ITT, and all communications are to be directed only to the Contact Person named on the cover page. Any communication from potential Tenderers to City staff other than the contact person regarding the content of this ITT may lead to disqualification of the Tenderer from this ITT process, at the City's sole discretion.
- 6.2 It is the responsibility of each Tenderer to thoroughly examine the Tender Documents and satisfy itself as to the full requirements of this ITT and their acceptability to the Tenderer.
- 6.3 The City welcomes inquiries, requests for clarification or comments from registered Tenderers. All inquires or comments to the City must be in written form only. All inquiries, requests for clarification and comments must be e-mailed to jason.lo@vancouver prior to May 18, 2020, and must in each case be addressed to the attention of the Contact Person. In response to inquiries, requests for clarification or comments, the City, in its sole discretion, may make amendments to this ITT or may issue questions and answers to all Tenderers who have submitted a Response Notification Form and post them on the City's website.

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7.0 ELIGIBILITY TO PARTICIPATE - Intentionally Deleted

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## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET APPENDIX 1 (PART A) - INFORMATION MEETING ATTENDANCE FORM



CITY OF VANCOUVER Purchasing Services

Invitation to Tender No. PS20200498

To acknowledge your intent to attend the Mandatory Virtual Information Meeting and to ensure that you receive the required information, please submit this form to the person identified below in accordance with the ITT:

Jason Lo City of Vancouver

Email: jason.lo@vancouver.ca

Your details:			
Tenderer's Name:			
		"Tenderer"	
Address:			
Telephone:			
Key Contact Person:			
E-mail:			
We will attend the Mar 2020 Parkade Restorati		Meeting for: ITT No. PS20200498, ler Street".	"Contractor for
Signature		Name of Authorized Signatory	(Please print)
E-mail Address (Please p	rint)	Date	

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## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET APPENDIX 2 (PART A) - RESPONSE NOTIFICATION FORM



CITY OF VANCOUVER Purchasing Services

Invitation to Tender No. PS20200498

To acknowledge your intent to submit a Tender and to ensure that you receive the required information, please submit this form to the person identified below in accordance with the ITT:

Jason Lo

City of Vancouver

Email: jason.lo@vancouver.ca

Your details:	
Tenderer's Legal	
Name:	
	"Tenderer"
Address:	
Telephone:	
Key Contact Person:	
E-mail:	
	submit a Tender in response to ITT No. PS20200498, "Contractor for at 150 West Pender Street" on or before the Closing Time.
	Name of Authorized Signatory (Please print)
E-mail Address (Please p	Int) Date

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# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET APPENDIX 3 - SCOPE OF WORK/TECHNICAL SPECIFICATIONS

## APPENDIX 3 - SCOPE OF WORK/TECHNICAL SPECIFICATIONS

See attached.

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## 2020 PARKADE RESTORATION 150 WEST PENDER STREET VANCOUVER, BC

GENERAL CONTRACT AND TECHNICAL SPECIFICATIONS

PREPARED FOR: CITY OF VANCOUVER

507 West Broadway, Suite 400 Vancouver BC V5Z 0B4

PREPARED BY: READ JONES CHRISTOFFERSEN LTD.

Suite 300 - 1285 West Broadway

Vancouver, BC V6H 3X8

RJC Job No.: VAN.035219.0014

Date: Issued for Tender – March 18, 2020

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## 1.0 GENERAL

#### 1.1 DESCRIPTION OF WORK

- .1 The Work includes, but is not necessarily limited to the following:
  - .1 Structural repair of concrete deterioration due to corrosion of reinforcing steel (delamination repairs) where directed by Consultant.
  - .2 Supply, install and remove shoring as required to support structure during delamination repairs.
  - .3 New drain installation in locations directed by Consultant.
  - .4 Reinstatement of parking lines and traffic markings to match existing layouts.

## 1.2 WORK SEQUENCE

- .1 The Work areas will be available as of **0700h**, on **July 6**, **2020**. Contractor to confirm start date.
- .2 The Contractor may close up to **150** stalls at any one time. This total includes any stalls closed beneath the work area or stalls closed as a result of inaccessibility due to work in drive lanes. Access must be maintained to other parking areas.
- .3 Time and all time limits stated within the Bid submittal and Contract Documents are of the essence of the Contract. Contractor shall perform work expeditiously with adequate forces to complete the Contract Work within the time specified.

#### 1.3 SCHEDULE

- .1 In conjunction with and in a form acceptable to the Consultant and the Owner, provide with the Bid Submission, a schedule indicating the phasing and procedures required to complete the Work within the submitted timeframe.
- .2 The construction schedule shall reflect completion of all work under the Contract within the specified time and in accordance with these specifications.
- .3 The Contractor shall submit a revised schedule to the Consultant if, after commencing the Work, the schedule fails to reflect actual progress or the Contractor wishes to make a major change to their approach. The revised construction schedule must be submitted in advance of beginning a revised approach.

#### 1.4 CONTRACTOR'S USE OF SITE

- .1 The use of all equipment is to be restricted in accordance with City of Vancouver noise by-laws. Contractor has access to the work areas with quiet work proceeding around the clock if desired.
- .2 Jackhammering or other noise-generating work is to be performed between 0730h to 2000h, Monday to Friday and from 1000h to 2000h on Saturday. Work outside of these hours must be approved by the Owner.]
- .3 The Contractor has 24-hour access to site; however, the use of the premises will be restricted due to user occupancy.
- .4 The Contractor shall schedule their operation to minimize the interruption of the normal use of the site and building and to comply with laws, ordinances, rules and regulations relating to Work.
- .5 The parkade is to remain open and operational through the Contract. It is the Contractor's responsibility to ensure the parkade remains operational and that areas outside those designated for closure remain available and safely accessible at all times. The Contractor may close a single entrance and exit-way for a short period (48 hours) only with approval from the Owner.
- .6 Do not unreasonably encumber the Place of Work with materials or equipment. Construction related debris shall not be permitted to accumulate on site where visible to building users. Remove daily if necessary.
- .7 Do not overload the structure.
- .8 Do not close or obstruct or store materials in roadways, sidewalks or passageways without prior approval from the Owner. Do not interfere with safe passage to and from the building and adjacent public sidewalks and roads. Move stored products or equipment that interferes with building operations.
- .9 Take all precautions and provide all required protection to ensure the safety of the general public.
- No storage of materials or equipment is allowed outside the designated work areas without the Owner's approval.
- During transportation of materials or equipment through occupied areas, ensure the public, property, and finishes are protected from damage. All damage caused by the Contractor is to be repaired or rectified at the Contractor's expense.
- .12 Propane powered equipment not permitted within interior areas.

- .13 Maintain work areas and the vicinity clean and tidy to the satisfaction of the Owner and Consultant.
- .14 The Contractor is to obtain and pay for all permits required for completion of the Work, excluding the Building Permit. Do not start construction until the Building Permit has been issued. Provide copies of all other permits to the Consultant and post on site where required.

#### 1.5 TEMPORARY LIGHTING

.1 Provide and maintain temporary lighting as required for safe demolition and working conditions per British Columbia Occupational Health and Safety Regulations.

#### 1.6 TEMPORARY HEATING AND VENTILATION

- .1 Provide and maintain supplementary heating as required to maintain sufficient application and curing temperatures.
- .2 Provide and maintain supplementary ventilation as required. Ventilation requirements shall conform to British Columbia Occupational Health and Safety Regulations. Do not modify the base building systems without the coordination and approval of the Owner.
- .3 Temporary heating and ventilation used during construction -- including the cost of installation, fuel, operation, maintenance and removal of equipment -- shall be paid for by the Contractor. The use of direct-fired heaters discharging waste products into enclosed work areas will not be permitted.

#### 1.7 ELECTRICAL POWER

- .1 Discuss available power with the Owner's Representative prior to bidding.
- .2 The Contractor shall pay for any alternations to the electrical system which may be needed to accommodate the Contractor's equipment. Co-ordinate any required alterations with the Owner's Representative. Reinstate the system to its original condition upon completion of the Work.
- .3 The Owner shall pay for electrical consumption from building sources made available by the Owner.

### 1.8 WATER SUPPLY

.1 The Contractor shall pay for the cost of any temporary water connections or alterations that are required to perform the Work. Reinstate the system to its original condition upon completion of the Work.

.2 The Owner shall pay for water consumption from building sources made available by the Owner.

#### 1.9 SANITARY FACILITIES

.1 Provide portable washrooms at the time of initial mobilization and maintain throughout the course of work where washroom facilities for the Contractor's use are not available on site. Locate where agreeable to the Owner.

### 1.10 TRAFFIC CONTROL AND SIGNAGE

- .1 Contractor to install all necessary to protect the public from the construction and work area, control pedestrian and/ or vehicular traffic flow, and to inform users that construction activity is in progress. Owner to provide all required signage.
- .2 The Contractor is to provide flagmen and/ or traffic control lights as necessary to maintain safe traffic flow through the work areas.

#### 1.11 PROTECTION OF WORK AND PROPERTY

- .1 The Contractor shall take all reasonable precautions necessary to protect the Work and property from damage during performance of the Contract, and shall make good any damage to the Work or property caused by the Contractor or any of its Subcontractors.
- .2 Dust, dirt, construction debris, water and fumes from the Work must be contained so as not to affect areas that are to remain in operation outside of the designated work areas. Resulting damage caused by contamination is the responsibility of the Contractor.
- .3 The Contractor is responsible for any damage to all property, mechanical equipment, motors, elevator equipment, fixtures, air intakes, etc., resulting from dust contamination from the Work.
- .4 The Contractor shall completely enclose and ventilate the work areas (fresh air in and exhaust out) without allowing any dust to escape from the work area. The exhaust system must filter the dust out of the air before it is released into the atmosphere. All exhaust systems must be filtered and directed to the outside through ducting, which is to be installed in a manner acceptable to the Owner and Consultant. Filters are to be cleaned and replaced regularly.
- .5 Protection shall be provided for all entrance and exit-ways, floors, walls and all standing fixtures, air intakes and equipment rooms.

- .6 Areas that are to be protected but still require access such as elevator lobbies and stairs will be hoarded using temporary vestibules. Pressurization to be adjusted by Contractor (by providing necessary fans) to prevent dust from entering these areas.
- .7 Contractor shall patch and repair all finishes or painted surfaces damaged during the course of the Work. This includes surfaces damaged by tape, fasteners, or similar materials during hoarding and protection.
- .8 Contractor shall not keep secure doors open for extended periods without the Owner's permission. Any resulting damage caused to building finishes or equipment, and any resulting property losses due to compromised building security, shall be the responsibility of the Contractor.

## 1.12 CONSTRUCTION BARRIERS AND ENCLOSURES

- .1 All work areas are to be completely enclosed by hoarding and dust protection and only accessible to the Contractor, the Owner and the Consultant.
- .2 Contractor shall supply and construct hoarding, barriers and enclosures as indicated in these specifications, on the drawings, and as directed by the Consultant or Owner as the construction progresses.
- .3 No extras shall be entertained for hoarding, barriers and enclosures after bids close unless the scope of work is significantly changed.
- .4 The following types of enclosures/ hoarding systems will be required for this construction project:
  - .1 Full Height Dust Protection

This system consists of full height poly-weave tarping fastened to the slab surface and soffit with 2" x 4" construction grade wood nailers wedged tight to the slab surface and soffit with 2 x 4 studs or post shores at 4'-0" c.c. The seams of the poly-weave tarping, if any, are to be fastened together with duct tape.

- .1 The main purpose of this system is to control dust and keep it from escaping from the work area, thus must be dust tight.
- .5 All seams in poly-weave tarping are to be taped together to provide dust tight enclosure.
- .6 Anchor holes are to be repaired after construction hoarding has been removed. Contractor to repair all finishes and painted surfaces damaged by fastening materials used as part of the hoarding and protection systems.

- .7 Simple barriers required to control traffic (i.e., not enclosing work areas) are to consist of screw jacks at maximum 8'-0" centres with nylon webbing (4'-0" high snow fence) between each screw jack. Jacks are to be fully tightened to plywood spacers at the slab surface and soffit, and nylon webbing is to be securely fastened to all jacks. Directional signs are required.
- .8 Restrict access for unauthorized personnel by placing barricades or posting guards around areas of the Work. Unauthorized personnel shall mean the public and anyone not directly concerned with the execution, supervision or inspection.

#### 1.13 PROTECTION OF EXISTING EXPOSED FACILITIES / SERVICES

- .1 The Contractor shall make allowance in the price to cover all costs of temporary removal and replacement and/or relocation of existing electrical wiring and hardware required for completion of the Work.
- .2 All exposed conduit, fixtures, attached devices, wet sprinkler fire system plumbing, mechanical system components, louvers and ducts are to be protected or Contractor to correct damages at their own expense. Contractor to promptly report any damage to the Owner and the Consultant.
- .3 Prior to commencing the Work, contact the Owner to locate all protective or alarm systems and sensors. All services shall be protected against damage or interruption. Provide Owner with 48 hours minimum advance notice of any necessary interruption. All claims resulting from damage shall be the responsibility of the Contractor.

### 1.14 WALK-THROUGH INSPECTION OF SITE

- .1 The Contractor is to perform a thorough inspection of the site prior to the start of Work, and provide a written notice to the Consultant detailing all damaged property as well as all items that appear to be of poor working order or appearance (i.e. sign fixtures, dirt, etc.).
- .2 Upon receiving this notice, the Consultant and the Owner will verify the validity of the items listed.
- .3 If written notice is not given within five (5) days of commencement of Work, it will be assumed that the Contractor has reviewed the site and has accepted the condition of the property as being free of damage.
- .4 Any damages not listed as part of the written notice of clause 1.15.1 above, found after the completion of the Work will be the sole responsibility of the Contractor to rectify. These rectifications shall be completed in a timely and satisfactory manner.

## 1.15 THE WORK, WORK IN PROGRESS, PROPERTY AND PERSONS

- .1 Protect the Work during construction from damage by weather.
- .2 Provide protection as required to protect work in progress and other property from damage and to provide suitable conditions for the progress of finishing work.
- .3 Take reasonable and required measures, including those required by authorities having jurisdiction, to protect the public and those employed on the Work from bodily harm.
- .4 Comply with requirements of the British Columbia Occupational Health and Safety Regulations and Regulations for Construction Projects.
- .5 The Contractor shall be prepared to provide respirators, dust protection, ear protection, hard hats, etc. for those employed by the Consultant and Owner at the Site.
- .6 Direct all Subcontractors to protect their own work, existing property, adjacent public and private property and work of other Sections from damage while working.

#### 1.16 LOCATION OF EXISTING UTILITIES

.1 The contractor shall be responsible for arranging for the location of all existing utilities prior to construction and protection of it during construction.

### 1.17 WORK SITE SAFETY – CONTRACTOR IS "PRIME CONTRACTOR"

- .1 The Contractor shall, for the purposes of the British Columbia Occupational Health and Safety Regulations, and for the duration of the Work and Contract:
  - .1 Be designated as "Prime Contractor" pertaining to safety at the "Work site".
  - .2 Do everything that is reasonably practicable to establish and maintain a system or process that will ensure compliance with the Act and its regulations, as required to ensure the health and safety of all persons at the "Work site".
- .2 The Contractor shall direct all subcontractors, workers and any other persons at the "Work site" on safety related matters, to the extent required to fulfill its "Prime Contractor" responsibilities pursuant to the Act.

## 1.18 MATERIAL AND EQUIPMENT

.1 Unless otherwise specified, Contractor shall provide, maintain and pay for all materials, tools, machinery, equipment, temporary facilities, controls and

conveniences necessary for execution of the Work. All materials shall be new, of merchantable quality, and suitable for the intended purpose.

.2 Unless otherwise specified, comply with Manufacturer's latest printed instructions for materials and installation methods. Notify the Consultant in writing of any conflict between the Contract Documents and Manufacturer's instructions. Deliver, store and maintain packaged materials with Manufacturer's seals and labels intact.

#### 1.19 COORDINATION

- .1 The Contractor is responsible for coordination of trades. Lines of demarcation between Contractor's work and trades' work are solely the responsibility of the Contractor. The Consultant assumes no responsibility for division of the Work or for any jurisdiction regarding such division.
- .2 Contractor is responsible for coordination with the Owner of all on-site activity as it affects the operation of the building.
- .3 The Contractor is to notify the Consultant at least 24 hours in advance for site review. No work shall be covered or concealed until the Consultant has reviewed it, unless they have informed the Contractor that a site review will not be performed. Such review does not absolve the Contractor from their responsibility to perform the Work in accordance with the contract documents.

#### 1.20 WASTE REMOVAL AND CLEANING

- .1 The Contractor shall maintain the Place of the Work free from unsightly or hazardous accumulations of waste materials and rubbish, and shall perform all required cleaning during the Work.
- .2 Provide on-site containers for collection of waste materials and rubbish.
- .3 All wastes, which create hazardous conditions, must be removed from the premises daily.
- .4 Disposal of all waste products to be performed in strict accordance with the product manufacturer Safety Data Sheets (SDS), and in accordance with the provincial Waste Control Regulations. Drainage systems shall not be used to dispose of Project wastes and materials.
- .5 Ensure all moisture sensitive equipment (i.e. exposed electrical and mechanical systems, etc.) are removed or protected against moisture infiltration during washing and dust-generating activities.

Remove all construction-related grease, dust, dirt, stains, labels, fingerprints, overspray and other foreign materials immediately prior to the Consultant's final review. Return all adjacent areas, equipment, duct work, etc. to the Owner in a dust-free condition. Leave site in a neat and tidy condition at completion of the Work.

#### 1.21 SUPERINTENDENCE

- .1 The Contractor shall provide a full time on-site Superintendent that is responsible for the quality, control, organization, and coordination of all phases of the Work. The Superintendent shall be in attendance at all site meetings.
- .2 Superintendence shall be satisfactory to the Owner and the Consultant.
- .3 Superintendence shall be deemed unsatisfactory and changes or additions to superintendence can be demanded by the Owner or Consultant when control, organization, or coordination of the Work is not adequate, the quality of the Work does not meet the Contract Document requirements, directions given in accordance with the Contract Documents are not followed, or progress is behind schedule.

### 1.22 ADMINISTRATION OF PROJECT MEETINGS

- .1 The Consultant shall preside at meetings.
  - .1 A representative of the Consultant shall record the minutes, include significant proceedings and decisions, and identify "action by" parties.
  - .2 The Consultant shall reproduce and distribute copies of minutes to meeting participants, to affected parties not in attendance, to the Owner and Consultant.
- .2 The Consultant shall schedule and administer project meetings.
  - .1 Prepare agenda for meetings.
  - .2 Distribute written notice of each unscheduled meeting three (3) days in advance of meeting date to Contractor, Owner, and relevant Subcontractors.
- .3 The Contractor shall provide physical space and make arrangements for meetings on site.
- .4 Representatives of Contractor, Subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the party each represents.

#### 1.23 PRE-CONSTRUCTION MEETING

- .1 After award of Contract, a meeting of all parties in the Contract shall be held to discuss and resolve administrative procedures and responsibilities.
- .2 Representatives of the Owner, Consultant, Contractor, major Subcontractors, and construction review personnel will attend.
- .3 The Consultant shall establish a time and location of the meeting and shall notify concerned parties at least five (5) days before the meeting.
- .4 Agenda to include the following:
  - .1 Appointment of official representatives of participants of the Work.
  - .2 Schedule of Work, progress scheduling.
  - .3 Shop drawings (if required) and schedule of shop drawing submissions.
  - .4 Requirements of temporary facilities, site signage, hoarding, dust protection, offices, storage sheds, utilities, fences.
  - .5 Delivery schedule of critical equipment.
  - .6 Site security.
  - .7 Contemplated change orders, procedures, approvals required.
  - .8 Take over procedures, acceptance, and warranties.
  - .9 Monthly progress claims, administrative procedures, holdbacks.
  - .10 Appointment of inspection and testing agencies or firms.
  - .11 Insurance, transcript of policies.

### 1.24 PROGRESS MEETING

- .1 During course of Work the Consultant or the Contractor shall schedule progress meetings every two weeks. Further progress meetings may be scheduled by the Consultant, Contractor, or Owner as required to expedite the Work.
- .2 The Consultant, Contractor, major Subcontractors involved in the Work, and Owner when required, are to be in attendance.
- .3 The **CONSULTANT** shall notify parties minimum three (3) days prior to scheduled meetings of any changes to time or place.

## 2.0 PRODUCTS

Not applicable.

## 3.0 EXECUTION

Not applicable.

## 1.0 GENERAL

#### 1.1 WARRANTY/ GUARANTY PERIOD

.1 Provide a two (2) year minimum warranty for all Work of the Contract, including a guaranty secured by Performance Bond for the first 2 years, commencing on the date of substantial performance.

## 2.0 PRODUCTS

Not applicable.

## 3.0 EXECUTION

#### 3.1 REMEDIAL WORK UNDER GUARANTY/WARRANTY

- .1 Perform any required warranty repair work for the duration of the warranty period at no extra cost.
- .2 Notice will be provided to the Contractor during the warranty period within thirty (30) days of the discovery of any defect in the Work. The Contractor shall take necessary steps to protect the area against further damage immediately upon receipt of notice and shall take corrective action to make good any damage incurred. The Contractor shall schedule repair work with the Owner and shall make every attempt to make good the defects within three (3) weeks of notice.
- .3 Remedy is to be at no cost to the Owner and is to include all labour, material, equipment, and supervision necessary to make good defective areas of the Work and any damages incurred to obtain access to defective areas.
- .4 The Contractor must reimburse the Owner for any resulting assessment costs incurred to define the extent of the defect and for costs incurred to test the repaired defect to confirm acceptability of repairs.
- .5 Warranty periods for areas requiring repair are to be extended by the amount of time lapsed between issuance of notice and completion of remedial work. The warranty/ guaranty period will then re-commence upon completion of the remedial work.
- .6 Warranties are not to be deemed to restrict any liability of the Contractor arising out of any applicable law.

## **END OF SECTION**

## 1.0 GENERAL

#### 1.1 WORK INCLUDED

- .1 Provide all labour, materials, equipment and supervision necessary to prepare slab surface, slab soffit, column, wall, and beam repair areas and place new concrete repair material as outlined in this Section.
- .2 All repairs to painted surfaces are to be cleaned and repainted after the concrete repairs have been completed and sufficient time for concrete curing has lapsed.

## 1.2 REPAIR QUANTITY DETERMINATION

.1 Length and width shall be measured to the nearest 25-mm (1 inch). Depth, if applicable, shall be measured to the nearest 25 mm (1 inch).

#### 1.3 REFERENCE STANDARDS

.1	Vancouver Building Bylaw	
.2	CSA-A23.1-14	Concrete Materials and Methods of Concrete
	Construction	
.3	CSA-A23.2-14	Methods of Test for Concrete
.4	CAN/CSA-A3000-13	Cementitious Materials Compendium
.5	CSA-S413-14	Parking Structures
.6	ASTM C260/C260M-10A	Standard Specification for Air-Entraining
		Admixtures for Concrete
.7	ICRI 310.2R-2013	Selecting and Specifying Surface Preparation for
		Sealers, Coatings, Polymer Overlays, and Concrete
		Repair

## 1.4 PERFORMANCE REQUIREMENTS

- .1 Concrete repair surfaces shall not scale or crack excessively.
- .2 The concrete repair materials shall not spall or debond from the existing concrete.

## 1.5 SUBMITTALS

- .1 Submit all mix designs, product specifications, and Manufacturer's recommendations for review by the Consultant a minimum of two weeks prior to placement or use of products.
- .2 Submit details of proposed methods of concrete curing and provisions for weather protection to the Consultant for review a minimum of two weeks prior to placement.

- .3 Submit Manufacturer's product data sheets for proposed curing compounds, admixtures and corrosion inhibitors.
- .4 Do not commence placement of concrete until review is complete and proposed products and procedures are accepted by Consultant.

## 1.6 QUALIFICATIONS

.1 Use only qualified concrete placers and finishers, with a minimum of two years' experience in similar work.

## 2.0 PRODUCTS

#### 2.1 MATERIALS

- .1 Portland Cement to be type GU to CSA-A3000-13
- .2 Aggregate: Natural stone to CSA-A23.1-14
- .3 Water: Potable and to CSA-A23.1-14
- .4 Air entraining agents to ASTM C260/C260M-10A
- .5 Chemicals admixtures to CSA-A3000-13. Calcium chloride is not permitted.
- .6 Pozzolanic mineral admixtures to CSA-A3000-13
- .7 Curing materials to CSA-A23.1-14
- .8 Blended hydraulic cementing material to be type 10SF to CSAA3000-13.
- .9 Supplementary cementing material to be to CSA-A3000-13.
- .10 Superplasticizing admixture to be to CSA-A3000-13.

## 2.2 SURFACE AND THROUGH SLAB DELAMINATION REPAIR CONCRETE MIX – SILICA FUME

.1 Normal weight "ready mixed" Portland cement/silica fume modified concrete mixed in accordance with Section 15, CSA-A23.1-14 class of exposure C-1 with the following requirements:

	<u>Description</u>	Requirements
.1	Compressive strength (28 days)	35 MPa minimum
.2	Air content	6.0% to 9.0%
.3	Aggregate size	13 mm
.4	Slump	
	Prior to superplasticizer	50 mm maximum +/- 20mm
	After superplasticizer	125 mm maximum +/- 25mm
.5	Water/cementing materials ratio	0.40 maximum
.6	Cement content	335 kg/m³ minimum
.7	Cement –Type GU	Normal Portland Cement

	<u>Description</u>	<u>Requirements</u>
.8	Silica Fume – Type U	Minimum 7.5 % Silica Fume by
		mass of cement (25 kg/m <sup>3</sup> min.)
.9	Fly Ash – Type F	Maximum 15% by mass of cement
		(50 kg/cu. m. max)
.10	Concrete density	Normal weight (2360 kg/m <sup>3</sup> )

- .2 The intent of this mix design is to provide a low permeability, high electrical resistivity concrete mix with a coulomb rating less than 1500 when 28-day samples are tested using rapid chloride permeability testing.
- .3 Non-chloride based plasticizers shall be used to facilitate concrete placement as required. Costs associated with the use of such materials shall be included in the contract price. Plasticizer shall be compatible with the air entrainment agent.
- .4 Note that although a maximum slump is specified, the Contractor shall endeavour to provide concrete at the minimum slump that permits placement and handling.
- .5 Mix design is the responsibility of the Contractor.
- .6 Do not add calcium chloride to concrete.
- .7 Addition of water to the concrete mix shall not be permitted on-site. The Contractor shall be permitted to adjust only the quantities of superplasticizer and air entraining agent on-site.
- .8 No concrete shall be placed later than two (2) hours after the time of batching. No re-tempered concrete shall be allowed.
- .9 The Contractor shall use superplasticizers to facilitate concrete placement and must demonstrate to the satisfaction of the Consultant that such admixtures will have no deleterious effect on the durability or strength of the proposed concrete mix (i.e. freeze/thaw durability).

## 2.3 AIR ENTRAINMENT

.1 Air entraining chemical admixtures shall be according to ASTM C260. Ensure chemical admixtures are compatible with one-another and that they will not negatively impact performance of the concrete.

- .2 The total fresh air content of air entrained concrete will be tested via the pressure method with an air meter prior to the placement of concrete in accordance with CSA A23.2-4C.
- .3 Air content in hardened concrete shall meet the requirements of CSA A23.1 and this specification and, if directed by the Consultant, will be tested and determined in accordance with ASTM C457 as outlined in CSA A23.1.

## 2.4 CEMENT SLURRY BONDING AGENT

.1 Cement slurry grout consisting of a mixture of one part cement to one part fine aggregate and enough water to make a "heavy cream" consistency. Aggregate to conform to CSA Standard CSA-A23.1-14 Clause 4.2.3.

## 3.0 EXECUTION

#### 3.1 CONCRETE SURFACE PREPARATION

- .1 All concrete surfaces to receive new concrete shall have a minimum No. 6 CSP per ICRI 310.2R-2013 and be thoroughly abrasive-blast, sandblast or shotblast prior to concrete placement, unless surfaces have received hydro-demolition acceptable to Consultant.
- .2 Clean all existing concrete surfaces to receive new concrete of foreign material, dust, debris, grease and oil as directed by Consultant. Emulsifiers shall be required for surfaces containing grease or oil.
- .3 Contractor to notify Consultant to review surfaces prior to concrete placement.

#### 3.2 CONCRETE PLACEMENT - READY-MIXED CONCRETE

- .1 The patch area shall be thoroughly wetted for a period of not less than three (3) hours, and longer where required to achieve a saturated surface dry (SSD) state, prior to placing of concrete.
- .2 Puddles or free water shall be blown from the patch area and the surface is to be permitted to dry to a saturated surface dry (SSD) state prior to application of cement slurry.
- .3 Apply a cement slurry bonding agent to the surface of the concrete just prior to placing new concrete.
- .4 The cement slurry bonding agent shall be broomed or scrubbed into the deck to fully saturate the surface but not to be allowed to puddle.

- .5 Pre-wet burlap shall be available on site prior to placement of concrete to allow for immediate placement overtop of new concrete patches after their initial set.
- .6 **Do not add extra water to the concrete.**
- .7 On slab top surfaces place new dense concrete thoroughly compacted and vibrated into place to ensure good bond.
  - .1 Ensure reinforcing steel is secured in place and is not disturbed during placement.
  - .2 Vibrators are to be used for consolidation purposes only and are not to be used to an extent that causes segregation of the concrete.
  - .3 Internal vibrators shall conform to CSA A23.1-14 Clause 7.2.5.2 and Table 19: Internal Vibrators for Various Applications.
  - .4 Vibrators shall be inserted into concrete perpendicular to concrete surface.
  - .5 Vibrators shall be inserted such that zones of consolidation always overlap.
- .8 Concrete surfaces to be flush with existing surfaces, free of voids and cracks, and have a uniform surface and transition to the existing surface.
- .9 Finish concrete in accordance with CSA A23.1/A23.2. Initial finish shall be completed before any bleeding or free water is present on the surface of the concrete. Final finishing shall commence after the bleed water has disappeared and when the concrete has stiffened sufficiently to prevent the working of excess mortar to the surface. **Do not add water to finish.**
- .10 Do not overwork concrete surface. Wood float finish is acceptable.
- .11 Do not use steel trowels with air-entrained concrete. For air-entrained concrete, the surface can be further leveled and consolidated with a magnesium bull float for larger repairs or a magnesium trowel for smaller repairs. One or more passes shall be made at suitable time intervals to obtain a level finish free of float marks. Do not work bleed water on the concrete surface into the concrete during finishing.
- .12 If mechanical floats are to be used for final finishing of larger air entrained concrete surfaces, the mechanical floating of the concrete surface shall commence as soon as the concrete surface has reached initial set and will support the weight of a power float machine equipped with magnesium float blades and the operator.
- .13 Cure concrete as outlined in this section.

- .14 Areas of concrete repair completely through the thickness of the slab shall be patched with concrete that is well consolidated and vibrated into place on smooth plywood forms with suitable release agents adequately shored from the slab below, to the approval of the Consultant. Once forms have been removed edges of through slab repair are to be grinded, hand patched, etc. as required to produce smooth (form like) transition from new patch material to the existing slab.
- Do not allow traffic on newly placed repair patches until 75% of the specified 28 day strength has been reached.

## 3.3 CONCRETE MIXING AND PLACING

- .1 Concrete shall be machine mixed. Mixing and placing shall be in accordance with CSA-A23.1-14.
- .2 Concrete shall be conveyed from the mixer to the place of deposit by methods that will ensure the required quality of concrete. Equipment for conveying the concrete shall be of such size and design as shall ensure a practically continuous flow of concrete at the delivery end without separation of materials.
- .3 Concrete shall be deposited into patch repairs as near as practicable to its final position to avoid re-handling.
- .4 Depositing shall be continuous throughout each division and the concrete shall be so placed and worked that a uniform texture will be produced.
- .5 No concrete shall be placed later than one half hour after leaving the mixer. No retempered concrete shall be placed.

#### 3.4 COMPACTION AND VIBRATION

- .1 Concrete shall be consolidated by means of sufficient vibrators of adequate size operated by competent workmen.
- .2 The use of vibrators to transport concrete shall not be allowed.
- .3 Concrete shall be thoroughly worked around reinforcement, embedded items, and into corners.
- .4 Compaction and vibration is to eliminate all air and stone pockets that may cause honeycombing, pitting or planes of weakness.

## 3.5 CONCRETE CURING (SILICA FUME)

- .1 Incorporate fog-mist curing methods or evaporation retarder in order to prevent loss of moisture from concrete repair surfaces in all rapid drying conditions. In these conditions, fog-mist curing shall be initiated immediately after initial finishing, and continued until concrete is covered with wet-curing mats. Rapid-drying conditions may include any of the following:
  - .1 High concrete ambient temperatures
  - .2 Low humidity
  - .3 High winds
  - .4 Direct sunlight
  - .5 Heated interiors during cold weather.
- .2 Initiate surface concrete repair wet curing as soon as possible after the concrete has sufficiently set, and no later than 30 minutes after finishing.
  - .1 Minimum acceptable wet curing method on slab surfaces is installation of pre-saturated filter fabric, burlap, or cotton mats that are covered with soaker hoses and plastic sheeting. Overlap wet-curing mats 150-mm and ballast in place without marring the concrete surface.
  - .2 Wet curing procedures are to keep the concrete surfaces continuously wet for a period of at least ten (10) consecutive days at a minimum temperature of 10° Celsius. Do not permit water to completely evaporate from the concrete surfaces at any time within the wet cure period.
  - .3 Prevent airflow in the space between the wet-curing mats and the plastic sheeting.
- .3 Vertical repair patches are also to be wet cured for the duration of the ten (10) day wet-curing period by either:
  - .1 Maintaining formwork in place with form ties loosened and water applied to run down the inside form face after the concrete has hardened to keep the repair surfaces wet.
  - .2 Removing formwork from vertical surfaces and providing fog misting, light water spray, or application of wet burlap covered with polyethylene to keep the repair surfaces continually wet.
- .4 Continuous water curing of exposed beam and slab soffit repairs is not required; however, exposed concrete soffit surfaces shall be misted with a water spray on a

daily basis during the wet-curing period, or as often as necessary to prevent surface dusting.

- .5 Provide the Consultant with proposed fog-curing and wet-curing procedures at least 2-weeks prior to concrete placement. Any revisions to the proposed procedures must be submitted to the Consultant for review a minimum of one week prior to concrete placement.
- .6 The use of chemical curing compounds is not permitted.
- .7 Protect concrete from the harmful effects of heat, cold, running or surface water, and mechanical shock.
- .8 Do not place concrete when air temperature is below 10° C, or without implementing provisions to ensure proper curing of concrete when -- in the opinion of the Consultant -- there is a possibility of air temperature falling below 10° C. These provisions shall be reviewed by the Consultant and conform to the requirements of CSA-A23.1-14.
- .9 Maintain concrete material and forms between 15° C and 32° C until concrete placement whenever the surrounding air is below 5° C. No frozen material or material containing ice shall be used. All existing concrete, reinforcement, forms, and ground that the concrete will contact is to be free from frost.
- .10 Maintain a curing temperature above 10° C for 10 days or longer to ensure proper concrete curing. Under no circumstances may dry heat be used. Provide means to humidify the air within the heated enclosure and ensure that moisture requirements for curing are maintained.
- .11 Do not allow traffic onto patch until material has adequately cured to 75% of its specified 28-day compressive strength.
- .12 The Consultant will have cause to not certify payment for repairs undertaken without adequate wet-curing procedures or that become surface dry during the specified curing period.

#### 3.6 INSPECTION AND TESTING

- .1 To conform to CSA-A23.2-14.
- .2 Inspection and testing to be conducted by a testing agency designated by the Owner. The Owner will pay costs of inspection and testing described in this section.
- .3 Contractor to inform testing agency 24 hours in advance of concrete placement.

## .4 Testing shall include:

- .1 Preparation and testing of concrete cylinders for compressive strength.
- .2 Establishment of slump and the percentage of entrained air for each concrete truck, unless otherwise directed by Consultant.
- .3 Review of concrete mix designs submitted by the Contractor.
- .4 Bond testing of concrete repair patches to existing concrete where designated by the Consultant.
- .5 Submission of test results to the Owner, Consultant, and the Contractor.
- .6 A minimum of one set (4 cylinders) of concrete cylinders shall be taken for compressive strength testing of concrete patch material used each day unless otherwise directed by Consultant. Concrete cylinders are to be placed in an area with similar curing conditions to that of the cast concrete.
- .5 Testing procedures for concrete shall conform to the following requirements:
  - .1 Compression tests on concrete shall be carried out in accordance with CSA Standard A23.2-14 and A23.1-14 except that a Strength Test shall consist of four test cylinders and one cylinder shall be tested at the age of three (3) days, the second cylinder shall be tested at the age of seven (7) days and the remaining two at an age of 28 days.
  - .2 Slump and air entrainment test shall be conducted at the time of sampling concrete for compressive tests and shall be conducted in conformity with CSA Standard A23.2-14. Slump and air entrainment tests shall be performed on all loads used each day.
- .6 The Contractor shall provide at no additional costs to the Owner:
  - .1 Samples of all material required for testing.
  - .2 Co-operation with the execution of concrete testing, which shall include protection against injury or loss of cylinders.
  - .3 Access for the Testing Company to test and/ or inspect materials.
  - .4 Site storage facilities meeting requirements of CSA A23.2-14 for concrete test specimens prior to removal to laboratory.

