

August 29, 2018

INVITATION TO TENDER "ITT" No. PS20181181  
CONSTRUCTION SERVICES FOR THE GRANVILLE BRIDGE STRUCTURAL REPAIR

ADDENDUM No. 1

1. RE: CHANGES TO THE SPECIFICATIONS - PART D - FORM OF AGREEMENT -  
SCHEDULE 2 - SPECIFICATIONS AND DRAWINGS

Schedule 2 Supplemental Specifications

a) 01 53 01 - Temporary Facilities

i. Add clause 1.11.4 as follows:

"Contractor laydown space will be available south of Pier N8 and north of Pier N10 on the east side of the parking lot. A minimum of seven meters of clearance shall be kept to allow for two-way traffic on the west side. The sidewalk located east of this area shall also remain open. The laydown space and traffic considerations shall be included in the detailed Traffic Management Plan.

b) 01 55 00 - Traffic Control, Vehicle Access and Parking

i. Add clause 1.4.17 as follows:

"During the initial girder jacking, the Contractor shall provide full closure of the Granville Street Bridge spans adjacent to the jacking location during jacking operations. Traffic may commence once the jacks have been set and locked in position in accordance with the Contractor's signed and sealed detailed jacking plan. Once the jacking system has been proven to function adequately, jacking at the remaining piers may occur under live traffic. The Contractor shall minimize the duration of the full closure on the Granville Street Bridge North Main Ramp. Changeable message boards shall be provided at both ends of the bridge giving at minimum one weeks notice for each scheduled full closure. Traffic considerations, traffic control, and estimated duration of closure per pier shall be included in the detailed Traffic Management Plan.

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Full closure of the Granville Street Bridge North Main Ramp shall only be allowed on weekends, between the hours of 10 pm and 4 am, subject to the approval of the City's Traffic and Data Management Branch. Full details of the closure and traffic mitigation strategies shall be described in the Traffic Management Plan.

