

DATE November 16, 2020

# INVITATION TO TENDER "ITT" PS20201112 CONTRACTOR FOR ANDERSON STREET UTILITY UPGRADE

	ADDENDUM NO. 3					
RE:	: REPLACE SPECIFICATIONS					
	REPLACE SPECIFIC	CATIONS ATTACHED WITH THE FOLLOWING:				
	Entire documents	(latest version).				
	See following for o	details:				
	SPECIFICATIONS					
	<ul><li>01 11 00S</li><li>01 20 00S</li><li>01 30 00S</li></ul>	Scope of Work Rev. 1 Price and Payment Procedures Rev. 1 Administrative Procedures Rev. 1				
	This addendum mu	ust be completed, and attached to your Application form.				
		NAME OF VENDOR				
		SIGNATURE OF AUTHORIZED SIGNATORY				
		DATE				
Jason	Lo					

City of Vancouver, Financial Services Group Supply Management 453 West 12th Avenue

website: vancouver.ca

**Contracting Specialist** 

# WATER STREET ENGINEERING LTD.

INFRASTRUCTURE PLANNING AND DESIGN

TECHNICAL SPECIFICATION					
SECTION	Division 01 General Requirements Section 01 11 00S Scope of Work				
PROJECT	City of Vancouver Anderson Street Utility Upgrades				
DATE	06 NOV 2020	REVISION	1		
PROJECT No.	234				

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### **REVISION HISTORY**

Rev. No.	. No. Status Date Description of Revisions		Prep. By	Rev. By	
1	IFT	06 Nov 2020	Section 1.6.3 removed, added Section 1.18.4, added Section 1.13	SF	-
0	IFT	19 Oct 2020	-	SF	AB

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### 1 GENERAL

### 1.1 DESCRIPTION

1.1.1 The scope of work set out in this Specification Section is for summary purposes and in no way limits the Contractor's responsibility to provide everything required for a complete and operable project, including all requirements of the Contract Documents.

### 1.2 SCOPE

- 1.2.1 The work of this Contract consists of the supply and installation of materials, including all labour, equipment, plant and tools related to construction of the Anderson Street Utility Upgrades project, all in accordance with the Drawings, Specifications and Contract Documents, and for the prices tendered in the Schedule of Quantities and Prices.
- 1.2.2 The components of the work are generally described as follows:
  - 1. Mobilize and demobilize
  - 2. Complete Construction Schedule and required permits and plans
  - 3. Complete utility locates prior to construction
  - 4. Complete excavation, trenching, removal and disposal of unsuitable materials, and supply and place imported materials
  - 5. Install and operate and Vactor truck provisions as required
  - 6. Supply and install 200 m of 300 mm dia. ductile iron (DI) sanitary forcemain and related appurtenances on Island Park Walk. Anderson Street and West 2<sup>nd</sup> Avenue
  - 7. Supply and install 90 m of 300 mm dia, ductile iron water main on Anderson Street
  - 8. Complete tie-ins to existing piping; operate and/or lock out valves (following City approval of the work)
  - 9. Abandon existing watermain and sanitary forcemain in place with controlled density fill
  - 10. Abandon existing sanitary forcemain access manholes in place
  - 11. Restore all pavements and other surfaces
  - 12. Comply with requirements for environmental and archeological procedures
  - 13. Repair foul air ducting in Granville Island Pump Station [Optional]
  - 14. Maintain up-to-date and accurate record drawing markups available on site during construction, and provide complete record drawing markups for all disciplines at completion

### 1.3 DRAWINGS

- 1.3.1 Examine all drawings in advance of construction and advise the Contract Administrator of any apparent errors, discrepancies or inconsistencies, in order that the Contract Administrator may provide instructions clarifying the design.
- 1.3.2 Advise of any discrepancies or apparent inconsistencies between the drawings and the specifications, in order that the Contract Administrator may clarify the intent of the Contract.

#### 1.4 LIMITS OF WORK SITES

- 1.4.1 The limits of the work are:
  - 1. Tie-in at each end of the watermain
  - 2. Tie-in at each end of the forcemain
  - 3. City rights-of-way along the alignments of the watermain and forcemain
  - 4. Approved working area in and around the Granville Island Pump Station
  - 5. Other areas as approved
- 1.4.2 Staging areas are expected to be contained within the limits of the Work. Coordinate with the Contract Administrator during construction to propose additional staging area if required.