## .7 Bond Strength:

- .1 After the concrete repairs have cured, the Testing Company may perform bond strength tests where requested by the Consultant.
- .2 These cores are to be used for the evaluation of the bond strength of the new concrete to the existing by direct tensile force. Testing Company will perform the required drilling through patches selected by Consultant.
- .3 Failure to achieve a minimum tensile bond strength of 0.9 MPa shall constitute failure of patches.
- .4 Contractor to fill all core holes with non-shrink cementitious grout upon completion of the tests.
- .8 Contractor shall pay for costs of additional testing as follows:
  - .1 Additional standby time required due to late delivery by concrete supplier.
  - .2 Additional slump and/ or air tests if first tests indicate that concrete properties are outside of specified requirements and the Contractor wishes to modify the mix and retest. All modifications are to be approved by the Consultant.
  - .3 If the Contractor fails to notify the testing agency of pour cancellation.

## 3.7 FIELD QUALITY CONTROL

- .1 The Consultant shall evaluate bonding of fresh patch material to existing concrete after the fresh patch material has cured sufficiently.
- .2 The evaluation shall be performed by acoustical sounding, using a "chain-drag" or other techniques.
- .3 Hollow sounds detected in repair area provide reason to suspect inadequate bonding. Contractor to core these areas to determine bonding adequacy where requested by the Consultant.
- .4 Coring shall be through the new concrete and into the existing concrete. Core diameter shall be 75-mm, or as required by the Consultant. Length of cores shall be twice the core diameter or twice the thickness of new concrete, unless otherwise requested by the Consultant.

- .5 Cores will be visually inspected after removal and any further testing that is required will be determined by the Consultant.
- .6 Contractor to patch core holes.

#### 3.8 REJECTION OF DEFECTIVE WORK

- .1 The Consultant shall have the right to order additional concrete testing of any portion of repairs in accordance with CSA Standard A23.1-14 if previous testing demonstrates non-conformance with specified requirements. The testing company shall be selected by the Consultant and shall deal directly with the Consultant. Payment for costs associated with the additional concrete testing will be at the Contractor's expense.
- .2 Where it is the Consultant's opinion that material or workmanship fails to meet the specified requirements, the work shall be replaced or repaired to the approval of the Consultant at no additional cost to the Owner.
- .3 Bond failure between repair material and the existing concrete, or failure to meet compressive strength requirements based on compression testing of concrete cylinders, will result in drilling of additional core samples at the Contractor's expense. Failure of these additional samples will require the work to be replaced or repaired to the approval of the Consultant at no additional cost to the Owner.

**END OF SECTION** 

## 1.0 GENERAL

#### 1.1 WORK INCLUDED

- .1 Supply, install, and remove shores, scaffolding, and temporary steel beams as required to support the structure during delamination repairs and to provide positive slab camber during the Work.
- .2 Structural shoring costs are to be included in Lump Sum Price Item 1.5 General Requirements. Base shoring to be determined from quantities shown on typical plan (Drawing R-2.1).
- .3 Supply, install, and remove lateral wall bracing as required.

#### 1.2 SUBMITTALS

- .1 Provide shoring shop drawings that include a shoring design and layout designed by a Professional Engineer licensed to practice in British Columbia a minimum of two weeks prior to starting demolition Work. Professional Engineer is to be retained by the Contractor at no additional cost to the Owner.
  - .1 Shoring shop drawings are to include shoring layouts for randomly located surface, soffit, through-slab, and vertical concrete delamination repairs.
- .2 Shoring shop drawing submission excludes any shoring specifically detailed on the Drawings.

### 1.3 REFERENCE STANDARDS

.1	CSA S269.1-16	Falsework and Formwork
.2	CSA S269.2-16	Access Scaffolding for Construction Purposes
.3	CSA S350-1980 (Rev. 2003)	Code of Practice for Safety in Demolition of
		Structures

## 2.0 PRODUCTS

Not applicable

## 3.0 EXECUTION

### 3.1 STRUCTURAL SLAB SHORING

.1 Support the structure during the Work. Supply and install all shoring and bracing necessary to prevent movement, settlement, or damage to the structure, services, and property.

- .2 Provide additional shoring prior to concrete removal where the Consultant deems it necessary to prevent movement, settlement, or damage to the structure, services, and property based on identified concrete delamination repair locations.
- .3 Provide additional shoring to support suspended sprinkler, piping and mechanical systems during the Work.
- .4 Provide additional shores at the Contractor's expense where it is necessary to support stockpiled rubble and equipment.
- .5 Formwork shoring requirements are in addition to structural shoring requirements.
- .6 Install and arrange slab shoring in a manner that prevents sharp projections that may cause personnel injury.
- .7 Modify the position of shores if requested by the Consultant at no additional cost to Owner.
- .8 Manage and maintain shoring by regularly inspecting and checking installed shoring and bracing components to ensure that supports, fastenings, wedges, ties, and parts are secure.
- .9 Tighten all shores below the level being repaired prior to placement of new concrete repair material.
- .10 Do not strip shores until concrete repair material has reached 75% of design strength, and no sooner than seven (7) days after concrete placement for full-depth slab repairs or three (3) days for top surface delamination repairs.

#### 3.2 LATERAL WALL BRACING

- .1 Install a lateral bracing system in areas where large sections of suspended slab are being completely removed adjacent to exterior foundation walls. The lateral bracing system must be sufficient to support the lateral forces produced by the grade behind these walls.
- .2 The lateral bracing drawings are to form part of the required Engineered shop drawing submission.
- .3 Contractor is to install bracing system prior to concrete removal.
- .4 Bracing system is to remain in place until new concrete has attained 75% of its specified strength.

.5 Contractor is responsible for the management and maintenance of bracing and for removal of all bracing upon completion of contract.

**END OF SECTION** 

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# 1.0 GENERAL

#### 1.1 WORK INCLUDED

.1 Remove sound and unsound concrete from slab surfaces, soffits, columns, and walls where directed by the Consultant as described herein.

# 2.0 PRODUCTS

# 2.1 EQUIPMENT

- .1 Provide hand-held jackhammers for concrete removal that are capable of efficiently removing sound and unsound concrete without causing excessive or unwanted removal.
- .2 Maximum jackhammer size is 15 kg. Light chipping hammers are to be used where the Consultant deems it necessary to reduce the amount of concrete breakage. Maximum light chipping hammer size is 7 kg. The use of light chipping hammers is at no additional cost to the Owner.
- .3 Equipment located outside shall be mufflered or placed within an acoustic enclosure to produce maximum operating noise levels of 70 dBa at 3.0 metres. Noise levels are also to be in accordance with all local and municipal by-laws and regulations.
- .4 Use "Silenced" compressors.
- .5 Compressors and all diesel-powered equipment are to be fitted with a diesel exhaust scrubber.

# 3.0 EXECUTION

#### 3.1 SURFACE CONCRETE REMOVAL

- .1 Actual concrete removal areas to be designated on site by the Consultant. Minimum depth of removal to be 50 mm (2 inches) at patch boundaries. Delamination sizes and locations as shown on the drawings are provided as general guidelines only.
- .2 Take precautions to avoid punching through the slab.
- .3 Outline patch area with a 13 mm (1/2 inch) deep vertical sawcut as close as possible to limits of concrete already removed. Reduce sawcut depth if necessary to avoid cutting reinforcement. Remove concrete to sawcut taking precautions to avoid

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damaging sawcut edge. Edges with spalls or chips will be rejected and shall be resawcut at Contractor's expense.

- .4 Remove concrete within designated areas to obtain a minimum of 25 mm (1 inch) clearance around all exposed reinforcement within the delamination repair. Minimum removal depth shall not be less than 50 mm (2 inches), which may include sound concrete.
- .5 Upon exposure of visibly corroded or debonded reinforcement, additional concrete removal shall be performed until bars appear to be rust-free and well-bonded for a distance of 75 mm (3 inches), and perimeter of designated area is sound, or until otherwise directed by the Consultant.
  - .1 This concrete removal shall not proceed until authorized by Consultant.
  - .2 Contractor shall not receive payment for concrete removals not authorized by and considered necessary to Consultant.
- .6 Excess or unnecessary concrete removal to be at no extra cost to the Contract.
- .7 Call for review by Consultant to confirm acceptability of patch preparation prior to cleaning of reinforcement. After concrete removal has been complete, a final check adjacent to the areas shall be made by the Contractor to determine any additional spalling or delamination which may have occurred. Contractor shall mark out these areas and notify Consultant to make a review.
- .8 Remove additional concrete required to provide adequate development and/or lap for new reinforcing steel required as directed by the Consultant.
- .9 Where the Consultant deems that required concrete removal is excessive adjacent to vertical surfaces, a key is to be chipped into existing columns and walls prior to concrete placement. The key is to have a minimum depth of 40 mm into the vertical element. Install shoring and bracing as required.

#### 3.2 FULL SLAB DEPTH CONCRETE REMOVAL

- .1 All slab concrete is to be removed in areas designated by Consultant.
- .2 Use light chipping hammers at patch perimeters to minimize damage to sound concrete.
- .3 Upon exposure of visibly corroded or debonded reinforcement, additional concrete removal shall be performed until bars appear to be rust-free for a minimum length

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of 75 mm (3 inches) and perimeter of designated area is sound or until otherwise directed by the Consultant.

- .4 Excess or unnecessary concrete removal to be at no extra cost to the Contract.
- .5 Outline patch area with a 13 mm (1/2 inch) deep vertical sawcut at surface and soffit of slab as close as possible to limits of concrete already removed. Reduce sawcut depth if necessary to avoid cutting reinforcement. Remove concrete to sawcut taking precautions to avoid damaging sawcut edge. Edges with spalls or chips will be rejected and shall be resawcut at Contractor's expense.
- .6 Call for review by Consultant to confirm acceptability of patch preparation prior to cleaning of reinforcement.
- .7 Refer to Clause 3.2 for additional removal requirements.

#### 3.3 SOFFIT AND VERTICAL SURFACE CONCRETE REMOVAL

- .1 All unsound soffit concrete is to be removed in areas designated by Consultant.
- .2 Take precautions to avoid punching through the slab.
- .3 Use light chipping hammers for all soffit and vertical concrete removal.
- .4 Remove concrete within designated areas to obtain a minimum of 25 mm (1 inch) clearance around all exposed reinforcement within the delamination repair. Minimum removal depth shall not be less than 50 mm (2 inches), which may include sound concrete.
- .5 Upon exposure of visibly corroded or debonded reinforcement, additional concrete removal shall be performed until bars appear to be rust-free for a distance of 75 mm (3 inches) around the perimeter of a patch or until otherwise directed by the Consultant.
- .6 Excess or unnecessary concrete removal to be at no extra cost to the Contract.
- .7 Outline patch area with a 13 mm (1/2 inch) deep vertical sawcut as close as possible to limits of concrete already removed. Reduce sawcut depth if necessary to avoid cutting reinforcement. Remove concrete to sawcut taking precautions to avoid damaging sawcut edge. Edges with spalls or chips will be rejected and shall be resawcut at Contractor's expense.
- .8 Call for review by Consultant to confirm acceptability of patch preparation prior to cleaning of reinforcement. After concrete removal has been complete, a final check

adjacent to the areas shall be made by the Contractor to determine any additional spalling or delamination which may have occurred. Contractor shall mark out these areas and notify Consultant to make a review

#### 3.4 EXISTING EXPOSED ELECTRICAL SERVICES

- .1 The Contractor shall perform temporary removal, replacement, and/or relocation of existing electrical wiring, conduit, equipment, fixtures, or hardware in designated concrete delamination repair areas as required for completion of the Work.
- .2 All exposed conduit, fixtures, attached devices, wet-sprinkler fire system piping, heads and pull stations, fire extinguishers, mechanical system components, louvers and ducts are to be protected or Contractor to correct damages at his own expense. The Contractor shall promptly report any damage to the Owner and the Consultant.
- .3 Prior to commencing the Work, the Contractor shall contact the Owner to locate all protective or alarm systems and sensors. All services shall be protected against damage or interruption. The Contractor shall provide the Owner with minimum 48 hours advance notice of any necessary interruption. All claims resulting from damage shall be the responsibility of the Contractor.

#### 3.5 EXISTING EMBEDDED ELECTRICAL SERVICES

- .1 It is the Contractor's responsibility to ensure that all potential areas of buried conduit be identified and that all high voltage systems located in the area of work are switched off to prevent possible injury. Co-ordinate requirements with Owner.
- .2 The Contractor shall take the utmost caution during concrete removal operations in order to prevent damage to embedded conduits. Any damage caused to such conduits will be immediately reported to the Owner and Consultant. In no instance will damaged or deteriorated conduits be covered up by the Contractor without specific approval from the Owner.
- .3 Contractor to repair or abandon damaged conduit within the slab at the discretion of the Consultant. Owner to pay for repairs provided that damage did not result from Contractor's negligence.
- .4 Contractor to coordinate required repairs with designated Electrical Sub-Contractor. Owner shall designate Electrical Sub-Contractor for the Work.

#### END OF SECTION

# 1.0 GENERAL

#### 1.1 WORK INCLUDED

.1 Remove sound and unsound concrete from slab surfaces as designated by the Consultant and described herein.

# 2.0 PRODUCTS

# 2.1 EQUIPMENT

- .1 Equipment shall be capable of efficiently removing unsound concrete while ensuring reasonable precautions are taken to avoid punching through the slab.
- .2 Shotblast demolition equipment will be used for the majority of concrete removal. Use of percussive removal methods shall be limited in accordance with Article 3.2 in this section.
- .3 Shotblast demolition equipment shall conform to the following requirements.
  - .1 The shotblasting equipment shall be shielded by a protective housing to contain shot, debris, and fractured concrete projectiles.
  - .2 Have a proven history of performance of similar work, and to operate in a continuous, reliable manner.
  - .3 Be easily and quickly adjusted to produce the same removal contour for varying concrete properties.
  - .4 Equipment located outside of the building shall be mufflered or surrounded by an acoustic enclosure to produce maximum operating noise levels in accordance with local municipal bylaws, but not to exceed 75 dBA at 6 meters. "Silenced" compressor required.
  - .5 Compressor and all diesel-powered equipment to be used in enclosed structure to be fitted with diesel exhaust scrubber.

## 3.0 EXECUTION

#### 3.1 CONCRETE REMOVAL

.1 Actual concrete removal areas to be designated on site by the Consultant. Minimum depth of removal to be 50 mm (2 inches) at patch boundaries.

guidelines only.

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Delamination sizes and locations as shown on the drawings are provided as general

- .2 Minimum marked dimension for concrete removal perpendicular to equipment movement (i.e. pass width) shall be 400 mm (16 inches) on slab surfaces.
- .3 Remove concrete by the application of steel shot at a high velocity from equipment in close proximity to the slab surface. Apply no mechanical impact or vibration to the concrete or reinforcing steel so as not to fracture or delaminate adjacent sound concrete, or create excessive noise, vibration, or discomfort to occupants of buildings.
- .4 Outline patch area with a 13 mm (1/2 inch) deep vertical sawcut as close as possible to limits of concrete already removed. Reduce sawcut depth if necessary to avoid cutting reinforcement. Remove concrete to sawcut taking precautions to avoid damaging sawcut edge. Edges with spalls or chips will be rejected and shall be re-sawcut at Contractor's expense.
- .5 Within designated repair areas, concrete is to be removed to obtain a minimum of 25 mm (1 inch) clearance around exposed reinforcement. Upon exposure of visibly corroded or debonded reinforcement, additional concrete removal shall be performed until bars appear to be rust-free or until otherwise directed by the Consultant.
- .6 Upon exposure of visibly corroded or debonded reinforcement, additional concrete removal shall be performed until bars appear to be rust-free for a distance of 75 mm (3 inches), and perimeter of designated area is sound, or until otherwise directed by the Consultant.
- .7 Excess or unnecessary concrete removal to be at no extra cost to the contract. No additional payment shall be made for concrete removal in excess of the specified clearance, or for unnecessary blow-throughs.
- .8 Remove concrete beneath the reinforcing steel to the same depth as adjacent concrete removal. No concrete "shadow" shall be left below the reinforcing steel.
- .9 After concrete removal has been completed, a final check adjacent to the areas shall be made by the Consultant to determine any additional spalling or delaminations that are to be repaired.
- .10 Remove all rust, scale and corrosion products from the exposed reinforcing steel using shotblast demolition methods. Subsequent or remaining rust, cement paste and deposits shall be removed by sandblasting.

- All lose concrete, sand, debris, etc. to be removed from patch, and reinforcement to be blown dry (if necessary) within 8 hours of shotblasting.
- .12 Call for review by Consultant to confirm acceptability of patch preparation prior to coating of reinforcement.
- .13 Prepare patches and place concrete in accordance with Section 03 01 30.

### 3.2 PERCUSSIVE CONCRETE REMOVAL

- .1 Use of percussive methods of concrete removal shall be limited to:
  - .1 Areas adjacent to column or wall faces (maximum 150 mm width), after completion of shotblast demolition.
  - .2 Areas of concrete "shadow" remaining below reinforcing bars after completion of shotblast demolition.
  - .3 Edge touch-ups (maximum 150 mm width) to provide straight-sided patch perimeters after completion of shotblast demolition.
  - .4 Soffit patches.
- .2 Maximum size of hand-held jackhammer: 15 kg. Smaller size shall be used if necessary, in the opinion of the consultant, to reduce the amount of concrete breakage.

#### 3.3 TEST EXCAVATION - SLAB SURFACE

- .1 In a designated area of approximately 5 square metres, remove deteriorated concrete with proposed shotblast demolition equipment.
- .2 Test excavation to confirm equipment conforms to the requirements of this Section.
- .3 No further concrete removal is to be undertaken until the test excavation confirms the shotblast demolition equipment conforms to the requirements of this Section.

#### 3.4 ELECTRICAL SUPPLY

.1 The Contractor shall confirm the availability of a suitable electrical power supply for shotblast-demolition equipment during the bid. The bid shall include the costs

of any connections or modifications required to connect to the building electrical system, or to provide alternative power sources.

- .2 If the building electrical system is used to perform the Work, reinstate the system to the Owner's satisfaction upon completion. Connections shall be subject to Owner's approval, and paid for by Contractor.
- .3 Electrical consumption for shotblast demolition equipment will be paid by the Owners only if the building's electrical system is used. Contractor shall be responsible for all permits and costs incurred as required to provide any alternative power sources.
- .4 Contractor responsible for remainder of electrical distribution to equipment, including core holes, transformers, connections, and accessories.

## 3.5 EXISTING EXPOSED ELECTRICAL SERVICES

- .1 The Contractor shall perform temporary removal, replacement, and/or relocation of existing electrical wiring, conduit, equipment, fixtures, or hardware in designated areas of full depth or soffit concrete delamination repairs as required for completion of the Work.
- .2 All exposed conduit, fixtures, attached devices, wet-sprinkler fire system piping, heads and pull stations, fire extinguishers, mechanical system components, louvers and ducts are to be protected or Contractor to correct damages at his own expense. The Contractor shall promptly report any damage to the Owner and the Consultant.
- .3 Prior to commencing the Work, the Contractor shall contact the Owner to locate all protective or alarm systems and sensors. All services shall be protected against damage or interruption. The Contractor shall provide the Owner with minimum 48 hours advance notice of any necessary interruption. All claims resulting from damage shall be the responsibility of the Contractor.

#### 3.6 EXISTING EMBEDDED ELECTRICAL SERVICES

- .1 It is the Contractor's responsibility to ensure that all potential areas of buried conduit be identified and that all high voltage systems located in the area of work are switched off to prevent possible injury. Co-ordinate requirements with Owner.
- .2 The Contractor shall take the utmost caution during concrete removal operations in order to prevent damage to buried conduits. Any damage caused to such conduits will be immediately reported to the Owner and Consultant. In no instance

will damaged or deteriorated conduits be covered up by the Contractor without specific approval from the Owner.

.3 Contractor to repair or abandon damaged conduit within the slab at the discretion of the Consultant. Owner to pay for repairs.

## **END OF SECTION**

# 1.0 GENERAL

#### 1.1 WORK INCLUDED

- .1 Clean and prepare existing reinforcement, where exposed in delamination repairs and where otherwise designated by the Consultant.
- .2 Supplement corroded or damaged reinforcement with new replacement reinforcing steel and accessories, including supply, fabrication, handling and placing.

#### 1.2 REFERENCE STANDARDS

.1	Vancouver Building By-Law	7				
.2	CSA-A23.1-14	Concrete	Materials	and	Methods	of Concrete
		Construct	ion			
.3	CSA G30.18-09(R2014)	Carbon St	teel Bars for	Conc	rete Reinfe	orcement
.4	ASTM A775/A775M-16	Standard	Specific	ation	for	Epoxy-Coated
		Reinforcin	ng Steel Bar	S		

- .5 ACI Manual of Standard Practice for Detailing 28th Edition
- .6 CSA W186-M1990 (R2012) Welding of Reinforcing Bars in Reinforced Concrete Construction
- .7 Reinforcing Steel Institute of Ontario (RSIO) Manual of Standard Practice June 2010.

## 1.3 PRODUCT DELIVERY, STORAGE AND HANDLING

- .1 Store and protect reinforcement in a manner that prevents excessive rusting and fouling with dirt, grease, form oil, and other bond-breaking coatings.
- .2 Reinforcement shall be free from excessive rusting, mud, oil or other coatings that adversely affect its bonding capacity at the time concrete is placed.

# 2.0 PRODUCTS

#### 2.1 CONCRETE REINFORCEMENT AND ACCESSORIES - NEW

- .1 Reinforcing steel bars shall conform to CSA G30.18 (grade 400 MPa unless otherwise specified herein or on the drawings.
- .2 Reinforcing bars to be welded shall conform to CSA G30.18-09(R2014).
- .3 Bar supports shall conform to SP-71 (08): ASTM Standards in 318-08 unless otherwise approved by the Consultant.

- .4 Chairs, bolsters, bar supports, spacers shall be epoxy coated or plastic. The use of pebbles, pieces of broken stone or brick, pipe, or wooden blocks will not be permitted.
- .5 Mechanical splices, to Consultant's approval.

# 3.0 EXECUTION

#### 3.1 PREPARATION - REINFORCEMENT IN PLACE

- .1 Exposed reinforcement and steel shall be completely cleaned of cement paste, rust, oil, and contaminants. Dry abrasive blast clean to near-white blast, completely cleaned of all grease, oil, dirt, mil scale, cement paste, old epoxy, etc. Additional cleaning shall be performed if subsequent corrosion occurs after initial cleaning. Wire brush, grinding or similar hand-cleaning methods shall not be permitted.
- .2 The Contractor may elect to cut, remove, and replace damaged or corroded reinforcement with new reinforcement in lieu of cleaning existing exposed reinforcement. Provide required tension lap splices with existing cleaned reinforcement at no additional cost to the Owner.

#### 3.2 INSTALLATION

- .1 Replace or supplement damaged or severely corroded reinforcement that is exposed in concrete delamination repair patches with new reinforcement as directed by the Consultant. Additional reinforcing steel shall be provided when the existing reinforcing steel has a section loss of 20% or greater.
- .2 The replacement reinforcing bars shall be of the same bar size or greater than the original bars. Additional concrete removal may be required (at unit price cost, except as noted in 3.1.2.) to allow for placement of supplemental reinforcing bars. The length of the supplemental bars shall be equal to the length of the deteriorated segment of the existing bars, plus the required lap splices at each end. Splicing requirements shall be in accordance with the Standards. Supplemental bars shall be placed parallel to, and approximately 20-mm from, the existing bars.
- .3 Fully exposed reinforcement for the entire bar length shall be removed and replaced with new reinforcement of the same bar size or greater.
- .4 Accurately place new and existing reinforcement exposed in the delamination repair patches in the positions shown on the drawings. Reinforcement shall be firmly tied and supported by bar supports and side form spacers to ensure proper concrete cover and spacing within allowable tolerances before and during concrete placement.

- .5 Bar supports shall be sufficient in number and strength to carry the reinforcement they support and prevent displacement by workers or equipment before and during concrete placement. Bars shall be tied at all intersections where spacing is greater than 250-mm in each direction and at alternate intersections where spacing is less than 250-mm in each direction.
- .6 Bars may be moved as necessary to avoid interference with other reinforcing steel, conduits, and embedded items. If bars are moved more than one bar diameter, or enough to exceed the specified tolerances, the resulting arrangement of bars shall be subject to approval of the Consultant.

## 3.3 INSPECTION AND TESTING

.1 No concrete shall be placed until the Consultant has completed his review of inplace reinforcing. The Contractor shall provide a minimum of 24 hours' notice of the time when the reinforcement will be substantially in place and ready for the Consultant's review.

END OF SECTION

# 1.0 GENERAL

#### 1.1 WORK INCLUDED

- .1 Provide all labour, materials, equipment and supervision to supply and install new drains including required drain pipes as directed by the Consultant.
- .2 Provide required drain piping and connections to replace existing corroded and/or damaged piping or to connect all new floor drains to the existing drainage system.
- .3 Visit site to ascertain existing conditions and allow for all conditions that will affect the new installation.

# 1.2 PERFORMANCE REQUIREMENTS

- .1 The floor drains and floor drain piping supplied and installed under this Contract shall satisfy the following:
  - .1 Be fully operational and not unduly damage or deteriorate under normal traffic use or hinder the flow of water.
  - .2 All connections and hardware shall remain securely fastened without leaks.

# 2.0 PRODUCTS

#### 2.1 MATERIALS

- .1 Floor drains are to comply with CSA Standard S413M.
- .2 Floor drains and grates shall be of aluminum construction with oven-coated shop-applied fusion epoxy coating. They shall be equipped with a surface grate suitable to resist applied loads and a removable sediment basket. Drains shall be single level drains suitable to drain the thin traffic deck coating surface.
- .3 Approved Floor Drains:
  - .1 Floor Drains:
  - .1 Watts FD-200-L: Floor Drain Complete with the following:
    - 6" x 6" square, nickel bronze, heavy-duty, strainer
    - Sediment basket.
- .4 All drainpipes shall be 4" (100 mm.) diameter cast iron CSA B70.

- .5 Drain pipe insulation to match existing thickness, where present, complete with metal jacket.
- .6 Pipe hangers to be clevis type, Grinnel #G652 or to match existing.
- .7 Risers and all penetrations through floor slabs to be 100 mm M.J. cast iron pipe.
- .8 Provide all traps and clean-outs in new drain lines as necessary to conform to the plumbing and drainage act regulations.

# 3.0 EXECUTION

### 3.1 DRAIN INSTALLATION

- .1 Install drains and associated piping in accordance with this specification and relevant building code and plumbing code requirements.
- .2 Flood test slabs to determine optimum locations for new drains. Consultant to review flood test and mark locations for new drains prior to concrete removal.
- .3 Drain face to be installed to accommodate traffic coating system.
- .4 Remove concrete using jackhammers to accommodate drain installation per installation details provided on Drawings. Do not damage embedded reinforcing.
- .5 Coordinate depth of drain recess with project requirements.
- .6 Connect drains to existing drainage system.
- .7 On suspended slabs, co-ordinate drain installation with application of waterproofing system to maintain positive drainage flows and a complete waterproof seal at the drain.

## 3.2 HANDLING AND STORAGE

- .1 When storing pipe on a flat smooth surface, place smaller diameter pipe on top of larger pipe.
- .2 Do not store pipe close to sources of heat such as boilers, steam lines, engine exhaust outlets, etc.

### 3.3 PIPE RUN INSTALLATION

.1 Space hangers in accordance with the local plumbing code.

- .2 Confirm that no electrical conduit is located at proposed hanger locations.
- .3 Provide cleanouts at maximum intervals of 29'-6" (9.0 m).
- .4 Maintain adequate invert slopes and headroom. All drainage pipes to maintain a minimum slope to drain of 2%.
- .5 Maintain a minimum 6'-6" (2m) clearance beneath drain pipes. Coordinate pipe runs with existing lights and sprinkler pipe locations. Review conditions at the Place of the Work prior to submitting bid and allow for necessary offsets, etc. as required.

# 3.4 FIELD QUALITY CONTROL

- .1 Confirm acceptability of drainage system installations prior to casting concrete.
- .2 Flood test the drainage system to confirm water-tightness and that the system is free draining. Consultant shall be present.

## 3.5 CLEANING OF DRAINAGE SYSTEM

- .1 Contractor to power flush (high pressure jetting, or approved equivalent) all drainage systems within the Work areas to ensure all new and existing drains, drain lines and related piping are totally cleaned, operational and free running.
- .2 Sumps shall be vacuumed clean of all silt and debris upon completion of the drainage system cleaning.
- .3 Clean all sediment buckets of all debris.
- .4 Test drainage system to ensure unobstructed operation.

# **END OF SECTION**

# 1.0 **GENERAL**

#### 1.1 WORK INCLUDED

.1 Provide all labour, materials, equipment and services necessary to paint new parking lines and traffic markings (e.g. directional arrows) on the suspended parking levels except for the roof. Layout, colour and numbering to match existing.

# 1.2 PERFORMANCE REQUIREMENTS

- .1 The traffic line painting performed under this Contract shall satisfy the following requirements:
  - .1 The paint shall not debond or peel off the substrate it is applied to.
  - .2 The paint shall not crack, mark or wear unduly under normal use and maintenance.
  - .3 General appearance and colour of the paint shall have satisfactory ratings (7 or higher according to ASTM D713) after one (1) year of service.
  - .4 The final system must not reduce the skid resistance of the surface to which the coating is applied. Do not over apply.

## 2.0 PRODUCTS

### 2.1 COMPATIBILITY

.1 Line paint is to be suitable for traffic applications and compatible with finished surfaces and selected surface waterproofing system.

#### 2.2 MATERIALS

- .1 Qualified products: only paint materials and products of paint manufacturers listed and approved in MPI Architectural Painting Specification Manual and/ or MPI Maintenance Repainting Manual are acceptable for use on this project.
- .2 Paint materials for each coating formula to be products of a single manufacturer.
- .3 Low odour products: Whenever possible, select products exhibiting low odour characteristics. If two (2) products are otherwise equivalent, select the product with the lowest odour.

- .4 Paint materials shall have good flowing and brushing properties and shall dry or cure free of blemishes or sags.
- .5 Slip resistant additives (SRA): rubber aggregate or clean/washed silica sand for use with or as a component part of paint on horizontal surfaces as required to provide slip resistance. Where site applied, material to either mixed into paint and mixed constantly to keep material in suspension, or broadcast into first or prime coat as required.
- .6 Glass reflective beads shall be of type suitable for application to a wet paint surface for light reflectance to AASHTO-M247, and for adhesion to ASTM D-969.

#### 2.3 COLOURS

- .1 All parking stall lines and traffic demarcations are to match existing color and layout.
- .2 Perform all colour tinting operations prior to delivery of paint to site.
- .3 Only thinners approved by manufacturer shall be used, and only within recommended limits.

#### 2.3 PAINT FINISH

.1 Slab surface line painting shall be in accordance with MPI Maintenance Repainting Manual, Chapter 3.

## 3.0 EXECUTION

#### 3.1 PREPARATION

- .1 Clean all surfaces prior to painting. Remove all surface contaminants such as oil, grease, dirt, foreign matter, rust, mould, mildew, mortar, efflorescence, and loose paint to ensure adequate bonding.
- .2 Follow all other Manufacturer's recommended cleaning and surface preparation procedures.

#### 3.2 INSTALLATION

- .1 Ensure surfaces to receive coating are sufficiently dry and fully cured.
- .2 Provide adequate ventilation and sufficient heating facilities to maintain temperatures above 7°C for 24 hours before, during and 48 hours after application.

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- .3 Supply paint in two (2) coats of 10 mils (250 micrometer) dry film thickness per coat using mechanical applicator or line stencil. Additional coats may be required at Contractor's expense to provide a uniform finish due to porosity of substrate.
- .4 Contractor to follow Manufacturer's recommended application procedures including drying time between subsequent coats.
- .5 Finished line markings shall be 100 mm wide, straight, of uniform width and free of overspray. Overspray to be removed at no additional cost to Owner as directed by Consultant.
- .6 Add glass beads at a broadcast rate of 0.7 kg/litre of paint to crosswalk paint while still wet to reflect the paint as indicated in documents.
- .7 Ensure wet paint is protected

END OF SECTION

#### 1.0 DEFINITIONS AND INTERPRETATION

#### 1.1 Definitions

The following capitalized terms have the meanings set out below when used in the Tender Documents, unless the context requires otherwise:

- (a) "City" means the City of Vancouver;
- (b) "Closing Time" has the meaning set out on the cover page of this ITT;
- (c) "Contract" means a contract substantially in the form of Part D Form Agreement, to be entered into between the City and a successful Tenderer;
- (d) "Contractor" means a Tenderer, the Tender of which the City has accepted, and which Tenderer has consequently entered into a Contract;
- (e) "Drawings" means the portion of the Tender Documents consisting of the graphic and pictorial representations of the Work or Work requirements;
- "Engineer" means the architect, engineer or other professional consultant who will act as the City's agent for the purpose of managing and administering a Contract, who may be an employee of the City or an independent consultant engaged by the City on its behalf;
- (g) "Form of Tender" means the form of tender in Part C Form of Tender to this ITT on which Tenderers are to complete their Tenders;
- (h) "GST" means the tax payable and imposed pursuant to Part IX of the Excise Tax Act (Canada), as amended or replaced from time to time;
- (i) "Information and Privacy Legislation" includes the Freedom of Information and Protection of Privacy Act (British Columbia) and the regulations thereunder;
- (j) "Losses" means, in respect of any matter, all:
  - (i) direct and indirect; and
  - (ii) consequential,

claims, demands, proceedings, losses, damages, liabilities, deficiencies, costs and expenses (including without limitation, all legal and other professional fees and disbursements, interest, penalties and amounts paid in settlement, whether from a third person or otherwise);

(k) "Notice of Award" has the meaning set out in Part C - Form of Tender;

- (I) "Notice to Proceed" has the meaning set out in Part C Form of Tender;
- (m) "PST" means the provincial sales tax payable and imposed pursuant to the *Provincial Sales Tax Act* (British Columbia), as amended or replaced from time to time:
- (n) "Specifications" means the portion of the Tender Documents consisting of the written requirements and standards for products, systems, workmanship, quality, and the services necessary for the performance of the Work;
- (o) "Tender" means a tender submitted to the City in response to this ITT, or as used in Part C Form of Tender, a particular such entity;
- (p) "Tender Contract" means the contract between the City and each Tenderer governing the ITT process;
- (q) "Tender Documents" means the documents identified as such in Part A Introduction;
- (r) "Tenderer" means an entity eligible to participate in this ITT process;
- (s) "Tender Price" means the amount stipulated by the Tenderer in the space provided therefor in the Form of Tender, including all applicable taxes, which price, for greater certainty, is the Tenderer's proposed Contract Price to complete all of the Work:
- (t) "Work" means the total construction and related services required by the Tender Documents; and
- (u) "Work Site" or "Site" means the area or areas on or about the City's property where the Work is to be carried out.

All other capitalized terms used in this ITT have the meanings given to them elsewhere in the ITT.

### 1.2 Interpretation

- (a) In the Tender Documents, any reference to the masculine, the feminine or the neuter includes the others unless the context requires otherwise. Also, any reference to the singular includes the plural where appropriate.
- (b) If there is a conflict between or among (i) the Specifications and Drawings and (ii) the other Tender Documents, the other Tender Documents shall prevail over the Specifications and Drawings.

(c) In these Tender Documents, the word "should" and the terms "is asked to" and "are asked to" are used to denote actions or Tender inclusions that, while not mandatory, are strongly recommended. In contrast, the terms "will", "shall", "must", "is to", "are to", "is required to" and "are required to" are used to denote mandatory requirements of the ITT. If a Tenderer is uncertain as to whether or not a particular action or Tender inclusion is mandatory, the Tenderer should submit an inquiry to the Contact Person.

