



AMENDMENT / MODIFICATION	<b>Title-Sujet</b> Lake Louise Water Infrastructure Upgrades – Banff National Park				
005	Solicitation N 5P420-18-0	o No. de l'invitation 432/A	Date: January 15, 2019		
RETURN BIDS TO:	SEAC			Amendment No N° de la modif. 005	
<b>RETOURNER LES SUBMISSION À :</b>	Solicitation	Closes:			
Parks Canada Agency Bid Receiving Unit National Contracting Services	<b>at – á</b> 02:00 PM			e <b>Zone - Fuseau horaire</b> ' - HNR	
220 - 4 Avenue S.E., suite 720 Calgary, AB T2G 4X3	F.O.B F.A.B. Plant-Usine: Destination: Other-Autre: D				
	Address Inquiries to: - Adresser toute demande de renseignements à :				
	Jen Maheu jennifer.maheu@canada.ca				
<b>Tender To: Parks Canada Agency</b> We hereby offer to sell to Her Majesty the	Telephone No No de téléphone			Fax No. – No de FAX:	
Queen in right of Canada, in accordance with the terms and conditions set out herein,	(587) 432-8458			(866) 246-6893	
referred to herein or attached hereto, the goods, services, and construction listed herein and on any attached sheets at the price(s) set	Destination of Goods, Services, and Construction: Destinations des biens, services et construction:				
out therefor.	See Herein – Voir ici				

# TO BE COMPLETED BY THE BIDDER (type or print)

Issuing Office - Bureau de distribution	
Parks Canada Agency National Contracting Services 220 - 4 Avenue S.E., suite 720 Calgary, AB T2G 4X3	Vendor/Firm Name
	Address - Adresse
	Name of person authorized to sign on behalf of the Vendor/Firm Nom de la personne autorisée a signer au nom du fournisseur/ de l'entrepreneur
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	Telephone No N° de telephone:
	Facsimile No N° de télécopieur:
	Signature     Date



#### AMENDMENT 05

This amendment is being raised to replace the price table, distribute questions and answers and add a document to the tender package.

# A) BID CLOSING DATE

The closing date for tender 5P420-18-0432/A Lake Louise Water Infrastructure Upgrades – Banff National Park is extended from January 17, 2019 to **January 22, 2019 at 2:00PM Mountain Standard Time (MST).** 

## **B) QUESTIONS AND ANSWERS**

**Q43** There is a pathway in front of the RCMP station is this to be rehabilitated after the lines are brought through.

**A43** Yes. Assume 100 mm depth of granular material ("trail mix") compacted to 100% SPD over native subgrade compacted to 98% SPD.

**Q44** As per the boreholes and by looking at the material along Village Rd there is very little existing loam if any in some spots. Will the import of loam be incidental for rehabilitation of the underground utility corridor?

A44 No import of loam is required. The Contractor is to reuse the existing loam.

**Q45** What will be the depth of loam necessary for the rehab along Village Road? Will it need to be screened loam?

A45 See response to Q44.

**Q46** For the Asphalt and concrete removal and rehabilitation for the waterline abandonment in the petro Canada parking lot is this cost covered under the abandonment LS and what will the asphalt spec be for the parking lot?

**A46** Yes – refer to section 01 27 00 Measurement and Payment, Part 3.13.1. Parking lot structure shall conform to the requirements of the City of Calgary Residential Roads Asphalt Pavement Structure as indicated in Figure 1 of the current edition of the City of Calgary, Standard Specifications for Road Construction (File 454.1005.002).

**Q47** What will the asphalt spec be for the asphalt driveways we will be digging through for all of the buildings?

**A47** Driveway structure shall conform to the requirements of the City of Calgary Residential Roads Asphalt Pavement Structure as indicated in Figure 1 of the current edition of the City of Calgary, Standard Specifications for Road Construction (File 454.1005.002).

**Q48** Additional tree clearing along village road will this be flagged prior to construction or is it at our discretion?