### 1.5 CONTRACTOR'S USE OF PREMISES

- 1.5.1 Perform construction activities only during the following permitted hours:
  - .1 Weekdays and Saturdays excluding holidays: between 7:00 am and 8:00 pm
  - .2 Sundays between 10:00 am and 8:00 pm
- 1.5.2 Coordinate any work outside the noted hours with the Contract Administrator. Contractor will be responsible for obtaining a Noise Bylaw exception permit.

### 1.6 WORK SEQUENCE

- 1.6.1 Schedule the Work such that disruption of normal traffic and inconvenience to residents in the working area are kept to a minimum.
- 1.6.2 Complete utility location excavations prior to trenching activities.
- 1.6.3—Complete tie ins during night-time hours when flows are lowest (12 6 am).

## 1.7 MATERIALS AND EQUIPMENT SUPPLIED BY THE CONTRACTOR

- 1.7.1 Provide all materials and equipment required, conforming to the Specifications and to the latest editions of specified standards.
- 1.7.2 Be responsible for the proper handling of all pipe, fittings, and appurtenances.
- 1.7.3 Make good any damage done to materials in handling, shipping, storage, or in any other way prior to acceptance after installation and testing.
- 1.7.4 Do not supply materials other than as specified, without first requesting and obtaining written permission from the Contract Administrator as specified in the Contract documents.

### 1.8 MATERIALS AND EQUIPMENT SUPPLIED BY THE OWNER

1.8.1 Contractor to purchase and obtain valve boxes and lids from the City's Central Stores at Manitoba Yards. Refer to City of Vancouver Construction specifications Section 33 11 01 2.3.6.3.

### 1.9 WORK BY THE OWNER

- 1.9.1 City crews will operate pump station controls as needed in coordination with the Contractor's work plan.
- 1.9.2 City crews will operate water valves as needed. Contractor to provide a minimum of 48 hrs notice.

### 1.10 WORK BY OTHERS

- 1.10.1 Co-operate with any other contractors in carrying out their respective works.
- 1.10.2 If any part of the Work depends for its proper execution or result upon work of another contractor, report promptly to the Contractor Administrator any issues that may affect the execution of the Work.

### 1.11 LOCATING AND PROTECTING EXISTING UTILITIES

1.11.1 Depths and location of existing utilities shown on drawings are for guidance only based on available record drawings. Completeness and accuracy are not guaranteed.

- 1.11.2 Prior to commencing any excavation work, establish the location and state of use of buried utilities. Clearly mark such locations to prevent disturbance during the work. Notify the Contract Administrator in writing of any discrepancy that may affect the quality of the work, or that may give rise to a claim for extra payment, prior to commencement of the required work.
- 1.11.3 Provide adequate shoring to support all existing utilities.
- 1.11.4 Co-ordinate all crossings of gas piping, electrical ducts, telephone ducts, and other utilities with the appropriate utility authority.
- 1.11.5 Repair all existing services that are damaged during construction.

### 1.12 PROTECTION OF STRUCTURES

1.12.1 Provide adequate shoring and erosion protection to prevent undermining of any existing structures.

### 1.13 MATERIALS STORAGE

- 1.13.1 Store all materials in safe and secure storage area in accordance with manufacturer's recommendations.
- 1.13.2 Establish temporary storage facilities as required.

### 1.14 DISPOSAL OF WASTE MATERIALS

- 1.14.1 Remove from the site and dispose of all waste materials, including native materials from excavations that are deemed by the Contract Administrator to be unsuitable for re-use, remaining debris from clearing, existing structures, remains of previous land uses, or any debris or rubbish encountered on the site.
- 1.14.2 Handle, remove and dispose of asbestos-containing materials in accordance with WorkSafeBC and the Hazardous Waste Regulation.

### 1.15 COSTS FOR TESTING OF MATERIALS AND WORKMANSHIP

- 1.15.1 The Contractor shall employ a testing firm to conduct quality control tests to confirm compliance of the work with the Contract Documents. Should material or workmanship be found to be unacceptable, the deficiencies shall be promptly rectified and retested to confirm compliance.
- 1.15.2 Backfill Compaction testing frequency shall be completed in accordance with City of Vancouver Specification 33 11 01 3.16

#### 1.16 GEOTECHNICAL REPORT

- 1.16.1 A geotechnical report completed by Tetra Tech Canada Inc. is provided with the Contract Documents. It is intended to provide guidance to the Contractor, subject to the limitations stated in the report.
- 1.16.2 Where comments are made on construction and construction methods, they are provided only in order to highlight aspects of construction from a feasibility point of view which could affect the design of the project. Confirm the factual information of the geotechnical investigation and make appropriate interpretations of the factual data as it affects the proposed construction techniques, schedule, equipment capabilities, costs, sequencing and other applicable aspects of the Work.