#### 2.0 SUBMISSION INSTRUCTIONS

- 2.1 Each Tenderer must complete its Tender on the Form of Tender and submit its Tender in accordance with the instructions set forth on the cover page of the ITT and elsewhere herein.
- 2.2 Any Tender received after the Closing Time may be returned unopened to the Tenderer.
- 2.3 Faxed Tenders and/or other documents will not be accepted.
- 2.4 Each Tender must be signed by an authorized signatory or authorized signatories of the Tenderer (as necessary for due execution on behalf of the Tenderer). Each Tender by a company or partnership should specify the full legal name of the legal entity submitting the Tender.
- 2.5 All blank spaces in the Form of Tender should be filled in and all schedules completed. Any failure by a Tenderer to complete the Form of Tender may result in preference being given to competing Tenderers. All prices and notations should be legibly written in a non-erasable medium. Erasures, interlineations or other corrections should be initialled by an authorized signatory of the Tenderer.
- 2.6 Subject to any alternatives or options in respect of which the City requests pricing or other information in a Schedule to the Form of Tender, Tenders are to be all inclusive and without qualification or condition.
- 2.7 The City may, at any time and for any reason, extend the Closing Time by means of a written amendment published on the City's website, as set out in Part A Introduction.
- A Tenderer that has already submitted a Tender may amend its Tender prior to the Closing Time: a) by submitting an amendment identifying a plus or minus variance to the Tenderer's Tender Price; or b) by sending in a completely new Tender, clearly indicating it replaces the previously submitted Tender. Any such revision must clearly identify the ITT number and the Closing Time. A Tender revision submitted as aforesaid shall effectively amend the Tender and the City shall only review and evaluate the Tender as amended.
- 2.9 The City will not be responsible for any cost incurred by any Tenderer in preparing a Tender.

#### 3.0 BONDS

3.1 Tenders will be irrevocable and each offer made therein shall remain open for acceptance by the City for a period of ninety (90) calendar days after the Closing Time. Each Tender must be accompanied by a bid bond valid for a period of ninety (90) calendar days commencing on the Closing Time, payable to the "City of Vancouver, in the amount of ten percent (10%) of the Tender Price, and not a dollar amount, as a guarantee of the due execution of a Contract and the delivery of the performance bond and labour and material payment bond required by the Form of Tender. The forms of these bonds are to be those issued by the Canadian Construction Documents Committee as follows:

Bid Bond	l:			CCDC (latest)	220
Perform	ance E	Bond:		CCDC (latest)	221
Labour Bond:	and	Material	Payment	CCDC (latest)	222

- 3.2 Since Tenders are to be submitted via email as a result of present circumstances, the City will accept scanned copies of bid bonds that otherwise meet the requirements of this ITT, provided such scanned copies are accompanied by an acknowledgement letter from the applicable surety company indicating that the scanned copy of the bid bond submitted will be recognized by the surety as an original copy.
- 3.3 Each Tender must be accompanied by a "Consent of Surety", substantially in the form provided as a schedule to the Form of Tender, duly completed by a surety company authorized and licensed to carry on business in British Columbia.
- The bid bonds of unsuccessful Tenderers will be returned to them upon request of the Tenderer at any time after the Contract is awarded. The bid bond of the Tenderer to whom the award is made will be returned upon request of the Tenderer following: execution of the Contract; delivery of a performance bond for 50% of the Tender Price and a labour and material payment bond for 50% of such price; commencement of the Work; and compliance with any other conditions set out in the Form of Tender. The cost of all bond premiums must be included in the Tender Price.
- 3.5 All bonds must be issued by a surety company authorized and licensed to carry on business in British Columbia.

#### 4.0 TENDER PRICE

- 4.1 Subject to any adjustment for changes to the Work, which is approved by the City in accordance with the Tender Documents or Contract Documents, the Tender Price shall be the maximum compensation owing to the Contractor for the Work and the Contractor's compensation shall cover and include all profit and all costs of supervision, labour, material, equipment, overhead, financing and all other costs and expenses whatsoever incurred in performing the Work.
- 4.2 If unit prices or other price breakdowns are requested in a schedule to the Form of Tender, such information <u>must</u> be included in the Tender. Furthermore, if such unit prices or other price breakdowns are requested in a schedule to the Form of Tender, such amounts may be used to compute interim progress payments and will be reviewed by the City in its evaluation of Tenders; therefore Tenderers should ensure that such amounts accurately reflect their costs for each item. A Tenderer may be required to justify any submitted unit price or other price breakdown.
- 4.3 If an itemized breakdown of the Tender Price is requested in a schedule to the Form of Tender, the City may delete any items in order to meet any budget limitation and award a Contract for only the remaining items to a Tenderer who is agreeable thereto.

#### 5.0 ACCEPTANCE OF TENDERS

- 5.1 Despite anything to the contrary contained in the Tender Documents:
  - (a) Tenderers are notified that the lowest or any Tender need not necessarily be accepted and the City reserves the right to reject any and all Tenders at any time, or cancel the ITT process, without further explanation or to accept any Tender that is considered advantageous to the City.
  - (b) Acceptance of any offer made within a Tender is contingent on funds being approved and a contract award being made by, or pursuant to authority delegated by, Vancouver City Council and the compliance of the Tenderer with the conditions required to be satisfied upon receipt of a Notice of Award.
  - (c) Tenders which fail to conform to the Tender Documents may or may not be disqualified or rejected. The City may or may not waive any non-compliance with the Tender Documents, including any material non-compliance, irregularity or anomaly, and including any non-compliance as to the timing of delivery of anything required by the Tender Documents, and may at its sole discretion elect to retain for consideration Tenders which are non-conforming because they do not contain the content or form required by the Tender Documents or because they have not complied with the process for submission set out in this ITT.

- (d) Where the City is of the view, in its sole discretion, that there is an ambiguity or other discrepancy which cannot be discerned or resolved from examining the contents of a Tender, then whether or not such an ambiguity or discrepancy actually exists on the face of the Tender, the City may, prior to any Contract award, solicit clarification from the Tenderer or accept clarification from the Tenderer on any aspect of the Tender. Such clarification may include the acceptance of any further documents or information which will then form part of the Tender. The soliciting or accepting of such clarification (whether or not solicited) by the City will be without any duty or obligation of the City to advise any other Tenderers or to allow them to vary their Tender Prices as a result of the acceptance of clarification from any one or more Tenderers and the City will have no liability to any Tenderer as a result of such acceptance of clarification.
- (e) The award of any Contract will be based on an evaluation of the Tenders by the City to determine which, in the City's opinion, offer the best overall value to the City. The City expects to place the greatest emphasis on price; however, the City may take into account other factors affecting value, including those concerning quality, service or sustainability, or Tenderers' past work, reputations or experience. The City may also focus, where relevant, on the overall net impact of a Tender (or an offer therein) on the finances of the City (including both capital and operating costs). Therefore, the City may accept a Tender other than the lowest Tender.
- (f) If the City determines that all Tender Prices are too high, all Tenders may be rejected.
- (g) The City may, prior to any Contract award, agree, with the Tenderer considered to provide best value or any one or more Tenderers, to certain changes to the scope of the Work or certain changes to Contract conditions, in each case without having any duty or obligation to advise any other Tenderers or to allow them to vary their Tender Prices as a result of such changes, and the City will have no liability to any other Tenderer as a result of such changes. However, each Tender must be a tender in respect of the Work set forth herein, to complete that Work, under an agreement in the form of the Form of Agreement included as Part D of the ITT, and not propose variations thereto.
- (h) Each Tenderer acknowledges and agrees that the City will not be responsible for Losses incurred by the Tenderer as a result of or arising out of submitting a Tender, or due to the City's acceptance or non-acceptance of its Tender, or any part thereof, or any breach by the City of the Tender Contract between the City and the Tenderer, or arising out of any Contract award not being made in accordance with the express or implied terms of the Tender Documents.
- (i) The City may award a Contract on the basis of policies and preferences not stated in the Tender Documents or otherwise than as stated in the Tender Documents.

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- (j) Prior to any Contract award, a Tenderer may be required to demonstrate financial stability. Should the City so request, a Tenderer may be required to provide annual financial reports or a set of financial statements prepared by an accountant.
- (k) City guidelines or policies that may be applicable to the ITT will not give rise to legal rights on the part of any Tenderer, Contractor, subcontractor, supplier, or other person as against the City and will in no case create any liability on the part of the City. For certainty, the City's Procurement Policy, as amended or replaced from time to time, is now agreed to be an internal guideline document and creates no legal rights or obligations with respect to this ITT.
- (I) The City may reject any Tender by a Tenderer that has engaged in collusion with another Tenderer or otherwise attempted to influence the outcome of the ITT other than through the submission of its Tender.
- (m) The City may elect, in its sole discretion, to accept for consideration Tenders that contain conditions or qualifications that are in the nature of corrections of typos or resolutions of internal inconsistencies in this ITT or the Form of Agreement in Part D, or that represent immaterial changes to the Form of Agreement in Part D and do not consist of changes of substance or changes to allocations of risk, or with respect to the scope of any Work, that are for the avoidance of doubt only and do not suggest any deviation from the requirements of the ITT. This Section 5.1(m) is a reservation of rights for the benefit of the City and no Tenderer may rely on this paragraph to qualify its Tender.

#### 6.0 AWARD OF CONTRACT

- 6.1 Award of a Contract will be subject to approval by, or pursuant to authority delegated by, Vancouver City Council and the Tenderer's compliance with the conditions required to be met upon receipt of the Notice of Award.
- Any successful Tenderer will become a Contractor and will be required to sign a Contract with the City, subject to any amendments approved by the City in writing.

#### 7.0 EXAMINATION OF TENDER DOCUMENTS

- 7.1 Each Tenderer should examine the Tender Documents and must also satisfy itself of the extent of the Work. Each Tenderer must make its own estimate of the facilities and difficulties attending the performance and the completion of the Work.
- 7.2 No allowance will be made on behalf of a Contractor for any error, omission or negligence on the Contractor's part or for non-compliance with the requirements of the foregoing clause 7.1.

#### 8.0 SITE EXAMINATION/PRE-SUBMISSION DUE DILIGENCE BY TENDERER

- 8.1 Tenderers should make a careful examination of the Work Site and investigate and satisfy themselves at their own risk and expense as to all matters relating to the nature and extent of the Work, the means of access to the Work Site, the extent of required coordination with public use of adjacent areas, and any and all matters which are referred to in the Specifications and Drawings and other Tender Documents, or which are necessary for the full and proper completion of any Work or are required by the conditions under which it must be performed. No allowance will be made subsequently for any error, negligence, interpretation, or misinterpretation on a Contractor's part.
- 8.2 The City and the Engineer do not make any representations or warranties concerning the completeness or accuracy of Work Site and geotechnical information (if any) provided in or with the Tender Documents, and each Tenderer must evaluate such information as part of its overall assessment of actual Work Site conditions.
- 8.3 If any Tenderer wishes to evaluate any Work Site conditions, and, for that purpose, requires access or documents from the City beyond the access and documents already provided for in this ITT, the City encourages the Tenderer to submit a written request to the City as far in advance of the Closing Time as is possible. The City will then consider whether or not to facilitate the request. In response to such a request, the City may elect to, itself, undertake a particular study and distribute the results to all Tenderers.

#### 9.0 INTERPRETATION AND CLARIFICATIONS

- 9.1 If any Tenderer is in doubt as to the correct interpretation of any part of the Specifications, Drawings, or other Tender Documents, the Tenderer should request an interpretation of the same from the City by the time stated in Part A Introduction, Section 6.3. In the absence of such a request, the Tenderer's Tender will be presumed to be based upon the interpretation that may be subsequently given in accordance with the Contract Documents, after award of a Contract.
- 9.2 Prior to the Closing Time, requests for clarification of the Specifications, Drawings, or other Tender Documents may be answered in writing by the City and sent to all prospective Tenderers who have submitted a Response Notification Form on or before the indicated deadline. The City is not responsible for any other explanations or interpretations of the Specifications, Drawings or other Tender Documents.

#### 10.0 PRODUCT APPROVAL

10.1 Wherever any material, machinery, equipment or fixture (any "Product") is specified or shown in the Tender Documents by reference to a proprietary item, product or model number, catalogue number, manufacturer or trade name or similar reference, each Tenderer obligates itself to submit its Tender and, if applicable, accept award of a Contract based upon the use of such Product. Use of any such reference in the Tender Documents is

intended to establish the measure of quality which the City (or its Engineer) has determined to be requisite and necessary for the Work. Where two or more Products are shown or specified, the Contractor has the option of which to use.

- 10.2 For approval of Products other than those specified, a Tenderer should submit a request in writing to the City at least five business days prior to the Closing Time. Requests must clearly define and describe the Product for which approval is requested. Requests should be accompanied by manufacturer's literature, specifications, drawings, cuts, performance data or other information necessary to completely describe the items. Approval by the City will only be in the form of an addendum to the Specifications issued by the City.
- 10.3 Approvals of Products, as noted in clause 10.2 above, shall only be deemed effective insofar as the Products conform to the Specifications.

#### 11.0 INSURANCE

- 11.1 Each Tenderer should ensure that it can maintain the insurance described in the Form of Agreement (Part D).
- 11.2 The Tenderer should complete and submit the "Certificate of Existing Insurance" attached as a Schedule to the Form of Tender, together with the "Undertaking of Insurance" attached as a Schedule to the Form of Tender.
- 11.3 Following Contract award, a successful Tenderer will be required to complete a "Certificate of Insurance" for the Work, a copy of which is attached as a schedule to the Form of Tender.

#### 12.0 WORKSAFEBC

12.1 The Tenderer should ensure that it can comply with all WorkSafeBC requirements, as described in the Form of Agreement (Part D).

#### 13.0 LABOUR RATES AND EQUIPMENT

13.1 Tenderers must provide, if requested in a schedule to the Form of Tender, the force account labour and equipment rates setting out the all-inclusive hourly rates for all applicable types of equipment as well as the all-inclusive hourly rates for all applicable categories of labour, which rates will then apply pursuant to any Contract.

#### 14.0 LISTS OF SUBCONTRACTORS AND SUPPLIERS

14.1 Tenderers should provide, if requested in a schedule to the Form of Tender, lists of proposed subcontractors and suppliers, specifying the name and address of, and the portion of the Work to be completed by, or the equipment or materials to be supplied by, each proposed subcontractor or supplier.

14.2 The City reserves the right to object to any of the proposed subcontractors or suppliers listed in a Tender. If the City objects to a listed subcontractor or supplier, then the City will permit a Tenderer to propose a substitute subcontractor or supplier acceptable to the City. A Tenderer will not be required to make such a substitution and, if the City objects to a listed subcontractor or supplier, the Tenderer may, rather than propose a substitute subcontractor or supplier, consider its Tender rejected by the City and, by written notice, withdraw its tender. The City shall, in that event, return the Tenderer's bid security.

#### 15.0 TAXES AND FEES

- 15.1 The successful Tenderer will be required to obtain and pay for any applicable municipal, provincial and federal permits and licences necessary for the proper completion of the Work. The City will not be liable in any manner for the same, and the successful Tenderer agrees to indemnify and save the City harmless from and against all claims and Losses in relation to obtaining and paying for any applicable municipal, provincial and federal permits and licences necessary for the proper completion of the Work.
- 15.2 Each Tenderer's Tender Price (and each other price offered by the Tenderer in its Tender, if applicable) must, unless otherwise expressly stated, be inclusive of all applicable municipal, provincial, federal and other taxes, and all customs and excise duties and other assessments and charges, including sales taxes assessed upon the sale of goods and services to the City under the Contract, and the successful Tenderer agrees to indemnify and save the City harmless from and against all claims which shall be made with respect thereto.

#### 16.0 NON-RESIDENT WITHHOLDING TAX

16.1 Tenderers are advised that, if the Contractor is not a resident of Canada, federal tax legislation may require that a certain percentage of any Contract Price otherwise payable to the Contractor be withheld by the City and remitted to the Receiver-General for Canada. The percentage required to be withheld and remitted varies depending on, among other things, the country of residence, the provisions of any applicable tax treaties and the nature of the payment. Non-resident Tenderers may contact the Vancouver office of the Canada Revenue Agency for further details. Under any Contract, any and all money so withheld and remitted shall be treated as a payment to the Contractor against the Contract Price.

#### 17.0 NO CLAIM AGAINST THE CITY

17.1 The Tenderer acknowledges and agrees that the City will not be responsible for any Losses incurred by the Tenderer, including, without limiting the generality of the foregoing, any Losses incurred by the Tenderer directly or indirectly caused by any act or omission of the City or breach of any agreement or duty by the City, express or implied, and by submitting a Tender each Tenderer shall be deemed to have agreed that it has no claim whatsoever.

- 17.2 The Tenderer now indemnifies and will protect and save the City and any of its employees, advisors or representatives (including the Engineer) harmless from and against all Losses, in respect of any claim or threatened claim by any of its subcontractors, or materials or equipment suppliers alleging or pleading:
  - (a) a breach of the Tender Contract by the City or any of its employees, advisors or representatives (including the Engineer);
  - (b) an unintentional tort, of the City or any of its employees, advisors or representatives (including the Engineer), occurring in the course of conducting this ITT: or
  - (c) liability on any other basis related to the ITT or the Tender Contract.

#### 18.0 DISPUTE RESOLUTION

- Any dispute relating in any manner to this ITT, except only disputes arising between the City and any Tenderer to whom the City has made an award of a Contract, which arise under such Contract, will be resolved by arbitration in accordance with the *Commercial Arbitration Act* (British Columbia), amended as follows:
  - (a) The arbitrator will be selected by the City's Director Supply Chain Management;
  - (b) Sections 17.1 and 17.2 above will:
    - (i) bind the arbitrator, the Tenderer and the City; and
    - (ii) survive any and all awards made by the arbitrator; and
  - (c) The Tenderer will bear all costs of the arbitration.

#### 19.0 CONFIDENTIALITY AND PRIVACY

- 19.1 Each Tender, once submitted to the City, will be held in accordance with the City's role as a public body required under Information and Privacy Legislation to protect or disclose certain types of records according to certain statutory rules. Each Tender, upon submission to the City, will be received and held in confidence by the City, unless and to the extent that it is or must be disclosed pursuant to Information and Privacy Legislation or other applicable legal requirements, and except that the City may publicly disclose information about or from Tenders, including without limitation names and prices, in the course of publicly reporting to the Vancouver City Council about the ITT.
- 19.2 If unsuccessful, a Tenderer, at the City's request, shall destroy or return all copies and originals (in any format or medium) of the Tender Documents.

## 20.0 RELEASE OF INFORMATION RESTRICTED

20.1 The release of information about Tenders is restricted. Tenderers can obtain information concerning the names of the other Tenderers who have submitted a Tender and the Tender Price shown on each Form of Tender at the following website within 48 hours of the Closing Time. However, no other information is anticipated to be disclosed by the City.

http://vancouver.ca/doing-business/unverified-tender-results.aspx

Tender of:			
	Legal Name of Person, Partnership or Corporation (the "Tenderer")		
Business Address:			
Postal or Zip Code:			
Cheques Payable to/Remit to Address:			
Postal or Zip Code:			
Key Contact Person:			
Telephone No.:			
E-mail:			
Tax Registration Numbers (as applicable):			
Dun & Bradstreet Number (if available):		WorkSafeBC Account Number:	
City of Vancouver Business License Number (or, if available, Metro West Inter-municipal Business License Number):		Date, Jurisdiction and Form of Organization (as applicable):	

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Name of Tenderer	Initials of Signing Officer

#### 1.0 **TENDER PRICE AND SCHEDULE**

Having carefully read and examined the Tender Documents, and having agreed to the terms and conditions set out in Parts A and B of the ITT, the undersigned Tenderer (for purposes of this Tender, the "Tenderer") offers to complete the Work and to furnish all plant, tools, equipment, labour, products, material and supervision necessary therefor, and to enter into an agreement in the form of the Form of Agreement set forth as Part D of the ITT to execute the Work, for the Tender Price specified below.

·	
ITT NO. <u>PS20200498</u>	
The Tender Price (including all costs, taxes and fees)(as per Sche	dule A), is
	dollars
and cents (\$	)
The Tender Price <u>includes all PST and GST</u> .	
The Tenderer's offer to complete all of the Work is an offer following schedule:	made according to the
(a) Work will begin by July 13, 2020, subject to the City issuince	a a Notice to Proceed.

- Substantial performance of the Work will occur by May 31, 2021. (b)
- Total performance of the Work will occur by June 30, 2021. (c)

#### 2.0 **ELECTRONIC PAYMENTS ACKNOWLEDGEMENT**

If awarded a contract, the Tenderer agrees that all payments to be made by the City will be by electronic funds transfer, and the Tenderer will provide the City with the necessary banking information to facilitate this process.

#### 3.0 IRREVOCABILITY; NOTICE OF AWARD

The Tenderer agrees that this Tender will be irrevocable and open for acceptance by the City for a period of ninety (90) calendar days commencing on the Closing Time, even if the Tender of another Tenderer is accepted by the City. If within this period the City delivers a written notice by which the City accepts the Tender (a "Notice of Award") the Tenderer

3	the receipt of the Notice of Award, deliver to the City:
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Name of Tenderer	Initials of Signing Officer(s)

- (a) a performance bond and a labour and material payment bond, each in the amount of fifty percent (50%) of the Tender Price, issued by a surety licensed to carry on the business of suretyship in the province of British Columbia, and in a form acceptable to the City;
- (b) a detailed construction schedule consistent with the preliminary construction schedule included in this Tender, which indicates the timing of the major activities of the relevant Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate such Work will be performed by the relevant completion date stated in this Tender;
- (c) a detailed traffic management plan addressing vehicular and pedestrian movement, safety and access with specific detailing on methods, signage and materials used to maintain Work Site operations and access to staff and public users of the Work Site;
- (d) a detailed Work Site-specific safety and health plan addressing as a high-level overview the health and safety issues including, but not limited to hazards, mitigation measures, site orientations, safety meetings, first aid attendant requirements, and training requirements and record keeping;
- (e) a WorkSafeBC number and a "clearance letter" confirming that the Tenderer is in WorkSafeBC compliance;
- (f) a valid City of Vancouver business licence;
- (g) banking details to support payments by Electronic Funds Transfer (EFT); and
- (h) a completed and signed Certificate of Insurance (in the form attached as a schedule to this Form of Tender) indicating that all of the insurance coverage required by the Contract is in place.

### 4.0 NOTICE TO PROCEED

The Tenderer agrees that upon the City's receipt and acceptance (in the City's discretion) of the required submissions listed above, the Tenderer will, within two (2) Working Days, execute and return to the City the Contract and the other Contract Documents requiring execution (in each case, as prepared by the City for execution) and, upon the City's receipt and acceptance thereof, the City may deliver to the Tenderer a "Notice to Proceed", and the Tenderer will:

(a) commence the relevant Work within two (2) Working Days of the receipt of the Notice to Proceed or such longer time as may be otherwise specified in the Notice to Proceed: and

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Name of Tenderer	Initials of Signing Officer(s)

(b) issue, post, and copy the City on the "Notice of Project" as and when required under section 20.2 of the *Occupational Health & Safety Regulation* (BC Regulation 296/97).

#### 5.0 CONDITIONS

- (a) The Tenderer agrees that if the Tenderer receives a Notice of Award or a Notice to Proceed and fails or refuses to comply with the requirements stated in the foregoing clause 3.0 or clause 4.0, as the case may be, then such failure or refusal will be deemed to be a repudiation of the Tender Contract and refusal to enter into the relevant Contract and the City may, on written notice to the Tenderer, award the Contract to another party. It is further agreed that, as full compensation on account of damages suffered by the City because of such failure or refusal, the bid security shall be forfeited to the City in the amount equal to the lesser of:
  - (i) the face value of the bid security; and
  - (ii) the amount by which the Tender Price is less than the amount for which the City contracts with another party to perform the Work.
- (b) The lowest or any submitted tender will not necessarily be accepted. The City reserves the right to reject this Tender at any time without further explanation or to accept any Tender considered advantageous to the City.
- (c) The schedules attached to this Form of Tender form an integral part of the same.

#### 6.0 ADDENDA, AMENDMENTS AND QUESTIONS AND ANSWERS

The Tenderer acknowledges receipt of the following addenda, amendments and questions and answers to the Tender Documents:

	ddendum No.	
	mendment No.	
271201		
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Name of Tenderer Initials of Signing Officer(s)

	Overkiere e la		
	Questions and Answers No.		
	The Tenderer agrees that it thorous contained therein.	ghly understands and accepts the terms and conditions	
7.0	CERTIFICATION		
	The Tenderer represents and warra Tender Documents.	ants that this Tender complies in all respects with the	
8.0	LABOUR		
	The above stated price is based union/non-union labour. (Delete "ur	on the Work under the Contract being performed by nion" or "non-union" as applicable).	
9.0	CONTRACT TERMS IN THE ITT		
		expressly agrees with the City to all of the terms and rt B of the ITT and is bound thereby.	
	D on behalf of the Tenderer this rized signatory or signatories of the	day of20 by the duly Tenderer:	
Per:_			
Name	and Title:		
Per:			
Name	and Title:		
the co	Tenderer has a corporate seal, rporate seal should be applied in ace below:	If the Tenderer is an individual, a proprietorship or a partnership, the above signature(s) should be witnessed:	
		Witness signature	
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Name of Tenderer

Initials of Signing Officer(s)

	Witness name	
	Witness address	
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Name of Tenderer	 Initials o	of Signing Officer(s)

#### SCHEDULE "A"

#### SCHEDULE OF QUANTITIES AND PRICES

EACH TENDER MUST COMPLETE THIS SCHEDULE A, AS AMENDED, IN FULL. EACH PAGE OF THIS SCHEDULE A MUST BE INITIALLED BY THE SIGNATORIES OF THE FORM OF TENDER. TENDERS MUST NOT BE SUBMITTED WITHOUT A COMPLETED, DULY EXECUTED SCHEDULE A.

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Name of Tenderer	Initials of Signing Officer(s)

The Tender Price to complete all of the Work is apportioned in accordance with the following table. The prices shown in each of the numbered rows of the table shall include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, except for GST. GST shall be shown separately on the row provided therefor.

#### NOTE: Prices must be PST-inclusive. Only GST is to be shown as a separate line item.

The sum of the amounts shown in the table below <u>MUST</u> equal the Tender Price stipulated in the space provided in the Form of Tender which, for greater certainty, is the Tenderer's proposed Contract Price for a Contract to complete all of the Work.

EVERY ROW OF THE BELOW TABLE MUST BE COMPLETED WITH A DOLLAR AMOUNT, EVEN IF THAT DOLLAR AMOUNT IS \$0.

1.0 LUM	IP SUM PRICE ITEMS		
Item	Spec No.	Description	Lump Sum Price
1.1	Div 1	General Requirements	\$
1.2 1.2.1 1.2.2	01 78 36	Bonds Labour and Material Bond Performance Bond	\$ \$
1.3	03 01 31	Shoring	\$
1.4	32 17 23 Line Painting		\$
1.5	Net Total (Not Including Applicable Taxes)		\$

2.0 UNIT PRICE ITEMS				
Item	Description	Estimated Quantity	Unit Rate	Total
2.1	Slab Top Surface Delamination Repairs. Average depth 3-in range	14,000 ft <sup>2</sup> (8,000 - 22,000 range ft <sup>2</sup> )	\$/ft²	\$
2.2	Slab Top Surface Delamination Repairs. Average depth 4-in range	1,500 ft <sup>2</sup> (500 - 4,000 range ft <sup>2</sup> )	\$/ft <sup>2</sup>	\$
2.3	Full Depth Delamination Repairs.	500 ft <sup>2</sup> (0 - 1,000 range ft <sup>2</sup> )	\$/ft <sup>2</sup>	\$

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Name of Tenderer	Initials of Signing Officer(s)

2.0 UNIT PRICE ITEMS				
Item	Description	Estimated Quantity	Unit Rate	Total
2.4	Slab Soffit Delamination Repairs. Average depth 3-in range	2,000 ft <sup>2</sup> (1,000 - 3,000 range ft <sup>2</sup> )	\$/ft <sup>2</sup>	\$
2.5	Beam Soffit Delamination Repairs. Average depth 3-in range	500 ft <sup>2</sup> (0 - 1,000 range ft <sup>2</sup> )	\$/ft <sup>2</sup>	\$
2.6	Vertical Delamination Repairs. Average depth 3-in range	1,500 ft <sup>2</sup> (500 - 3,000 range ft <sup>2</sup> )	\$/ft <sup>2</sup>	\$
2.7	Slab Edge Delamination Repairs. Average depth 3-in range	1,000 lineal ft (500 - 2,000 range ft)	\$/ft	\$
2.8	Net Total (Not Including Applicable Taxes)	\$		

3.0 SEPARATE PRICE ITEMS			
Item	Description	Unit	Separate Price
A9.1	Drainage:		
A9.1.1	-Additional Drains including connections to existing drainage system	Each	\$
A9.1.2	- Additional drainage risers and runs, including	Each	\$
A9.1.3	connections		
	-Additional elbows and tees in drainage pipe, including connections	Each	\$
		Avg. depth	
	Rapid Set Top Surface Delamination Repairs:	3″/ft²	\$/ft <sup>2</sup>
A9.2	Rapid Set Top Surface Delamination Repairs.	Avg. depth	\$/ft <sup>2</sup>
		4"/ft <sup>2</sup>	\$/ft <sup>2</sup>
		Full depth /ft <sup>2</sup>	
	Donlacoment Deinforcing Steel	10M/lin ft	\$/ft
A9.3	Replacement Reinforcing Steel:	15M/lin ft	\$/ft
		20M/lin ft	\$/ft

Note: .1 Net Totals are to include all costs.

.2 All Unit Price Item Quantities are estimated and are subject to

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Name of Tenderer	

	variation.	
.3	This table is to be included in the tender	r submission.
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lame of Ten	nderer	Initials of Signing Officer(s)

#### List of Unit Prices for Any Additional Work

These unit prices will be used for changing quantities from those indicated in the Tender Documents or Contract Documents upon written instruction from the City. The unit prices will be applied in accordance with the Contract. The prices should include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, except for GST.

Item	Description	Unit Price (including PST)
1.		\$
2.		\$
3.		\$
4.		\$
5.		\$

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Name of Tenderer	Initials of Signing Officer(s)

#### **Alternate Prices**

These alternate prices will be used to change the scope of the Work upon written instruction from the City. The alternate prices will be applied in accordance with the Contract. The prices should include (i) all labour, material and other costs, (ii) overhead and profit, (iii) PST, and (iv) all other taxes, duties, assessments, charges and fees, except for GST.

	Price Change to Tender Price		
Description	Value to Add to Tender Price (inc. PST)	Value to Deduct from Tender Price (incl. PST)	
1.	\$	\$	
2.	\$	\$	
3.	\$	\$	
4.	\$	\$	

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#### SCHEDULE "B"

#### PRELIMINARY CONSTRUCTION SCHEDULE

The Work is expected to begin by July 13, 2020 and substantial performance is targeted for May 31, 2021. Please clearly define time requirements for project milestones identified in the table below. If necessary, please add an attachment to this Schedule.

TABLE 1 - P	ROJECT MILESTONES
Milestone	Date of Completion
Please clearly define activities to meet the p detailed GANTT chart. If necessary, please add a	roject milestones identified above by providing a an attachment to this schedule.
Additional pages may be attached to this page. "ITT No. PS20200498, FORM OF TENDER - SCHE	Each such additional page is to be clearly marked DULE B", and is to be signed by the Tenderer.
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maj 2020	1 dgc 1 113
Name of Tenderer	Initials of Signing Officer

#### SCHEDULE "C"

#### SUBCONTRACTORS AND SUPPLIERS

#### 1.0 SUBCONTRACTORS

The Tenderer intends to use the following subcontractors for the portions of the Work identified below. (All subcontractors who are proposed to perform any portion of the Work should be listed.)

Subcontractor	Address	Type of Work

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20200498, FORM OF TENDER - SCHEDULE C", and is to be signed by the Tenderer.

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 Initials of Signing Officer

#### 2.0 SUPPLIERS

The Tenderer intends to use the following suppliers and manufacturers for the work.

Supplier	Manufacturer	Supplier Address	Item

	• •	ach such additional page is to E C", and is to be signed by	
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Name of Tenderer		Initials of S	igning Officer

#### SCHEDULE "D"

#### TENDERER'S EXPERIENCE WITH RELATED WORK

Tenderers should confirm that they and their proposed subcontractors have the required experience to perform the Work. Each Tenderer should submit information concerning a minimum of **3** (three) completed projects similar in scope and size to the Work, for each of itself and its proposed subcontractors, including the following information:

Description of Project:		
Location of Project:		
Contract Value:	\$ (C	dn. Dollars)
Start and Completion Dates:		
Completed on Schedule?	Yes No (Circle Correct Response)	
Name of Contract City:		
Name of Project Reference:		
Current Telephone Number	and E-mail of Project Reference:	
Names of Key Personnel and	Subcontractors:	
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Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20200498, FORM OF TENDER - SCHEDULE D", and is to be signed by the Tenderer.

#### SCHEDULE "E"

#### FORCE ACCOUNT LABOUR & EQUIPMENT RATES

Tenderers should complete the following tables setting out the all-inclusive hourly rates for all applicable types of equipment as well as the all-inclusive hourly rates for all applicable categories of labour, which rates will then apply pursuant to any Contract.

TABLE 1 - SCHEDULE OF LABOUR RATES

Job Classification	Regular Rate	Overtime Rate	
	\$	\$	
	\$	\$	
	\$	\$	
	\$	\$	
	\$	\$	
	\$	\$	

#### TABLE 2 - SCHEDULE OF EQUIPMENT RATES

No.	Equipment Description	Hourly Rate	No. of	Overhead	Total Price
		\$		\$	\$
		\$		\$	\$
		\$		\$	\$
		\$		\$	\$

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Name of Tenderer	Initials of Signing Officer

p	 p	<b>p</b>	p	p
	i		i	
:	;		:	: :

Labour and equipment rates must be inclusive of all taxes <u>except for GST</u>, and all assessments, benefits, small tools, overhead and profits.

Additional pages may be attached to this page. Each such additional page is to be clearly marked "ITT No. PS20200498, FORM OF TENDER - SCHEDULE E", and is to be signed by the Tenderer.

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#### SCHEDULE "F"

#### FORM OF CONSENT OF SURETY

PROJECT:	
Should it be required, we the undersigned Surety Coras a surety in an approved Contract Performance B each in the amount of fifty percent (50%) of the awa Contract, which may be awarded to in the attached Tender, which Performance Bond understand are to conform to the applicable CCDC Working Days of receipt of Notice of Award of the Cor	ond and Labour and Material Payment Bond, irded Contract Price for the fulfillment of theat the Tender Price set forth and Labour and Material Payment Bond we forms and be filed with the City within 10
We hereby further declare that the undersigned Suret the Province of British Columbia and that it has a nead the amounts herein set forth.	
The Common Seal of was hereto affixed in the presence of:	
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Name of Tenderer	Initials of Signing Officer

#### SCHEDULE "G"

#### SUSTAINABILITY

1.	Please list any products or services contemplated in the Tender that are toxic or hazardous
	to the environment or humans and complete the following table in relation thereto.

