



**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**

Regional Manager/Real Property
Contracting/PWGSC
Ontario Region, Tendering Office
12th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6
Ontario

**SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION**

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

Vendor/Firm Name and Address
Raison sociale et adresse du
fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution
Regional Manager/Real Property Contracting/PWGSC
Ontario Region, Tendering Office
12th Floor, 4900 Yonge Street
Toronto, Ontario
M2N 6A6
Ontario

Title - Sujet Ottawa, ON Hogs Back Fixed Bridge	
Solicitation No. - N° de l'invitation EQ754-190954/A	Amendment No. - N° modif. 005
Client Reference No. - N° de référence du client R.079166.009	Date 2018-08-23
GETS Reference No. - N° de référence de SEAG	
File No. - N° de dossier PWL-8-41044 (003)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-08-30	
Time Zone Fuseau horaire Eastern Daylight Saving Time EDT	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Dhanna, Sheila	Buyer Id - Id de l'acheteur pw1003
Telephone No. - N° de téléphone (416) 512-5855 ()	FAX No. - N° de FAX (416) 512-5862
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: PWGSC/TPSGC Joseph Sheppard Building 32 4900 Yonge St. Toronto, ON M2N 6A6	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

Q: Please confirm who is required to sign the following Qualification Forms found in Appendix 5:
Form No. 1A – Bidder's Experience – Heavy Civil Works Project
Form No. 1B – Bidder's Experience – Heavy Civil Works Project
Form No. 2 – Bidder's Experience – Cofferdam and Temporary Dewatering

A: Company representative with the signing authority to bind the company.

Q: Please provide the specifications for the sheet pile to be used in the construction of the S-W Retaining wall.

A: Please refer to section C on revised drawing 214

Q: You do not show a earth retaining system for the extension of the S-W wing wall. Excavation in this area without earth retaining will undermine and disrupt the existing sidewalk that travels over the bridge.

A: Excavations and temporary supports are the responsibility of the contractor. If the contractor believes that a system is necessary, he can take it into account to carry out the work. Existing sidewalk will not be closed and consideration should be taken to not undermine or disrupt it.

Q: Item 1 Describes payment for earth excavation will be measured for payment based on the widths as indicated. Since no locations show limits of excavation and or final earth retaining system will all earth be measured for payment regardless of shoring locations?

A: Excavations and temporary supports are the responsibility of the contractor. Payment for this item will be on actual excavated amounts, to be approved by Departmental Representative.

Q: Item 2 Describes payment for backfill to authorized limits. Can you please confirm these limits? Also please confirm backfill type to be included in this unit price.

A: Excavations and temporary supports are the responsibility of the contractor. Payment for this item will be on actual excavated amounts, to be approved by Departmental Representative.
The Backfill type to be included in this unit price is Granular A.

Q: Please confirm that item 6 and item 7 are to include reinforcing steel... considering all reinforcing steel is measured for payment under item 4.

A: Item 4 covers reinforcing steel used in new concrete (which is paid under item 5). Items 6 and 7, which are the concrete repairs, are to include the reinforcement which will not be measured separately for payment in this case (as explained Section 012201, 1.5.6 and 1.5.7)

Q: Please confirm chipping depth of item 6 concrete repair Apron detail B on drawing 215 shows 50mm concrete removal with new overlay of 200mm reinforced concrete.

A: Please refer to detail B of the attached revised drawing 215 for clarification.

Q: Please confirm that sill removal and replacement forms part of the LS works and is not paid under concrete repair item 7. Also confirm that this replacement is for the entire distance between all piers and abutments.

A: Sill removal and repair is included in Unit Price Item No 7. Sill replacement will only be required where damaged, hence payment at unit price.

Q: Please confirm how you determined the concrete removal volumes item #3 at 1485m³. Do you have removals that are not shown on these drawings? This quantity does not make sense.

A: The revised estimated quantity is 300 m³.

Q: The excavation for the s-w wingwall and s-w abutment extension will require removal of a toe wall this toe wall is not detailed in these documents. For bidding purposes please provide details of this toe wall.

A: The detailed drawing of the wall is not available. Only construction photos available (attached).

Q: Can you confirm that temporary support for pier 5 nosing removal is required

A: Yes, temporary support for pier 5 nosing and pier 2 nosing are required, as per notes 3 on Drawings 208 and 210. The traffic on the bridge must be maintained during the works.

Q: Note 2 drawing 208 requires heating of the holes before grouting. Do you have a specific procedure for this requirement?