#### 1.17 SITE MAINTENANCE AND CLEANUP

- 1.17.1 Maintain the working area in an orderly manner and do not encumber with equipment, materials, or debris.
- 1.17.2 At all times keep the work site free from accumulations of waste materials or rubbish caused by employees or by the work.
- 1.17.3 Accumulations of waste materials that might constitute a fire hazard will not be permitted.
- 1.17.4 Promptly clean up any spillage from hauling vehicles on public or private roads.
- 1.17.5 On completion of construction, remove all temporary structures, rubbish, and waste materials.

### 1.18 TRAFFIC MANAGEMENT

- 1.18.1 The Contractor is responsible for providing management for the project including preparation and obtaining permits for any lane closures required to facilitate the work.
- 1.18.2 The traffic management plan shall comply with City's requirements and be prepared by qualified traffic management company.
- 1.18.3 A minimum of two lanes are required to be open to facilitate bi-directional traffic flow at all times.
- 1.18.4 The City of Vancouver will be coordinating with the Vancouver Police Department (VPD) for additional traffic control support around the intersection of W2nd Avenue and Anderson Street. The costs for VPD support while be paid for by the City but the Contractor will need to coordinate with VPD during construction.
- 2 PRODUCTS
- 2.1 NOT USED
- 3 EXECUTION
- 3.1 NOT USED

END OF SECTION

# WATER STREET ENGINEERING LTD.

INFRASTRUCTURE PLANNING AND DESIGN

TECHNICAL SPECIFICATION						
SECTION	Division 01 General Requirements Section 01 20 00S Price and Payment Procedures					
PROJECT	City of Vancouver Anderson Street Utility Upgrades					
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### **REVISION HISTORY**

Rev. No.	Status	Date	Description of Revisions	Prep. By	Rev. By
1	IFT	06 Nov 2020	Revisions shown in RED	SF	-
0	IFT	19 Oct 2020	Original	SF	AB

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### 1 GENERAL

### 1.1 SCOPE

1.1.1 This Section supplements Division 01 of the Master Municipal Construction Documents (MMCD) Platinum Edition and the CoV Construction Specifications.

### 1.2 GENERAL PRICE AND PAYMENT PROCEDURES

- 1.2.1 Work completed under this Contract will be paid for at the prices in the Schedule of Quantities and Prices.
- 1.2.2 Costs associated with finding and supplying of material and performance of all work specified herein, must be included in the prices set out in the Schedule. Include Contractor's overhead and profit.
- 1.2.3 Claims for extra payment by the Contractor on grounds that costs could not be properly charged in accordance with the drawings and/or the specifications will NOT be approved by the Owner.
- 1.2.4 Materials and Work performance costs not explicitly listed in the Schedule but included in the drawings and/or specifications by either direct mention or implication, must be included in items to which they pertain closest.
- 1.2.5 Prorate costs of a general nature that do not pertain to any one item among all items.

#### 1.3 DEFINITIONS

1.3.1 Optional: Work which may be described in the Schedule of Quantities and Prices that will be undertaken and included in the Work at the election of the Owner.

#### 1.4 DESCRIPTION OF PAYMENT ITEMS

Item No.	Description	Payment Terms
2101	]	Division 1 – General Requirements
1.01	Bonding and insurance	This item includes all costs for bonding and insurance for the complete Contract.  Payment will be made at the lump sum price tendered in the Schedule of Quantities and Prices on the first progress payment after the submission of Bonding and Insurance coverage documentation.  The lump sum tender under this item cannot exceed 2% of the total
		tender price.
1.02	Mobilization and demobilization	This item includes all costs for mobilization and demobilization associated with the Contractor's equipment, site facilities, and services.  Payment for mobilization and demobilization will be made at the lump sum price shown in the Tender Form. 50% of the lump sum price will be paid after the Contractor has established the operation and facilities specified. The remaining 50% is paid upon completion of the contract, removal of equipment, and cleanup of the work areas to the satisfaction of the Contract Administrator.
	D. 10.1 to 1	The lump sum bid under this item cannot exceed 5% of the total tender.  Incidental
1.03	Plans and Submittals	
1.04	Utility Locates	This item includes all costs to field verify locations and elevations of existing utilities within the Project Site including but not limited to; permits and approvals, equipment, excavation, backfill and restoration at crossings, tie-ins, service connections, and utilities within roadways and boulevards. Locate information shall be supplied to the Contract Administrator in survey coordinates of Northing, Easting, Elevation and Description.
		Payment will be made at the lump sum price quoted in the schedule of quantities after the information has been submitted and approved by the Contract Administrator.
1.05	Project Record Documents	This item includes all costs associated with preparation of Project Record documents in accordance with CoV specification 01 33 01.  Payment will be made at the lump sum price stated in the Schedule of Quantities and prices after the information has been submitted and approved by the Contract Administrator.
1.06	Quality Management and Testing	Incidental
1.07	Traffic Control and Management	Incidental
1.08	Environmental Protection	Incidental
1.09	Groundwater Discharge Treatment	The item includes all costs for permitting, testing, and supply, installation and maintenance of groundwater treatment to meet the discharge requirements set out CoV Specification Section 01 57 01 and the Project Documents.  Payment will be made at the lump sum price stated in the Schedule of
		Quantities.