Ite m	Description of Toxin/Hazard	Substantiation for Use	Mitigation strategy to reduce the effect of the Toxin/Hazard

2. Please identify the Tenderer's standard practices for disposal of obsolete or expired products or equipment.

Ite m	Type of Product/Equipment	Disposal Method

3.	Please identify the Tenderer's current or proposed solutions to address and reduce carbo
	missions.

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Ite m	Carbon Emission Risk	Solution to Reduce Carbon Emissions

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#### SCHEDULE "H"

#### CERTIFICATE OF INSURANCE

(TO BE COMPLETED IF AWARDED THE CONTRACT)

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Name of Tenderer

Initials of Signing Officer

Schedule H



#### LIABILITY INSURANCE CERTIFICATE

Section 7 b) – City staff to select the required # of days Written Notice <u>before</u> sending out for completion Section 2 through 7 – to be completed and executed by the Insurer or its Authorized Representative

1.	THIS CERTIFICATE IS ISSUED TO: City of Vancouver, 453 W 12 <sup>th</sup> Avenue, Vancouver, BC, V5Y 1V4 and certifies that the insurance policy (policies) as listed herein has/have been issued to the Named Insured and is/are in full force and effect as of the effective date of the agreement described below.
2.	NAMED INSURED [must be the same name as the Permittee/Licensee or Party(ies) to Contract and is/are either an individual(s) or a legally incorporated company(ies)]
	BUSINESS TRADE NAME OR DOING BUSINESS AS
	BUSINESS ADDRESS
	DESCRIPTION OF OPERATION, CONTRACT, AGREEMENT, LEASE, PERMIT OR LICENSE
2	COMMEDICIAL CENEDAL LIADILITY INCLIDANCE (Occurrence Form)
3.	Including the following coverages:  √ Personal Injury  √ Employees as Additional Insureds  √ Cross Liability or Severability  √ Banket Contractual Liability  √ Broad Form Products & Completed Operations  √ Broad Form Property Damage Incl. Loss of Use  √ Non-Owned Auto Liability  Including the following coverages:  Check Additional Extensions where applicable and included:  Check Additional Insured  Demolition, removal or weakening of support of property  Blasting  Operation of hoist or attached machinery  Members as Additional Insured  Demolition, removal or weakening of support of property  Dem
	INSURER:POLICY NUMBER:
	POLICY PERIOD: FROM:
	Deductible Per Occurrence \$All Risk Tenants' Legal Liability \$
4.	AUTOMOBILE LIABILITY INSURANCE for operation of owned and/or leased vehicles INSURER: LIMITS OF LIABILITY:
	POLICY NUMBER: Combined Single Limit: \$ POLICY PERIOD: From to If vehicles are insured by ICBC, complete and provide Form APV-47.
5.	□ UMBRELLA OR □ EXCESS LIABILITY INSURANCE  Limits of Liability (Bodily Injury and Property Damage Inclusive) -
Э.	INSURER: Per Occurrence \$
	POLICY NUMBER: Aggregate \$
	POLICY PERIOD: From to to Self-Insured Retention \$
6.	OTHER INSURANCE (e.g. Contractors Equipment, Crime, etc.) – Please specify Name of Insurer(s), Policy Number, Policy Period, and Limit
7.	<ul> <li>POLICY PROVISIONS</li> <li>Where required by the governing contract, agreement, lease, permit or license, it is understood and agreed that:</li> <li>a) The City of Vancouver, its officials, officers, employees, servants and agents have been added as Additional Insureds with respect to liability arising out of the operation of the Named Insured pursuant to the governing contract, agreement, lease, permit or license.</li> <li>b) SIXTY (60) days written notice of cancellation or material change resulting in reduction of coverage with respect to any of the policies listed herein, either in part or in whole, will be given by the Insurer to the Holder of this Certificate; the exception is cancellation for non-payment of premiums in which case the applicable statutory conditions will apply.</li> <li>c) The insurance policy (policies) listed herein shall be primary with respect to liability arising out of the operation of the Named Insured. Any insurance or self-insurance maintained by the City of Vancouver shall be in excess of this insurance and shall not contribute to it.</li> </ul>
	SIGNED BY THE INSURER OR ITS AUTHORIZED REPRESENTATIVE
	Date
	PRINT NAME OF THE INSURER OR ITS AUTHORIZED REPRESENTATIVE, ADDRESS AND PHONE NUMBER

#### SCHEDULE "I"

#### CERTIFICATE OF EXISTING INSURANCE

(TO BE COMPLETED AND SUBMITTED WITH TENDER)

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Name of Tenderer



### CERTIFICATE OF EXISTING INSURANCE TO BE COMPLETED AND APPENDED TO THE PROPOSAL/TENDER

	THIS CERTIFICATE IS ISSUED TO: City of Vancouver, 453 W 12 <sup>th</sup> Avenue, Vancouver, BC, V5Y 1V4 and certifies that the insurance policy (policies) as listed herein has/have been issued to the Named Insured and is/are in full force and effect.				
•	NAMED INSURED (must be the same name as the proponent/bidder and is either an individual or a legally incorporated company)			al or a legally	
	BUSINESS TRADE NAME or DOING BUSIN	IESS AS			
BUSINESS ADDRESS					
	DESCRIPTION OF OPERATION				
	PROPERTY INSURANCE (All Risks Covera	ige including	Earthquake and Floor	d)	
	INSURER		Insured Values (Repla	cement Cost) -	
	TYPE OF COVERAGE		Building and Tenants' Ir	nprovements \$	
	POLICY NUMBER		Contents and Equipmer	nt \$ _	
	POLICY NUMBER to to		Deductible Per Loss	\$ _	
١. '	COMMERCIAL GENERAL LIABILITY INSUF	RANCE (Occ			
	Including the following extensions:  √ Personal Injury	POLICY N	JMBER		
	√ Property Damage including Loss of Use	POLICY PE	FRIOD Fro	m	to
	√ Products and Completed Operations	Limits of L	iability (Bodily Injury a	and Property Da	mage Inclusive) -
	√ Cross Liability or Severability of Interest	Per Occurr	ence	\$	
	√ Employees as Additional Insureds	Aggregate		\$	
	√ Blanket Contractual Liability	All Risk Tei	nants' Legal Liability	\$	
	<ul> <li>✓ Products and Completed Operations</li> <li>✓ Cross Liability or Severability of Interest</li> <li>✓ Employees as Additional Insureds</li> <li>✓ Blanket Contractual Liability</li> <li>✓ Non-Owned Auto Liability</li> </ul>	Deductible	Per Occurrence	<b>\$</b>	
	AUTOMOBILE LIABILITY INSURANCE for o	operation of o		icles	
	INSURER		Limits of Liability -	•	
	POLICY NUMBER to to		Combined Single Limit	\$	and market France ABV 47
	☐ UMBRELLA OR ☐ EXCESS LIABILITY				
	INSURER		Per Occurrence		
	POLICY NUMBER to to		Aggregate	\$	
	POLICY PERIOD From to		Self-Insured Retention	<b>&gt;</b>	
	PROFESSIONAL LIABILITY INSURANCE		Limits of Liability		
	INSURER			\$	
	POLICY NUMBER		Aggregate	\$	
	POLICY PERIOD From to		Deductible Per	\$	
	If the policy is in a "CLAIMS MADE" form,	nlassa snac	Occurrence/Claim	nactive Date:	
1		piease speci	ry trie applicable Netro	Dactive Date	
	OTHER INSURANCE		Limito of Liability		
	TYPE OF INSURANCE		Limits of Liability Per Occurrence	¢	
	INSURER	_	Aggregate	φ	
	POLICY NUMBER to to	_	Deductible Per Loss	\$	
	TYPE OF INSURANCE		Limits of Liability	*	
	INSURER		Per Occurrence	\$	
	POLICY NUMBER		Aggregate		
	POLICY PERIOD From to		Deductible Per Loss		
1	1 02.011 2.11001 10.11		Doddolloic I CI L033	Ψ	
	SIGNED BY THE INSURER OR ITS AUTHO	RIZED REPR	ESENTATIVE		

#### SCHEDULE "J"

#### UNDERTAKING OF INSURANCE

To: City of Va	incouver		
Re: Invitation West Pender Str	n to Tender No. PS20200498 - Contracto reet	r for 2020 Parkade Resto	oration at 150
Dear Sirs:			
enclosed with insure the Contr	gned have completed, signed and attached this undertaking and now also do he the "Tender actor in accordance with the requirement fender Documents and will form part of the	nereby undertake and a erer") is awarded a Con ts of the Contract, the fo	igree that if tract, we will
Dated at	, British Columbia, this	day of	20
By:  Title:  Full Corporate Na	ame of Insurer:		
enclosed with the authorized broke EXISTING INSURA	e of Existing Insurance" provided with the this schedule, both of which are to be s er on behalf of the Insurance Company. A ANCE) SHOULD BE SIGNED FOR EACH POL R BROKER FOR ITS POLICIES.	igned by the Insurance C SEPARATE FORM (AND CE	ompany or an
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Name of Tenderer

Initials of Signing Officer

## Schedule "K" DECLARATION OF SUPPLIER CODE OF CONDUCT COMPLIANCE

Purpose: All proposed suppliers are to complete and submit this form to certify compliance with the supplier performance standards set out in the Supplier Code of Conduct.

The City of Vancouver expects each supplier of goods and services to the City to comply with the supplier performance standards set out in the City's Supplier Code of Conduct (SCC) < <a href="http://vancouver.ca/policy\_pdf/AF01401P1.pdf">http://vancouver.ca/policy\_pdf/AF01401P1.pdf</a>>. The SCC defines minimum labour and environmental standards for City suppliers and their subcontractors.

Suppliers are expected to comply with the aforementioned standards upon submitting a tender, proposal, application, expression of interest or quotation to the City, or have a plan in place to comply within a specific period of time. The City reserves the right to determine an appropriate timeframe in which suppliers must come into compliance with these standards. To give effect to these requirements, an authorised signatory of each proposed vendor must complete the following declaration and include this declaration with its submission:

As an authorised signatory of		(vendor name), I d	eclare that I have
reviewed the SCC and to the best of r	ny knowledge,	(ve	endor name) and its
proposed subcontractors have not been	n and are not currently in	n violation of the SCC	or convicted of an
offence under national and other appl	cable laws referred to in t	the SCC, other than as	noted in the table
below (include all violations/conviction corrective action).	ns that have occurred in	the past three years a	as well as plans for
			T 1

Section of SCC / title of	Date of	Description of	Regulatory /	Corrective
law	violation	violation /	adjudication body and	action plan
	/conviction	conviction	document file number	
				!

I understand that a factorial consideration being given		plan may result in no furthe (vendor name).
Signature:		<u></u>
Name and Title:		
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Initials of Signing Officer

Name of Tenderer

#### SCHEDULE "L"

#### CONFLICT OF INTEREST DECLARATION

#### NO CONFLICT OF INTEREST / NO COLLUSION / NO LOBBYING

#### Declaration as to no Conflict of Interest in ITT

- (a) The Tenderer confirms and warrants that there is no officer, director, shareholder, partner, employee or contractor of the Tenderer or of any of its proposed subcontractors, or any other person related to the Tenderer's or any proposed subcontractor's organization (a "person having an interest") or any spouse, business associate, friend or relative of a person having an interest who is:
  - a. an official or employee of the City; or
  - b. related to or has any business or family relationship with an elected official or employee of the City,

in each case, such that there could be any conflict of interest or any appearance of conflict of interest in the evaluation or consideration of the Tender by the City, and, in each case, except as set out, in all material detail in the section titled "Disclosure" in this Schedule "I".

(b) The Tenderer confirms and warrants that there is no person having an interest (as defined above) who is a former official, former employee or former contractor of the City and who has non-public information relevant to the ITT obtained during his or her employment or engagement by the City, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

#### Declaration as to No Conflict of Interest Respecting Proposed Supply

The Tenderer confirms and warrants that neither the Tenderer nor any of its proposed subcontractors is currently engaged in supplying (or is proposing to supply) goods or services to a third party such that entering into an agreement with the City in relation to the subject matter of the ITT would create a conflict of interest or the appearance of a conflict of interest between the Tenderer's duties to the City and the Tenderer's or its subcontractors' duties to such third party, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

#### Declaration as to No Collusion

The Tenderer confirms and warrants that:

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- the Tenderer is not competing within the ITT with any entity with which it is legally (a) or financially associated or affiliated; and
- (b) the Tenderer is not cooperating in any manner in relation to the ITT with any other tenderer responding to the ITT,

in each case, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

#### Declaration as to Lobbying

The Tenderer confirms and warrants that:

- (a) neither it nor any officer, director, shareholder, partner, employee or agent of the Tenderer or any of its proposed subcontractors is registered as a lobbyist under any lobbyist legislation in any jurisdiction in Canada or in the United States of America; and
- (b) neither it nor any officer, director, shareholder, partner, employee or agent of the Tenderer or any of its proposed subcontractors has engaged in any form of political or other lobbying whatsoever with respect to the Tender or sought, other than through the submission of the Tender, to influence the outcome of the ITT,

in each case, except as set out, in all material detail, in the section titled "Disclosure" in this Schedule "L".

Disclosure [Add disclosure here.]

(NOTE: The City will evaluate each matter disclosed to determine whether and to what extent the Tenderer can be given consideration in the ITT in light of the particular matter.)

THE TENDERER HAS EXECUTED AND DELIVERED THIS DECLARATION AS AN INTEGRAL PART OF ITS TENDER IN THE MANNER AND SPACE SET OUT BELOW:

Signature of Authorized Signatory for the Tenderer	Date
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Initials of Signing Officer

·	•
Name and Title	
Signature of Authorized Signatory for the Tenderer	Date
Name and Title	
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Initials of Signing Officer

Name of Tenderer



## INVITATION TO TENDER ("ITT") NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET

# between and CITY OF VANCOUVER

This AGREEME	This AGREEMENT (this "Agreement") is made as of the day of					
·						
BETWEEN:						
	CITY OF VANCOUVER, having an office at 453 West 12 <sup>th</sup> Avenue Vancouver, British Columbia, V5Y 1V4					
	(hereinafter referred to as the "Owner")					
		OF THE FIRST PART				
AND:						
	[NTD: INSERT CONTRACTOR NAME/ADDRESS]					
	(hereinafter referred to as the "Contractor")					
		OF THE SECOND PART				

#### WHEREAS:

- A. The *Owner* has appointed [insert] (hereinafter referred to as the "Contract Administrator" for the purposes of this *Contract*) to act as its sole and exclusive agent for purposes of managing and administering the performance of the *Work* by the *Contractor* in accordance with the *Specifications*, *Drawings* and other *Contract Documents*; and
- B. The *Contractor* has agreed with the *Owner* to perform the *Work* and to furnish all plant, tools, equipment, labour, products, material and supervision necessary therefor as hereinafter set forth.

NOW THEREFORE THIS AGREEMENT WITNESSES as follows:

#### ARTICLE 1 ROLE OF THE CONTRACT ADMINISTRATOR

The Owner hereby designates and appoints the Contract Administrator as its sole and exclusive agent for the purpose of, on behalf of the Owner, managing and administering the performance of the Work, as set out in the Contract Documents. Unless otherwise notified in writing by the Owner to the Contractor, the agency of the Contract Administrator shall continue for the entire duration of this Contract including the period of any guarantees or warranties given by or through the Contractor. In the event of the revocation in writing of the agency of the Contract Administrator by the Owner, the Contract Administrator shall have no further authority under this Contract, except as may

be specifically designated in writing by the *Owner* and agreed to in writing by the *Contract Administrator*, and all references to the *Contract Administrator* in this *Contract* shall thereafter be deemed to be references to the *Owner* or to such other person designated in writing to the *Contractor*. The *Contract Administrator* may from time to time delegate to a representative the performance of, or the authority to perform, the duties, responsibilities, rights and obligations of the *Owner* in respect of which the *Contract Administrator* has been designated and appointed as its sole and exclusive agent.

#### ARTICLE 2 WORK

The *Contractor* will carry out the *Work*, and will furnish all materials, equipment, products, labour, services and supervision necessary to carry out the *Work* as specified in and in accordance with the *Contract Documents*.

All of the *Work* shall be done, performed or furnished by the *Contractor* in a proper and workmanlike manner and in accordance with the requirements of the *Contract Documents* (as hereinafter defined).

#### ARTICLE 3 CONTRACT DOCUMENTS

- 3.1 The following are the *Contract Documents*, whether or not attached to this Agreement:
  - (a) this Agreement and the following schedules:
    - (i) Schedule 1 Supplemental General Conditions;
    - (ii) Schedule 2 Specifications and Drawings (the *Specifications* and Drawings listed in Schedule 2 that are not included in Schedule 2 are incorporated by reference);
    - (iii) Schedule 3 Schedule of Quantities and Prices;
    - (iv) Schedule 4 Subcontractors and Suppliers;
    - (v) Schedule 5 Construction Schedule;
    - (vi) Schedule 6 Performance and Labour and Material Payments Bonds;
    - (vii) Schedule 7 Insurance Certificates;
    - (viii) Schedule 8 Force Account Labour and Equipment Rates;
    - (ix) Schedule 9 Insurance;
    - (x) Schedule 10, City Pre-Contract Assessment Form

- (xi) Schedule 11 Contractor Pre-Contract Hazard Assessment Form
- (b) the "Master Municipal General Conditions" contained within Volume II of the Master Municipal Construction Document (printing 2009), as supplemented by the Supplemental General Conditions attached hereto as Schedule 1 (collectively, the "General Conditions");
- (c) the Tender;
- (d) the *Specifications* and *Drawings* (i.e., those not included in Schedule 2 but incorporated herein by reference);
- (e) the *Traffic Management Plan* provided by the *Contractor* to the *Owner* (incorporated by reference); and
- (f) [insert any others.]
- 3.2 The *Contract Documents* are complementary and what is called for by any one shall be as binding as if called for by all. The intent and spirit of the *Contract Documents* is that the *Contractor* is required to complete the *Work* in every detail within the times and for the purposes designated, and that the *Contractor* shall furnish and do any and everything necessary for such purposes notwithstanding any omission from the *Contract Documents*.

#### ARTICLE 4 SCHEDULE OF WORK

- 4.1 The *Contractor* will commence the *Work* as directed in writing by the *Owner*.
- 4.2 The *Contractor* will perform the *Work* diligently and in accordance with the *Construction Schedule*. The *Contractor* will:
  - (a) achieve Substantial Performance of the Work on or before July 31, 2021; and
  - (b) achieve *Total Performance* of the *Work* on or before August 31, 2021;

(collectively, the "Contract Time"), subject to the provisions of the Contract Documents for adjustments to the Contract Time.

4.3 Time shall be of the essence in this *Contract*.

#### ARTICLE 5 PAYMENT

#### 5.1 Contract Price

(a) The *Contract Price* (inclusive of all PST, GST and other taxes, duties assessments, charges and fees, all permit and inspection costs, and all

WorkSafeBC assessments relating to the Work) to do, perform and supply all the *Work* in accordance with, and perform all the obligations specified by, the *Contract Documents* is [To Be Determined].

- (b) The GST payable by the *Owner* to the *Contractor* is [To Be Determined]. This amount is included in the *Contract Price*.
- (c) The (i) aforesaid GST and (ii) the PST and all other taxes, duties, assessments, charges and fees included in the *Contract Price* will be remitted by the *Contractor* to the applicable authorities as and when the *Owner* pays the *Contract Price* to the *Contractor* or as earlier required by applicable law.
- (d) All amounts are in Canadian dollars.
- (e) The *Contract Price* shall be subject to adjustments as provided for in the *Contract Documents*.
- (f) The payment for any *Work* under this *Contract* which shall be made to the *Contractor* by the *Owner* shall not be construed as an acceptance of any *Work* as being in accordance with the *Contract Documents*. The issuance of the *Certificate of Total Performance* shall constitute a waiver by the *Contractor* of all claims except those previously made in writing and still unsettled, if any, and specified by the *Contractor* in its application for final payment pursuant to Section 5.2(c) above.

#### ARTICLE 6 NOTICES

6.1 Unless otherwise specifically provided in the *Contract Documents*, all notices, instructions, orders or other communications in writing shall be conclusively deemed to have been given to the *Contractor* if delivered to the *Contractor* personally (or in the case of a company, to any of its officers or directors personally), or to the *Contractor*'s superintendent or foreman, or delivered by mail to the *Contractor* at the business address of the *Contractor* set forth below:

#### Contractor:

#### [NTD: Insert Contractor information]

6.2 Unless otherwise specifically provided in the *Contract Documents* all notices, requests, claims or other communications by the *Contractor* shall be in writing and shall be given by personal delivery or by registered mail addressed to the *Owner* at the following address:

Owner:

#### City of Vancouver

453 West 12<sup>th</sup> Avenue Vancouver, British Columbia V5Y 1V4

Attention: [insert],

provided that, each notice, request, claim or other communication that this Agreement requires to be directed to the *Contract Administrator* shall be in writing and shall be given by the *Contractor* by personal delivery or by registered mail, addressed to the *Contract Administrator* at the address set forth below, with a copy to the *Owner* at the address set forth above.

#### Contract Administrator:

#### [insert]

- Any of the said addresses may be changed from time to time by written notice to the other party.
- Any such notices, instructions, orders, requests or other communications sent by mail as aforesaid shall be deemed to have been given on the second business day following the mailing thereof.

#### ARTICLE 7 GENERAL

- 7.1 All capitalized terms used by not defined in this Agreement shall have the meaning given to them in the *General Conditions*.
- 7.2 This Agreement shall inure to the benefit of and be binding upon the respective successors and permitted assigns of the parties hereto.
- 7.3 Except as expressly set forth in the foregoing Section 7.1 or in Schedule 1, nothing in this Agreement shall be construed to give any rights or benefits to anyone other than the *Owner* and the *Contractor*.
- 7.4 This Agreement constitutes the entire agreement between the parties hereto with respect to the subject matter hereof and cancels and supersedes any prior understandings and agreements between the parties hereto with respect thereto. There are no representations, warranties, terms, conditions, undertakings or collateral agreements, express, implied or statutory, between the parties in relation to the subject matter hereof other than as expressly set forth in this Agreement.
- 7.5 No modification of or amendment to this Agreement is valid or binding unless set forth in writing and fully executed by the parties hereto and no waiver of any breach

of any term or provision of this Agreement is effective or binding unless made in writing and signed by the party purporting to give such waiver and, unless otherwise provided, is limited to the specific breach waiver.

- 7.6 This Agreement is governed by and must be construed in accordance with the laws of the Province of British Columbia.
- 7.7 This Agreement is subject to the exclusive jurisdiction of the courts in the Province of British Columbia except to the extent necessary to enforce, in another jurisdiction, any judgment of any court in the Province of British Columbia.
- 7.8 The *Contractor* agrees to do all things and execute all deeds, instruments, transfers or other documents as may be necessary or desirable to give full effect to the provisions of this Agreement and the transactions contemplated by it.
- 7.9 If any term or condition of this Agreement is for any reason held to be illegal, invalid, ineffective, inoperable or otherwise unenforceable, it shall be severed and deemed to be deleted from this Agreement and the validity and enforceability of the remainder of this Agreement shall not be affected or impaired thereby. If any term or condition of this Agreement is found to be illegal, invalid ineffective, inoperable or otherwise unenforceable, but would not be so if some part of it were deleted, the term or condition shall apply with such modifications as may be necessary to make it enforceable.
- 7.10 This Agreement may be executed in any number of counterparts. All counterparts, taken together, constitute one instrument. A party may execute this Agreement by signing any counterpart.
- 7.11 Delivery of an executed signature page to this Agreement by either party by electronic transmission shall be as effective as delivery of a manually executed copy of this Agreement by such party.

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the date first herein above written.

## PART D - FORM OF AGREEMENT CITY OF VANCOUVER by its authorized signatories: Signature: Name: Title: Signature: Name: Title: Signature: Name: Title: [INSERT NAME OF CONTRACTOR] by its authorized signatories:

Signature:	
Name:	
Title:	
Signature:	
Name:	
Title:	
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## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 1 - SUPPLEMENTAL GENERAL CONDITIONS

1.0	DEFINITIONS	In the Contract Documents the following capitalized and italicized words and definitions will apply. Where a definition refers to a paragraph in the Contract Documents the definition is contained in that paragraph and the defined term is indicated as capitalized, in quotations and in brackets.	
1.1	Abnormal Weather	Delete 1.1 and replace as follows:	"Abnormal Weather" means a weather condition that affects the Place of the Work, that is more severe or of a longer duration than the weather conditions that a person experienced with the Place of the Work would reasonably anticipate and that has a materially adverse effect on the Contractor's performance of the Work.  Benchmarks shall be determined by monthly historical data for the Place of the Work, with consideration of annual variation in monthly trends over a 5-year period preceding the construction period.
1.5	Alternate Tender	Delete 1.5	
1.6	Approved Equal	Delete 1.6.1 and replace with	"Approved Equal" has the meaning given to it in GC 4.20.
1.7	Approved Equipment Rental Rate Guide	Deleted 1.7	
1.9	Bid Security	Delete 1.9.1 and replace with	"Bid Security" means the bid security required of the Contractor pursuant to the terms of the Invitation to Tender.
1.21	Contract Administrator	Delete 1.21.1 and replace with	"Contract Administrator" means the person, firm or corporation appointed by the Owner and identified by the Owner in writing to the Contractor. The Contract Administrator may be the Owner's Engineer, an employee of the Owner or a third party engaged by the Owner.
1.22	Contract Document	Delete 1.22.1 and replace with	"Contract Documents" means the documents set out in Article 3 of the Contract.
1.23	Contract Drawing	Delete 1.23.1 and replace with	"Contract Drawing" means a drawing included in Schedule 2 to the Contract, entitled "Specifications and Drawings".

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## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 1 - SUPPLEMENTAL GENERAL CONDITIONS

1.24	Contract Price	Delete 1.24.1 and replace with	"Contract Price" means the amount stipulated in Article 5 of the Contract.
1.33	Drawings	Delete 1.33.1 and replace with	"Drawings" means, collectively, the Contract Drawings, the City of Vancouver Standard Detail Drawings and the MMCD Standard Detail Drawings.
1.40	Hazardous Materials	Delete 1.40.1 and replace with	"Hazardous Materials" means any substance or material that is prohibited, controlled or regulated by any Competent Authority pursuant to any Environmental Law including pollutants, contaminants, dangerous goods or substances, toxic or hazardous substances or materials, wastes (including solid non-hazardous wastes and subject wastes), petroleum and its derivatives and by-products and other hydrocarbons, all as defined in or pursuant to any Environmental Law;
1.46	Notice of Award	Delete 1.46.1 and replace with	"Notice of Award" has the meaning set out in the Invitation to Tender.
1.47	Notice to Proceed	Delete 1.47.1 and replace with	"Notice to Proceed" has the meaning set out in the Invitation to Tender.
1.49	Other Contractor	Append to 1.49.1	"Other Contractor" may include the Owner's own work crews.
1.51	Owner	Delete 1.51 and replace with	"Owner" means the City of Vancouver, a municipal corporation continued pursuant to the Vancouver Charter, acting in its capacity as the owner of the Street, but expressly excludes the City of Vancouver, acting in its regulatory capacity.
1.55	Preliminary Construction Schedule	Delete 1.55.1 and replace with	"Preliminary Construction Schedule" means the schedule submitted by the Contractor as part of its Tender and attached as Schedule 5 of the Contract Documents.
1.60	Schedule of Quantities and Prices	Delete 1.60.1 and replace with	"Schedule of Quantities and Prices" means Schedule 3 of the Contract Documents.
1.64	Site Inspector	Delete and replace with 1.64.1	"Site Inspector" means the person appointed by the Owner or Contract Administrator as set out in GC 3.4.6.
1.67	Substantial Performance	Delete 1.67.1 and replace with	"Substantial Performance" means that the Work is "substantially performed" in accordance with

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			the criteria set out in Section 1(2) of the <i>Builders Lien Act</i> (British Columbia).
1.70	Tender Closing Date and Tender Closing Time	Deleted 1.70 and replace with	"Tender Closing Date" and "Tender Closing Time" have the meanings set out in the Invitation to Tender.
1.71	Tender Price	Delete 1.71.1 and replace with	"Tender Price" has the meaning set out in the Invitation to Tender.
1.80	City	Add 1.80.1	"Approved Abatement Contractor" means a Hazardous Materials contractor approved by the Owner as set out in the Invitation to Tender.
1.81	City Engineer	Add 1.81.1	"City" means the City of Vancouver and shall have the same definition as Owner.
1.82	City of Vancouver Construction Specification	Add 1.82.1	"City Engineer" means the General Manager of Engineering Services with the City of Vancouver or his / her delegate.
1.83	City of Vancouver Standard Detail Drawing	Add 1.83.1	"City of Vancouver Construction Specifications" means the manual of supplementary Specifications to the MMCD produced by the City of Vancouver.
1.84	Competent Authority	Add 1.84.1	"City of Vancouver Standard Detail Drawings" means the manual of supplementary standard detail drawings to the MMCD produced by the City of Vancouver.
1.85	Engineer	Add 1.85.1	"Competent Authority" means:  (a) any multinational, federal, provincial, state, regional, municipal, local or other government or governmental body and any ministry, department, division, bureau, agent, agency, commission, board or authority of any government or governmental body, domestic or foreign;  (b) any domestic, foreign or international judicial, quasi-
			judicial or administrative court, tribunal, commission, board, panel, arbitrator or arbitral body

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- acting under the authority of any of the foregoing; or
- (c) any quasi-governmental or private body exercising any statutory, regulatory, expropriation or taxing authority under the authority of any of the foregoing.
- 1.86 Environmental Add 1.86.1 Law

"Engineer" means the City Engineer.

- "Environmental Law" means any Law which imposes any obligations relating to:
  - (a) the protection, management, conservation or restoration of the natural environment;
  - (b) reporting, licensing, permitting, investigating, remediating and cleaning up in connection with any presence or Release, or the threat of the same, of Hazardous Materials; and
  - (c) the manufacture, processing, distribution. use. treatment, storage, disposal, transport, handling and the like of Hazardous Materials. including those pertaining to occupational health and safety.
- 1.87 Intellectual Add 1.87.1 Property Rights
- "Intellectual Property Rights" means any and all current and future proprietary rights provided under patent law, copyright law, design patent or industrial design law, or any other applicable statutory provision or common law principle, including trade secret law, that may provide a right in ideas, formulae, algorithms, concepts, inventions, know-how, computer software, database or design, or the expression or use thereof, whether registered or unregistered, together with any right to apply for or register any of the foregoing.
- 1.88 Invitation to Add 1.88.1 Tender
- "Initiation to Tender" means the Owner's Invitation to Tender No. PS20200498.

1.89	Key Personnel	Add 1.89.1	"Key Personnel" means the Contractor's or Subcontractor's personnel identified as key personnel in the Invitation to Tender.
1.90	Laws	Add 1.90.1	"Laws" means all laws, statutes, codes, ordinances, decrees, rules, regulations, by-laws, judicial or arbitral or administrative or ministerial or departmental or regulatory judgments, orders, decisions, rulings, determinations or awards of any Competent Authority whether or not having the force of law and any legal requirements or bases of liability under the common law or civil law, including all such Laws relating to Taxes, the environment, human health or safety, pollution and other environmental degradation, and hazardous materials, which affect or are otherwise applicable to the Work, the Contractor, the Site or any other lands affected by the Work.
1.91	Living Wage	Add 1.91.1	"Living Wage" means the hourly wage established by the Living Wage Certifier from time to time, which includes: (i) direct wages; and (ii) the value of any non-mandatory benefits such as paid sick leave, employer-paid Medical Services Plan premiums and extended health benefits.
1.92	Living Wage Certifier	Add 1.92.1	"Living Wage Certifier" means the Living Wage for Families Campaign, any successor entity, or, in the event the Living Wage for Families Campaign ceases to carry on operations, such other Living Wage certification entity designated by the Owner to the Contractor in writing.
1.93	Living Wage Employee	Add 1.93.1	"Living Wage Employee" means any and all employees of the Contractor and all Subcontractors of the Contractor that perform any part of the Work on a property owned by or leased to the Owner, including all Streets, sidewalks and other public rights-of-way, for at least one consecutive hour, but excluding Students, volunteers and employees of Social Enterprises.
1.94	Maintenance Security Holdback	Add 1.94.1	"Maintenance Security Holdback" has the meaning given to it in GC 18.4.6.

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1.95	MMCD Specifications	Add 1.95.1	"MMCD Specifications" means the Specifications contained within Volume II of the Master Municipal Construction Document, as further described in GC 2.5.
1.96	MMCD Standard Detail Drawings	Add 1.96.1	"MMCD Standard Detail Drawings" means the Standard Detail Drawings published by the Master Municipal Construction Documents Association, 2009 version.
1.97	Project Specific Specifications	Add 1.97.1	"Project Specific Specifications" means the Specifications listed in Schedule 2 to the Agreement.
1.98	Quality Audit	Add 1.98.1	"Quality Audit" means those planned activities to determine the degree of compliance of day-to-day practices to the defined systems and procedures.
1.99	Quality Management	Add 1.99.1	"Quality Management" means the determination and execution of quality policy across a project.  Quality Management includes Quality Assurance (QA), Quality Control (QC), and Quality Audits.
1.100	Reasonable Time	Add 1.100.1	"Reasonable Time" means, unless otherwise agreed to in writing, 5 Days.
1.101	Record Drawings	Add 1.101.1	"Record Drawings" are the design drawings which have been amended as required to reflect the actual constructed Work.
1.102	Release	Add 1.102.1	"Release" means any release or discharge of any Hazardous Materials including any discharge, spray, injection, inoculation, abandonment, deposit, spillage, leakage, seepage, pouring, emission, emptying, throwing, dumping, placing, exhausting, escape, leach, migration, dispersal, dispensing or disposal.
1.103	Social Enterprise	Add 1.103.1	"Social Enterprise" means a business that: (i) is owned by a non-profit organization or community services co-operative; (ii) is directly involved in the production and/or selling of goods and services for the combined purpose of generating income and achieving social, cultural, and/or environmental aims; and (iii) has a defined social and/or environmental mandate.
1.104	Specifications	Add 1.104.1	"Specifications" mean the portion of the

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			Contract Documents, wherever located and whenever issued, consisting of the written requirements and standards for products, systems, workmanship, quality, and the services necessary for the performance of the <i>Work</i> .
1.105	Street	Add 1.105.1	"Street" means public rights-of-way belonging to the City of Vancouver and includes lanes.
1.106	Student	Add 1.106.1	"Student" means an individual who is enrolled in a school, college, university or other educational institution and is employed by the <i>Contractor</i> or a Subcontractor, as the case may be, to obtain practical workplace experience as a requirement of or credit for their education.
1.107	Tender	Add 1.107.1	"Tender" means the Contractor's tender, tendered in response to the Invitation to Tender.
1.108	Third-Party Property	Add 1.108.1	"Third-Party Property" means a property owned by a third party on which some or all of the Work is to be performed.
1.109	Third-Party Utility	Add 1.109.1	"Third-Party Utility" means a utility within a City of Vancouver right-of-way other than those owned by the City of Vancouver.
1.110	Warranty Period	Add 1.110.1	"Warranty Period" shall have the same meaning as Maintenance Period.
2.0	DOCUMENTS		
2.1	Execution	Add 2.1.0	The <i>Contractor</i> shall deliver all required submittals as described in the <i>Notice of Award</i> , and in a format acceptable to the <i>Owner</i> within the time specified in the <i>Notice of Award</i>
		Delete 2.1.1	Delete 2.1.1
		Delete 2.1.2 and replace with	The <i>Contractor</i> shall sign the <i>Contract Documents</i> and return them to the <i>Contract Administrator</i> within 15 <i>Days</i> after receiving them and the <i>Contract Administrator</i> shall forward them to the <i>Owner</i> for signing.
2.2	Interpretation	Delete 2.2.4 and replace with	Should any difference exist between the <i>Drawings</i> and <i>Specifications</i> , or should any errors or inconsistency occur in any or between any of the <i>Drawings</i> and <i>Specifications</i> , the <i>Contractor</i> , before proceeding, shall bring them to the attention of the <i>Contract Administrator</i> . The

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Contract Administrator shall resolve the error or inconsistency and the Contractor shall proceed with the Work in the manner directed by the Contract Administrator.

The Contract Administrator will furnish from time to time such detail drawings and specifications as Administrator Contract may consider necessary for the Contractor's guidance. These detail drawings and specification shall considered **Drawings** and Specifications, respectively, and shall take precedence over any previously furnished Drawings or Specifications, and shall be considered as explanatory of them and not as indicating Changes in the Work or as giving rise to any entitlement to a change in the Contract Price.

The *Contract Documents* shall govern and take precedence in the following order or priority with the *Contract* taking precedence over all other *Contract Documents*:

- (a) Agreement
- (b) Addenda
- (c) Supplementary General Conditions
- (d) General Conditions
- (e) Project Specific Specifications
- (f) City of Vancouver Construction Specifications
- (g) MMCD Specifications
- (h) City of Vancouver Standard Detail Drawings
- (i) MMCD Standard Detail Drawings
- (j) Tender
- (k) Invitation to Tenders
- (I) All other Contract Documents

Drawings of a larger scale shall govern over Drawings at a smaller scale.

Documents of later date shall govern a similar type of document of an earlier date. Figured dimensions on a Drawing shall govern over scaled

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measurements on the same Drawing. Scaling of dimensions, if done, is done at the *Contractor's* own risk. All dimensions on the *Drawings*, except as noted thereon, are shown in metric units.

The *Drawings* forming part of the *Contract* are intended to show the position and extent of the *Work*, the general features of the design and construction, and the dimensions and proportions of all principal parts, but neither they nor the Specifications are guaranteed to show or describe every part or detail of the *Work*; anything omitted from the *Drawings* and Specifications, which may fairly be considered to be necessary for the proper execution and completion of the *Work*, shall be deemed to be required of the *Contractor* under the *Contract*.

Add 2.2.5

Notwithstanding GC 2.2.4, in the event of any inconsistency between the *Drawings* and Specifications or between any other *Contract Documents* or within any *Contract Documents* which could be construed as creating an ambiguity regarding the amount of *Work* involved, the cost or amount of product to be supplied, the *Contract Price* being lower or higher, or any other similar discrepancy or inconsistency, the discrepancy or conflict will be resolved as follows:

- the more stringent will take precedence over the less stringent;
- (2) the more expensive item will take precedence over the less expensive; and

if none of the foregoing rules (1) and (2) can be applied by the *Contract Administrator*, the more specific provision will take precedence over the less specific.

Add 2.2.6

In this *Contract*, the masculine includes the feminine and bodies corporate, and each includes the others. Also, any reference to the singular includes the plural where appropriate.