**A48** Allowable work space as per DWG 3084-03-C-502. Contractor to choose appropriate trench construction methodology to avoid additional tree clearing.

**Q49** Where will line paint be covered under for the stop bars and center lines we are excavating through? **A49** This work is incidental to the contract and will not be paid for separately.

**Q50** At the corner of Lake Louise Drive and Village Road the light pole will be undermined by the water line. Will the removal of this pole or getting it held be incidental to the contract? As well there is a light pole in front of the husky station with this same issue.

**A50** The Contractor is responsible for temporary support of light poles and other surface features not otherwise identified.

**Q51** The rock sign in front of the husky will possibly be undermined and removed. Will this need to be rehabilitated and will this be incidental to the contract as well?

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**A51** PCA will arrange for separately the removal of the wooden sign from the base. The Contractor is to demolish and dispose of the rock base – see Drawing 3084-03-C-112.

**Q52** Will the settlement monitoring points for the CPR crossing be installed and monitored by the contractor?

A52 Yes.

**Q53** If level 1 or level 2 monitoring thresholds for the CPR crossing are met and the material is settling outside of the contractors ability to control, will the delay time be tracked under T&M for the contractors onsite crews until these issues are rectified?

**A53** No. The Contractor is responsible for undertaking the crossing of the rail tracks in a manner that allows him to limit excess settlement.

**Q54** What is the spec on the existing water line we are removing PVC steel inc? Same for the sanitary lines. This is necessary to know as the disposal cost can greatly vary depending on the specified material. **A54** Assume ductile or cast iron for the water mains and PVC, reinforced concrete or clay tile for the sanitary sewer.

**Q55** Is the pull box spec given in 26 05 31, 2.1.7 Underground pull boxes for fiber optic and communication cabling, acceptable for both "In Landscaped Area" and "In Road Structure"? If not, please provide a spec for the "In Road Structure" pull box?

A55 All pull boxes to be located in the Landscaped Area.

Price Table:

- Modify E 6.2.1- Supply and Install Pull Box in the Landscape Area 2. Ea.
- Delete E 6.2.2 Supply and Install Pull Box in Roadway Structure 1. Ea.

**Q56** Question regarding the installation of the HDPE line, typically this is installed in-situ and does not require bedding material. Please clarify if bedding is required for this installation. **A56** Granular bedding is required as indicated on the drawings.

**Q57** Are you able to provide a copy of "CPR's Track Movement Monitoring Guidelines for Trenchless Pipe Installation, (dated April 9, 2014)" mentioned in Amend 2 A.12? Also, there appears to be a more current version of this guideline document. Please confirm the 2014 version is to be used. **A57** A copy of the document is attached in DSP3\_18-0432. The April 9, 2014 version is the most current.

**Q58** For the cut in water valve in front of the of Samson mall judging from the drawings and seeing the site it looks like this cut in valve will either be under the concrete seating area with benches under it/sidewalk and we will need to remove some existing trees. How will these removals and rehabs be covered? Also can you confirm if this is a 200mm or 150mm valve to be installed on this line? One drawing shows it as an existing 150mm line and one drawing is stating it's a 200mm valve going in.

**A58** See Note 2 on Drawing 3084-03-C-102. Work of this nature is incidental to the Contract unless otherwise specified. Assume the valve is 200 mm diameter. Prior to installation the contractor to confirm the diameter of the valve. The valve location can be modified by the Department Representative to reduce or avoid tree clearing.

**Q59** Is there an option to clear and grub the right of way wider going up to the reservoir under the applicable unit rate if needed?

- This would be due to the alignment of the pipe within the ROW. In some areas there is around a 2m offset between your edge of trees to the center line of the HDPE. The following issues would arise if we couldn't push back the ROW.
  - Due to the depth of pipe our ditch slope would be undermining/destroying roots of existing trees.
  - We need to ensure a safe slope to meet Alberta specs so the top of our slope would be within the tree line.

