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REVISION 002 TO A INVITATION TO TENDER

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

Issuing Office:

Parks Canada Agency National Contracting Services Quebec City, QC

	2021-12-17
Amendment No.: 002	
Client Reference No.: 2154	
GETS Reference No.: PW-21-00976861	
Solicitation Closes: At: 2:00 PM On: 2022-01-11	Time Zone: EST – HNE
F.O.B.: Plant: □ Destination: ⊠	Other: □
Address Enquiries to: Pierre-Alexandre Simard	
Telephone No.: (819) 665-9674	Fax No.: 1-877-558-2349
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Destination of Goods, Servio See Herein – Voir aux présent	
TO BE COMPLETED BY THE	BIDDER
Vendor/ Firm Name:	
Address:	
Telephone No.:	Fax No.:
Name of person authorized t Firm (type or print):	to sign on behalf of the Vendor











Client Reference No.:

Replacement of Lower Brewers Swing Bridge, Rideau Canal National Historic Site

Amendment 002

This amendment is raised to:

- a. Extend the tender period;
- b. Provide clarification bids evaluation;
- c. Distribute answers from questions we received.

a. Extend the Tender Period

The closing date for solicitation 5P468-21-0068/A, titled "Replacement of Lower Brewers Swing Bridge, Rideau Canal National Historic Site", is extended from December 22, 2021 until January 11, 2022.

If you have already submitted your proposal, you are invited to send us your revisions, where necessary, by email at the following address: soumissionsami-bidsrpc@pc.gc.ca, or by fax at 1-877-558-2349. Please indicate the solicitation number on all correspondence.

b. Provide clarification bids evaluation

The reference to "professional resume" and other references to "resume" are part of the general description. Resumes are not required, but may be included with Submission 1 as supporting documents. We only ask that the M1 to M4 forms be completed with the required experience and relevant information.

c. Questions and Answers

- Q1. Can the contractor operate the Lock Gates?
- A1. No the contractor will not be authorized to operate lock gates or any other asset other than the one under construction. Parks Canada Staff can be requested to operate the lock gates as needed.
- **Q2**. As per part 2.1.1. of spec section 06 05 73 'All wood used for the Pedestrian Railing (SPF)' Part 2.1.3 of spec section 06 10 11 states 'Wood for the pedestrian railing shall be Douglas Fir Grade SS'. Please clarify if Wood for the pedestrian railing is SPF or Douglas Fir.
- A2. To clarify, wood for the pedestrian railing is to be Douglas Fir Grade SS.

WOOD TREATMENT Section 06 05 73, page 3 of 5, sub-section 2.1.1 MATERIALS fifth sentence

The first part of the fifth sentence is deleted: "All wood used for the Pedestrian Railing (SPF)...."

And replaced with: "All wood used for the Pedestrian Railing (Douglas Fir)..."

Q3. From drawing S16 it appears that there are 15 stringers 178x356. Is there a requirement that each of these 15 pieces be a single piece of wood (approximately 6.8m to 7.2m long)? Or is there a minimum length per pieces.

- A3. The lengths of the stringers shall be as shown on the contract drawings (to the edges of the floor beams and/or to the web of the end beams). The reason being that they are pinned and contained at the pivot beam and east end beam respectively.
- **Q4**. Section C & D of drawing S16 show the single and double 305x457 on both sides of the superstructure. Is there a minimum length for individual pieces of 305x457 for these locations?
- A4. The lengths of the Exterior Girders (single and double) shall be as shown on the contract drawings and please note the splice in the top piece of the composite girder and where it is located relative to the pivot as shown in Elevation view A on S16.
- **Q5.** Per part 3.4.4 of spec section 06 10 11 'the existing west end member is composed of two transverse 406 x 457 wood beams stacked on top of each other. The façade panels should be fabricated in a way that visually mimics the original transverse beams'. Drawing S19 shows the end members as 472 high. Please confirm the wood member size.
- **A5**. The intent of the requirement to "visually mimic" the existing West End Beam is to have a similar transverse joint and to have the visible wood grain be continuous from panel to panel, however the dimensions are as shown with the intent to cover the steel beam. The timber that will be cut to create the façade shall be as shown on the contract drawings for bidding purposes and may require slight modification once the shop drawings for the West End Beam and the timber have been generated. The façade dimensions are not to match the dimensions of the existing timbers.
- **Q6**. Are drawings of the existing structure available?
- A6. Yes and will be posted as an attachment.
- **Q7**. Per part 3.4.5 of spec section 06 10 11 'The existing east end member is composed of one transverse 356 x 406 wood beam. The façade panels should be fabricated in a way that visually mimics the original transverse beam'. Drawing S21 appears 19 shows the end members as 542 high x 470 wide. Please confirm the wood member size.
- **A7**. The intent of the requirement to "visually mimic" the existing East End Beam is to have a similar transverse joint and to have the visible wood grain be continuous, however the dimensions are as shown with the intent to cover the steel beam. The timber that will be cut to create the façade shall be as shown on the contract drawings for bidding purposes and may require slight modification once the shop drawings for the East End Beam and the timber have been generated. The façade dimensions are not to match the dimensions of the existing timbers.
- Q8. Detail 4/S22 states 4x4 top rail. Should this be 4x2?
- **A8**. No, Detail 4/S22 should be a 4x4 top rail. Upon further review of drawing S22, the following changes should be noted with respect to the supply of the wood:

-the wood size references i.e. "4x4" are intended to be "nominal" full dressed dimensions as the railings, hand rails, and posts will be used by PCA personnel and the public with the following two exceptions;

-the stair stringers are to be cut to the dimensions shown on drawing S22 however they are to receive the full rough sawn finish;

-the stair treads are also to be cut to the dimensions shown on drawing S22 however they are to receive

the full rough sawn finish.