2.3 Instructions to Tenderers, General

Delete 2.3.1

Delete 2.3.1

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	Conditions, Specifications, Standard Detail Drawings		
2.4	Copies of Contract Documents	Append to 2.4.1	All <i>Drawings</i> , <i>Specifications</i> , model and copies thereof furnished by the <i>Contract Administrator</i> are and shall remain the <i>Owner's</i> property. Such documents and models are to be used only with respect to the <i>Work</i> , are not to be copied or revised in any manner without the written authorization of the <i>Contract Administrator</i> and are to be returned to the <i>Contract Administrator</i> on request at the completion of the <i>Work</i> .
2.5	Master Municipal Specifications and Standard Detail Drawings	Add 2.5	The <i>Contract Documents</i> incorporate by reference the "Master Municipal Specifications and Standard Detail Drawings" contained within Volume II of the Master Municipal Construction Document (printing 2009), as supplemented by the City of Vancouver Standard Detail Drawings (rev. [Date]) and the City of Vancouver Construction Specifications(rev. [Date]).
3.0	CONTRACT ADMINISTRATOR		
3.1	Appointment	Delete 3.1.2 and replace with	If for any reason the <i>Contract Administrator's</i> appointment is discontinued, then the <i>Owner</i> shall immediately notify the <i>Contractor</i> and appoint a replacement.
3.2	Authority	Add 3.2.3	Resolution of any discrepancy in technical nature between this manual, and any other referenced sources such as <i>MMCD</i> that is not covered by other <i>City</i> regulations, shall be at the sole discretion of the <i>Contract Administrator</i> , in consultation with the City Engineer.
3.3	Contract Administrator	Append to 3.3.7	The Contract Administrator is not required to acknowledge any communications from the Contractor's personnel, except for the Superintendent set out in the Contract. Any communications which occurs with personnel other than the Superintendent, regardless of format, which are not acknowledged by the Contract Administrator in writing, may, at the

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Contract Administrator's sole discretion shall have no bearing on any portion of the *Contract*. The Contract Administrator, in consultation with Delete 3.3.8 and replace with the City Engineer, shall conduct inspections to determine the dates of Substantial Performance and Total Performance. Add 3.3.10 The Contract Administrator, in consultation with the City Engineer, has the authority to stop the progress of the Work whenever in the Contract Administrator's opinion such stoppage may be necessary to ensure the safety of life, or the Work or neighbouring property. This includes authority to make Changes in the Work, and to order, assess and award the cost of work extra to the Contract or otherwise, as may in the Contract Administrator's opinion be necessary in such circumstances. The Contract Administrator shall within 2 Days confirm in writing any instructions given verbally. 3.4 Inspection and Append to 3.4.6 Such inspections may extend to any or all parts of Site Inspector the Work and to the preparation or manufacture of the products to be used whether on Site or elsewhere. Site Inspectors and surveyors shall not be authorized to revoke, alter, enlarge or accept any portion of the Work or to issue instructions contrary to the *Drawings* and *Specifications*. Add 3.4.9 In the absence of Contract Administrator, any of the Contract Administrator's personnel, whom the Contract Administrator may designate in writing to the Contractor to supervise the Work, shall have (subject to the instructions of the Contract Administrator) full power to decide as to the manner of conducting and executing the Work in every particular aspect, subject to the limitations to the Contract Administrator's authority as contained within the Contract Documents, and the Contractor shall follow the instructions or orders of the person so designated. 3.5 **Progress** Add 3.5.2 The Contractor shall provide the Contract **Payments** Administrator with daily breakdowns of units installed as it relates to payment, complete with corresponding weigh tickets or other relevant

documentation. These summaries will be provided intervals determined by the Contract Administrator, but will be no greater than 5 Days. Add 3.5.3 The Contractor shall not work on the Site, or cause the delivery of materials for which delivery slips submitted to the Owner are the basis of payment unless the Site Inspector is present, unless otherwise approved in writing by the Contract Administrator. Contract Delete 3.6.1 and The Contract Administrator will be the interpreter 3.6 of the Contract Documents and the judge of the Interpretation replace with and Decisions performance of both parties to the Contract. Interpretations and decisions of the Contract Administrator shall be consistent with the Contract Documents. Add 3.6.4 Notwithstanding GC 3.6.3, on all questions to the acceptability of material, machinery or plant equipment, classifications of material or Work, the proper execution, progress or sequence of the Work, quantities and the interpretation of these Specifications decision of the Drawings, the Contract Administrator, in consultation with the City Engineer, shall be final and binding, and shall be a condition precedent to any payment under the Contract. 4.0 CONTRACTOR Control of the 4.1 Add 4.1.0 The Contractor shall not commence the Work or Work procure any material therefore until it has received the Notice to Proceed from the Owner. Forthwith after the receipt of the Notice to Proceed, the Contractor shall at once begin and continuously carry on to completion (subject as herein provided) the Work and shall complete and give full possession thereof to the Owner before the date for *Total Performance* specified herein, unless a longer period shall be allowed in writing

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by the *Contract Administrator*, in which case it shall be carried on to completion and possession given to the *Owner* within the additional time so allowed. No progress or interim estimate or certificate shall release the *Contractor* or its

surety from any responsibility or shall be taken as evidence of any such release, or as an acceptance of any *Work* or material, or as a waiver of any condition herein.

The whole Work and every portion and detail thereof shall, at the time of completion, be put and left by the *Contractor* in good and satisfactory condition, finished in all respects and at the time must be fully up to the requirements of the Drawings and Specifications in every particular aspect; and all surplus and refuse material and rubbish must be removed by the *Contractor* from the vicinity of the Work; the Site must be left by the Contractor in a neat and tidy condition; all damages adjacent property, to including pavements, foot walks, boulevards, sod, trees, shrubs and plants, or other things injured or interfered with by the Contractor, or in any way due to its Work, must be made good by the Contractor; all wages must be paid, and every other requirement of the Contract must be complied with by the Contractor.

Add 4.1.3

The *Contractor* shall maintain all areas disturbed with competent temporary repair to the satisfaction of the *Contract Administrator*, in consultation with the *City Engineer*, until such areas are permanently repaired. In the event the *Contractor* fails or neglects to carry out such tasks for whatever reasons, the *City* may do the necessary repairs at the expense of the *Contractor*.

4.3 Protection of Work, Property, and the Public

Delete 4.3.1 and replace with

In performing the *Work*, the *Contractor* shall protect the *Work* and the *Owner's* property and other person's property from damage. The *Contractor* shall at the *Contractor's* own expense make good any such damage which arises as the result of the *Contractor's* operations.

Append to 4.3.4(1)

It shall be the responsibility of the *Contractor* to locate all existing mains and services, including but not limited to: water, gas, electricity, telephone, sewers, drains, catchbasin leads, and culverts to preserve and protect them from

damage during the *Work*, and to arrange for their relocation if required. No payment will be made to the *Contractor* for the cost of finding these mains and services or the delay incurred by checking and adjusting lines and/or grades to avoid conflict with these mains and services. The *Contractor* shall avoid interruptions to services and the use of "cut and replace" methodology except with the express written consent of the *Contract Administrator*, in consultation with the *City Engineer*.

The Contractor shall notify the Contract Administrator of any conflict between existing mains and services and the Work described in the Contract **Documents** for the Contract Administrator to revise the Work accordingly. The Contractor will be responsible for the cost of adjusting or relaying any previously completed existing work as a result of conflicting utilities. If relocation of existing mains and services is required by any direct conflict between these mains and services and the Work in the Contract Documents which, in the opinion of the Contract Administrator, cannot be avoided by adjustments in the location of the Work, the cost of the relocation shall be borne by the Owner.

Append to 4.3.4(2)

In performing *Work* on or near *Third-Party Utilities* or where it is necessary to cut, move or alter these *Third-Party Utilities*, the *Contractor* shall communicate and coordinate with the *Third-Party Utility* as it relates to schedule, timing, site safety and compliance in the utility alterations or relocations as part of performing the overall *Work*.

Add 4.3.4(4)

The Contractor shall submit a confirmation letter to the *Contract Administrator*, at least 1 week prior to any excavation Work, confirming that the *Contractor* has identified all the existing utilities within the proposed alignments and trenches, and no conflicts exist between the existing utilities and the proposed *Work*.

Add 4.3.7

Before commencing any construction Work as

described in the *Drawings* and *Specifications*, the *Contractor* shall provide to the *Contract Administrator* photographs of pre-existing conditions of the area that will be disturbed during construction operations. Photographs must be obtained as follows:

- (1) Every 10m interval in easements;
- (2) Every 20m interval in paved areas;
- (3) Wherever any tree or structure may be damaged due to construction activity; and,
- (4) Any other location as directed by the *Contract Administrator*.

The photographs shall be taken with a digital camera 5 megapixels or better and catalogued in albums saved on flash drives.

Add 4.3.8

The extents of rights-of-way to be provided by the *Owner* is shown on the *Contract Drawings*.

Where any part of the *Work* is to be performed on *Third-Party Property*, the *Owner* shall arrange for and acquire required rights-of-way. The *Contractor* shall perform all such *Work* in accordance with all agreements between the *Owner* and each *Third-Party Property* owner.

On completion of any Work on a Third-Party Property, the Contractor shall deliver to the Contract Administrator, a formal release in writing, in a form provided by the Owner, signed by the owner Third-Party Property on which the Work was performed, verifying that the Contractor has restored the Third-Party Property to that owner's satisfaction, and that the Third-Party Property owner is waiving all claims upon the Contractor or the Owner as a result of the Work.

Where the *Contractor* makes private arrangements for the use of *Third-Party Property*, the *Contractor* shall obtain a signed document from the owner of the *Third-Party Property* granting such permission to the *Contractor* and provide a copy to the *Contract Administrator*.

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If the *Contractor* does not make good any damage caused to a *Third-Party Property* in a timely and satisfactory manner, then at the discretion of the *Contract Administrator*, *Other Contractors* may be engaged by the *Owner* to make good the damage caused by the *Contractor*, with the costs of such repair work to be deducted from progress payments owing to the *Contractor* or otherwise recovered from the *Contractor*.

## 4.4 Temporary Structures and Facilities

Append to 4.4.1

The Contractor will submit designs and plans for temporary structures and facilities to the Contract Administrator for review and comment, but such review shall not relieve the Contractor of any responsibility. The Contractor shall make good at the Contractor's expense immediately all defects arising from the Contractor's faulty design, equipment or application thereof.

Add 4.4.3

Temporary structures erected by the *Contractor* shall remain the *Contractor's* property and be removed from the *Site* on completion of the *Work*.

# 4.5 Errors, Inconsistencies or Omissions in the Contract Documents

Add 4.5.4

Any work or material not herein specified or shown on the *Drawings*, but which by fair implication, in the judgement of the *Contract Administrator*, should be included therein, shall be done or furnished by the *Contractor* as part of their *Contract* as though shown or included in the *Drawings* and *Specifications*.

### 4.6 Construction Delete 4.6.1 and Schedule replace with

The Contractor shall prepare and submit to the Contract Administrator, within 10 Days after issuance of the Notice of Award, a construction schedule (the "Baseline Construction Schedule") consistent with the Substantial Performance and Total Performance dates set out herein. This schedule is in addition to the *Preliminary* Construction Schedule provided Contractor's Tender, showing additional details and all dates on which each material component of the *Contractor's* proposed program of operations will be performed so as to attain Substantial Performance and Total Performance on the required dates. The Contract Administrator will review schedules and return reviewed copy within

10 Days after receipt. Contractor shall resubmit finalized schedules within 5 Days after return of reviewed copy. Instruct recipients to report any problems anticipated with the schedule to Contractor within 10 Days.

The *Construction Schedule(s)* must be in conformance with the Construction Schedule requirements set out in the *Specifications*.

The Contractor shall immediately advise the Contract Administrator of any deviations from, or proposed changes to, the Construction Schedule. If, in the opinion of the Contract Administrator, the Construction Schedule as submitted is inadequate to ensure the completion of the Work within the time limited therefore, or is otherwise not in accordance with the Tender, or if the Work is not being adequately or properly prosecuted in any respect, the Contract Administrator, without derogating from the Owner's rights under the Contract, shall have the right to require the Contractor to submit a new Construction Schedule providing for proper and timely completion of the Work, and the Contractor shall be entitled to no claim for extension of time on account of such such new Construction requirement, and Schedule. when accepted by the Contract Administrator, shall be a Contract Document.

Append to 4.6.2

Contractor shall submit an Adjusted Baseline Schedule with each application for payment or as directed otherwise by the Contract Administrator.

Delete 4.6.6 and replace with

The time for the performance of the *Work* shall commence on the date specified in the *Notice to Proceed*, or if not so specified, on the date the *Notice to Proceed* is issued.

Subject to a contrary provision in the *Contract Documents*, the *Owner* shall issue the *Notice to Proceed* within 14 *Days* of receipt of a complete set of accurate and compliant documentation from the *Contractor* as stipulated in the *Notice of Award*. Failure by the *Owner* to issue the *Notice to Proceed* within the 14 *Days*, shall entitle the

Contractor to a claim for delay under GC 13.1.1.

Add 4.6.8

If the alteration of a *Third-Party Utility* is required to complete the *Work*, the *Contractor* shall notify, coordinate and allow sufficient time for the companies or authorities to relocate their *Third-Party Utilities*. It is the *Contractor's* responsibility to ensure all *Work*, including *Third-Party Utility* relocations, is coordinated and completed in a *Reasonable Time* as part of the overall *Work*.

In the event the *Contractor* has been diligent and made significant effort and attempts in coordinating with the *Third-Party Utility* companies or authorities and having their relocations accelerated, any and all costs incurred as a result of the *Third-Party Utility* companies' ability, or inability, to relocate the *Third-Party Utilities* are considered incidental and any such delays are considered *Delays* in accordance with GC 13.3.

**4.8 Workers** Add 4.8.0

The *Contractor* agrees to employ appropriate trade people for the *Work*. Where the trades people are covered by collective agreements, the *Contractor* shall abide by the conditions of the collective agreements covering such trades people.

The *Contractor* shall endeavour to avoid labour problems and minimize *Work* stoppages, jurisdictional or other labour disputes on the *Site*.

Add 4.8.2

The *Contractor* shall ensure that all workers, including *Subcontractor* employees, are always fit for work within the public right-of-way. There will be no tolerance for the use of inappropriate language, harassing behaviours, influence of drugs and/or alcohol and all clothing shall be suitable for the *Site* and not contain inappropriate messaging. The *Contract Administrator* and/or their representative may request the removal of a worker by the *Superintendent*, if in their opinion the behaviour is not suitable of a *Contractor* representing the *Owner*.

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#### Add 4.8.3

The *Contractor* shall provide disability awareness training for employees, including *Subcontractor* employees, if the *Site* is adjacent to health or community facilities catering to members of the public with mobility, visual or hearing challenges.

The *Contractor* shall provide cultural awareness training for employees, including *Subcontractor* employees, if the *Site* is reasonably suspected to have a high potential to be of cultural importance to First Nations.

#### Add 4.8.4

- (1) Notwithstanding any other provision of any *Contract Document* but subject to GC.4.8.4(2), the *Contractor* shall pay all *Living Wage Employees* not less than the *Living Wage*.
- (2) Notwithstanding GC.4.8.4(1), the *Contractor* has up to 6 months from the date on which any increase in the *Living Wage* is published by the *Living Wage Certifier* to increase wages for all *Living Wage Employees* such that all *Living Wage Employees* continue to be paid not less than the *Living Wage*.
- (3) A breach by the *Contractor* of its obligations pursuant to this GC shall be deemed to constitute a failure by the *Contractor* to comply with the requirements of the *Contract* to a substantial degree and shall entitle the *Owner* to terminate the *Contract* in accordance with GC 15.
- (4) The *Contractor* shall maintain up-to-date records and accounts which clearly document its satisfaction of the requirements of this GC 4.8.4 and shall make the same available to the *Owner* upon request. The *Owner* may request copies of all such records and accounts which shall be provided to the *Owner* by the *Contractor* (subject to reimbursement of the *Contractor's* reasonable copying costs and any other direct costs and expenses, if any) at any time prior to the expiry of 1 year after *Total Performance* or earlier termination

of this *Contract*. Any records and accounts provided by the *Contractor* in accordance with this GC 4.8.4 shall be treated by the *Owner* as confidential information.

The *Contractor* shall, at the direction of the *Owner*, post signs at sites that are owned by or leased to the *Owner*, including all *Streets*, sidewalks and other public rights of way, informing *Living Wage Employees* of the obligations of the *Contractor* and *Subcontractor* pursuant to this GC 4.8.4 and providing contact information to report any breaches thereof. The *Owner* shall supply the *Contractor* with all such signs and the *Contractor* shall return all such signs upon completion of the *Work* or otherwise at the request of the *Owner*.

4.10 Contractor to Delete 4.10.1 and Provide Labour, replace with Materials and Equipment

The Contractor at its own expense shall provide all necessary temporary buildings and storage grounds and shall furnish all necessary labour, materials and plant, including supervision, products, tools, construction machinery, water, heat, light, and power, together with all proper and required facilities for moving transporting the same, so that the Contract and all Work required to be done under it can and will be carried on in a workmanlike manner, properly, satisfactorily, continuously and expeditiously, to completion, to the Contract Administrator's, in consultation with the City Engineer, satisfaction in all respects.

Should any plant, equipment, appliance, materials or workmanship which the *Contract Administrator* or *City Engineer* may deem to be inferior or unfit for use in or on the *Work* be brought on the *Site* or used, the same shall be wholly removed therefrom within 24 hours after notification to that effect from the *Contract Administrator*, and in the case of failure or neglect on the part of the *Contractor* to remove the same the *Contract Administrator* may cause the same to be taken away at the *Contractor's* expense, and deposited, wasted or otherwise disposed of in any locality,

place or way the *Contract Administrator* considers convenient or proper, and the *Contractor* shall forthwith pay to the *Owner* on demand, all expenses incurred including storage, if any, or the same may be deducted or collected by the *Owner* The *Contractor* shall, at their own expense, arrange for and provide adequate supplies of water, electricity or other source of power and light, etc., wherever required for the construction and maintenance of the *Work*.

#### Add 4.10.2

Where there are *Key Personnel* the *Contractor* shall:

- (1) use best endeavours to retain *Key Personnel* for the duration of the provision of the *Work*;
- (2) take reasonable steps to ensure that Key Personnel dedicate their time fully to the Work (unless otherwise agreed or approved by the Contract Administrator in writing);
- (3) promptly inform the Contract Administrator should any of the *Key Personnel* leave, or give notice of an intention to leave the *Contractor*, and obtain a substitute or substitutes; and

not reassign or allow the reassignment of the Key Personnel to other projects during the performance of the Work without the Contract Administrator's prior written consent (such consent not to be unreasonably withheld or delayed).

### Add 4.10.3

If:

- the Contractor wishes to reassign or to replace an individual designated as Key Personnel; or
- (2) an individual designated as Key Personnel gives notice of his or her intention to leave or is otherwise no longer able to perform the duties, including for reasons of illness, injury or personal hardship,

the *Contractor* shall provide a substitute with experience and qualifications equivalent or

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greater than the *Key Personnel* to be replaced, and shall provide documentation to the *Contract Administrator* to establish such experience and qualifications.

#### 4.11 Subcontractors Add 4.11.0

The *Contractor* shall supply complete information to *Subcontractors* and equipment and material suppliers. Where *Specifications* and *Drawings* are required to provide complete information on any aspect of the *Work*, the *Contractor* shall supply them to the *Subcontractor* or supplier concerned.

In every subcontract, to the extent the *Builders Lien Act* is applicable, the *Contractor* shall specify that the *Contractor* or agent of the *Contractor* shall be the person responsible for payment certification under that subcontract for the purposes of the *Builders Lien Act* (and not the *Owner* or *Contract Administrator*).

### Delete 4.11.2 and replace with

The *Contractor* shall employ only the *Subcontractors* listed in Schedule 4 to the Contract, or others as approved in writing by the *Contract Administrator*, and shall not change or employ additional *Subcontractors* without the approval of the *Contract Administrator*, which approval shall not be unreasonably withheld.

The *Contractor* shall ensure that the requirements of GC 4.8.4 apply to all *Subcontractors*.

### Tests and Add 4.12.1 Inspections

The *Contractor* shall be notified of all deficiencies discovered by the *Contract Administrator* or *City Engineer* upon completion of each inspection. The *Contractor* shall provide a schedule for correction or correct such deficiencies within 7 *Days* of the notice.

### Add 4.12.2

Add 4.11.7

If any material, design or installation Work does not conform to any of the Contract Documents, the Contract Administrator and the City Engineer have the authority to stop Work and order the removal of unsatisfactory materials or require the Contractor to re-perform the Work in compliance with the Contract Documents. The Contractor will be held liable for all costs associated with the removal of and / or the reconstruction of Work

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4.12

			which is not in accordance with the <i>Contract Documents</i> , as determined by the <i>Contract Administrator or City Engineer, as applicable</i> .
		Add 4.12.3	Where tests or inspections by designated testing laboratory reveal <i>Work</i> not in accordance with the <i>Contract Documents</i> , the <i>Contractor</i> shall pay costs for additional tests or inspections as the <i>Contract Administrator</i> or <i>City Engineer</i> may require verifying acceptability of corrected <i>Work</i> .
		Add 4.12.4.1	The Contract Administrator, City Engineer, and Site Inspectors shall have free and uninterrupted access to any and all parts of the Work area and the plants that are producing the materials for the purpose of making inspections and taking samples of materials being used.
			The <i>Contractor</i> shall furnish labour and facilities to:
			(1) Provide access to <i>Work</i> to be inspected and tested.
			(2) Facilitate inspections and tests.
			Make good Work disturbed by inspection and test.
		Add 4.12.4.2	Testing of materials, assembled components and systems to be carried out at the <i>Contractor's</i> cost by an independent third-party testing laboratory approved by the <i>Contract Administrator</i> .
		Add 4.12.10	The Contractor shall not schedule Work that will require inspection beyond an eight-hour Day, or forty hour week without the Contract Administrator's prior approval. Any extra cost incurred by the Owner in connection with inspections of Work scheduled outside the foregoing parameters, whether approved or not, may be deducted from the Contractor's subsequent progress payment.
		Add 4.12.11	Prior to the <i>Work</i> being inspected by the <i>City Engineer</i> , the <i>Contractor</i> shall make whatever preliminary tests are necessary to assure that the materials and equipment is in accordance with the <i>Drawings</i> and <i>Specifications</i> .
4.13	Rejected Work	Add 4.13.4	If the Contractor does not make good any

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			rejected work in a timely and satisfactory manner, then at the discretion of the <i>Contract Administrator</i> , <i>Other Contractors</i> may be engaged by the <i>Owner</i> to make good the rejected work, with the costs of such repair work to be deducted from progress payments owing to the <i>Contractor</i> or otherwise recovered from the <i>Contractor</i> .
4.16	Notice of Disruption	Add 4.16.2	Notifications pursuant to GC.4.18.1 must be in compliance with the requirements of the <i>City of Vancouver Construction Specifications</i> .
4.17	No Promotion of Relationship with the Owner	Add 4.17.1	The <i>Contractor</i> shall not disclose or promote its relationship with the <i>Owner</i> , including by means of any verbal declarations, announcements, sales, marketing or other literature, letters, client lists, press releases, brochures or other written materials without the express prior written consent of the <i>Owner</i> (except as may be necessary for the <i>Contractor</i> to perform the <i>Contractor's</i> obligations under the terms of the <i>Contract</i> ). The <i>Contractor</i> shall not use the <i>Owner's</i> logo or any of the <i>Owner's</i> official marks without the express prior written consent of the <i>Owner</i> .
4.18	Hours of Work	Add 4.18.1	The <i>Contractor</i> must comply at all times with all applicable requirements of the <i>City of Vancouver's Noise By-law</i> .
			The <i>Contractor</i> shall keep the <i>Contract Administrator</i> advised on the proposed hours of <i>Work</i> so that inspection can be co-ordinated. <i>Work</i> without inspection shall not be permitted.
			The Owner's employees work between the hours of 7:30 a.m. and 3:30 p.m. on all weekdays except statutory holidays. The Contractor shall not schedule any work to be performed by the Owner's crews outside these hours except by special arrangement agreed to by the Contract Administrator or in case of emergency.
4.19	Assignment	Add 4.19.1	Neither party to the <i>Contract</i> shall assign the <i>Contract</i> or a portion thereof without the written consent of the other, which consent shall not be unreasonably withheld.

### 4.20 Approved Equals

Add 4.20.1

Contractor may request the Owner to approve alternate materials, products or equipment ("Approved Equals") for items indicated in the Contractor documents, provided such Approved Equals comply in all respects with the applicable Specifications. Applications for Approved Equals must be in writing and supported by appropriate supporting information, data, specifications and documentation. The Owner is not obligated to review or accept any applications for an Approved Equal and may decide to accept an application for an Approved Equal in its sole discretion.

### 5.0 SHOP DRAWINGS

### 5.1 Preparation of Shop Drawings

Delete 5.1.3 and replace with

The Contract Administrator or City Engineer may require that a Shop Drawing be stamped by a registered Professional Engineer with appropriate skill and knowledge indicating that the Shop Drawing has been prepared in compliance with applicable codes and design standards and good engineering practice.

### Delete 5.1.4 and replace with

If the *City Engineer or Contract Administrator* requires the review and stamping by a Professional Engineer of *Shop Drawings* that are of a type which, according to usual construction practice, are not so reviewed and stamped, then the cost of such review and stamping shall be paid by the *Owner*.

#### Add 5.1.5

Manufacturer's standard schematic drawings, catalogue sheets, diagrams, schedules, performance charts, illustrations and other standard descriptive data may be accepted in lieu of *Shop Drawings*, as determined by the *Contract Administrator*, in consultation with the City Engineer, and provided the following conditions are met:

- (1) Information is deleted which is not applicable to the project.
- (2) The standard information is supplemented with additional information applicable and specific to the *Work*.

### 5.2 Submission of Shop Drawings

Delete 5.2.1 and replace with

The Contractor shall submit Shop Drawings, product data and samples to the Contract Administrator in a timely way and in an orderly to permit the Contract sequence so as Administrator and City Engineer a reasonable opportunity to review the provided information without causing a delay to the Work or to the work of Other Contractors. The Contractor shall submit a Shop Drawing schedule in accordance with the Specifications related to the Construction Schedule. The Contractor shall schedule submissions at least 10 Days before the date that reviewed submission will be needed. Contractor shall submit the number of copies of Shop Drawings and product data which the Contractor requires for distribution plus two (2) copies which will be retained by the Contract Administrator.

Shop Drawings shall be prepared and submitted in compliance with the requirements of the City of Vancouver Construction Specifications.

Delete 5.2.4 and replace with

Unless otherwise noted, the *Shop Drawings* may be in CAD format, or other format at selection of the *Contractor*.

## 5.3 Review by Contract Administrator

Delete 5.3.1 and replace with

The Contract Administrator, in consultation with the City Engineer, will review Shop Drawings submitted by the Contractor and return them in accordance with an agreed-to schedule, if any, or otherwise with reasonable promptness so as not to cause delay to the Work. Contractor shall coordinate the timing of all submissions required pursuant to the Contract Documents with the performance of the Work to which the submission relates. Individual Shop Drawings will not be reviewed until all related drawings are available.

Delete 5.3.2 and replace with

The Contractor shall make any changes in Shop Drawings which the Contract Administrator or City Engineer may require consistent with the Contract Documents and resubmit unless otherwise directed by the Contract Administrator or City Engineer. When resubmitting, the Contractor shall notify the Contract Administrator in writing of any

revisions other than those requested by the *Contract Administrator or City Engineer.* 

Delete 5.3.3 and replace with

When a submitted *Shop Drawing* is acceptable to the *Contract Administrator*, in consultation with the City Engineer, as provided by this GC then the *Contract Administrator* shall date and mark the *Shop Drawing* as "Reviewed" and return it to the *Contractor*. The *Contract Administrator* shall date and mark the number of copies submitted.

### 6.0 OTHER CONTRACTORS

### 6.2 Coordination Delete 6.2.1 and and Connection replace with

The Contractor shall afford all facilities for the execution of any Other Work which may be undertaken by the *Owner* or by such parties as may be employed by them, so that such work may be properly and conveniently completed, and the Contract Administrator shall have full authority to make and enforce such regulations as the Contract Administrator may deem necessary for the conduct of the work; and the Contractor shall proceed in such manner and complete in such order such portions of the Work as the Contract Administrator may require, and the Contract Administrator shall be the sole judge as to what facilities are due and proper, and can be afforded without any undue interference with the execution of the Contract.

The *Contractor* shall at all times give free access and every reasonable facility to the employees of the *Owner* and to *Other Contractors*, to such portion of the work and adjoining land as may be necessary to enable them to execute and maintain work of any description; such accommodation and access being regulated and directed by the *Contract Administrator* and no inconvenience or alleged inconvenience arising therefrom shall form any ground for claims, losses or damages, compensation or otherwise, by the *Contractor* against the *Owner*.

#### 7.0 CHANGES

7.1 Changes Delete 7.1.3 and Additional work that the *Owner* may wish

		replace with	performed that does not satisfy the requirements of subparagraphs (1) and (3) of GC 7.1.1 is extra Work ("Extra Work") and not a Change. Pursuant to GC 8, Extra Work may be declined by the Contractor or may, upon agreement between the parties, be undertaken as Extra Work.
		Delete 7.1.4 and replace with	A variation between the actual quantity and the estimated <i>Tender Quantity</i> for that item set out in the <i>Schedule of Quantities and Prices</i> of not more than plus or minus the percentage set out in GC 9.4.1 shall not be a Change unless the variation is greater than such percentage, in which case the provisions of GC 9.4 shall apply.
7.2	Contemplated Change Order	Add 7.2.3	If the <i>Contemplated Change Order</i> is for work, which if executed and incorporated would impact a critical path element of the <i>Work</i> , then any delay in the <i>Contractor's</i> provision of a response to the <i>Contemplated Change Order greater than 10 days</i> , will be deemed a Delay by the <i>Contractor</i> as defined in GC 13.2.
7.4	Optional Work	Delete 7.4.1 and replace with	Optional Work will only be included in the Work if the Contract Administrator so directs by Change Order, and in such event the Contractor shall perform the Optional Work as part of the Work, for the price tendered at the time of bid and with schedule extension as provided for in the Contract Documents (if any).
9.0	VALUATIONS OF CHANGES AND EXTRA WORK		
9.2	Valuation Method	Delete 9.2.1 and replace with	Adjustments to the <i>Contract Price</i> on account of <i>Changes</i> shall be valued by <i>Force Account</i> .
9.4	Quantity Variations	Delete 9.4.1 and replace with	If for any reason, including an addition or deletion under GC 7.1.1.a or GC 7.1.1.b respectively, the actual quantity of an item listed in the <i>Schedule of Quantities and Prices</i> constructed or provided by the <i>Contractor</i> varies more than plus or minus the <i>Variance Threshold Percentage</i> from the estimated quantity for that item as listed in the <i>Schedule of Quantities and Prices</i> (the "Tender Quantity"), then either the <i>Owner</i> or the

Contractor may by written notice request a revised Contract Price in consideration of such change in quantities.

Delete 9.4.3 and replace with

If notice is delivered to either party pursuant to GC 9.4.1, the *Contract Price* shall be revised as follows:

- (1) in the case where the actual quantity an of item constructed or provided is less than the quantity of an item listed in the Schedule of Quantities and Prices by more than the Variance Threshold Percentage, the Contract Price shall be decreased by an amount equal to the unit price of the applicable item as listed in the Schedule of Quantities and Prices multiplied by the quantity of unit that constitute the amount of the item constructed or provided less than the Variance Threshold Percentage; and
- (2) in the case where the actual quantity an of item constructed or provided is more than the quantity of an item listed in the *Schedule of Quantities and Prices* by more than the *Variance Threshold Percentage*, the *Contract Price* shall be increased by an amount equal to the unit price of the applicable item as listed in the *Schedule of Quantities and Prices* multiplied by the quantity of unit that constitute the amount of the item constructed or provided in excess of the *Variance Threshold Percentage*.

Delete 9.4.4

If either party requests a revision to the *Contract Price* pursuant to GC 9.4.1, the *Contractor* shall make available to the *Contract Administrator* all documentation reasonably required to verify that the actual amount of the applicable item constructed or provided by the *Contractor* is greater or less than, as the case may be, the quantity set out in the *Schedule of Quantities and Prices* by no less than the *Variance Threshold Percentage*.

Delete 9.4.5

Delete 9.4.5

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10.0	FORCE
	ACCOUNT

### 10.1 Force Account Cost

Delete 10.1.1 and replace with

Payment for *Work* based on *Force Account* shall be calculated as follows:

- (5) the costs of labour will be determined by the labour rates specified in Schedule 8 of the *Contract Documents* (Force Account Labour and Equipment Rates); and
- (6) the costs of equipment will be determined by the construction equipment rates specified in Schedule 8 of the Contract Documents (Force Account Labour and Equipment Rates);

in each case, such costs shall be deemed to include all amounts on account of overhead, profit, administrative, and any other indirect expenses or allowances, provided in all cases that the foregoing represents in the aggregate no greater than 10% of the costs set out in Schedule 8.

Add 10.1.2

No compensation will be made for standby of the *Contractor's* labour or owned equipment, unless otherwise previously agreed to in writing. In the case of an occurrence of standby, the standby hours will be separated from the actual hours worked on the records.

Add 10.1.3

In the completion of *Work* based on *Force Account*, the *Contractor* shall take all reasonable efforts to minimize the effects and costs of the *Work* based on *Force Account*, and this obligation shall be taken into account in the determination of the *Contractor's* entitlement to a *Contract* extension and reimbursement of costs. If in the opinion of the *Contract Administrator*, the *Contractor* is using an unsuitable methodology, the *Contractor* will be immediately advised that *Work* based on *Force Account* is to cease and will not recommence until the *Contractor* has presented an acceptable methodology.

10.3 Submit
Accurate
Records

Append to 10.3.1

Neither the *Contract Administrator* nor their site representative's signature upon the submitted daily sheet forms any agreement for payment,

			only an agreement on the hours worked under Force Account.
12.0	HAZARDOUS MATERIALS		
12.1	Risk of Hazardous Materials	Add 12.1.4	The <i>Contractor</i> shall conduct no <i>Work</i> on materials that are potentially <i>Hazardous Materials</i> without prior testing. Responsibility for testing will be agreed upon prior to commencing <i>Work</i> .
12.3	Directions for Hazardous materials	Delete 12.3.2 and replace with	The Work shall be performed in full compliance with all Laws applicable to any Hazardous Materials encountered at the Place of the Work by an Approved Abatement Contractor.
13.0	DELAYS		
13.1	Delay by Owner or Contract Administrator	Add 13.1.2	No additional <i>Contract Time</i> and no additional reimbursement will be owed to the <i>Contractor</i> by the <i>Owner</i> , for instances where the delay by <i>Owner</i> or <i>Contract Administrator</i> is as a direct result of a preceding Delay by the <i>Contractor</i> .
13.3	Unavoidable Delay	Add 13.3.2	A delay for <i>Abnormal Weather</i> will only be considered if the <i>Contractor</i> can show that one or more of the following apply:
			(1) A weather condition, as determined by the Contract Administrator, that prevents the Contractor from proceeding with at least 60% of the normal labour and equipment force, for at least 5 hours on a component of the Work, which if delayed is on the critical path of the most up to date Construction Schedule, and as such will delay the completion of the Work;
			(2) The <i>Contractor</i> cannot reasonably complete other <i>Work</i> on the <i>Site</i> to advance the schedule; AND
			(3) The Contractor complies with the requirements of GC.13.6.3
			And, that the <i>Contractor</i> has pursued alternate construction methodologies to mitigate potential delays for contractual <i>Work</i> in advance of the expected seasonal weather.
13.9	Liquidated	Delete 13.9.1 and	If the Contractor fails to meet the Milestone Date

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### Damages for Late Completion

replace with

for Substantial Performance as set out herein (and as may be adjusted pursuant to the provisions of the Contract Documents), then the Owner may deduct from any monies owing to the Contractor for the Work:

- (1) as a genuine pre-estimate of the *Owner's* increased costs for the *Contract Administrator* and the *Owner's* own staff caused by such delay an amount of \$1500.00 per day or pro rata portion for each *Day* that actual *Substantial Performance* is achieved after the *Substantial Performance Milestone Date*; plus
- (2) all direct out-of-pocket costs, such as costs for safety, security, or equipment rental, reasonably incurred by the *Owner* as a direct result of such delay.

If the monies owing to the *Contractor* are less than the total amount owing by the *Contractor* to the *Owner* under (1) and (2) then any shortfall shall immediately, upon written notice from the *Owner*, and upon *Substantial Performance*, be due and owing by the *Contractor* to the *Owner*.

Add 13.9.2

If the *Contractor* fails to meet the date agreed to for *Total Performance* or any other *Milestone Date*, the *Owner* may deduct monies as set out in GC 13.9.1.

- 15.0 OWNERS
  RIGHTS ON
  CONTRACTORSS
  DEFAULT
- 15.0 Contractor Default

Add 15.0.0

The *Owner*, without prejudice to any other right, may elect to terminate the *Contract* forthwith upon notice to the *Contractor* if:

- (1) the *Contractor* fails to comply with the *Notice* to *Proceed*;
- (2) the Contractor commits an act of bankruptcy or becomes a bankrupt or makes a general assignment for the benefit of the Contractor's creditors;

- (3) a receiver is appointed for the *Contractor's* business;
- (4) the Contractor fails, on reasonable notice from the Contract Administrator, in consultation with the City Engineer, to supply enough proper labour, equipment, or products;
- (5) the Contractor does not pay promptly the Contractor's employees, Subcontractors or suppliers;
- (6) the Contractor does not comply with the requirements of the WorkSafeBC Regulations, or otherwise fails to meet the safety requirements of the Contract; or
- (7) the *Contractor* persistently or substantially breaches any provision of this *Contract*.