- Is there any option to switch to a PVC sdr 18 instead of the 400mm HDPE feedermain going up to the reservoir? This would cancel out the issues above we could use a trench box if needed to stay within the right of way and ensure a safe ditch slope.
- $\circ$   $\,$  Can we use electro fuse couplers in some areas for the HDPE?

**A59** The clearing width indicated allows for excavation width indicated on Drawing 3084-02-C501. PCA will allow additional selective tree clearing if localized conditions warrant this.

HDPE has been specified to eliminate the need for thrust blocks and to allow the Contractor flexibility in choosing his trench construction methodology.

Electro-fusion couplings are permitted.

**Q60** What is the purpose of filling the Space between the pipe and the Casing as per note number 9 on DWG C-110 for the CP Railway crossing. Typically the spacer is in place to allow for easy repair should there be any future issues. Please clarify the intent. **A60** This is a requirement of CP Rail.

Q61 Can we use a precast slab for the base of the lift station?

**A61** Yes, provided the slab meets the all requirements indicated on Drawing 3084-02-D-121 and a shop drawing sealed by a Professional Engineer is provided for the anchorage of the lift station. Replace the mud slab with 100 mm depth of granular base course compacted to 100% SPD.

**Q62** At location 3 can we do one 24hr shutdown instead of two for the cut in shut down? And do both tees within the 24hr allowance?

A62 Yes, if both tees can be installed in one 24 hour shutdown.

**Q63** Is the entirety of dwg 3084-02-E-121 for the electrical scope fall under the line item B4.1? **A63** See the response to Q32 in Amendment 4.

**Q64** For the abandonment of the existing reservoir and valve chamber it states on DWG b3084-02-G-003 backfill with CLSM (low strength Concrete) can we get away with just plugging the pipes with grout and backfill with drain rock or clay for the structures? If the Structure is 4m deep then we would be looking at around 285m3 of lean mix which would be a significant savings to the client if we could backfill with clay or drainrock instead.

**A64** Use of granular material for backfilling of the structures will be permitted provided:

-all penetrations are grouted water tight

-all 300 mm thick layer of medium plastic clay or CLSM cap is placed over the granular fill -the surface to be restored with the onsite topsoil and seeded (this is a requirement whether CLSM or

granular fill is used to backfill the structures)

**Q65** Are we to include for temporary servicing for the buildings we will be putting out of water? If so, are there any Hydrants recommended for these areas? **A65** Yes. See Note 5 on Drawing 3084-03-C-102.

## C) TENDER PACKAGE CHANGES

Add the following folder: *DSP3\_18-0432.zip* 

File Name - Nom du dossier Lake Louise Water Infrastructure Upgrades – Banff National Park

# D) APPENDIX 1 – COMBINED PRICE FORM (SEE FOLLOWING PAGE)

#### THE ATTACHED PRICE FORM MUST BE USED IN ORDER FOR A BID TO BE DEEMED RESPONSIVE. ANY BIDS SUBMITTED USING THE PREVIOUS PRICE FORM WILL NOT BE ACCEPTED.

#### CHANGES ARE SHOWN IN RED.

Delete: APPENDIX 1 – COMBINED PRICE FORM in its entirety

Replace with:

914

(See next page)

# APPENDIX 1 - COMBINED PRICE FORM (5 Pages)

- 1) The prices per unit will govern in establishing the Total Extended Amount. Any arithmetical errors in this Appendix will be corrected by Canada.
- 2) Canada may reject the bid if any of the prices submitted do not reasonably reflect the cost of performing the part of the work to which that price applies.

#### PRICE TABLE

The Lump Sum Amounts designate Work to which a Lump Sum Arrangement applies.

(a) Work included in the Lump Sum Amount represents all work not included in the unit prices

The Unit Prices designate Work to which a Unit Price Arrangement applies.

(a) Work included in each item is as described in the referenced specification section.