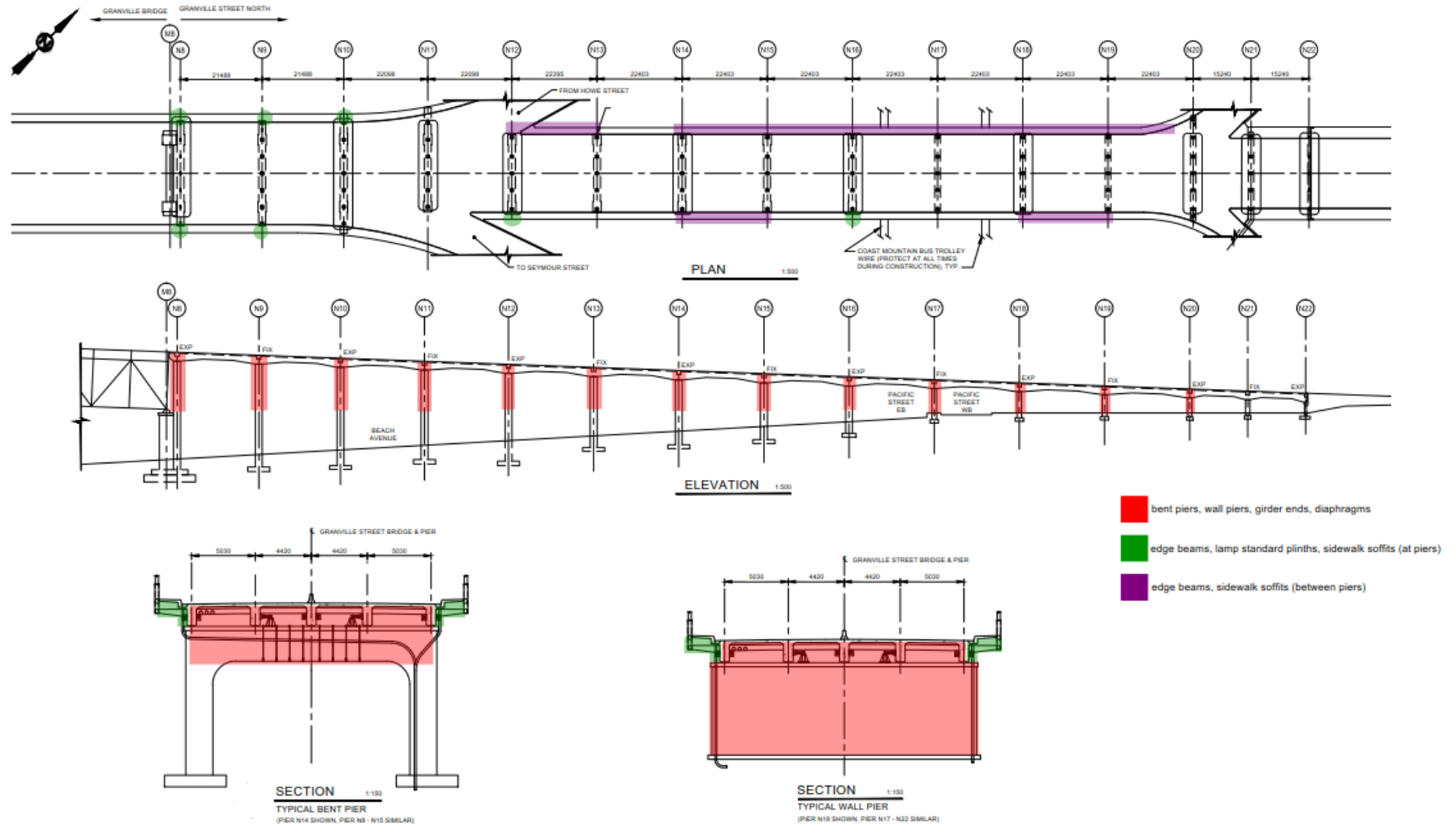
c) 03 30 53S - Cast in Place Concrete

i. Delete and replace clause 3.3.1 with the following:

"Provide safe access to the required elevated portions of the girders, deck soffit, and piers in order to complete the delamination inspections and concrete repairs. Areas requiring access for concrete repairs are shown in the sketch below.

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d) 05 83 20S - Bearing Assemblies

i. Add clause 3.1.9 as follows:

"The existing bearings throughout the bridge contain lead coating. The Contractor shall take appropriate precautions, including proper containment and disposal.

2. RE: CHANGE TO SPECIFICATIONS - PART D - FORM OF AGREEMENT - SCHEDULE 2  
- SPECIFICATIONS AND DRAWINGS - SPECIFICATIONS - MEASUREMENT AND PAYMENT  
CLAUSES

See below the updated Measurement and Payment Clauses:

## **10.1 Mobilization and Demobilization**

Payment for Mobilization and Demobilization will be made at the lump sum price bid, for the mobilization and demobilization of all equipment and labour, access to all parts of the work, the supply of office space for the Contract Administrator, supply of materials and relocation for signs, drains, ladders, and lights and all overhead and other costs which are not specifically covered in each of the lump sums of Schedule A of the Tender.

Payment of twenty percent (20%) of the lump sum bid will be made when office, equipment, and labour are on site and work has commenced. Payment of sixty percent (60%) of the total will be made in proportion to the progress on the project as a series of monthly payments. Payment of the remaining twenty percent (20%) will be made upon completion of cleanup and removal of all temporary work to the satisfaction of the Contract Administrator.

The lump sum bid for Mobilization and Demobilization shall not exceed ten percent (10%) of the total Tender amount. If the bidder quotes a sum in excess of ten percent (10%) of the total Tender amount, the City will reduce the lump sum for this item to the maximum allowable, and the new figure shall prevail both for the determination of the low Tender and for payment to the Contractor.

## **10.2 Traffic Control**

Payment for Traffic Control will be made at the lump sum bid. The lump sum shall include all costs associated with providing traffic control on and around the bridge to complete the Bridge Retrofit and Rehabilitation including plan preparation, implementation and maintenance, fixed and portable signs, Changeable Message Boards (CMB's), arrow boards, cones, tapes, temporary devices and personnel. Payment of ten percent (10%) of the lump sum will be made upon acceptance of the traffic control plan. Payment of the remaining ninety percent (90%) will be made on a pro-rata basis proportional to the percentage of work-required traffic control completed.

## **10.3 Supply and Install Jacking Apparatus and Scaffolding**

Payment for Supply and Install Jacking Apparatus and Scaffolding will be made at the lump sum bid. The lump sum shall include all costs associated with supply, design, and installation of a temporary scaffolding system capable of supporting the jacking mechanisms and associated loads at each pier where jacking is required, shop drawings, and supply and installation of jacking mechanisms at each pier to allow for bearing replacement. Payment of ten percent (10%) of the lump sum bid will be made once shop drawings have been submitted and accepted by the Contract Administrator. Payment of the remaining ninety percent (90%) will be made on a pro-rata basis proportional to the percentage of work completed.