On such termination, the *Contract Administrator*, in consultation with the *City Engineer*, may arrange for the performance of the *Work* by whatever method the *City Engineer* deems expedient but without undue delay or expense.

15.3 Termination Append to 15.3.1(1)

which possession the *Contractor* hereby pledges to the *Contract Administrator* as agent for and on behalf of the *Owner*, as security for the performance of the *Contract* and the *Work*, provided that upon completion of the *Work*, the *Contract Administrator* shall return to the *Contractor* or its legal representative any such chattels so taken in possession in their original condition (ordinary wear and tear excepted) if not incorporated in the *Work*, without any compensation for use thereof.

Add 15.3.3

In case the *Work* or any part thereof is assumed from the *Contractor*, as herein provided, it shall in no way affect the relative obligations of the *Owner* and the *Contractor* or its sureties in respect of the *Contractor's* or their obligation, or in respect of the remainder of the *Work* (if any), as the *Contract Administrator*, in consultation with the *City Engineer*, may consider reasonable. The *Contractor* and its sureties in every case shall

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be liable for such damages, expenditures and extra expenditures, and for all additional cost of the *Work* which may be incurred by reason of termination of the *Contract* pursuant to this GC 15, together with the compensation for liquidated damages, if any, from the date fixed for the *Total Performance* of the *Work*, and the same may be deducted or collected by the *Owner* as provided by GC 18.11.

All the powers of the *Owner* with respect to the determination of any doubts, *Disputes* and differences, and the determination of the sum or sums, or balance of money to be paid to or received from the *Contractor*, and otherwise in respect of the *Contract* shall nevertheless continue in force.

Add 15.3.4

The fulfilment by the *Contractor* of any stipulation in the *Contract* may be enforced by legal proceedings and judgement, or order of Court, without prejudice to any other remedy herein contained. Neither the *Owner* nor any of its officials, officers, employees or other agents shall be liable or accountable to the *Contractor* in any way for the manner in which, or the price at which the *Work*, or any portion thereof, may have been or may be done or completed by the *Owner*.

No proceeding taken pursuant to this GC 15 or pursuant to any other provision of the *Contract* shall at any time be deemed to be an assignment of the *Contract* or of any portion thereof, unless otherwise agreed to in writing.

15.4 Termination of Add 15.4.1
Contract
Without Default
of Contractor

The Contract Administrator may, as agent for and on behalf of the Owner, at the Contract Administrator's discretion terminate the Contract at any time upon written notice to the Contractor notwithstanding the fact that the Contractor may not then be in default, in which event the Owner shall be liable to the Contractor only for Work done and materials delivered at or to the Site up to the date of the termination plus reasonable demobilization costs up to a maximum of

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Upon payment of the aggregate of the aforesaid sums, the *Owner*, the *Contract Administrator* and the *Contractor* shall be released from their liabilities or obligations under the *Contract* save and except that the liabilities and obligations of the *Contractor* shall continue with respect to: (i) deficiencies and warranties in the portion of the *Work* completed prior to termination; and (ii) the indemnification requirement set out in GC.22.

16.0 CONTRACTORS
RIGHTS ON
OWNERS
DEFAULT

16.3 Notice of Default Delete 16.3.1 and replace with

lf:

- (8) the Contract Administrator fails to issue a certificate in accordance with the provisions of GC 18.1.1; or
- (9) the Owner fails to pay the Contractor when due the amounts certified by the Contract Administrator or awarded by arbitration or court; or
- (10) the *Owner* fails to provide the *Contract Documents* as required by GC 2.1.1;

then the *Contractor* may give written notice to the *Contract Administrator*, with a copy to the *Owner*, that the *Owner* is in default and demand that the *Owner* correct the default within 20 *Days*, and if the *Owner* fails to make the correction then, without prejudice to any other right or remedy the *Contractor* may have, the *Contractor* may stop the *Work* or terminate the *Contract*.

17.0 DISPUTES

17.9 Attornment to Add 17.9

Jurisdiction of

Courts of

British

Columbia

Notwithstanding any other provision of the *Contract*, the *Owner* and the *Contractor* irrevocably and unconditionally attorn to the jurisdiction of the courts of British Columbia, and courts to which appeals therefrom may be taken, in respect of any dispute or claim arising under or relating to the *Contract*.

#### 18.0 PAYMENT

18.1 Preparation of the Payment Certificat Add 18.1

5 Days prior to the end of the calendar month, the Superintendent shall compile and submit a summary of the daily quantities for Work completed within the past month. This shall be included with other deliverables such as the Adjusted Baseline Schedule, Quality Management reports, and supporting documentation in GC 18.2.1.

18.4 Holdbacks

Delete 18.4.1 and replace with

Builders Lien Holdback: The *Owner* shall:

- (1) hold back 10%, or other percentage as required by the *Builders Lien Act*, of any amounts due to the *Contractor* as a builders lien holdback; and
- (2) if the *Place of the Work* is a highway, City *Street*, or right-of-way then, notwithstanding that a lien cannot be registered against the *Place of the Work*, hold back the percentage that would have been required if the *Builders Lien Act* did apply of any amounts due to the *Contractor* as a builders lien holdback, on the same conditions as though such hold back was a requirement of the *Builders Lien Act*, including making payment from such hold back directly to *Subcontractors*.

Add 18.4.6

Maintenance Security Hold Back: The Owner shall hold back 5%, of any amounts due to the Contractor as a maintenance security holdback, to cover the costs of corrections to defective Work that may be required.

The Contractor may substitute a letter of credit, in the amount of the Maintenance Security Holdback, in a form and from a financial institution acceptable to the Owner, for the Maintenance Security Holdback.

18.5 Payment

Delete 18.5.1 and replace with

During progress of the *Work*, the *Contractor* may make application to the *Contract Administrator* for payment, in the form of an invoice accompanied by:

(1) a Payment Certificate approved by the

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Contract Administrator as per GC 18.1,

- (2) a sworn declaration that all amounts relating to the Work, due and owing as of the end of the month to third parties including all Subcontractors and suppliers, have been paid, and
- (3) such other documentation reasonably required by the Contract Administrator as may be necessary to establish to the Contract Administrator's satisfaction the compliance by the Contractor with the conditions of the Contract.

All in a form acceptable to the *Contract Administrator*, on or before the last day of every month for any portion of the *Work* done to the date of the application.

The net amount shown for payment, less any holdback required by the *Builders Lien Act* and less the aggregate of any previous payments, all in accordance with the *Contract* and with the *Builders Lien Act* (if and to the extent applicable), shall be due and payable to the *Contractor* 30 days following submission of an invoice to the *Owner*, in an acceptable format, accompanied by and consistent with the *Payment Certificate* approved by the *Contract Administrator*.

The Owner will, in addition to other holdbacks as provided by the Contract Documents, be entitled to deduct and retain from payments otherwise due to the Contractor, a Maintenance Security Holdback as per GC 18.4. The balance of the Maintenance Security Holdback not required to correct defective Work, and remaining at the end of the Warranty Period, shall be paid without interest to the Contractor.

On Substantial Performance being certified in accordance with the procedures set out in GC 18.6 and the value of the certified deficiencies being agreed upon, the Contractor may make application to the Contract Administrator for the balance of all monies then owing under this

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Contract to the Contractor, submitting also such documentation as is required by GC 18.6.

### Delete 18.5.3 and replace with

If for any reason the *Owner* disputes the net amount shown for payment on a *Payment Certificate* the *Owner* shall, within the time specified in this GC, pay to the *Contractor* any amount not disputed and also deliver to the *Contractor* and the *Contract Administrator* written reasons for any deductions.

The dispute by the *Owner* of the correct amount owning shall be a *Dispute* and the written reasons for any deduction shall constitute a *Dispute Notice*.

#### Add 18.5.4

After 55 calendar days have elapsed from the date of the *Certificate of Substantial Performance* issued in accordance with GC 18.6 and upon the *Contract Administrator's* satisfaction that no encumbrance, lawful claim or lien exists, the *Owner* will, within a further 10 calendar days, make payment to the *Contractor* of all monies due under this *Contract* at the date of *Substantial Performance*, including the release of all remaining *Builders Lien Act* holdback amounts, if any, but retaining at least twice the estimated value of the certified deficiencies, and retaining the *Maintenance Security Holdback*.

Upon the issuance of the *Certificate of Total Performance*, the *Owner* will make a final payment of all monies owing to the *Contractor* under the *Contract*, except for the Maintenance Security Holdback, which shall be released as per GC 18.5.1.

### Add 18.5.5

Upon the issuance of the *Certificate of Total Performance*, the *Owner* will make a final payment of all monies owing to the *Contractor* under the *Contract*, except for the *Maintenance Security Holdback*, which shall be released as per GC 18.5.1.

### Add 18.5.6

Where payment is not made in accordance with the payment provisions contained in GC 18.5, the overdue amount shall bear interest at the lending

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rate of the Bank of Montreal for its prime commercial customers and such interest shall be calculated from and after the date upon which such payment was due and shall accrue until the date that payment of the overdue amount together with interest is made. This interest obligation on the *Owner* shall constitute the sole remedy of the *Contractor* for late payment.

### 18.6 Substantial Performance

Add 18.6.3 (3)

A completed set of legible, marked up asconstructed prints and survey point file containing all inverts, casting elevations and all other information required for the production of *Record Drawings*. If additional information is required, the *Contract Administrator* will cause that information to be obtained, and in doing so, will deduct the costs to the *Owner* from the final progress payment.

### Delete 18.6.4 and replace with

The Owner, the Contract Administrator and the Contractor shall inspect the Work and any remaining deficiencies shall be detailed and included on the Certificate of Substantial Performance. The date of Substantial Performance shall be as stated in this Certificate. Upon issuance of the Certificate of Substantial Performance to the Contractor, the Contract Administrator shall set a reasonable date for the Total Performance of the Work.

#### Add 18.6.7

For the purposes of the *Builders Lien Act* (to the extent applicable), the *Certificate of Substantial Performance* as described herein shall serve as the *Contract's* certificate of completion, and the date of *Substantial Performance* stated in the Certificate shall be deemed to be the date of the Certificate's issuance.

### 18.10 Statutory Add 18.10.1 Declarations

The *Contractor* shall submit with each of the *Contractor's* applications for payment such statutory declarations as may be required herein, which shall be sworn in duplicate by the *Contractor*, or by such person on behalf of the *Contractor* as the *Contract Administrator* may approve.

(1) Prior to payment and as condition to any

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payment, the Contract Administrator may at any time require the Contractor to file with the Contract Administrator a statutory declaration showing that all wages for the various classes of labour, the hire of trucks, equipment, etc., employed in or about the Site, all products or other things supplied for use in or upon the Work and amounts due to Subcontractors and suppliers have been paid and satisfied and that there is no encumbrance, lawful claim or lien accruing for labour or services in connection with the Work.

Should any amounts be due and unpaid for wages, equipment, hire, products and *Subcontractors* or suppliers as above listed or any encumbrance, lawful claim or lien accrue, the amounts shall be listed on a duly attested statement, in duplicate, and attached to the statutory declaration referred to above.

The Contract Administrator may at any time, if the Contract Administrator deems it advisable, require from the Contractor a statement showing the rates of wages paid by the Contractor for the various classes of labour, the rates of hire of trucks and equipment employed and the prices and quantities of any products supplied for use in or upon the Work and may also require the statement to show in detail the names of unpaid employees, the rates of wages and amounts due to each, and the names of creditors, quantities, prices and amounts due to each. Such statement shall be duly attested in duplicate as above and be a condition precedent to the right of the Contractor to receive payment.

(2) Prior to final payment and as a condition to issuance by the *Contract Administrator* of a *Certificate of Total Performance*, the *Contractor* shall file with the *Contract Administrator* a statutory declaration showing

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that all *Work* in respect of the *Contract* has been completed; all accounts, detailed in the first sentence of Section (1) of this General Condition have been paid and satisfied and there is no encumbrance, lawful claim or lien accruing for labour, products or services in connection with the *Work*; and payments already received and due under the final payment application are accepted by the *Contractor* as full compensation for everything furnished and done by the *Contractor* under the *Contract*.

The *Contractor's* payrolls, time-books, books of account, invoices, receipt and statements relating to its *Work* under the *Contract* shall be at all times open for inspection and extract by the *Contract Administrator* and the *Owner* and any authorized representative of them.

**18.11 Money Due to** Add 18.11.1 Owner

All money payable to the *Owner* by the *Contractor* may be retained out of any money then due, or which may become due from them to the Contractor under this or any other contract with the Owner, or otherwise howsoever, or may be recovered from the Contractor and its sureties, or any of either of them, in any Court of competent jurisdiction, as a debt due to them; and the Contract Administrator shall have full power to withhold any estimate or certificate, circumstances arise which may indicate to him or her the advisability of so doing, until the Contract Administrator is satisfied that the Work and material so far done or furnished are in accordance with the Contract and that the Contractor is otherwise entitled thereto, though the sum to be retained may be unascertained.

19.0 TAXES, DUTIES AND GST

19.4 Non-Resident Add 19.4.1 Witholding Tax

If the *Contractor* is, at any time, a non-resident of Canada, within the meaning of the *Income Tax Act* (Canada) as amended, then, and the *Contractor* hereby so agrees, the *Owner* may deduct from all money payable under the *Contract* 

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and remit to the Receiver-General of Canada, the Government of Canada or the Canada Revenue Agency sums required to be withheld and remitted by the *Income Tax Act* (Canada), as amended.

The *Owner* will receive a further credit under the *Contract* for money withheld as of and from the date of the withholding (regardless of when or whether remitted) and no interest will be payable by the *Owner* on sums withheld, not remitted as aforesaid and later paid directly to the *Contractor*.

20. LAWS, NOTICES, PERMITS AND FEES

20.2 Permits

Delete 20.2.1 and replace with

Except for *Owner Permits*, the *Contractor* shall obtain all permits, licenses, approvals and certificates which, as of the *Tender Closing Date*, are required for the performance of the *Work* (collectively the "Contractor Permits"). Contractor Permits shall include all municipal construction permits and approvals. The Contractor shall pay all Contractor Permit fees.

Delete 20.2.2 and replace with

Unless otherwise noted in the *Contract Documents*, the *Owner* shall obtain those permits, clearances and approvals that are required for operation of the completed project, including any permanent easements or other permanent property rights, land use approvals (such as zoning) or environmental approvals (such as Federal Department of Fisheries and Oceans) (collectively the "Owner Permits"). The Owner shall obtain all Owner Permits in a timely manner so as not to delay the progress of the Work.

Add 20.2.3

All *Work* within *City* properties shall be carried out and completed within the stated terms and conditions of any applicable permit, specification and bylaw.

Add 20.2.4

It is the *Contractor's* responsibility to seek clarification and instruction from the *Contract Administrator* regarding construction activities

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that are not covered by the applicable permits, bylaws and *City* and *MMCD* Specifications. In the event of any variation between this manual and *City* bylaws, the bylaws shall prevail.

# 21.0 WORKERS COMPENSATION REGULATIONS

### 21.0 Payment of WorkSafeBC Assessments

Add 21.0.0

The Contractor agrees that it shall at its own expense procure and carry or cause to be procured and carried and paid for, full WorkSafe BC coverage for itself and all workers, employees, servants and others engaged in or upon any Work or service which is the subject of this Contract. The Contractor agrees that the Owner has the unfettered right to set off the amount of the unpaid premiums and assessments for such WorkSafe BC coverage against any monies owing by the Owner to the Contractor. The Owner shall have the right to withhold payment under this Contract until the WorkSafe BC premiums, assessments or penalties in respect of Work done or service performed in fulfilling this Contract have been paid in full.

### 21.2 Contractor is "Prime Contractor"

Delete 21.2.1 and replace with

Unless otherwise specified in the *Contract Documents* or notified to the contrary by the *Contract Administrator*, the *Contractor* is the "Prime Contractor" for the purpose of all *Laws* relative to occupational health and safety, including the discharge of all duties of the "Prime Contractor" under the *Workers Compensation Act* (British Columbia), notwithstanding that the *Owner*, the *Contract Administrator* or *Other Contractors* may provide from time to time some of the services normally provided by such "Prime Contractor". In this GC.4.2 "Prime Contractor" has the definition ascribed to the term "prime contractor" under the *Workers Compensation Act* (British Columbia).

Add 21.2.2

If the *Contractor* is the "Prime Contractor", the *Contractor* shall:

(1) comply with all Laws, and all reasonable rules established by the Owner of which the

- Contractor is given timely notice through the Contract Administrator, relative occupational health and safety;
- (2) initiate, maintain and supervise all safety programs and measures in connection with the performance of the Work, which programs and measures shall respond fully to the requirements of all Laws relative occupational health and safety, all to the satisfaction of the Contract Administrator;
- (3) conduct regular safety meetings at the Site, no less frequently than weekly, record minutes of such meetings and give copies of such minutes to the Contract Administrator on a weekly basis;
- (4) supply and maintain at the Site all safety equipment necessary to protect workers and others from accident or injury;
- (5) supply and maintain at the Site all personnel, equipment and supplies necessary for the provision of appropriate first-aid to any worker or person suffering an accident or injury at or about the Site, and establish an emergency procedure for prompt removal of any such person from the Site to a hospital, clinic or medical office for further treatment: and
- (6) prior to commencement of construction, the Contractor will:
  - a. complete and file a "Notice of Project" with the WorkSafeBC in compliance with Section 20.2 of the WorkSafeBC Rules, and
  - b. post the Notice of Project at the Site, and
  - c. provide a copy of the Notice of Project to the Owner and confirm in writing that the Notice of Project has been posted at the Site.

If, or for so long as the Contractor is not the

- "Prime Contractor", the Contractor shall:
- (1) comply with all Laws, and all reasonable rules established by the Owner of which the Contractor is given timely notice through the Contract Administrator, relative to occupational health and safety;
- (2) comply with all reasonable directions issued by the "Prime Contractor" regarding compliance with Laws, and rules established by the Owner, relative to occupational health and safety; and
- (3) attend all *Site* safety meetings convened by the "Prime Contractor".

Whether or not the *Contractor* is the "Prime Contractor", it shall:

- (1) report immediately to the "Prime Contractor" (if not the Contractor) and the City Engineer all accidents and injuries of any kind or severity occurring on or about the Site and involving employees of the Contractor or any Subcontractor, or any other person of which the Contractor is aware, and arising out of or in connection with the Work;
- (2) confirm in writing each report made under subparagraph (1) above; and
- (3) respect and adhere to the *Owner's* safety and training polices relative to the *Site* and the *Work*.

If the *Contract Administrator* determines that the *Contractor* is not in compliance with its obligations as "Prime Contractor", if applicable, the *Owner* may, but is not obliged to, provide some or all of the services required to discharge those obligations. All costs incurred by the *Owner* in providing such services shall be paid by the *Contractor* to the *Owner*, and may be deducted from any amount then or thereafter becoming due to the *Contractor* under the *Contract*.

Add 21.2.3

Upon request of the *Contract Administrator* or the *Owner*, the *Contractor* will provide the *Owner* and the *Contract Administrator* with the *Contractor*'s

or any *Subcontractors'* WorkSafeBC registration number.

Add 21.2.4

Concurrently with making any application for payment under this *Contract*, the *Contractor* will provide the *Owner* with written confirmation that the *Contractor* and all *Subcontractors* are registered in good standing with WorkSafeBC and that all assessments have been paid.

Add 21.2.5

The *Contractor* may or may not have received, as part of the Contract Documents, a "Pre-Contract Hazard Assessment" prepared by or for the Owner pursuant to the Owner's statutory obligations under the WorkSafeBC/H&S Regulation (Section 119 of the WCA) as an "owner of a workplace". Despite the Owner's statutory obligations, the Contractor now acknowledges and agrees that the Contractor may not rely on the "Pre-Contract Hazard Assessment" and now agrees to assume by the terms of this *Contract* full responsibility for carrying out the Owner's obligations under Section 119 of the WCA, including without limitation and by way of example only, conducting all due diligence inquiries of all applicable Owner staff and departments in order to ascertain what, if any, information is known or has been recorded by Owner staff about the Site that is necessary to identify and eliminate or control hazards to the health or safety of persons at the Site. Owner now agrees to make all reasonable efforts to assist the *Contractor* in obtaining timely access to Owner staff and Owner records for this purpose. The Contractor will immediately start conducting such due diligence inquiries and must complete and deliver written confirmation of the completion of such inquiries to the Contract Administrator prior to the Owner being obligated to issue the *Notice to Proceed*.

Add 21.2.6

The *Contractor* will indemnify the *Owner* and hold harmless the *Owner* from all manner of claims, demands, costs, losses, penalties and proceedings arising out of or in any way related to:

(1) unpaid WorkSafeBC assessments of the

Contractor or any other employer for whom the Contractor is responsible under this Contract;

- (2) the acts or omissions of any person engaged directly or indirectly by the Contractor in the performance of this Contract, or for whom the Contractor is liable pursuant to the Contractor's obligations as the Prime Contractor, and which acts or omissions are or are alleged by WorkSafeBC to constitute a breach of the WorkSafeBC/H&S Regulation or other failure to observe safety rules, regulations and practices of WorkSafeBC, including any and all fines and penalties levied by WorkSafeBC; or
- (3) any breach of the Contractor's obligations under this GC4.2.

### 22.1 Contractor to Delete 22.1 and Indemnify replace with

The *Contractor* releases the *Owner*, its officers, officials, employees and agents from all costs, losses, damages and expenses, including those caused by personal injury, death, property damage, loss and economic loss arising out of, suffered or experienced by the *Contractor*, its *Subcontractors*, and their respective officers, employees and agents, or suffered or experienced by any other entity or person in connection with the performance of the *Work*.

Despite the provision of insurance coverage by the *Owner*, the *Contractor* hereby agrees to indemnify and save harmless the *Owner*, its elected officials, officers, employees and authorized representatives and each of them from and against losses, claims, damages, actions, and causes of actions that the *Owner* may sustain, incur, suffer or be put to at any time either before or after the expiration or termination of the *Contract*, that arise out of the acts of the *Contractor*, its *Subcontractors*, or their respective officers, employees or agents under the *Contract*.

This indemnity will not affect or prejudice the Owner from exercising any other rights that may

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The release and indemnity set out in this GC will survive the expiry or sooner termination of the *Contract*.

### 22.2 Owner to Indemnify

Deleted 22.2.2 and replace with

If the *Owner* performs work at the *Place of the Work* at the same time as the *Contractor* is performing the *Work*, then the *Owner* shall indemnify and hold harmless the *Contractor*, and the *Contractor's* agents and employees from and against claims, demands, losses, costs, damages, actions, suits or proceedings by third parties that arise out of, or are attributable to, the negligent acts or omissions of the *Owner*, the *Owner's* agents, or employees in the performance of that work

### 22.4 Patent Infringement

Add 22.4

Contractor hereby agrees to indemnify and save harmless the Owner. its elected officials. officers, employees and authorized representatives and each of them from and against losses, claims, damages, actions, and causes of actions that the Owner may sustain, incur, suffer or be put to at any time either before or after the expiration or termination of the Contract, that arise out of any actual or alleged infringement of any Intellectual Property Rights caused by the performance of the Work or the use of any process, work, material, matter, thing or method used or supplied by the Contractor or any Subcontractor in the performance of the Work.

#### 24.0 INSURANCE

### 24.1 Required Insurance

Delete 24.1.1 to 24.1.6 and replace with

- (1) The *Contractor* shall obtain and maintain throughout the term of the *Contract* and the prosecution of the *Work*, all of the insurance policies described in Schedule 9 of the *Contract Documents*.
- (2) All insurance coverage described in Schedule 9 of the *Contract Documents* shall be issued by an insurance carrier or agent acceptable to the *Owner* and licensed to conduct business in the Province of British Columbia.

- (3) Upon request of the *City Engineer* or the *Owner*, the *Contractor* shall be required to deliver a Certificate of Insurance, and where required by the *Owner's* Director of Risk Management, certified copies of all policies and endorsements, evidencing the placement and endorsement of insurance in accordance with this GC 24.
- (4) Contractors and their Subcontractors shall be required to furnish evidence of the renewal of policies described in this GC by renewal certificate, endorsement or certified copy to be received by the Owner at least 15 calendar days prior to the expiry date of the policy.
- (5) If the Contractor fails to obtain and maintain insurance as required hereunder, or if the Owner does not approve any insurance policy or policies submitted to the Owner and the Contractor thereafter does not meet the requirements of the Owner as to terms and conditions of the insurance policy, the Owner shall have the right to place and maintain such insurance in the name of the Contractor. The cost thereof shall be payable by the Contractor to the Owner on demand, and the Owner may deduct the cost thereof from any monies which are due or may become due to the Contractor. If coverage should lapse, all Work by the Contractor shall be stopped until satisfactory evidence of renewal is produced.
- (6) Each policy described in Schedule 9 of the Contract Documents shall be required to be endorsed to provide the following notice for policy changes and cancellations to the Owner: "It is understood and agreed that this policy will not be cancelled, reduced, materially altered or changed without the insurer giving at least 30 calendar days' prior written notice by registered mail to the City of Vancouver."
- (7) In addition to the requirements of Schedule 9 of the *Contract Documents*, each *Contractor*

and each of its *Subcontractors* shall provide at its own cost any additional insurance which it is required by law to provide or which it considers necessary.

All deductibles shall be for the account of and be paid by the *Contractor* upon demand by the *Owner*. The *Owner* shall have the right to deduct amounts for which the *Contractor* is responsible under this GC 24 from any monies which are due or may become due to the *Contractor*.

### 25.0 MAINTENANCE PERIOD

### 25.1 Correction of Defects

Delete 25.1.1 and replace with

The Contractor shall, at the Contractor's own expense, promptly correct defects or deficiencies in the Work that appear prior to and during the period of two years from the date of the Certificate of Substantial Performance, or such longer periods as may be specified in the Contract Documents for certain products or Work (the "Maintenance Period"), including damage caused by backfill deficiency.

Add 25.1.4

Whether the *Contractor* should replace defective products or Work, or repair the same, shall be determined by the Contract Administrator. Should the *Contractor* fail to make good defects within 3 Days after being notified by the Owner to do so, the Owner at its option may do so and all costs, charges and expenses so incurred may be deducted or collected by the Owner as provided in GC 18.11, provided that the Owner shall first deduct such amounts from the Maintenance Security Holdback. If the Owner assesses the defects to be dangerous or determines that an emergency situation exists, the Owner, at the Owner's discretion will effect repairs immediately and all costs, charges and expenses so incurred may be deducted or collected by the Owner as provided in 18.11 - Money Due to Owner; provided that the Owner shall first deduct such amounts from the *Maintenance Security Holdback*.

The decision of the Owner shall be final as to the

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necessity of repairs or of any Work done or required to be done under the provisions of the Contract and for the amounts expended thereunder. If in the opinion of the Contract Administrator, it is in the Owner's best interests (taking into account effects on the Owner's overall schedule, the difference in value between the Work as performed and that called for by the Contract Documents, and other relevant factors) not to correct defective Work or Work not provided in the Contract Documents, the Contract Administrator will assess the amount which should be deducted from the amount otherwise due to the Contractor and will assess the length of time by which the obligations should be extended in order to put the Owner in as close a position financially and in terms of the useful life of the Work as would have been the case had the Contractor performed the Work as called for by the Contract Documents. For further certainty, the Contract Administrator may extend the Warranty Period in appropriate circumstances to a minimum of twice the Warranty Period originally provided for under the Contract Documents, subject always to the above parameters.



# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 2 - SPECIFICATIONS AND DRAWINGS

### SCHEDULE 2 SPECIFICATIONS AND DRAWINGS

The following is a list of the Specifications and Drawings:

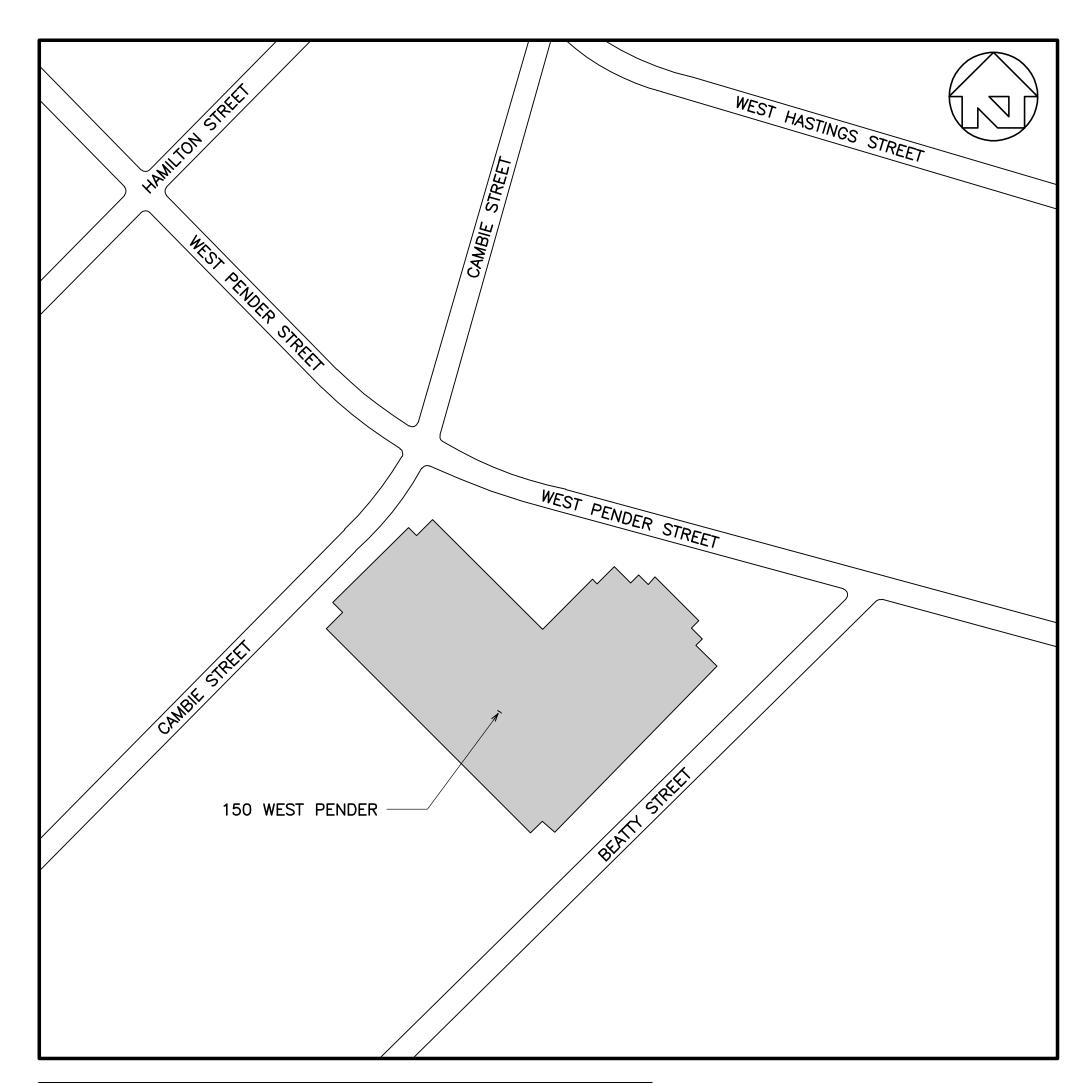
### **SPECIFICATIONS**

- Section 01 10 01 General Requirements
- Section 01 78 36 Warranties and Bonds
- Section 03 01 30 Concrete Restoration
- Section 03 01 31 Shoring
- Section 03 01 32 Concrete Removal Percussive Methods
- Section 03 01 34 concrete Removal Shotblast Demolition Methods
- Section 03 01 35 Concrete Reinforcement Preparation
- Section 22 01 00 Parking Deck Drainage
- Section 32 17 23 Parking Line Painting

### **DRAWINGS**

See attached.

# 150 W PENDER STREET 2020 PARKADE RESTORATION 150 WEST PENDER STREET, VANCOUVER BC



### LEGAL DESCRIPTION

LOT D BLOCK 38 PLAN 21020 DISTRICT LOT 541 NEW WESTMINSTER EXCEPT PLAN 18259

SITE PLAN

### REINFORCING NOTES

- 1. REINFORCEMENT SHALL CONFORM TO THE FOLLOWING STANDARDS:
- A. CAN/CSA-G30.18R GRADE 400 MPa 10M AND LARGER (U.N.O.)
  B. CSA STANDARD G30.5 GRADE 400 MPa WELDED WIRE MESH
  C. EPOXY REINFORCING ASTM A775M

(NOTE: G30.18W MAY BE SUBSTITUTED FOR G30.18R)

- 2. DESIGNATION OF REINFORCING BARS:
- A. BARS SHOWN THUS — IN BOTTOM OF BEAMS AND SLABS OR IN FAR FACE OF WALL.

  BARS SHOWN THUS IN TOP OF BEAMS AND SLABS OR IN

E.G. 15M12.6 + 15M10.6 ALT. @ 12" MEANS 1-15M12.6 BAR

- NEAR FACE OF WALL.

  B. STRAIGHT E.G. 6-10M13.9 MEANS 6-10M BARS 13'-9" LONG.
- BENT E.G. 13-A20M13.4 MEANS 13-20M BARS 13'-4" H.1.E. 180'. BARS: E.G. 3-C25M09.10 MEANS 3-25M BARS 9'-10" LONG H.1.E. 90' (NOTE: BAR LENGTH INCLUDES HOOK).

THEN 1-15M10.6 BAR SPACED 12" AWAY

- DO NOT SUBSTITUTE DEFORMED WIRE FOR REINFORCING BARS WITHOUT PRIOR APPROVAL OF READ JONES CHRISTOFFERSEN LTD.
- 4. IN SUSPENDED PARKING SLABS:
- A. BAR SUPPORT CHAIRS SHALL BE PLASTIC, PLASTIC COATED, OR PRECAST CONCRETE BLOCKS EQUAL IN QUALITY TO THE CONCRETE SPECIFIED FOR THE STRUCTURE.
- B. PLASTIC TIES OR PLASTIC COATED WIRES SHALL BE USED FOR TYING EPOXY COATED REINFORCEMENT.
- C. UNCOATED METAL TIES SHALL NOT EXTEND MORE THAN 3/16" INTO THE
- D. ALL REINFORCING SHALL BE EPOXY COATED REBAR.
- 5. TENSION EMBEDMENT AND SPLICE LENGTHS ARE TO BE AS PER THE FOLLOWING TABLE:

	REBAR		CONCRETE STRENGTH					
	DESIGNATION	FUNCTION	20 MPa	25 MPa	30 MPa	35 MPa	40 MPa	
	10M	EMBEDMENT	17"	15"	14"	13"	12"	
		(SPLICE)	(22")	(20")	(18")	(17")	(16")	
	15M	EMBEDMENT	25"	23"	21"	19"	18"	
		(SPLICE)	(33")	(29")	(27")	(25")	(23")	
	20M	EMBEDMENT	34"	30"	28"	26"	24"	
		(SPLICE)	(44")	(39")	(36")	(33")	(31")	

NOTE: "TOP BAR" VALUES ARE 1.3 TIMES THE ABOVE LENGTHS.

"TOP BAR" APPLIES TO HORIZONTAL REINFORCEMENT CAST WITH 12" OR MORE
OF CONCRETE BELOW THE BAR

NOTE: EPOXY REINFORCEMENT

INCREASE THESE TABLE LENGTHS BY 1.5 FOR EPOXY COATED REINFORCEMENT. INCREASE THESE TABLE LENGTHS BY 1.7 FOR EPOXY COATED TOP REINFORCEMENT.

### **OWNERSHIP AND COPYRIGHT RESERVED**

DRAWINGS, PLANS, DESIGNS, SPECIFICATIONS AND OTHER DOCUMENTS PREPARED BY READ JONES CHRISTOFFERSEN (RJC) AND USED IN CONNECTION WITH THE PROJECT ARE INSTRUMENTS OF SERVICE FOR THE EXECUTION OF THE PROJECT, AND REMAIN THE PROPERTY OF RJC, WHETHER THE PROJECT IS EXECUTED OR NOT, AND RJC RESERVES THE COPYRIGHT THEREIN AND IN THE WORK EXECUTED THEREFROM. THESE DOCUMENTS SHALL NOT BE USED FOR ANY OTHER PROJECT, EXCEPT ONLY FOR GENERAL REFERENCE PURPOSES FOR ADDITIONS OR ALTERATIONS TO THE WORK SHOWN IN THEM, AND SINCE SUCH DOCUMETNS ARE "DESIGN" DOCUMENTS ONLY AND MAY NOT REPRESENT THE ACTUAL PROJECT "AS CONSTRUCTED", USE OF THESE DOCUMENTS FOR GENERAL REFERENCE PURPOSES IS AT THE SOLE RISK OF THE PARY USING THEM. THESE DOCUMENTS SHALL NOT BE COPIED WITHOUT THE WRITTEN CONSENT OF AN AUTHORIZED REPRESENTATIVE OF RJC.