A: Means of Construction. No specific procedure. Supplier specifications to be followed.

Q: Can you please specify if all the mechanical gates and stop log gates are to be painted? Can you also provide the length of railing to be removed, refurbished and reinstalled? Are there any railings to be repainted on site?

A: As per Note F-8 on Drawing 201 All the gates (at gates and at stop logs) are to be painted. Gates are not to be repainted. Length of railing to be removed depends on contractor construction methods, may be measured on drawings for bidding purposes. No railings to be repainted on site. Only railings which will be removed are to be refurbished, painted and reinstalled.

Q: Spec also calls for 30 Mpa C-1 exposure classification. According to CSA a C-1 exposure is 35 Mpa not 30 Mpa. Please confirm?

A: Item 2.4.3.1 of section 03 30 00 - CAST-IN-PLACE CONCRETE will state : "Durability and class of exposure: F-1"

Q: Is the sill repair as per detail 1/215 to be priced in Unit Price item 5?

A: To be priced in Unit Price Item 7.

Q: Part 1.5.6.1 of spec section 01 22 01 state that item U6 includes rock anchors. Are the rock anchors the 20M embedded 600mm as per Section B/215?

A: Rock anchors are specified as such on drawings and are drilled/embedded 3000mm in rock.

Q: Regarding detail B/215, should we assume 50mm of concrete removal and 200mm of new concrete repair?

A: Please refer to the revised detail B on drawing 215

Q: Regarding the 20M anchors in Detail B/215, it states that 600mm embedment in sound rock. Is the embedment in the existing concrete considered in this 600mm? If not, we need to drill through the concrete and then another 600mm through the rock. What depth should we assume the existing concrete apron is?

A: Please refer to the revised details on drawing 215

Q: Regarding the exterior repainting, spec section 09 91 13.01, please advise the following:

- a. Are the mechanical gates to be re-painted?
- b. Are the steel gains for the mechanical gates to be re-painted?
- c. Are the steel gains for the stop log (non-mechanical) sluices to be re-painted?

A:

- a. No
- b. Yes
- c. Yes

Q: Part 36 of the Draft Mitigation Measures states that "no in-water work is permitted between January 1st and June 30th". Part 1.5.1 of spec section 01 14 00 states that the in-water restriction is March 15 to June 30. Please clarify.

A: The in-water restriction is from March 15th to June 30th. The Jan 1st requirement was lifted by MNR for the section of the river below the falls at Hogs Back, thus moving the start date of the in-water restriction to March 15th. Any reference in the tender documents and reference documents regarding the in-water work restriction from Jan 1st to June 30th should be corrected to March 15th to June 30th.

Q: Spec section 01 22 01 lists 21 items to be priced in the Lump Sum. Should the tender form be revised to match the spec?

A: Tender form to be under 1 Lump Sum price and all unit prices. Once the contract is awarded, the Lump Sum will be split into 21 items for payment purposes as per Section 01 22 01.

Q: On drawing 002 it appears that the cofferdam extends across the dam on the downstream side of the dam. This downstream cofferdam is not shown on drawing 101? Is a downstream cofferdam required?

A: Drawing 002 shows the limit of the work and not the proposed cofferdams. Proposed Cofferdam layouts are shown on drawing 101. Cofferdam is to be designed by Contractor, therefore exact layout and requirements is to be proposed by Contractor. It is not believed that a downstream cofferdam is required, however it is a temporary work and remains the responsibility of the Contractor.

Q: Please confirm the demolition limits for Pier 2 Nosing. Currently the nosing sawcut limit travels from the footing up to and including the bearings at this location. Please confirm these limits of removal for Pier 2.

A: The demolition limits for Pier 2 nosing stop at the steel liner. See section A and B on drawings 209.

Q: Please provide dowel length and embedment depth for 25m dowels in the pier footing extensions.

A: The embedment length in the existing concrete is 600mm (Typ.) as per Drawing 210 Section A. The dowels shall be long enough in order to develop the full capacity of the bars in the new concrete.

Q: The estimated number of dowels item 9 of 1189ea does not match the work as described on the drawings. Dowels alone in the footings installed horizontally in pier footing 2, and footing Pier 5 are shown 25m at 300mm e/w... and since the footing is variable in depth we could have almost 600 dowels. 15 m Dowels for pier 5 refacing as well has a number of dowels to be install based on the area and spacing you will have over 1000 dowels to be install on pier 5.