(b) The Price per Unit shall not include any amounts for Work that is not included in that unit price Item.

ltem No.	Class of Labour, Plant or Material	Specification Reference	Estimated Quantity	Unit of Measurement	Price per Unit (Tax extra)	Estimated Total Price (Tax extra)
А	GENERAL					
1.	Mobilization and Demobilization	01 27 00	1	LS		
2	Traffic Accommodation Strategy (TAS) and Measures	01 11 00	1	LS		
3	Other requirements otherwise not identified * This line item can remain blank if all costs are captured in the Price Table.		1	LS		
4	Prime Cost Sum	01 21 00	1	LS	-	\$400,000.00
В	PROJECT LOCATION 1 – FEEDERM	AIN AND RESER	VOIR SITE			
1	<b>DEMOLITION</b> Abandon/Remove Existing Utilities: Reservoir, Piping and Valve Chamber	02 41 13	1	LS		
2	OPEN CUT TRENCHING: Watermain in Single Trench	31 23 33.01	858	lm		
3	WASTE					
3.1	Supply and Install Watermain:	33 14 16				
3.1.1	200 mm Diameter HDPE		23	lm		
3.1.2	250 mm Diameter HDPE		65	lm		

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400 mm Diameter HDPE		770	lm		
Supply and Install Gate Valve:	33 14 16				
200 mm Diameter		1	Ea		
250 mm Diameter		1	Ea		
400 mm Diameter		1	Ea		
Supply and Install Hydrant		1	Ea		
Supply and Install Manhole:	33 31 13				
1200 mm Diameter		3.1	vm		
1800 mm Diameter		3.1	vm		
Supply and Install Reservoir Mixing Piping		1	LS		
TELECOMMUNICATIONS					
Supply and Install Conduit: 2 x 100 mm Diameter RPVC	26 05 34 & 26 05 43	770	lm		
Supply and Install Pull Box:	26 05 31				
In Landscaped Area		5	Ea		
In Road Structure		5	Ea		
ROADWAY					
Supply and Install Access Road	32 11 23 & 32 12 16	770	lm		
Supply and Install Culvert: 400 mm Diameter CSP	33 42 13	30	lm		
PROJECT LOCATION 2 - HARRY'S H					
DEMOLITION					
Abandon/Remove Existing Utilities: Lift Station, Piping and Manholes	02 41 13	1	LS		
Remove, Supply and Install Wildlife Fence	32 31 26	195	lm		
	400 mm Diameter HDPE Supply and Install Gate Valve: 200 mm Diameter 250 mm Diameter 400 mm Diameter 3upply and Install Hydrant Supply and Install Manhole: 1200 mm Diameter 1800 mm Diameter 1800 mm Diameter Supply and Install Reservoir Mixing Piping TELECOMMUNICATIONS Supply and Install Conduit: 2 x 100 mm Diameter RPVC Supply and Install Pull Box: In Landscaped Area In Road Structure ROADWAY Supply and Install Access Road Supply and Install Culvert: 400 mm Diameter CSP PROJECT LOCATION 2 - HARRY'S F DEMOLITION Abandon/Remove Existing Utilities: Lift Station, Piping and Manholes Remove, Supply and Install Wildlife	Class of Labour, Plant of MaterialReference400 mm Diameter HDPE33 14 16Supply and Install Gate Valve:33 14 16200 mm Diameter1250 mm Diameter1400 mm Diameter33 31 13Supply and Install