### LIST OF RESTORATION DRAWINGS

- R-1.1 COVER PAGE AND GENERAL NOTES
- R-2.1 PARKING LEVEL 1 & 2 PLAN R-2.2 PARKING LEVEL 3 & 4 PLAN R-2.3 PARKING LEVEL 5 & 6 PLAN R-2.4 PARKING ROOF PLAN
- R-3.1 CONCRETE REPAIR DETAILS

### **DRAWINGS**

- 1. THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. THE DRAWINGS DO NOT SHOW COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORMWORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK
- THE USE OF THESE DRAWINGS IS LIMITED TO THAT IDENTIFIED IN THE REVISIONS COLUMN. DO NOT CONSTRUCT FROM THESE DRAWINGS UNLESS MARKED "ISSUED FOR CONSTRUCTION" IN THE REVISIONS COLUMN, BY READ JONES CHRISTOFFERSEN LTD. THE DRAWINGS SHALL NOT BE USED FOR PRICING, COSTING, OR TENDER UNLESS SO INDICATED IN THE REVISION COLUMN. PRICING OR COSTING DRAWINGS ARE NOT COMPLETE AND ANY PRICES BASED ON PRICING OR COSTING DRAWINGS MUST INCLUDE ALLOWANCES FOR THIS.
- 3. THE INFORMATION ON THESE DRAWINGS SHALL NOT BE USED FOR ANY OTHER PROJECT OR WORKS. THE INFORMATION ON THESE DRAWINGS APPLIES SOLELY TO THIS PROJECT.

### **GENERAL NOTES**

- THIS SET OF DRAWINGS SHOWS THE COMPLETED PROJECT. THEY DO NOT INCLUDE COMPONENTS THAT MAY BE NECESSARY FOR CONSTRUCTION SAFETY. THE CONTRACTOR IS RESPONSIBLE FOR SAFETY IN AND ABOUT THE JOB SITE DURING CONSTRUCTION, AND THE DESIGN AND ERECTION OF ALL TEMPORARY STRUCTURES, FORMWORK, FALSE WORK, SHORING, ETC. REQUIRED TO COMPLETE THE WORK
- 2. THE INFORMATION ON THIS DRAWING SHALL NOT BE USED FOR ANYTHING OTHER THAN THE SPECIFIED WORKS OR PART OF THE WORKS FOR WHICH IT HAS BEEN AUTHORIZED BY READ JONES CHRISTOFFERSEN LTD.
- 3. SECTION MARK SHOWN THUS  $\frac{4}{S-3}$  MEANS SECTION #4 ON DRAWING S-3.
- THE CONTRACT DOCUMENTS ARE BASED ON ASSUMED AS—BUILT DIMENSIONS FOR THE EXISTING BUILDING STRUCTURE AND ASSUMPTIONS IN ACCORDANCE WITH STANDARD DETAILING AND CONSTRUCTION PRACTICE. THE CONTRACTOR SHALL IMMEDIATELY INFORM THE CONSULTANT OF ANY ACTUAL VARIATIONS FROM THE ASSUMED CONDITIONS. IT IS UNDERSTOOD THAT MINOR MODIFICATIONS MAY BE REQUIRED TO THE WORK INDICATED. THE CONTRACTOR SHALL COOPERATE WITH THE CONSULTANT IN THIS REGARD. MINOR MODIFICATIONS WILL BECOME THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL NOT RESULT IN A CHANGE IN THE CONTRACT PRICE.
- 5. THE CONTRACTOR SHALL REPORT CONFLICTS BETWEEN NEW WORK AND EXISTING STRUCTURE TO RJC. DO NOT PROCEED WITH MODIFICATIONS TO THE EXISTING STRUCTURE OR THE NEW WORK WITHOUT WRITTEN APPROVAL FROM RJC.
- 6. COMMENCEMENT OF CONSTRUCTION OR ANY PART THEREOF CONSTITUTES ACCEPTANCE OF EXISTING CONDITIONS AND MEANS DIMENSIONS AND ELEVATIONS HAVE BEEN CONSIDERED, VERIFIED AND ARE ACCEPTABLE.

STAIRS ----- 100 PSF

8. DO NOT OVERLOAD THE STRUCTURE. ENSURE ALL REASONABLE PRECAUTIONS ARE TAKEN TO PREVENT DAMAGE TO THE UNDERLYING STRUCTURES REMAINING IN PLACE. PROVIDE SHORING AS NECESSARY TO PREVENT OVERLOADING OF THE STRUCTURE DURING DEMOLITION AND CONSTRUCTION.

### FIELD REVIEW BY READ JONES CHRISTOFFERSEN (RJC)

1. READ JONES CHRISTOFFERSEN PROVIDES FIELD REVIEW ONLY FOR THE WORK SHOWN ON THESE STRUCTURAL DRAWINGS. THIS REVIEW IS NOT A "FULL TIME" REVIEW BUT IS CONDUCTED WITH SUCH FREQUENCY AS RJC DEEMS APPROPRIATE TO OBSERVE VARIOUS STAGES OF THE WORK AND TO ASCERTAIN THAT THE WORK IS IN GENERAL CONFORMANCE WITH THE PLANS AND SUPPORTING DOCUMENTS PREPARED BY READ JONES CHRISTOFFERSEN. FIELD REVIEW BY READ JONES CHRISTOFFERSEN IS NOT CARRIED OUT FOR THE CONTRACTOR'S BENEFIT, NOR DOES IT MAKE READ JONES CHRISTOFFERSEN GUARANTORS OF THE CONTRACTOR'S WORK. IT REMAINS THE CONTRACTOR'S RESPONSIBILITY TO BUILD THE WORK IN CONFORMANCE WITH THE CONTRACT DOCUMENTS. RJC SHALL NOT BE RESPONSIBLE FOR THE ACTS OR OMISSIONS OF THE CONTRACTOR, SUB—CONTRACTOR, OR ANY OTHER PERSONS PERFORMING ANY OF THE WORK OR FOR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

RJC WILL REVIEW SHOP DRAWINGS PERTAINING TO WORK SHOWN ON RJC'S DRAWINGS. THE EXTENT OF THIS REVIEW IS AT THE SOLE DISCRETION OF RJC'S ENGINEER AND IS FOR THE SOLE PURPOSE OF ASCERTAINING GENERAL CONFORMANCE WITH THE STRUCTURAL DESIGN CONCEPT. THE REVIEW IS NOT AN APPROVAL OF THE DESIGN, DETAILS, AND DIMENSIONS INHERENT IN THE SHOP DRAWINGS, RESPONSIBILITY FOR WHICH SHALL REMAIN WITH THE CONTRACTOR OR SUBCONTRACTOR SUBMITTING THEM. SUCH REVIEW SHALL NOT RELIEVE THE CONTRACTOR OR SUBCONTRACTOR OF HIS OR HER RESPONSIBILITY FOR ERRORS AND OMISSIONS IN THE SHOP DRAWINGS OR FOR MEETING ALL REQUIREMENTS OF THE CONTRACT DOCUMENTS.

- 2. PROVIDE 24 HOURS ADVANCE NOTICE OF EACH REQUIRED FIELD REVIEW. FIELD REVIEWS SHALL BE SCHEDULED TO BE CARRIED OUT DURING NORMAL BUSINESS HOURS UNLESS SPECIAL ARRANGEMENTS ARE MADE WITH RJC.
- 3. THE WORK TO BE REVIEWED SHALL BE GENERALLY COMPLETE.

Creative Thinkin
Practical Results

Read Jones Christoffersen Ltd. Engineers rjc.ca

> 1285 West Broadway, Suite 300 Vancouver, BC V6H 3X8 Canada tel 604-738-0048 fax 604-738-1107

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	ISSUED FOR CLIENT REVIEW	DEC 19/19	KM
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### Drawing No

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Project Name

# 150 WEST PENDER 2020 PARKADE RESTORATION

150 WEST PENDER STREET VANCOUVER, B.C.

Sheet T

**R-1.1** 

COVER PAGE & GENERAL NOTES

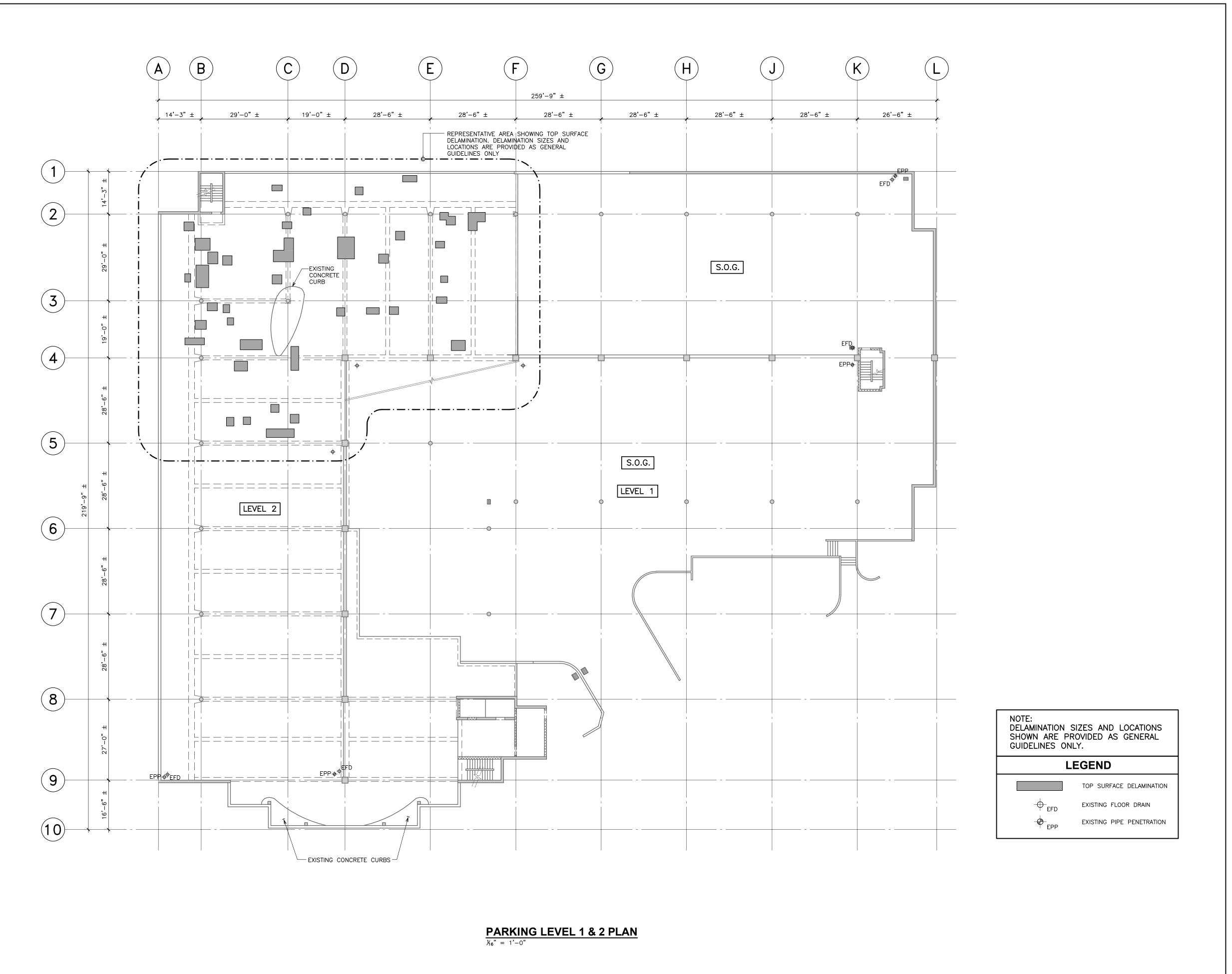
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Designed By KMR Date DECEMBER 16, 2019

RJC Project Number VAN.035219.0014
Sheet Number Rev

Revision

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### 150 WEST PENDER 2020 PARKADE RESTORATION

150 WEST PENDER STREET VANCOUVER, B.C.

Sheet T

PARKING LEVEL 1 & 2 PLAN

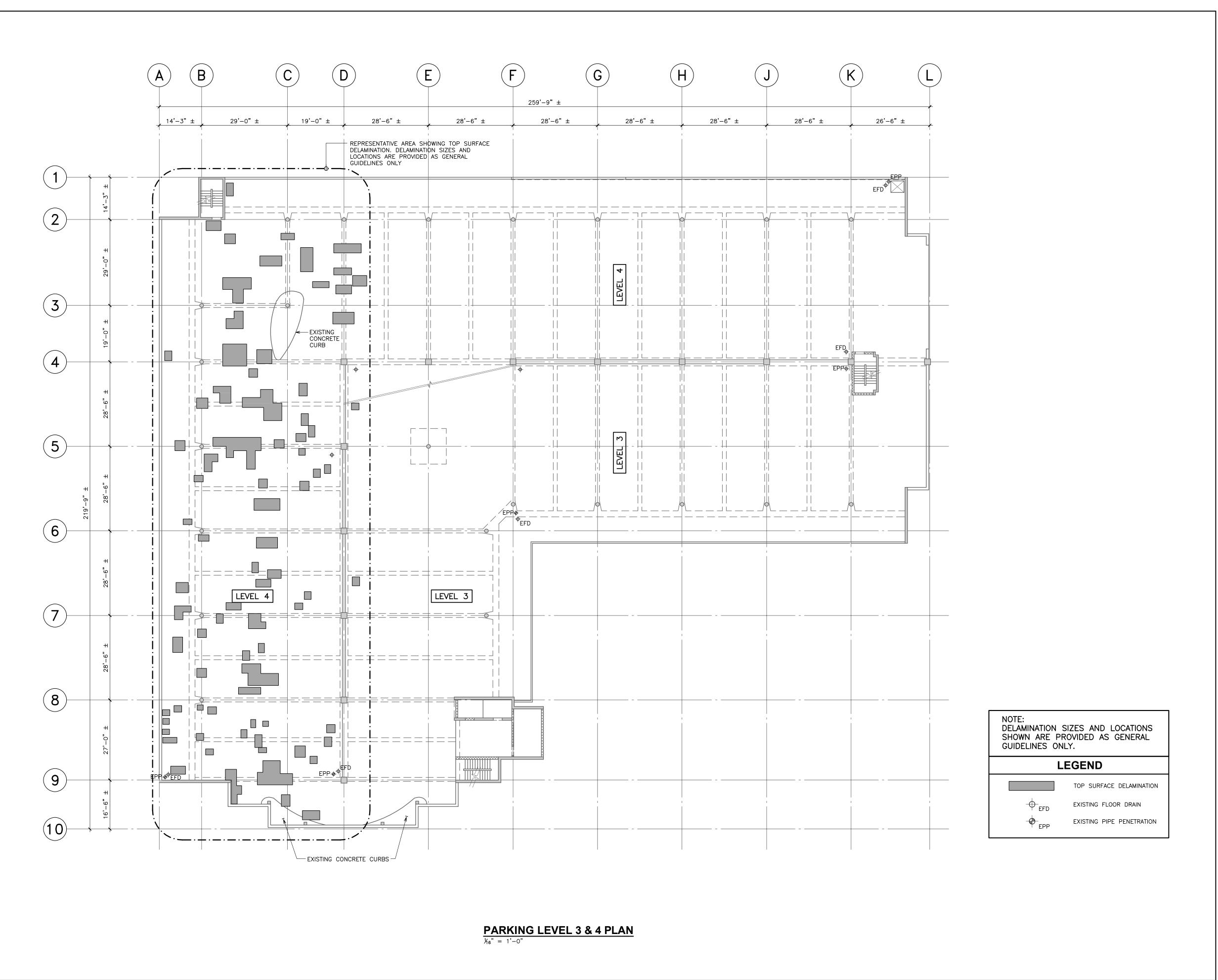
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Designed By KMR Date DECEMBER 16, 2019

RJC Project Number VAN.035219.0014

Sheet Number Revis

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### **150 WEST PENDER 2020 PARKADE RESTORATION**

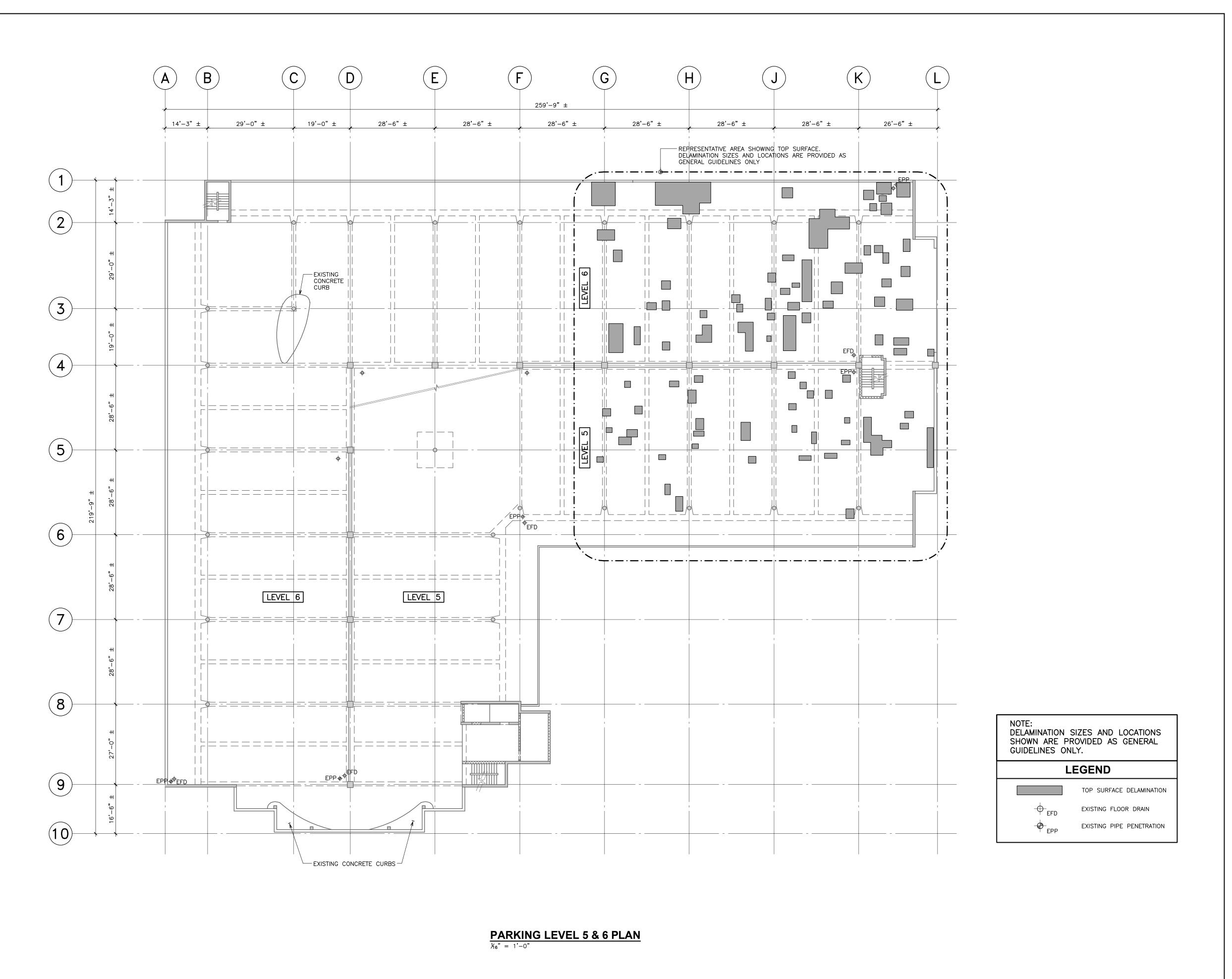
150 WEST PENDER STREET VANCOUVER,

PARKING LEVEL 3 & 4 PLAN

Scale AS SHOWN Date **DECEMBER 16, 2019** VAN.035219.0014 RJC Project Number Sheet Number

**R-2.2** 

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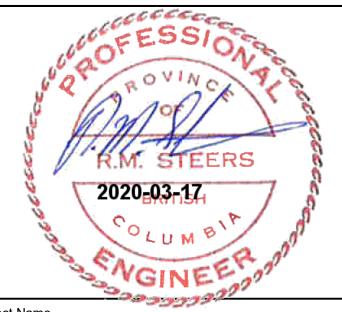


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### 150 WEST PENDER 2020 PARKADE RESTORATION

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Sheet T

PARKING LEVEL 5 & 6 PLAN

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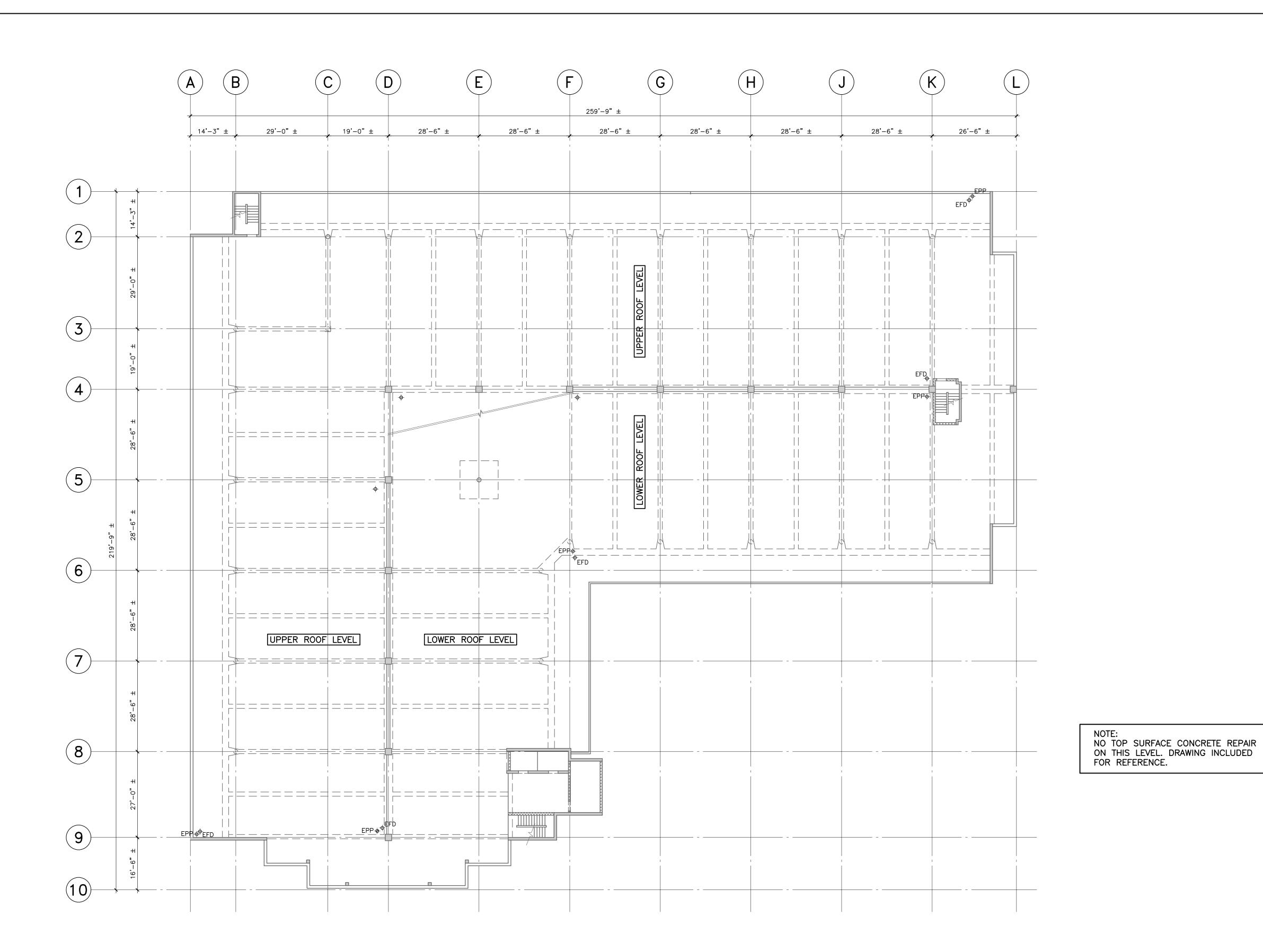
Designed By KMR Date DECEMBER 16, 2019

RJC Project Number VAN.035219.0014

Sheet Number Revis

R-2.3

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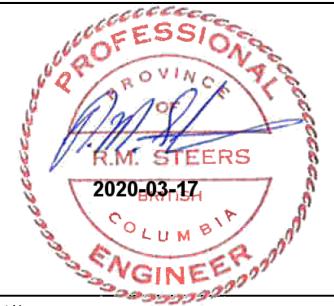


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### PARKING ROOF PLAN

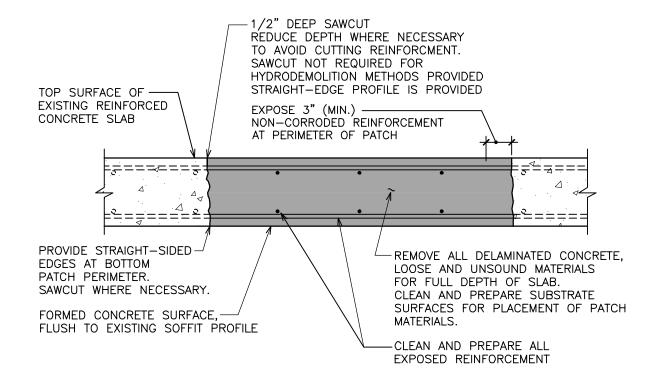
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RJC Project Number VAN.035219.0014

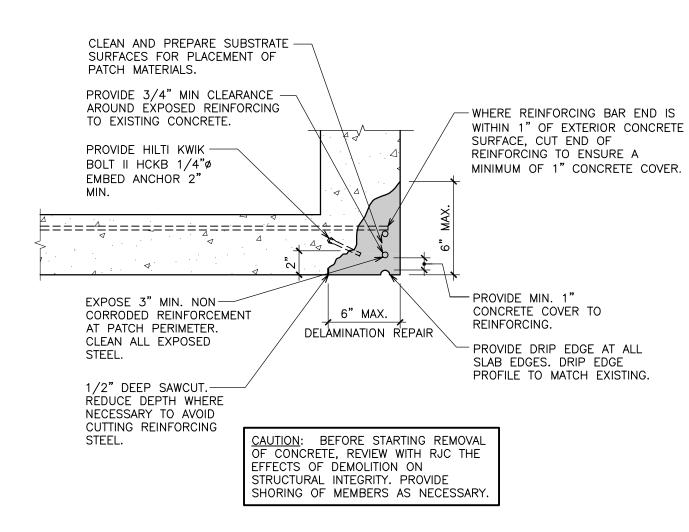
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R-2.4



CAUTION: BEFORE STARTING REMOVAL OF CONCRETE, REVIEW WITH RJC THE EFFECTS OF DEMOLITION ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBERS AS NECESSARY.

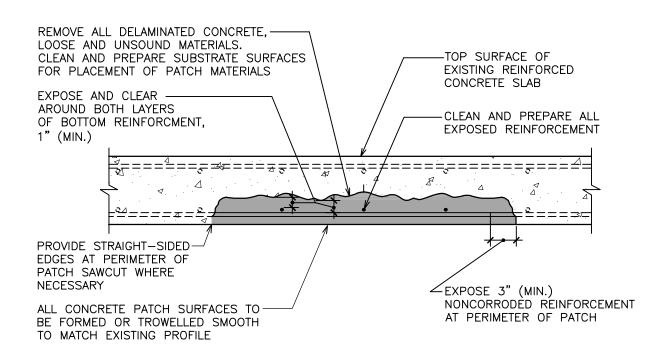




SLAB EDGE DELAMINATION

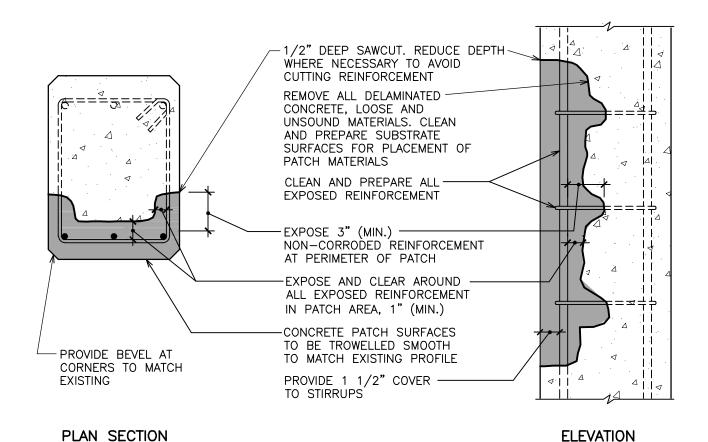
6 REPAIR DETAIL

3.1 N.T.S.



CAUTION: BEFORE STARTING REMOVAL OF CONCRETE, REVIEW WITH RJC THE EFFECTS OF DEMOLITION ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBERS AS NECESSARY.

# BOTTOM SURFACE (SOFFIT) DELAMINATION REPAIR DETAIL N.T.S.

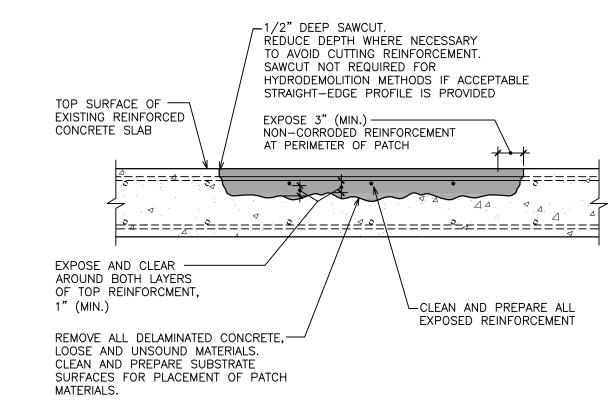


CAUTION: BEFORE STARTING REMOVAL OF CONCRETE, REVIEW WITH RJC THE EFFECTS OF DEMOLITION ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBERS AS NECESSARY.

5 REPAIR DETAIL

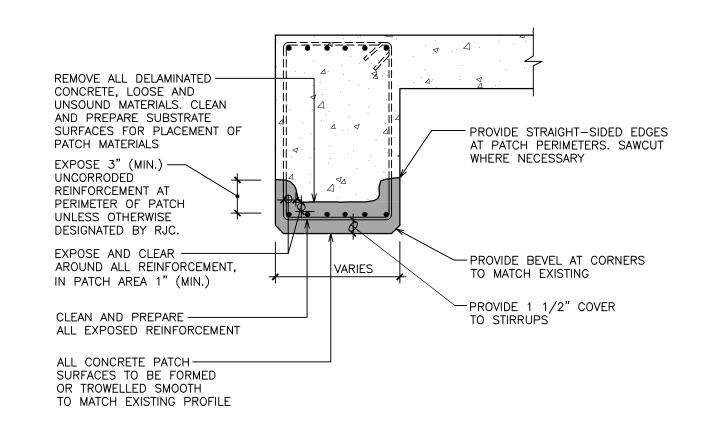
5 N.T.S.

(NOTE: WALL PARAPET + SIDE OF BEAM REPAIR SIMILAR)



CAUTION: BEFORE STARTING REMOVAL OF CONCRETE, REVIEW WITH RJC THE EFFECTS OF DEMOLITION ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBERS AS NECESSARY.





CAUTION: BEFORE STARTING REMOVAL OF CONCRETE, REVIEW WITH RJC THE EFFECTS OF DEMOLITION ON STRUCTURAL INTEGRITY. PROVIDE SHORING OF MEMBERS AS NECESSARY.





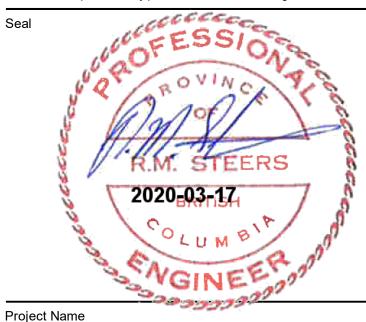
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150 WEST PENDER STREET VANCOUVER, B.C.

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### **CONCRETE REPAIR DETAILS**

Drawn By RSJ Scale AS SHOWN

Designed By KMR Date DECEMBER 16, 2019

RJC Project Number VAN.035219.0014

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# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 3 - SCHEDULE OF QUANTITIES AND PRICES

### SCHEDULE 3 SCHEDULE OF QUANTITIES AND PRICES

To be attached at the time of award.

### INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET **SCHEDULE 4 - SUBCONTRACTORS AND SUPPLIES**

### **SCHEDULE 4** SUBCONTRACTORS AND SUPPLIES

To be attached at the time of award.

May 2020

Page AGT63

# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 5 - CONSTRUCTION SCHEDULE

### SCHEDULE 5 CONSTRUCTION SCHEDULE

To be attached at the time of award.

{00137120v 15}

# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 6 - PERFORMANCE AND LABOUR AND MATERIALS PAYMENT BONDS

### SCHEDULE 6 PERFORMANCE AND LABOUR AND MATERIALS PAYMENT BONDS

To be attached at the time of award.

### SCHEDULE 7 INSURANCE CERTIFICATES

To be attached at the time of award.

# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 8 - FORCE ACCOUNT LABOUR AND EQUIPMENT RATES

### SCHEDULE 8 FORCE ACCOUNT LABOUR AND EQUIPMENT RATES

To be attached at the time of award.

{00137120v 15}

### SCHEDULE 9 INSURANCE REQUIREMENTS

#### 1. All Risk Course of Construction Insurance

#### (a) Coverage

"All Risks" of physical loss or damage.

### (b) Property Insured

#### (i) At Site

All materials, equipment and machinery, labour and supplies of any nature whatsoever, Work in progress, including property of the insured or of others for which the insured may have assumed responsibility, to be used in or incidental to the Site preparations, demolition or existing structures, erection and/or fabrication and/or reconstruction and/or repair of the project insured, commencing when the property becomes at the insured's risk, at the Site, and while there awaiting, during and subsequent to erection and/or fabrication and/or repair and/or testing.

#### (ii) Transit

Property to enter into and form a part of the project insured, from the commencement of loading at the original point of shipment anywhere in Canada or the continental United States of America, but excluding such property in the course of manufacturing or processing within buildings at the manufacturer's or supplier's site.

#### (iii) Off-Site

Off-Site coverage shall apply to property that is to be incorporated into and form a part of the project insured, anywhere in Canada or the Continental United States of America, but excluding such property while in transit or in the course of manufacturing or processing within buildings at the manufacturer's or supplier's site.

#### (c) Insureds

The Owner, the Contractor, and their respective officials, officers, employees and agents.

#### (d) Term

During the period of the construction operations and also during any period in which the property insured is being prepared for use and while partially used or occupied; provided all coverage shall cease when the Work has been formally accepted as complete by the Owner, whichever shall first occur.

#### (e) Limit and Deductibles at Site

- (i) Limit of Liability: Full replacement value of the Work
- (ii) Deductible not to exceed \$5,000.

### 2. "Wrap Up Liability Insurance"

#### (a) Insureds

The Owner, the Engineer, the Contractor, and all Subcontractors, and their respective officials, officers, employees and agents.

#### (b) Limits

Bodily injury liability and property damage liability including aggregate products and completed operations: \$10,000,000 for each occurrence.

#### (c) Extensions of Coverage

- (i) Broad form products and completed operations liability, including coverage for activities of the Contractor and Subcontractors during the completed operations period;
- (ii) Owner's and contractor's protective liability;
- (iii) Blanket contractual liability;
- (iv) Contingent employer's liability;
- (v) Personal injury liability;
- (vi) non-owned automobile liability;
- (vii) Cross liability or severability of interest clause;
- (viii) Employees as additional insureds;
- (ix) Blasting, collapse, underpinning, shoring, pile driving, dredging or grading activities;

- (x) Loading and unloading of automobiles;
- (xi) Hoist liability;
- (xii) Unlicensed and specially licensed vehicles;
- (xiii) Operation of attached machinery;
- (xiv) Limited pollution liability arising out of hostile fire and sudden and accidental release of contaminants.

#### (d) Deductibles

Deductible not to exceed \$5,000.

### (e) Cross Liability

The insurance shall apply to any action brought against any one of the insureds by any other insured in the same manner as though separate policies were issued to each.

#### (f) Term

Period of construction or completion of the Work, whichever shall first occur, plus 24 months for completed operations liability thereafter.

#### (g) Waiver of Subrogation

It is understood and agreed that in the event of a loss and upon payment of claim hereunder, the insurer will waive the any right of subrogation against the Owner, the Engineer and all architects, engineers or consultants engaged in or connected with the construction and Site preparation and related operations of the Work and any of their servants, agents, employees, and parent, subsidiary, affiliated or associated firms.

#### 3. Automobile Insurance

A standard owner's form automobile policy for licensed vehicles providing third party liability and accident benefits insurance as provided by the Insurance Corporation of British Columbia (Autoplan) in accordance with applicable British Columbia law, with the minimum limits as follows:

Bodily injury and property damage (third party limit) inclusive limit: \$5,000,000.