## **10.4 Replace Expansion Bearings**

Payment for Replace Expansion Bearings shall be at the unit price bid per bearing. Payment will include all costs associated with removal of concrete, existing bearing assembly removal, supply and installation of new bearing assemblies, drilling/coring anchor rods, casting concrete, grouting, shop drawing preparation, survey of existing conditions, and any other incidental costs associated with the work; and all testing required under the specifications. Payment shall also include all surface preparation and access required for the work, and any other costs associated with the Work. Payment of this item will be made for the complete installation of each bearing, once the Contract Administrator has approved that the bearings have been properly installed.

### **10.5 Clean and Paint Bearings**

Payment for Clean and Paint Bearings shall be at the unit price bid per bearing. The unit price shall include all costs associated with corrosion removal as shown on the Drawings, surface preparation, and application of anti-corrosion coating. Payment shall also include all access required for corrosion removal and anti-corrosion painting and any other costs associated with the Work. Payment of this item will be made for the cleaning and painting of each bearing, under the Contract Administrator's approval.

### **10.6 Overhead CIP Concrete or Shotcrete Repairs**

Payment for Overhead CIP Concrete or Shotcrete Repairs shall be at the unit price bid per square metre of patch completed. Payment shall include the removal and disposal of unsound concrete within the patch extents, cleaning corrosion from exposed reinforcing, concrete surface preparation, supply and placement of the patching concrete or shotcrete, finishing and curing. Payment shall also include pre-construction testing and quality control. Payment will be made for patch areas authorized by the Contract Administrator. No payment will be made for patch areas not authorized by the Contract Administrator or for over-sprayed areas of shotcrete.

Payment shall also include all falsework, formwork and access to the locations required to complete the work. Payment shall also include mock-up for shotcrete repairs. Payment will be made upon completion of the repairs.

Quantities of Overhead Cast-in-Place Concrete or Shotcrete Repairs shall be measured in square meters and shall be calculated as the product of the lineal length and width of the areas patched.

### **10.7 Vertical CIP or Shotcrete Repairs**

Payment for Vertical CIP Concrete or Shotcrete Repairs shall be at the unit price bid per square metre of patch completed. Payment shall include the removal and disposal of unsound concrete within the patch extents, cleaning corrosion from exposed reinforcing, concrete surface preparation, supply and placement of patching concrete or shotcrete, finishing and curing. Payment will be made for patch areas authorized by the Contract Administrator. No payment will be made for patch areas not authorized by the Contract Administrator.

Payment shall also include all falsework, formwork and access to the areas required to complete the work. Payment will be made upon completion of the repairs.

Quantities of Vertical Cast-in-Place Concrete or Shotcrete Repairs shall be measured in square meters and shall be calculated as the product of the lineal length and width of the areas patched.

#### **10.8 Vertical Trowel Concrete Patch Repairs**

Payment for Vertical Trowel Concrete Patch Repairs shall be at the unit price bid per square metre of patch completed. Payment shall include the removal and disposal of concrete within the patch extents, cleaning corrosion from exposed reinforcing, concrete surface preparation, supply and placement of the patching concrete, finishing and curing. Payment will be made for patch areas authorized by the Contract Administrator. No payment will be made for patch areas not authorized by the Contract Administrator.

Payment shall also include all falsework, formwork and access to the areas required to complete the work. Payment will be made upon completion of the repairs.

Quantities of Vertical Trowel Concrete Patch Repairs shall be measured in square meters and shall be calculated as the product of the lineal length and width of the areas patched.

#### **10.9 Horizontal Trowel Concrete Patch Repairs**

Payment for Horizontal Trowel Concrete Patch Repairs shall be at the unit price bid per square metre of patch completed. Payment shall include the removal and disposal of concrete within the patch extents, cleaning corrosion from exposed reinforcing, concrete surface preparation, supply and placement of the patching concrete, finishing and curing. Payment will be made for patch areas authorized by the Contract Administrator. No payment will be made for patch areas not authorized by the Contract Administrator.

Payment shall also include all falsework, formwork and access to the areas required to complete the work. Payment will be made upon completion of the repairs.

Quantities of Horizontal Trowel Concrete Patch Repairs shall be measured in square meters and shall be calculated as the product of the lineal length and width of the areas patched.

#### **10.10 Concrete Crack Injection**

Payment for Concrete Crack Injection shall be at the unit price bid per lineal meter of crack injection completed. Payment shall include all surface preparation, and supply and injection of approved concrete crack filler. Payment will be made for crack locations authorized by the Contract Administrator. No payment will be made for crack locations not authorized by the Contract Administrator. Payment will be made upon completion of the repairs.