Hydrant33 31 131200 mm Diameter33 31 13Supply and Install Reservoir Mixing Piping26 05 34 & 26 05 43Supply and Install Conduit: 2 x 100 mm Diameter RPVC26 05 31Supply and Install Pull Box:26 05 31Supply and Install Pull Box:26 05 31In Landscaped Area21 123 & 32 12 16Supply and Install Access Road32 11 23 & 32 12 16Supply and Install Culvert: 400 mm Diameter CSP33 42 13PROJECT LOCATION 2 - HARRY'S HULL LIFT STATIONAbandon/Remove Existing Utilities: Lift Station, Piping and Manholes02 41 13Remove, Supply and Install Wildlife32 31 26	Class of Labour, Plant or MaterialReferenceQuantity400 mm Diameter HDPE770Supply and Install Gate Valve:33 14 16200 mm Diameter1250 mm Diameter1400 mm Diameter1400 mm Diameter1400 mm Diameter1Supply and Install Hydrant33 31 131200 mm Diameter33 31 131200 mm Diameter3.11800 mm Diameter3.11800 mm Diameter3.1Supply and Install Reservoir Mixing Piping1FLECOMMUNICATIONS26 05 34 & 26 05 43Supply and Install Conduit: 2 x 100 mm Diameter RPVC26 05 31Supply and Install Conduit: 2 x 100 mm Diameter RPVC26 05 31Supply and Install Pull Box:26 05 31Supply and Install Pull Box:26 05 31Supply and Install Conduit: 2 x 100 mm Diameter RPVC5ROADWAY33 42 1330Supply and Install Access Road32 11 23 & 32 12 16Supply and Install Culvert: 400 mm Diameter CSP33 42 13Supply and Install Culvert: 400 mm Diameter CSP33 42 13DEMOLITION02 41 131Abandon/Remove Existing Utilities: Lift Station, Piping and Manholes02 41 131Remove, Supply and Install Wildlife32 31 26195	Class of Labour, Plant or MaterialReferenceQuantityMeasurement400 mm Diameter HDPE770ImSupply and Install Gate Valve:33 14 161Ea200 mm Diameter1Ea250 mm Diameter1Ea400 mm Diameter1EaSupply and Install Hydrant1EaSupply and Install Manhole:33 31 131200 mm Diameter33 31 131200 mm Diameter33 31 13Supply and Install Reservoir Mixing Piping1LSSupply and Install Reservoir Mixing Piping1LSSupply and Install Conduit: 2 x 100 mm Diameter RPVC26 05 34 & 26 05 43770Supply and Install Pull Box:26 05 31Supply and Install Pull Box:26 05 31Supply and Install Conduit: 2 x 100 mm Diameter RPVC5EaSupply and Install Pull Box:15EaIn Road Structure5EaEaROADWAY33 42 1330ImSupply and Install Access Road32 11 23 & 32 12 16770ImSupply and Install Culvert: 400 mm Diameter CSP33 42 1330ImPROJECT LOCATION 2 - HARRY'S HULL LIFT STATUSJEJEDEMOLITION22 41 131LSRemove, Supply and Install Wildlife 22 31 26195Im	Class of Labour, Plant or MaterialSpecificationCalinative ReferenceWork of MeasurementUnit frax extra)400 mm Diameter HDPE770ImSupply and Install Gate Valve:33 14 161Ea200 mm Diameter1Ea400 mm Diameter1Ea400 mm Diameter1Ea400 mm Diameter1Ea3upply and Install Hydrant1Ea1200 mm Diameter33 31 13 </td