### 4. Contractor's Equipment Insurance

"All Risk" insurance with insurers acceptable to the Owner, covering all construction equipment, owned or rented, or for which the Contractor or any of its Subcontractors may be responsible. In the event of loss or damage to the said construction equipment, or any part thereof, the Contractor or the Subcontractor, as the case may be, shall, if so requested by the Owner in writing, forthwith replace such damaged or destroyed construction equipment.

It is understood and agreed that in the event of a loss and upon payment of claim hereunder, the insurer will waive any right of subrogation against the Owner, the Engineer and all architects, engineers or consultants engaged in or connected with the construction and Site preparation and related operations of the Work and any of their servants, agents, employees, and parent, subsidiary, affiliated or associated firms.

### 5. Contractor's Pollution Liability Insurance

The Contractor will obtain or cause its Subcontractors to obtain contractor's pollution liability insurance including "Non Owned Disposal Sites" ("NODS") coverage for a limit not less than \$2,000,000.00 per occurrence with a deductible not greater than \$50,000.00 covering third party bodily injury, property damage and clean-up costs arising out of a pollution event including but not limited to unexpected and unintentional spill, discharge, emission, dispersal, leakage, migration, release or escape of pollutants including Polychlorinated Biphenyl ("PCB"). Coverage will include the transportation, loading and unloading of materials. The coverage is to include the Contractor as a named insured.

#### 6. Professional Liability Insurance

The Contractor's sub-contracting erection engineer will be required to obtain and carry a professional (errors and omissions) liability insurance policy with limits of not less than \$2,000,000 per occurrence (and aggregate coverage of not less than \$5,000,000) and a deductible of not more than \$50,000, protecting the sub-contracting engineer against all claims for loss or damage arising out of any wrongful act or error or omission of the erection engineer or its personnel in the performance of the Work.

# INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 10 - CITY PRE-CONTRACT HAZARD ASSESSMENT FORM

### **SCHEDULE 10**

### CITY PRE-CONTRACT HAZARD ASSESSMENT FORM

### OR OWNER'S LIST OF KNOWN WORKPLACE HAZARDS

See attached.

### **Owners List of Known Workplace Hazards**

CONTRACT TITLE	150 W Pender Steet (EasyPark Lot 2): Parkade Restoration	
PROJECT MANAGE	R (CITY EMPLOYEE) Jason Jotie	_
CONTRACT NAME 8	± # (IF KNOWN)	_

#### **Purpose**

This document shall be completed by the project manager, who shall list all the <u>known</u> worksite hazards and all the <u>existing</u> work process hazards that will be associated with the upcoming contract. The completed document shall then be provided to all potential contractors, as part of the tender package, so the project can be bid appropriately based on the known worksite hazards.

#### **Definitions**

**Project Manager** - the City employee designated to be the liaison with the contractor for the purpose of managing, overseeing, coordinating or in any other way administering the contract.

#### Instructions for Completion

The document must be completed in full. Choices for each entry are:

- Y Yes the known worksite hazard or existing work process hazard does exist
- N No the known worksite hazard or existing work process hazard does not exist\*, or, a third party (environmental consultant) will address the issue (usually for a hazardous materials assessment)
- \*based on reasonable estimation from all input by persons with expertise or relevant knowledge and understanding
- NA Not Applicable the worksite hazard or existing work process is not applicable for this contract type

#### Information from Hazardous Materials Assessments Provided by a Third Party

A hazardous materials assessment may be completed prior to the Project Manager completing the Owners List of Known Workplace Hazards. Any such assessment should be referenced by the Project Manager in this document and provided with the tender package. Hazardous materials may include asbestos, lead, crystalline silica, ammonia, PCB's, CFC's, moulds, mercury, ozone depleting substances (ODS), radioactive substances.

#### Assistance in Completing this Document

If you have questions while completing this document, or are unsure if the listed hazards apply, please seek assistance from Health and Safety (604.871.6078 or healthandsafety@vancouver.ca).

Н	AZARD OR ISSUE		Project Manager	
1,	ASBESTOS-CONTAINING MATERIALS - disturbance or penetrations of flooring, walls, ceiling tiles, pipe lagging, ac pipe, transite siding, particularly in older facilities; e.g., furniture/fixture installation, carpeting/flooring services, and boiler repair/tune-up services.	Ye	s No	N/A
a)	Asbestos containing materials (ACM) will be encountered		Į √	
b)	A hazardous materials assessment for asbestos is provided in the tender package	V		
c)	A hazardous materials assessment for asbestos is the responsibility of the contractor			] 🗸
2.	<b>LEAD-CONTAINING MATERIALS</b> - disturbance of lead-based paint, particularly in older facilities. Also present in certain electrical circuitry and metal alloys; .e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services.	Ye	s No	N/A
a)	Inorganic lead-containing materials may be encountered	Ø		
b)	A hazardous materials assessment for lead is provided in the tender package	Ø		
c)	A hazardous materials assessment for lead is the responsibility of the contractor			V
3.	OTHER HAZARDOUS MATERIALS - may include ammonia, pcb's, cfc's, moulds, mercury, ozone depleting substances (ods), radioactive substances, sewage, unknown contaminated materials, other: (list other here)	Yes	No	N/A
a)	A hazardous materials assessment for ammonia is provided in the tender package		<b>V</b>	
b) pro	A hazardous materials assessment for (list the specific hazardous material) will be ovided in the tender package			☑
c)	A hazardous materials assessment for (list the specific hazardous materials) will be the contractors responsibility			Ø
4. (	<b>CONFINED SPACES</b> - working in vaults, chambers, pits, tanks, etc.; e.g., construction, inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services.	5		
		Yes	No	N/A
a)	A hazard assessment (for entry and inspection only) from the City of Vancouver is provided in the tender package		V	
b)	The City of Vancouver shall provide procedures to isolate adjacent piping, or to lock out equipment (complicated systems only)		<b>V</b>	
c)	The contractor shall be responsible for isolation and lockout procedures		V	

5.	LOCK OUT - industrial equipment maintenance, power machinery repair services, pump maintenance/repair services, mechanical refrigeration systems, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services.	Yes	No	N/A
a)	Lockout will be required to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic)		V	
b)	Work will be performed on or near energized equipment, lines, or circuits		<b>V</b>	
If y	yes to a) or b) describe:	_		
_		_		
			*	
_	EALL PROTECTION			
0.	<b>FALL PROTECTION</b> - tree pruning, window and ledge cleaning, window replacement, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services.	Yes	No	N/A
a)	Workers will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)	V		
b)	Scaffolding or ladders will be required to be secured to a building or structure	<b>V</b>		
7.	OVERHEAD AND UNDERGROUND UTILITIES - tree pruning services, tree removal, utility relocation or replacement, underground utility identification (digging with powered equipment), concrete sawing services, pole painting	Yes	No	n/A
a)	There will be electrical hazards associated with overhead power lines such as limits of approach and contact		V	
b)	Necessary assurances (in writing) have (or will be) obtained by the City, through the utility company, for any work where minimum limits of approach cannot be maintained (provide documentation and review at pre job meeting with the successful contractor candidate)			<b>Ø</b>
c)	Necessary assurances must be obtained (in writing) by the successful contractor, through the utility company, for any work where minimum limits of approach will not be able to be maintained			Ø
d)	Underground or hidden utilities are located on the job site and any excavation or drilling work in proximity to an underground utility service must be undertaken in conformity with the requirements of the owner of that utility service		Ø	
	es to c), and the specific physical locations where minimum limits of approach will not be intained are known, how will this information be provided to the contractor?	e able	e to	be
_	·	_		

2011 06

8. CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION		Yes	No I	N/A
As Prime Contractor, the City of Vancouver project manage Project	er will submit the Notice of		Ø	
b) Workers will be required to enter an excavation over 1.2m (4 ft) in depth			<b>7</b>	
9. CHEMICALS, SOLVENTS, FUMES, VAPORS, AND/OR DUSTS (existing work processes or known worksite hazard only) - ice rinks, swimming pools, cleaning solvents, adhesives, paints, coatings, binders; e.g., storage tank clean-out services, countertop installation (epoxies), and flooring				N/A
a) The worksite has chemicals solvents, fumes, vapors or dusts that may affect the contractor			Ø	
b) Material Safety Data Sheets for chemicals currently in use at the worksite will be available, on request, to the contractor				
10. NOISE - (existing work processes only)	3 7		120	
a) Employees will be exposed to noise levels above 85dbA	,	Yes	No 🗸	N/A
	2			
OTHER HAZARDS (NOT IDENTIFIED ABOVE)				
a)		,		×
b)				*
c)				
KNOWN WORKPLACE HAZARDS LIST COMPLETED BY				
Project Manager Name (print):				
Jason Jotie				
Project Manager Signature:	Date:		*	•
	Apr 22, 2020			
Title:	Phone:			E.
Project Coordinator 604-873-7083				

## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 11 - CONTRACTOR PRE-CONTRACT HAZARD ASSESSMENT FORM

### **SCHEDULE 11**

### CONTRACTOR PRE-CONTRACT HAZARD ASSESSMENT FORM

See attached.

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### SCHEDULE 11 CONTRACTOR PRE-CONTRACT HAZARD ASSESSMENT FORM

[Completed form to be attached to the finalized agreement.]

PROJECT MANAGER (CITY EMPLOYEE)	
CONTRACTOR REPRESENTATIVE	
CONTRACT NAME & #	

### **Purpose**

This document shall be completed by the contractor awarded the contract, who shall identify all the **known and potential work process hazards** associated with the contract. The contractor, who is responsible for all identified actions, shall provide a completed Contractors Pre-Work Hazard Identification (CHI) document to the Project Manager (City employee) for review and consultation before the contract work begins.

### **Reference Material**

CONTRACT TITLE

In order to complete this document, the contractor should reference a completed copy of the **List of Known Workplace Hazards**, initially provided with the tender package. The contractor is also responsible to reference any **Hazardous Materials Assessments**, provided by the City with the tender package, and possibly referenced in the List of Known Workplace Hazards document.

### Instructions for Completion

The document must be completed in full. Choices for each entry are:

- Y Yes this work process or worksite hazard will exist for this contract and are the responsibility of the contractor
- **N** No Even though the work process or worksite hazard will exist, it will not be the responsibility of the contractor
- NA Not Applicable the work process or worksite hazard is not applicable for this contract

**TBD** - a third party (environmental consultant) will address the issue (primarily for a hazardous materials assessment)

Each grouping of safety hazards or issues in this document (bold text, capitalized) may list some examples of work tasks where this hazard may be encountered. These examples are not conclusive; there may be other examples of work tasks that create this hazard or issue.

### **Documentation and Training Requirements**

During the contract term, the contractor may be requested by the City of Vancouver, and shall provide documented evidence for items identified with a **(D)** in this document.

The summary table at the end of the document provides all potentially required documentation, and if applicable, the WCB OHS Regulation reference.

For any identified hazard marked with a **(T)**, the contractor is responsible to train their employees.

### **HAZARDOUS MATERIALS**

The contractor is responsible for providing additional information on hazardous materials which may be encountered as part of the work process, yet not identified in the List of Known Workplace Hazards.

НА	ZARD OR ISSUE	Contractor Confirmation	·
1.	ASBESTOS-CONTAINING MATERIALS - disturbance or penetrations of flooring, walls, ceiling tiles, pipe lagging, ac pipe, transite siding, particularly in older facilities; e.g., furniture/fixture installation, carpeting/flooring services, and boiler repair/tune-up services.	Yes (Y) No (N Not Applicable (NA) or To Bo Determined (TBD)	e Se
a)	We have reviewed the hazardous materials assessment for asbestos provided by the City of Vancouver (or third party) in the tender package	Y N NA TBD	
b)	We will provide a written hazardous materials assessment for asbestos	Y N NA TBD	1
c)	We have a written Asbestos Program (D)	Y N NA	
d)	As Prime Contractor, we will submit a Notice of Project Asbestos(NOP-A) to WorksafeBC at least 24 hours in advance of the project startup	Y N NA	١

2.	<b>LEAD-CONTAINING MATERIALS</b> - disturbance of lead-based paint, particularly in older facilities. Also present in certain electrical circuitry and metal alloys; .e.g., overhead bridge crane maintenance/repair, high-voltage cable splicing services, boiler repair/tune-up services, fixture installation services, and chiller maintenance/repair services.	Yes (Y) No (N) or Not Applicable (NA)
a)	We have reviewed the hazardous materials assessment for lead provided by the City of Vancouver (or third party) in the tender package	Y N NA TBD
b)	We will provide a written hazardous materials assessment for lead	Y N NA TBD
c)	We have a written exposure control program for Lead (D)	Y N NA

3.	OTHER HAZARDOUS MATERIALS - may include PCBs, CFCs, molds, mercury, ozone depleting substances (ODS), radioactive substances, sewage and unidentified contaminated hazardous materials, other: (list other here)	Yes (Y) No (N) or Not Applicable (NA)
a)	We have reviewed the hazardous materials assessment for (insert hazardous material type here) provided by the City of Vancouver, or a third party, in the tender package	Y N NA TBD
b)	We have reviewed the hazardous materials assessment for (insert hazardous material type here) provided by the City of Vancouver, or a third party, in the tender package	Y N NA TBD
c)	We will provide a hazardous materials assessment for (insert hazardous material type here)	Y N NA TBD
d)	We will provide a hazardous materials assessment for (insert hazardous material type here)	Y N NA TBD

4.	CONFINED SPACES - working in vaults, chambers, pits, tanks, etc.; e.g., construction, inspection and testing services, water/fuel storage tank clean-out services, and utility corrosion inspection services.	Yes (Y) No (N) or Not Applicable (NA)
a)	We have reviewed the confined space hazard assessment provided by the City of Vancouver in the tender package	Y N NA TBD

b)	We have a written confined space entry program (D)	Υ	N	NA
c)	Our employees have received confined space training (T)	Υ	N	NA
d)	We shall complete a confined space hazard assessment specific to the work to be performed $(\mathbf{D})$	Υ	N	NA
e)	We shall develop site specific written safe operating procedures (including evacuation and rescue components) prior to starting work $(D)$	Υ	N	NA
f)	We shall identify and record isolation points (D)	Υ	N	NA
g)	We will develop alternate procedures (as per WCB OHS Regulation # 9.22) to be used to isolate adjacent piping containing harmful substances <b>(D)</b>	Υ	N	NA
h)	We will provide for the services of rescue persons	Υ	N	NA

-	-			

\_\_\_\_\_

If yes to g), provide brief description:

5.	LOCK OUT - industrial equipment maintenance, power machinery repair services, pump maintenance/repair services, mechanical refrigeration systems, elevator repair, overhead bridge crane maintenance/repair services, cathodic protection services, hydraulic test systems repair/service, and air compressor rebuilding services.	(N	Yes (Y) No (N) or Not Applicable (NA)		t
a)	We will be required to lock out in order to isolate or prevent the unexpected release of energy (electrical, mechanical, hydraulic, chemical, thermal, kinetic, gravitational, pneumatic)	Υ	N	NA	١
b)	We will perform work on, or near, energized equipment, lines or circuits	Υ	N	NA	

Note: If yes to a) or b) above, no work may be performed until reviewed by City of Vancouver project manager or project manager designate.

If yes to a) or b) describe:


\_\_\_\_\_

6A	6A. FALL PROTECTION - tree pruning, window and ledge cleaning, window replacement, overhead bridge crane maintenance/repair services, roll-up door replacement, tent installation, awning/canopy installation, overhead air exchange installation, construction inspection and testing services.		Yes (Y) No (N) or Not Applicable (NA)		
a)	Our employees will be exposed to a potential fall in excess of 3 m (10 feet), or to a fall of less than 3 m which would likely result in a serious injury (ex. impalement on rebar)	Υ	N	NA	
b)	We will produce a written Fall Protection Plan for work that will occur more than 25 feet above grade, or, if written procedures (control zone) are to be used as the means of fall protection <b>(D)</b>	Υ	N	NA	
c)	Our employees who will be required to use fall protection have received training <b>(T)</b>	Υ	N	NA	

If yes to a), describe:			

\_\_\_\_

6B	. SCAFFOLDING AND LADDERS - window replacement or cleaning, tree pruning, roll- up door replacement, tent installation, and awning/canopy installation.	Yes (Y) No (N) or Not Applicable (NA)		
a)	Our employees will use scaffolding or ladders for access to the work	Υ	N	NA
b)	The scaffolding or ladders will be exposed to wet and/or slippery conditions	Υ	N	NA
c)	We will ensure scaffolding or ladders are secured before accessing the worksite	Υ	N	NA
d)	Scaffolding will be erected and dismantled only by qualified workers	Υ	N	NA

7.	OVERHEAD POWER LINES AND UNDERGROUND UTILITIES - tree pruning services, tree removal, utility relocation or replacement, underground utility identification services, concrete sawing services, pole painting	(N)	or	Not Not able
a)	There are electrical hazards associated with overhead power lines such as limits of approach and contact	Υ	N	NA
b)	We will obtain necessary assurances, in writing, through the utility company, for any work where minimum limits of approach cannot be maintained	Υ	N	NA
c)	Underground or hidden utilities may be on the job site and we shall contact the Project Manager and BC OneCall at least four business days prior to the start of any excavation work	Υ	N	NA
d)	In the event of an inadvertent utility strike, we will have a written procedure for immediate notification of both the utility company and WorkSafeBC <b>(D)</b>	Υ	N	NA

8.	CONSTRUCTION, EXCAVATION, SHORING AND DEMOLITION	Yes (Y (N) or Applic (NA		Not able
a)	As Prime Contractor, we will submit a Notice of Project (NOP) to WorksafeBC at least 24 hours in advance of the project startup date	Υ	N	NA
b)	Workers may be required to enter an excavation over 1.2m (4 ft) in depth	Υ	N	NA
c)	We will develop site specific written safe operating procedures, including evacuation and rescue components, prior to starting any excavation work <b>(D)</b>	Υ	N	NA
d)	Shoring will be installed in accordance with Part 20 of the WorkSafeBC OH&S Regulation	Υ	N	NA
e)	We will provide safe means of entry and exit for excavations	Υ	N	NA
f)	We will provide for the services of rescue persons and equipment (excavation rescue)	Υ	N	NA
g)	We will develop a demolition/salvage plan (D)	Υ	N	NA
h)	We will evaluate the demolition materials for reuse or recycling	Υ	N	NA
i)	We will protect passers-by from potential hazards	Υ	N	NA

9.	CHEMICALS, SOLVENTS, FUMES, VAPORS, AND DUSTS - cleaning solvents, adhesives, paints, coatings, binders; e.g., storage tank clean-out services, countertop installation (epoxies), and flooring	Yes (Y) No (N) or Not Applicable (NA)
a)	We will complete a hazard assessment for chemicals we will use in our work, and if chemicals already exist at the workplace, our assessment will identify possible results of any reactions between our chemicals and those of the Citys operations	Y N NA

10.	NOISE AND VIBRATION - includes installations and heavy equipment operation.  Noise examples for 85 - 90 dbA (at noise source) include forklift, smoke alarm, table saw. Whole body vibration examples include truck or equipment operator and jackhammer operation	Yes (Y) (N) or N Applical (NA)		r N cab	lot
a)	Our employees will be exposed to noise levels above 85dbA	Υ	N	Ν	IA
b)	We have a written hearing conservation program (D)	Υ	N	Ν	IA
c)	Our employees will be exposed to excessive levels of whole body vibration (WBV)	Υ	N	Ν	IA

11.	OCCUPATIONAL HEALTH AND SAFETY PROGRAM	(N)	or (	Not Not able
a)	We have a written Safety Program (D)	Υ	N	NA
b)	We will make regular inspections of all workplaces	Υ	N	NA
c)	We will immediately investigate any reported unsafe conditions and correct as required	Υ	N	NA
d)	We will investigate all incidents and provide written incident reports to the Project Manager	Υ	N	NA
e)	We will develop a written plan <b>(D)</b> identifying how risk to the public and workers will be minimized (may include the use of barriers and safe entry/exit points from the worksite)	Υ	N	NA

12.	FIRST AID	(N	) or	Not able
a)	First aid equipment, supplies, facilities and services will be readily accessible during working hours	Υ	N	NA
b)	We will complete a first aid assessment <b>(D)</b>	Υ	N	NA
c)	We will post site drawings and signs indicating the location of, and how to summon, first aid	Υ	N	NA
d)	We will develop an effective means of communication between the first aid attendant and the work areas	Υ	N	NA

13.	FIRE PROTECTION - solvents, fuels, soldering, torch cutting, or heating devices; e.g., gasoline and diesel fuel delivery services, flooring services, fire suppression service, and water pipe repair services	Yes (Y) (N) or Applica (NA		Not able
a)	We will weld, solder, or cut with a torch	Υ	N	NA
b)	We will use or store flammable/combustible liquids	Υ	N	NA
c)	We will use temporary heating devices	Υ	N	NA
d)	We will provide water and/or fire extinguishers on the job site	Υ	N	NA

14	. PERSONAL PROTECTIVE EQUIPMENT (PPE)	(N	) c pli	or I	No Not Ible
a)	We will ensure our workers have appropriate personal protective clothing and equipment (e.g., safety footwear, hi-vis vests, hardhats, eye protection, face protection, hearing protection, chemical gloves/clothing)	Υ	N	J	NA
b)	We have a written PPE program (D)	Υ	N	J	NA

15. RESPIRATORY PROTECTION	Yes (Y) No (N) or Not Applicable (NA)
a) The work will involve materials or processes requiring respiratory protection	Y N NA
b) We have a written respiratory protection program (D)	Y N NA

16	. TOOLS MACHINERY AND EQUIPMENT	Yes (Y) (N) or N Applica (NA)		able
a)	We will use powder-actuated tools.	Υ	N	NA
b)	Our employees who operate equipment have been trained and are qualified in use of that equipment. $(T)$	Υ	N	NA

If yes to a), describe:

17.	CRANES, FORKLIFTS, AND MANLIFTS - heavy or oversized goods delivery, tree pruning, overhead bridge crane maintenance/repair, and roll-up door replacement.	Yes (Y) N (N) or No Applicab (NA)		Not able
a)	We will use a crane, forklift, manlift or other lifting equipment	Υ	N	NA
b)	Our lifting and rigging equipment is certified where applicable, and inspected on a regular basis	Υ	N	NA
c)	Our operators shall have a valid operators certificate (mobile crane or tower crane) or have received training (boom lift, scissor lift or forklift) $(T)$	Υ	N	NA
d)	Only lifting attachments approved for use by the forklift manufacturer will be used	Υ	N	NA

18. RIGGING	Yes (Y) No (N) or Not Applicable (NA)
a) We will lift or sling loads overhead	Y N NA
b) We will inspect ropes, hooks and slings before use on each shift	Y N NA

19.	19. MOTOR VEHICLES AND HEAVY EQUIPMENT - goods delivery, personnel transportation services, trailer relocation services, oil/water pumpout and recycling services, asphalt grinding and asphalt sealing services, weed/brush abatement and mowing services, landscape hydroseed services, tree stump grinding, and concrete sawing and removal				
a)	We will use motor vehicles or heavy equipment at the work location	Υ	N	N	Α
b)	b) All operators have a valid provincial driver's license				
c)	We will inspect vehicles, including safety features (e.g., ROPS)	Υ	N	N	IA

20.	TRAFFIC CONTROL	(N)	or or	Not not able
a)	There will be uncontrolled movement of vehicular traffic at the worksite	Υ	N	NA
b)	We will develop a written traffic control plan (D)	Υ	N	NA
c)	We will put in place any required traffic control devices	Υ	N	NA
d)	The traffic control devices conform to the Ministry of Transportation and Infrastructure (MoTI) "Traffic Control Manual for Work on Roadways"	Υ	N	NA
e)	We will provide Traffic Control Persons (TCP's) as required by law	Υ	N	NA

21. CRYSTALLINE SILICA DUST	Yes (Y) No (N) or Not Applicable (NA)
a) Our work will involve jackhammering, rotohammering, drilling, grinding or other disturbance of concrete or stone, creating potential exposure to silica dust	Y N NA
	-

disturbance of concrete or stone, creating potential exposure to silica dust	Y N NA
22. Additional Concerns	Yes (Y) No (N) or Not Applicable (NA)
We foresee additional health and safety concerns associated with the work	Y N NA
If yes, describe:	
a)	
b)	
c)	
d)	
e)	
f)	
Describe the control measures each of the concerns listed above:	
a)	
b)	

c)	
d)	
e)	
———	
f)	
PRE CONTRACT HAZARD ASSESSMENT COMPLETED BY	
Contractor's Representative Name (print):	
Contractor's Representative Signature:	Date:
Title:	Phone:
CONTRACTOR'S DESIGNATE RESPONSIBLE FOR ONSITE SAF	ETY
Name (print):	
Title:	Phone:

SUMMARY OF DOCUMENTATION (D) TO BE PROVIDED BY THE CONTRACTOR upon request by the City of Vancouver

(documentation required as per Workers Compensation Board Occupational Health and Safety (WCB OHS) Regulation, the Workers' Compensation Act (WCA) or the City

Yes (Y) or Not Applicable (NA)

of Van	couver)	
a)	Safety Program (WCB OHS Regulation Parts 3.1-3.3)	
b)	Asbestos Exposure Control Plan (WCB OHS Regulation Part 6.3)	
c)	Lead (Pb) Exposure Control Plan (WCB OHS Regulation Part 6.60)	
d)	Respiratory Protection Program (WCB OHS Regulation Part 8.5)	
e)	Confined Space Entry Program (WCB OHS Regulation Parts 9.5 and 9.6)	
f)	Plan for minimizing risk to public and to workers (City of Vancouver)	
g)	Personal Protective Equipment (PPE) Program (WCB OHS Regulation Part 8.5)	
h)	Hearing Conservation Program (WCB OHS Regulation Part 7.5)	
i)	Confined Space Hazard Assessment (WCB OHS Regulation Part 9.9)	
j)	Work Procedure, including evacuation and rescue, for confined space (WCB OHS Regulation Part 9.10 and 9.11)	
k)	Identification of Isolation Points (confined space) (WCB OHS Regulation Part 9.19)	
l)	Alternate procedures to isolate adjacent piping (confined space) (WCB OHS Regulation Part 9.22)	
m)	Fall Protection Plan (WCB OHS Regulation Part 11.3)	
n)	Traffic Control Plan (Ministry of Transportation and Infrastructure (MOTI) manual, as referenced in WCB OHS Regulation Part 18.3)	
o)	In the event of a utility strike, a written procedure for notification of Utility Provider (WCB OHS Regulation Part 4.18) and WorksafeBC (Workers' Compensation Act Part 3, Division 10, Sec. 172 (1)(c))	
p)	Work Procedure (including evacuation and rescue) for excavations (City of Vancouver)	
q)	Demolition/Salvage Plan (City of Vancouver in reference to WCB OHS Regulation Part 20.112)	
r)	First Aid Assessment (WCB OHS Regulation Part 3.16 (2))	

SUMMARY OF TRAINING REQUIREMENTS (T) OF CONTRACTOR EMPLOYEES (for any persons completing this type of work throughout the duration of the contract)					
a) Confined Space Entry (WCB OHS Regulation Part 9.8)					
b) Fall Protection (WCB OHS Regulation Part 11.2 (6))					
c) Equipment Operation (WCB OHS Regulation Part 4.3 (1) (b)(i) (ii))					
d) Mobile Equipment (ex. boom lift, scissor lift, forklift) (WCB OHS Regulation Part 16.4)					
e) For any work on energized City electrical infrastructure. Contractor will need to complete Appendix R prior to contract signing. Electrical Work on energised circuits. This includes testing and troubleshooting and verification of lockout.					

## INVITATION TO TENDER NO. PS20200498 CONTRACTOR FOR 2020 PARKADE RESTORATION AT 150 WEST PENDER STREET SCHEDULE 12 - HAZARDOUS MATERIAL SURVEY

### **SCHEDULE 12**

### HAZARDOUS MATERIAL SURVEY

See attached.

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### REAL ESTATE & FACILITIES MANAGEMENT Facilities Planning & Development

**Hazardous Materials Survey of:** 

Easy Park - Lot 2

Address: 150 West Pender Street, Vancouver BC

Surveyor: Patrick Li

Work Notification Number: 10450593

Requested By: Justin Li, Capital Maintenance

Purpose: TARGETED HAZARDOUS MATERIAL SAMPLING



### **Executive Summary**

A City of Vancouver Hazardous Building Materials Technician has completed a Targeted Hazardous Building Material Sampling Survey and Review of the Parking Levels 1-6 at 150 West Pender Street - Easy Park Lot 2. This was completed as requested by the Capital Maintenance Department for the upcoming 2020 Parkade Restoration Project

This targeted hazardous material sampling survey only identifies the hazardous building materials that could be encountered or disturbed during the 2020 Parkade Restoration Project. Any hidden or inaccessible materials that were not addressed which may contain asbestos or lead should be assumed to be hazardous until sampling demonstrates otherwise.

### Scope of Work

- This hazardous building materials review was completed based on the scope of work and areas identified on the site drawings prepared by RJC Ltd. which includes, but is not limited to:
  - Parking Level 1-6:
    - Concrete repairs on columns
    - Concrete repairs of walls
    - Concrete repairs of slabs (top and bottom surfaces)
- A visual inspection of areas being affected by the 2020 Parkade Restoration Project at 150 West Pender Street - Easy Park Lot 2 for the presence of building materials suspected to contain asbestos or lead. Surficial sampling was conducted.
- An assessment of potentially hazardous materials, denoting their condition, potential for disturbance/damage, accessibility to workers or public, estimated quantity, if suspect asbestos containing, their friability, potential for fiber release and worker exposure was assessed.
- A review of existing hazardous building materials data in the Hazardous Building Materials Inventory Program.

HAZARDOUS MATERIAL SURVEY	150 West Pender Street 2020 Parkade Restoration Project	FEBRUARY 2020
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• A risk assessment and recommendations for any asbestos/lead containing materials determined to be present within the building.

### Asbestos-Containing Material: Methodology and Results

As per WorkSafeBC guidelines, an Asbestos Containing Material is defined as any manufactured article or other material that would be determined to contain at least 0.5% asbestos through analytical testing.

Materials sampled were selected based on our experience and guidelines provided by WorkSafeBC (Safe Work Practices for Handling Asbestos). Building materials are assessed for potential asbestos content and are analyzed for asbestos by COV-approved labs.

NO materials being impacted during the 2020 Parkade Restoration Project at 150 West Pender Street - Easy Park Lot 2 are suspected to be asbestos-containing and therefore, no samples were collected for asbestos analysis.

#### NOTE:

This targeted hazardous materials sampling survey only focused on the levels 1-6 of the Easy Park Lot 2. Surrounding areas within the Easy Park Lot 2 may have asbestos-containing building materials.

Based on visual observation, suspected asbestos-containing (transite) pipes were found to be running throughout the parkade. (see photo 7 & 8)

If the scope of work changes, the COV Environmental Services Department must be contacted to determine if the changes will impact any asbestos-containing materials.

### Lead-Based Paints and Coatings: Methodology and Results

As per WorkSafeBC guidelines, a lead-containing surface material is defined as:

"a paint or other similar material that dries to a solid film that contains over 90 mg/kg (0.009%) dry weight of lead" (As defined by the Federal Ministry of Health, under the Hazardous Products Act)

Representative samples of paint were collected to test for the presence of lead. The samples were analyzed at a COV-approved lab for total lead.

Table 2: Materials Sampled and Analyzed for the Presence of Lead

### MAXXAM Analytical Lab Reference No. B760232 (2017/07/27)

Sample No.	Location	Description		LEAD- BASED PAINT?
150WP-L01	Easy Park - Level 5	Yellow Line Markings on Concrete	7.2	(≥90 mg/kg) NO
150WP-L02	East Park - Level 5	White Paint on Concrete Ceiling Columns (Horizontal)	71	NO
150WP-L03	Easy Park - Level 5	White/Black Paint on Round Concrete Vertical Columns	41300	YES
150WP-L04	Easy Park - Level 5	Orange/Red Paint on Metal Railings	76	NO

### **RISK ASSESSMENT AND RECOMMENDATIONS**

All work involving hazardous building materials must be completed by one of the City of Vancouver's pre-qualified abatement contractors, unless otherwise approved. Workers performing any disturbance or removal of hazardous building materials must be adequately trained and qualified to do so and follow Work Safe BC Occupational Health & Safety Regulations.

If during the 2020 Parkade Restoration Project, suspect materials are uncovered that were previously concealed, the City of Vancouver's Hazardous Materials Division must be notified immediately to determine if additional testing of the suspect materials is warranted. If the scope of work for this project changes, the CoV Environmental Services Department must be contacted to determine if changes will impact any hazardous building materials.

If work involving hazardous building materials requires a contractor, one of the City of Vancouver's pre-qualified abatement contractors must be used, unless otherwise approved. (See list below)

COV PRE-QUALIFIED LIST OF ABATEMENT CONTRACTORS						
CONTRACTOR	KEY CONTACT/EMAIL/PHONE					
Actes Environmental Limited	Michael Fleming (604-990-4258)  Michael@actesenvironmental.com					
Enviro-Vac Limited	Chris Mitsche (604-992-8514) chris@envirovac.com					
Nucor Environmental Solutions Limited	Jim Dumelie (604-521-2214) jimd@nucorenv.ca					
Phoenix Enterprises Limited	Richard Purdy (604-594-0224) Richard@pelsurrey.com					
Proactive Hazmat Environmental Limited	Sheldon White (778-887-3545) Sheldonw@proactivehazmat.com					
Quantum Murray LP	Stephen Hibbert (604-364-8047) Stephen.Hibbert@QMenv.com					

Report Prepared by City of Vancouver Hazardous Materials Team

Patrick Li, Hazardous Building Materials Technician

AHERA Certification No.: CABIR-20-007

PHOTOS: ATTACHED

FLOOR PLAN: ATTACHED

LABORATORY REPORTS: AVAILABLE

### PHOTOS:



Photo 1: Non-Lead Containing Yellow Line Markings on Concrete



Photo 2: NON-Lead Based Yellow Line Markings on Concrete



Photo 3: NON-Lead-Based White Paint on Concrete Ceiling Columns (Horizontal)



Photo 4: NON-Lead-Based White Paint on Concrete Ceiling Columns (Horizontal)

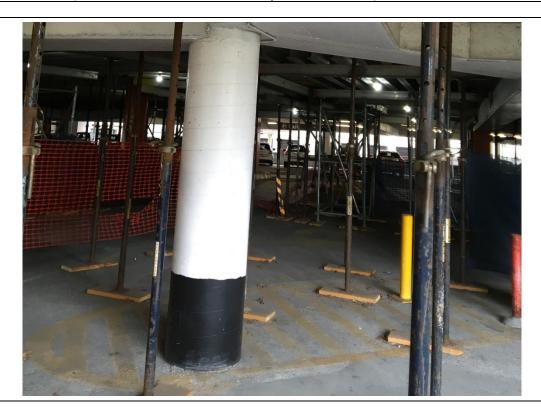


Photo 5: Lead-Based White/Black Paint on Round Concrete Vertical Columns



Photo 6: NON-Lead-Based Orange/Red Paint on Metal Railings



Photo 7: Presumed-Asbestos Cement Pipe



Photo 8: Presumed-Asbestos Cement Pipe

### 150 West Pender Street 2020 Parkade Restoration Project

FEBRUARY 2020

### **LABORATORY RESULTS:**



Maxxam Job #: B760232 Report Date: 2017/07/27 Success Through Science®

City of Vancouver

Client Project #: 10347840-EASY PARK LOT 2 RESTO Site Location: [150WP]-150 WEST PENDER STREET,

VANCOUVER

Your P.O. #: 4700002203 Sampler Initials: PL

### LEAD IN PAINT CHIPS (PAINT)

Maxxam ID Sampling Date COC Number		RO1922 2017/07/20 08441837		RO1923 2017/07/20 08441837		RO1924 2017/07/20 08441837		
	UNITS	150WP-L01 EASY PARK LV5 YELLOW LINE MARKINGS ON CONCRETE	RDL	150WP-L02 EASY PARK LV5 WHITE PAINT ON CONCRETE CEILING COLUMNS (HORIZONTAL)	RDL	150WP-L03 EASY PARK LV5 WHITE/BLACK PAINT ON ROUND CONCRETE VERTICAL COLUMNS	RDL	QC Batch
Total Metals by ICP								
Total Lead (Pb)	mg/kg	7.2	3.0	71 (1)	12	41300	3.0	8707843
RDL = Reportable Detection Limit								

(1) Detection limits raised due to insufficient sample volume.

Maxxam ID		RO1925						
Sampling Date		2017/07/20						
COC Number		08441837						
	UNITS	150WP-L04 EASY PARK LV5 ORANGE/RED PAINT ON METAL RAILINGS	RDL	QC Batch				
Total Metals by ICP								
Total Lead (Pb)	mg/kg	76 (1)	12	8707843				
RDL = Reportable Detection Limit								
(1) Detection limits raised due to insufficient sample volume.								