As you can see my calculations are over 1600 dowels and I have not included anything on the west side. Please confirm dowel spacing and quantities for item 9.

A: We confirm that the estimated number of dowels for item 9 is 1185 dowels.

Q: Please confirm rock anchors for the pier footing extensions. The drawings show 3m rock anchors at 500mm e/w. Based on the footing areas for these two piers that works out to over 200 anchors. Pier 5 has additional rock anchors that are landing within the new facing of pier 5 (50each)and they will be going through the existing apron to reach the sound rock. As you can see the estimated value for item 8 rock anchor of 185 does not match the drawings. Please confirm quantity and spacing of these anchors.

A: We confirm the quantity specified in the bid documents (185). We also confirm the spacing for the rock anchors (500 mm c/c).

Q: I could not find details on the existing thickness of the retaining wall to be removed on the east side. Can you confirm that it will look like section F/4 sheet 4 on the original drawing set 1976?

A: Yes. Contractor shall also consider Section L-L on drawing 4715-6 of the 1933 as-built (page 2 of the reference document)

Q: I could not find a detail for the connection of the new east retaining wall to the old retaining wall..dowels? Expansion Joint?

A: Connection of the new east abutment to the existing structures is shown on drawing 212. The entire East retaining wall is to be replaced, therefore there is no connection to old retaining wall.

Q: Please confirm that item U6, U7, U8 & U9 should include the supply of associated dowels/rock anchors and not item U4.

A: Yes

Q: Is it possible to add the profile contour levels on drawing 101 in the water area where the cofferdam (approx. layout) is shown?

A: No

Q: Please provide:

- a. spacing and dowels size and embedment for dowels located in the west wing wall footings and also
- b. the dowel size and spacing that go into the existing stepped canal wall that stays at the west abutment detail U sheet 205.

- A: a. The dowels in the footing are not required
b. Refer to the section U on drawing 205. (20M Dowels Pattern 500x500 TYP.)

Q:

Can you please clarify where the quantity for concrete removal is coming from?

- Concrete Removal Quantity 1485 m³:

West Retaining Wall Removal= APPROX 20m³

$$8.2 * 3 * 0.74 = 18.2$$

- East Retaining Wall Removal = APPROX 350m³

- East Abutment Extension = APPROX 5m³

$$0.74 * 0.74 * 7.5 = 4.1\text{m}^3$$

We can only find approximately 375m³ to be removed and that is generous.

A: The revised estimated quantity is 300 m³.

Q: Is any concrete removals required at the sill as per detail 1/215? If yes, please clarify the quantity and advise if this is to be included in the Lump Sum or unit price 3?

A: The surface of the damaged concrete shall be roughened. See the detail 1 on revised drawing 215 attached to amendment. To be included in Unit Price 7.

Q: Are any as built drawings or details available for the existing southeast retaining wall to be removed?

A: Yes refer to Section L-L on drawing 4715-6 of the 1933 as-built (page 2 of document) and to section F/4 sheet 4 on the Hogs Back dam and fixed bridge - As built (1977)

Q: For item 12 Crack Injections, the specification calls for grout. Would it be acceptable to use polyurethane resins for active cracks and epoxy resins for passive cracks?

A: Yes, AECOM may accept use of resins and/or epoxy. Product to be used will depend on the opening of the crack. During execution, product sheets to be submitted for review.

Q: Part 1.5.3.1 of spec section 01 22 01 issued with Amendment No. 2 states "Only concrete removal for East Retaining Wall replacement and West Retaining Wall replacement will be measured for payment". Does this mean that the pier edge to be removed as per drawing 2019 & 201 is to be included in the Lump Sum? Is the wall to be demolished as per B/212 to be included in Unit Price 3 or the lump sum? Please check the quantity for Unit Price item 3, the quantity appears very high?

A: The revised estimated quantity is 300 m³

Q: With respect to the above mentioned project can you tell us what the projected water levels will be during drawdown on the upstream side of the dam?

A: Refer to item 1.15.10 to 1.15.13 of section 01 11 00- General Instructions

Q: Are any as built drawings or details available for the existing tie backs as shown drawing 214. The existing tiebacks will be in the way of the temporary earth retaining wall system as per drawing 214?

A: Details are shown on page 3 of the 1933 as-built attachement. The earth retaining system shall take into consideration the existing tiebacks which must stay in place.

Q: Just wanted to take a moment and see if our grout may proceed as acceptable for use here? I couldn't find via addendum response. If you can please let me know at your earliest convenience, it would be greatly appreciated.