### **10.11 Grout Pad Repairs**

Payment for Grout Pad Repairs shall be made at the unit price bid per grout pad. Payment shall include the removal and disposal of deteriorated concrete, surface preparation, cleaning of steel hardware, supply and placement of the patching concrete, finishing, and curing. Payment shall also include access required to complete the Work, and any other costs associated with the Work. Payment of this item will be made for the complete repair of each individual grout pad.

### **10.12 Shielding Bus Feeder Cables**

Payment for Shielding Bus Feeder Cables shall be made at the lump sum bid. Shielding of the cables will be the Contractor's responsibility, and payment will include submission of shop drawings and a procedure for installation of the shielding, supply and installation of the shielding, access required for the work, and all other costs associated with the Work. Payment of twenty percent (20%) of the lump sum bid will be made once shop drawings and installation procedure have been submitted and accepted by the Owner, Contract Administrator, and Coast Mountain Bus Company. The remaining eighty percent (80%) will be made on a pro-rate basis proportional to the percentage of work completed.

### **10.13 Diaphragm Modifications**

Payment for Diaphragm Modifications shall be at the unit price bid per diaphragm repaired. One (1) diaphragm consists of the location at one bay, between two girders. The unit price shall include survey of existing conditions, preparation of shop drawings, removal of existing concrete, supply and installation of reinforcing steel, supply and installation of reinforcing dowels and grouts, acceptance testing for reinforcing dowels, retention of existing reinforcing steel, cast concrete and curing, formwork, and any other incidental costs associated with the work. Payment shall also include all surface preparation and access required for the work, and any other costs associated with the Work.

### **10.14 Lamp Standard Cleaning and Painting**

Payment for Lamp Standard Cleaning and Painting shall be at the unit price bid per lamp standard. The unit price shall include all costs associated with corrosion removal as shown on the Drawings, surface preparation, and application of anti-corrosion coating. Payment shall also include all access required for corrosion removal and anti-corrosion painting and any other costs associated with the Work. Payment of this item will be made for the cleaning and painting of each lamp standard, under the Contract Administrator's approval. Payment will be made upon completion of the repairs. No payment will be made for cleaning of lamp standards not authorized by the Contract Administrator.

### **10.15 Lamp Standard Reinforcement**

Payment for Lamp Standard Reinforcement shall be at the unit price bid per lamp standard. The unit price shall include all costs associated with shop drawing preparation and submission, supply and installation of steelwork, drilling/coring holes for anchor rods, grouting, and surface preparation. Payment shall also include all access required to complete the work and any other costs associated with the Work. Payment of this item will be for lamp standard locations authorized by the Contract Administrator. Payment will be made upon completion of the repairs. No payment will be made for repair areas not authorized by the Contract Administrator.

#### **10.16 Drainpipe Replacement**

Payment for Drainpipe Replacement shall be at the unit price bid per lineal meter of drainpipe replaced. Payment shall include removal of deteriorated drainpipe sections, supply and installation of replacement drainpipe sections including necessary couplers, mounting hardware, surface preparation, and any other incidental costs associated with the Work. Payment will be made for drainpipe locations authorized by the Contract Administrator. No payment will be made for drainpipe locations not authorized by the Contract Administrator. Payment will be made upon completion of the repairs.

#### **10.17 Coating of Concrete**

Payment for Coating of Concrete shall be at the unit price bid per square meter of coating completed. Payment shall include cleaning corrosion from exposed reinforcing, concrete surface preparation, and supply and placement of concrete coating product. Payment will be made for coating areas authorized by the Contract Administrator.

Payment shall also include access to the areas required to complete the work. Payment will be made upon completion of the repairs.

Quantities for Coating of Concrete shall be measured in square meters and shall be calculated as the product of the lineal length and width of the areas coated.

#### **10.18 Additional Access for Concrete Sounding**

Payment for Additional Access for Concrete Sounding shall be at the unit price bid per hour. Payment shall include access to elevated areas outside of the provided locations of required concrete repairs. Payment will be made for each hour that additional access is required. No payment will be made for additional access provided in absence of the Contract Administrator.

**END OF SECTION**

INVITATION TO TENDER "ITT" No. PS20181181  
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ADDENDUM No. 1

3. RE: CHANGE TO PART C - FORM OF TENDER - SCHEDULE "A" - SCHEDULE OF  
QUANTITIES AND PRICES

See below the updated Schedule "A" Schedule of Quantities and Prices, which Tenderers should use to submit their pricing with Tender:

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SCHEDULE "A" - ADD 1

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.*

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 **MUST** 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.***

Refer to the Specifications for a description of each payment clause.