1.10	Groundwater Discharge Treatment – Total and Dissolved Metal Contamination (Provisional)	The item includes all costs for supply, installation and maintenance of groundwater treatment equipment for total and dissolved metal contaminants.  Payment will made at the unit price stated in the Schedule of Quantities and Prices if testing indicates that treatment is required.
		Division 31 – Earthworks
2.01	Over Excavation and Trench Improvements (Provisional)	Refer to CoV Specification 31 23 01. This item includes all costs for over-excavation and backfill in poor soils as directed by the Geotechnical engineer.  No payment will be considered for unapproved over-excavation.  Payment will made at the unit price stated in the Schedule of Quantities and Prices based on measured excavation volume prior to backfilling.
2.02	Disposal of Contaminated Material (Provisional)	This item includes all costs associated with removal of contaminated trench material including, but not limited to stockpiling at site, testing, excavation and disposal of material from the site. Contaminated materials shall not be mixed with "clean" material for disposal.  Payment will made at the unit price stated in the Schedule of Quantities and Prices based on receipt of material weights from specialist disposal facilities.
2.03	Trench Improvements – Geotextile (Provisional)	This item shall include all costs associated with supply and installation of geotextile and geogrid per Drawing C-501 in areas where subgrade soils are deemed to be unsuitable for pipe bearing as specified by the Engineer.  Payment will made at the unit price stated in the Schedule of Quantities
		and Prices per lineal metre of trench length.
		Division 32 – Utilities
3.01	Watermain DI TR-Flex 300 mm diameter	Refer to CoV Specification 33 11 01 - 1.8.  Payment will made at the unit price stated in the Schedule of Quantities and Prices.
3.02	Watermain DI TR-Flex 200 mm diameter	Refer to CoV Specification 33 11 01 - 1.8. For clarity, this item shall include all fittings and work to complete service connection tie-ins.  Payment will made at the unit price stated in the Schedule of Quantities and Prices.
3.03	Watermain Tie-in - Anderson Street and West 2nd Avenue	This item shall include all costs associated with completion of tie-in including, but not limited to, cutting and draining the existing main, installation of couplings, piping, gate valve, thrust block, temporary testing assembly and final connection to main after testing.  Payment will made at the lump price stated in the Schedule of Quantities and Prices.
3.04	Watermain Tie-in - Anderson Street and Island Park Walk	This item shall include all costs associated with completion of tie-ins including, but not limited to hot tap connection to existing main, thrust block, temporary testing assembly and final connection to main.  Payment will made at the lump price stated in the Schedule of Quantities and Prices.

3.05	Ex. Watermain Valve Installation - Anderson Street and West 2nd Avenue [Optional]	This item includes all costs associated with installation of a 300 mm dia. gate valve on the existing watermain including, but not limited to, cutting and draining the existing main, installation of couplings, piping, gate valve, and backfill and surface restoration. This valve should be installed prior to the rest of the watermain replacement to facilitate water shutdowns.  Payment will made at the lump sum price stated in the Schedule of Quantities and Prices.  Note: This item is Optional. City crews may elect to complete the valve installation using their own forces prior to the Contractor mobilizing to site at no cost to the contractor.
3.06	Sawcutting - 150 mm to 300 mm Thickness	This item includes all costs for sawcutting of asphalt and concrete pavement deeper than 150 mm up to 300 mm depth, including removal of Cut material.  Payment will be made per lineal meter of cut length as indicated in the Schedule of Quantities and Prices.
3.07	Forcemain DI TR-Flex 300 mm diameter - Roadway	Refer to CoV Specification 33 34 01.  Payment will made at the unit price stated in the Schedule of Quantities and Prices.
3.08	Forcemain DI TR-Flex 300 mm diameter - Boulevard	Refer to CoV Specification 33 34 01.  Payment will made at the unit price stated in the Schedule of Quantities and Prices.
3.09	Forcemain Tie-in West 2nd Ave and Lane	Refer to CoV Specification 33 34 01. This item includes all costs associated with the management/diversion/bypass of inflows to the Granville Island PS to facilitate the tie-in work.  Payment will be made at the lump sum price stated in the Schedule of Quantities.
3.10	Forcemain Tie-in Island Park Walk	Refer to CoV Specification 33 34 01. This item includes all costs associated with the management/diversion/bypass of inflows to the Granville Island Pump Station to facilitate the tie-in work.  Payment will be made at the lump sum price stated in the Schedule of Quantities.