A: Product review will not be done at this time. Grout should conform to specification and drawing requirements.

Q: Will this contract require a commercial diving services?

A: Cofferdam Design and Installation is a mean of construction under Contractor Responsibility. It is Contractor to decide if they need divers. If required, appropriate submittals and requirements are defined in the specifications concerning diving.

Revised August 23, 2018

APPENDIX 1 - COMBINED PRICE FORM

- 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.

LUMP SUM

The Lump Sum Amount designates Work to which a Lump Sum Arrangement applies.

- (a) Work included in the Lump Sum Amount represents all work not included in the unit price table.

LUMP SUM AMOUNT (LSA) Excluding applicable tax(s)

UNIT PRICE TABLE

The Unit Price Table designates 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.

Item	Specification Reference	Class of Labour, Plant or Material	Unit of Measurement	Estimated Quantity (EQ)	Price per Unit applicable tax(s) extra (PU)	Extended amount (EQ x PU) applicable tax(s) extra
1	01 22 01	Common Excavation	m ³	1000		
2	01 22 01	Backfilling	m ³	1000		
3	01 22 01	Concrete Removal	m ³	330		
4	01 22 01	Reinforcing Steel	kg	19650		
5	01 22 01	Cast-in-place concrete	m ³	670		
6	01 22 01	Concrete repair - Apron	m ²	410		
7	01 22 01	Concrete repair - Other	m ²	45		
8	01 22 01	Rock Anchors	Each	185		
9	01 22 01	Dowels	Each	1185		
10	01 22 01	Steel Liner	kg	1940		
11	01 22 01	Bored Concrete piles	m	40		
12	01 22 01	Crack Injection	m	65		
13	01 22 01	Asphalt Paving	m ²	65		
TOTAL EXTENDED AMOUNT (TEA) Excluding applicable tax(s)						

TOTAL BID AMOUNT (LSA + TEA) Excluding applicable tax(s)
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APPENDICE 1 - FORMULAIRE DE PRIX COMBINÉS

Révisé le 23 août 2018

- 1) Les prix unitaires seront retenus pour établir le montant total des prix calculés. Toute erreur arithmétique a cet appendice sera corrigé par le Canada.
- 2) Le Canada peut rejeter la soumission si quelconque des prix soumis ne tient pas fidèlement compte du coût de l'exécution de la partie des travaux à laquelle ce prix s'applique.

MONTANT FORFAITAIRE

Le montant forfaitaire désigne la partie des travaux qui est assujettie à un arrangement à prix forfaitaire.

- (a) Les travaux inclus dans le montant forfaitaire représentent tous les travaux qui ne sont pas inclus dans le tableau des prix unitaires.

MONTANT FORFAITAIRE (MF) Excluant les taxe(s) applicables	
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TABLEAU DES PRIX UNITAIRES

Le tableau des prix unitaires désigne la partie des travaux qui est assujettie à un arrangement à prix unitaires.

- a) Les travaux faisant partie de chaque article sont tels que décrits aux sections du devis en référence.
b) Le prix unitaire ne doit pas inclure de montants pour des travaux qui ne sont pas inclus aux articles de prix unitaires.

Article	Référence au devis	Catégorie de main-d'œuvre, outillage ou matériaux	Unité de mesure	Quantité Estimative (QE)	Prix unitaire (PU) Excluant les taxe(s) applicables	Prix calculé (QE x PU) Excluant les taxe(s) applicables
1		Excavation commune	m3	1000		
2		Remblayage	m3	1000		
3		Enlèvement de béton	m3	330		
4		Acier d'armature	kg	19650		
5		Béton coulé sur place	m3	670		
6		Réparations du béton - radier	m²	410		
7		Réparations du béton - autre	m²	45		
8		Ancrages au roc	Chaque	185		
9		Goujons	Chaque	1185		
10		Plaques de blindage	kg	1940		
11		Pieux en béton forés	m	40		
12		Injection de fissure	m	65		
13		Revêtement de chaussée bitumin	m²	65		
TOTAL DES PRIX CALCULÉS (TPC) Excluant les taxes applicable(s)						

Solicitation No. - N° de l'invitation
EQ754-190954/A

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur
PWL003

Client Ref. No. - N° de réf. du client
R.079166.009

File No. - N° du dossier
PWL-8-41044

CCC No./N° CCC - FMS No./N° VME

MONTANT TOTAL DE LA SOUMISSION (MF +TPC)

Excluant les taxes applicable(s)