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ltem No.	Class of Labour, Plant or Material	Specification Reference	Estimated Quantity	Unit of Measurement	Price per Unit (Tax extra)	Estimated Total Price (Tax extra)	
2	OPEN CUT TRENCHING Sanitary Sewer or Sanitary Forcemain in Single Trench	31 23 33.01	265	lm			
3	TRENCHLESS INSTALLATION						
3.1	Trans Canada Highway (For Sanitary Forcemain)	33 05 23.21	85	lm			
3.2	Trans Canada Highway (For Future Use)	33 05 23.21	85	lm			
4	SANITARY						
4.1	Supply and Install Lift Station	33 32 00	1	LS			
4.2	Supply and Install Sanitary Sewer: 200 mm Diameter PVC	33 31 13	110	lm			
4.3	Supply and Install Forcemain: 100 mm HDPE	33 31 13	240	lm			
4.4	Supply and Install Manhole: 1200 mm Diameter	33 31 13	6.4	vm			
4.5	Pre-Start-up, Start-up and Commissioning of Lift Station	01 75 01	1	LS			
4.6	Preparation and Supply of Operations and Maintenance Manuals	01 75 23	1	LS			
D	PROJECT LOCATION 3 – FAIRVIEW	PUMP HOUSE S	ITE				
1	DEMOLITION						
1.1	Clearing and Grubbing	33 11 00	630	m²			
1.2	Abandon/Remove Existing Utilities: Piping	02 41 13	1	LS			
2	WATER						
2.1	Supply and Install 400 mm or 250 mm diameter PVC DR18 Watermain	33 14 16	100	lm			
2.2	Supply and Install Gate Valve:	33 14 16					
2.2.1	250 mm Diameter		1	Ea			
2.2.2	400 mm Diameter		2	Ea			
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ltem No.	Class of Labour, Plant or Material	Specification Reference	Estimated Quantity	Unit of Measurement	Price per Unit (Tax extra)	Estimated Total Price (Tax extra)
2.3	Supply and Install Inserta Valve: 250 mm Diameter	33 14 16	1	Ea		
Е	PROJECT LOCATION 4 – VILLAGE R	ROAD SITE				
1	<b>DEMOLITION</b> Abandon/Remove Existing Utilities: Petro Canada Site Watermain	02 41 13	1	LS		
2	OPEN CUT TRENCHING					
2.1	Sanitary Sewer or Sanitary Service in Single Trench	31 23 33.01	386	lm		
2.2	Watermain or Water Service in Single Trench	31 23 33.01	165	lm		
2.3	Sanitary Sewer and Watermain in Common Trench	31 23 33.01	256	lm		
2.4	Authorized Over Excavation and Backfill	31 23 33.01	50	m³		
3	TRENCHLESS INSTALLATION CP Rail	33 05 23.21	1	LS		
4	WATER					
4.1	Supply and Install Watermain:	33 14 16				
4.1.1	150 mm Diameter PVC		15	lm		
4.1.2	300 mm Diameter PVC		380	lm		
4.2	Supply and Install Gate Valve:	33 14 16				
4.2.1	150 mm Diameter		2	Ea		
4.2.2	200 mm Diameter		1	Ea		
4.2.3	300 mm Diameter		4	Ea		
4.3	Supply and Install Hydrant	33 14 16	2	Ea		
4.4	Water Service Reconnection:	33 14 16				
4.4.1	Medical Centre		1	LS		
4.4.2	Lake Louise Visitor Centre		1	LS		
4.4.3	Samson Mall		1	LS		
4.4.4	Husky Gas Bar/Mountain Restaurant		1	LS		

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4.4.5	Petro Canada Gas Station		1	LS		
5	SANITARY					
5.1	Supply and Install Sanitary Sewer: 300 mm Diameter PVC	33 31 13	608	lm		
5.2	Supply and Install Sanitary Manhole: 1200 mm Diameter	33 31 13	36.3	vm		
5.3	Sanitary Service Reinstatement:	33 31 13				
5.3.1	Recreation Centre		1	LS		
5.3.2	RCMP Detachment		1	LS		
5.3.3	Mountaineer Lodge		1	LS		
5.3.4	Husky Gas Bar/Mountain Restaurant		1	LS		
5.3.5	Petro Canada Gas Station		1	LS		
5.3.6	Charleston Residence		1	LS		
6	TELECOMMUNICATIONS					
6.1	Supply and Install Conduit: 2 x 100 mm Diameter PVC DB2	26 05 34 & 26 05 43	315	lm		
6.2	Supply and Install Pull Box:	26 05 31				
6.2.1	In Landscaped Area		2	Ea		
TOTAL BID PRICE Excluding applicable taxe(s)					\$	

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All other terms and conditions remain unchanged.