INVITATION TO TENDER NO. PS20181181  
CONSTRUCTION SERVICES FOR THE GRANVILLE BRIDGE STRUCTURAL REPAIRS  
SCHEDULE "A" (PART C - FORM OF TENDER)

ITEM	DESCRIPTION	UNIT	QTY	UNIT PRICE	AMOUNT (INCLUDING PST)	PYMT CLAUSE
1.0	General					
1.1	Mobilization and demobilisation	Ls	1			10.1
1.2	Traffic control	Ls	1			10.2
2.0	Bearings					
2.1	Supply and install jacking apparatus and scaffolding	Ls	1			10.3
2.2	Replace expansion bearings	Ea	62			10.4
2.3	Clean and paint bearings	Ea	31			10.5
3.0	Concrete repairs					
3.1	Overhead CIP concrete or shotcrete repairs	M <sup>2</sup>	44			10.6
3.2	Vertical CIP concrete or shotcrete repairs	M <sup>2</sup>	172			10.7
3.3	Vertical trowel concrete patch repairs	M <sup>2</sup>	23			10.8
3.4	Horizontal trowel concrete patch repairs	M <sup>2</sup>	17			10.9
3.5	Concrete crack injection	M	30			10.10
3.6	Grout pad repairs	Ea	4			10.11
4.0	Diaphragm restoration					
4.1	Shielding bus feeder cables	Ls	1			10.12
4.2	Diaphragm modifications	Ea	29			10.13
5.0	Lamp standards repairs					
5.1	Lamp standard cleaning and painting	Ea	8			10.14
5.2	Lamp standard reinforcement	Ea	1			10.15
6.0	Miscellaneous repairs					
6.1	Drainpipe replacement	M	30			10.16
6.2	Coating of concrete	M <sup>2</sup>	150			10.17
Subtotal (including all PST)						
GST (5%)						
Tender Price (including all costs, taxes and fees)					\$  PST and GST)	(including

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*.

Description	Price Change to Tender Price	
	Value to Add to Tender Price (inc. PST)	Value to Deduct from Tender Price (incl. PST)
1. Change to Tender Price if item 01 53 01 - 1.11.3 is excluded from Schedule 2 Supplemental Specifications and full access to entire site is maintained for the duration of the Work.	\$	\$

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SCHEDULE "A" (PART C - FORM OF TENDER)

**PROVISIONAL ITEMS**

These provisional items will be used to add to the scope of work upon written instruction from the City, if not already included upon Contract Award. The prices will be applied in accordance with GC.47 of the General Conditions of the Stipulated Price Contract. The prices include all (i) labour, material and other costs, (ii) overhead and profit, (iii) PST and (iv) all other taxes, duties, assessments, charges and fees, except for GST.

The items may or may not be performed by the Contractor in the duration of the contract.

Item	Description	Unit	Qty	Unit Price	Amount (INCLUDING PST)	Pynt Clause
7.0	Provisional Items					
7.1	Overhead CIP Concrete or Shotcrete Repairs	m <sup>2</sup>	20			10.6
7.2	Vertical CIP Concrete or Shotcrete Repairs	m <sup>2</sup>	40			10.7
7.3	Vertical Trowel Concrete Patch Repairs	m <sup>2</sup>	15			10.8
7.4	Horizontal Trowel Concrete Patch Repairs	m <sup>2</sup>	10			10.9
7.5	Concrete Crack Injection	m	30			10.1
7.6	Grout Pad Repairs	EA	1			10.11
7.7	Lamp Standard Cleaning and Painting	ea	5			10.14
7.8	Lamp Standard Reinforcement	ea	2			10.15
7.9	Drainpipe Replacement	m	30			10.16
7.10	Coating of Concrete	m <sup>2</sup>	50			10.17
7.11	Additional Access for Concrete Sounding	hour	16			10.18

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Name of Tenderer

Initials of Signing Officer(s)

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ADDENDUM No. 1

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All other conditions and specifications remain unchanged.

This amendment must be completed, and attached to your Proposal/Tender form.

If you have already submitted your Tender, this amendment shall be submitted 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, prior to the Closing Time: 3:00:00 pm, Local Vancouver, BC Time, Thursday, September 13, 2018 in an envelope clearly marked "ADDENDUM No.1 to ITT No.20181181 CONSTRUCTION SERVICES FOR THE GRANVILLE BRIDGE STRUCTURAL REPAIR".

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NAME OF VENDOR

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SIGNATURE OF AUTHORIZED SIGNATORY

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DATE