3.11	BC Hydro Duct Bank Crossing and Support	This item includes all costs associated with meeting the requirements outlined in the Contract Documents for BC Hydro duct bank crossings including but not limited to, engineering submissions for support design, backfilling with Controlled density fill, and notifications to BC Hydro.  Payment will be made at the lump sum price stated for each concrete encased duct bank crossing in the Schedule of Quantities.
	,	DWG NO. H-101
4.01	Repair of foul air ducting [Optional]	This item includes the scope outlined on Drawing No. H-101 including but not limited to, hazard assessments and permitting, temporary scaffolding, pipe cutting and removal, SS flange repair, ventilation fans, field welding of SS pipe, preparation and submission plans for proposed repair, repair of SS flange, coordination with City staff for station access.  Payment will be made at the lump sum price stated in the Schedule of Quantities if included in the Scope of Work by the Owner.

# 2 PRODUCTS

NOT USED

## 3 EXECUTION

NOT USED

END OF SECTION

# WATER STREET ENGINEERING LTD.

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### 1 **GENERAL**

### 1.1 SCOPE

1.1.1 This Section supplements Division 01 of the MMCD Specification as modified and supplemented by the City of Vancouver Construction Specifications, First Edition, 2019.

### 1.2 DIMENSION AND MEASUREMENT CONFLICT

- 1.2.1 Figured dimensions on a Drawing take precedence over measurements scaled from the Drawing, and large-scale Drawings take precedence over those of smaller scale.
- 1.2.2 In case of conflict between figured dimensions on a Drawing and the dimensions of a specified product, the dimensions of the specified product take precedence.
- 1.2.3 The Drawings and Specifications complement each other, and anything called for by one will be as binding as if called for by both.

### 1.3 EQUAL AND ALTERNATIVE EQUIPMENT AND MATERIALS

- 1.3.1 The Contract Administrator may approve equipment or materials other than those specified, at the City's sole discretion.
- 1.3.2 Submit detailed information for any proposed substitution at least 10 days in advance of required approval.
- 1.3.3 The Contract Administrator may approve alternative materials and equipment subject to a reduction in the Contract price, at the City's sole discretion.
- 1.3.4 Where two or more items of equipment or materials of similar design are to be installed, provide the products of one manufacturer.

### 1.4 LAYOUT

- 1.4.1 Lay out the work in accordance with the drawings, including calculation of layout dimensions and elevations.
- 1.4.2 Take all necessary precautions to preserve existing benchmarks and legal survey pins on and adjacent to the site. Notify the Contract Administrator 24 hours before disturbing a benchmark or pin.
- 1.4.3 Retain a registered B.C. Land Surveyor to replace any disturbed legal markers.

### 1.5 NOTICE TO UTILITY OWNERS AND USERS

- 1.5.1 When work is to be conducted in the vicinity of utilities including gas, telephone and hydro lines, or other aboveground or underground structures, notify utilities at least 24 hours in advance.
- 1.5.2 Contractor is responsible for all notifications and coordination of existing water main service shutdowns.
- 1.5.3 Obtain utility's permission in writing prior to interrupting any service. Distribute notices to all premises affected by the interruption 24 hours in advance of service interruption.
- 1.5.4 BC Hydro has provided specific requirements for support of duct banks at crossing locations.

  Contractor shall provide engineered drawings meeting the requirements of BC Hydro's letter titled 
  "Temporary Excavation / Support of BC Hydro Ductbanks: BC Hydro Requirements, 21 September 2020".
  - For clarity, the items relating to CoV and Professional Engineer of Record (PoR) as specified in the letter will be the Contractor's responsibility to provide to BC Hydro. No construction work around BC Hydro duct banks can occur until the Contractor has received approval from BC Hydro.
- 1.5.5 In emergency situations, where life or property is endangered, take whatever action is necessary to eliminate danger and minimize damage.

- 2 PRODUCTS
- 2.1 NOT USED
- 3 EXECUTION
- 3.1 NOT USED

END OF SECTION