- **Q9**. Part 1.6.1.36 of spec section 01 11 22 makes reference to New Mature Trees. Are new trees part of the works? If yes, please provide more info.
- **A9**. There are no new trees as part of the works on this project.

MEASUREMENT FOR PAYMENT Section 01 11 22, page 3 of 5, sub-section 1.6.1 MEASUREMENT AND PAYMENT PROCEDURES

The following sentence is deleted: ".36 New Mature Trees"

- **Q10.** As per part 1.4.1.5 of spec section 01 32 16.07 significant substructure works must be completed by May 2, 2022. Assuming award in mid Jan 2022, allowing 20 days for EMP, mobilization to site will be about mid Feb 2022. This does not give enough time to complete demolition, excavation, backfill, micropiles and concrete work by May 2, 2022. The May 2, 2022 date will need to be extended.
- A10. The construction season shutdown and operating season have been amended (see response to question 10) to provide more time for construction. For clarification, subsection 1.4.5 of Section 01 32 16.07 that provides a bullet point list of the works that need to be completed are all under the preface of "Work that could cause impediment to navigational traffic in the canal and/or to users of the site..." The expectation is that the only concrete pour that could cause impediment to navigational traffic is the pouring of the East Abutment Footing which overlaps the existing canal wall.
- **Q11.** Part 1.4.1.5 of spec section 01 32 16.07 states 'It is possible that some construction activities that do not affect both the navigation and the public use of site may run into the operating season.' and 'No construction activities shall occur from May 2nd, 2022 to September 6th, 2022. During this time the Contractor shall demobilize from the site'. Please confirm if 'some construction activities that do not affect both the navigation and the public use of site may run into the operating season'.

A11. CONSTRUCTION PROGRESS SCHEDULE Section 01 32 16, page 2 and 3 of 5 Sub-section 1.4 PROJECT MILESTONES

The following sentences are deleted:

- .1 Project milestones forming interim targets for Project Schedule are to be as follows:
 - .1 Within 5 days of award, schedule the pre-construction meeting and submit work schedule for review.
 - .2 Submit EMP and mobilize within 20 working days of Award.
 - .3 OPERATING SEASON- The 2021 hours of operation for the Rideau Canal lockstations can be found at the following link: <u>https://www.pc.gc.ca/en/lhn-nhs/on/rideau/visit/heures-hours</u>. It is assumed that the schedule will have a similar relationship to the two holidays at the start and end and that the operation hours will be the same. The contractor is responsible for checking with Parks Canada for the most up to date information pertaining to the 2022 operating season prior to submission of the work schedule.
 - .4 CONSTRUCTION SEASON SHUTDOWN- It is of critical importance that the Work of this contract does not impede navigation or the operation of the canal during the operating season. It is possible that some construction activities that do not affect both the navigation and the public use of site may run into the operating season. No construction activities shall occur from May 2nd, 2022 to September 6th, 2022. During this time the Contractor shall demobilize from the site and

may choose to store equipment and/or materials in the east parking lot as shown on the contract drawings.

- .5 Work that may cause impediment to navigational traffic in the canal and/or to users of the site shall be completed by May 2nd, 2022, including the following:
 - .1 All excavation for concrete placement.
 - .2 All concrete work, except for casting the top of the ballast walls on both abutments. The top of the ballast walls on both abutments should not be cast prior to the shutdown as the swing bridge will need to be in place to determine the final elevation of the deck after balancing, which will determine the final elevation of the top of the ballast walls.
 - .3 All work that precedes the placement of the swing bridge on the pivot pier.
 - .4 All work required to complete the concrete sidewalk and restore access to the public washroom on the west side of the lock station blockhouse.
- .6 All excavations shall be backfilled, and the landscaping reinstated as outlined elsewhere in the contract documents prior to the start of the construction shutdown on May 2nd, 2022 to secure the site and allow full operation of the canal without hazards or accommodations.
- .7 Once the construction shutdown is over the execution of all remaining works shall not impede navigational traffic in the canal in any way for the remainder of the operating season. However, swinging the superstructure for commissioning/balancing purposes between boat traffic after September 6th, 2022 may be acceptable provided no interference occurs and there is a contingency plan to clear the canal should the bridge not function. and could be planned for accordingly.
- .8 Swing Bridge operating, open to roadway traffic, and commissioning complete by December 2nd, 2022.

And replaced with:

- .1 Project milestones forming interim targets for Project Schedule are to be as follows:
 - .1 Within 5 days of award, schedule the pre-construction meeting and submit work schedule for review.
 - .2 Submit EMP and mobilize within 20 working days of Award.
 - .3 OPERATING SEASON- The 2021 hours of operation for the Rideau Canal lockstations can be found at the following link: https://www.pc.gc.ca/en/lhn-nhs/on/rideau/visit/heures-hours. It is assumed that the schedule will have a similar relationship to the two holidays at the start and end and that the operation hours will be the same. The contractor is responsible for checking with Parks Canada for the most up to date information pertaining to the 2022 operating season prior to submission of the work schedule. The contractor shall provide construction fencing and temporary walkways (where necessary) to accommodate public use of the site. All temporary fencing and walkways are to be installed and ready for public use prior to the beginning of the operating season and shall be maintained by the contractor for the duration of the operating season. The temporary fencing and walkways shall be installed at the following locations:

-At the west side of the bridge, access shall be provided and maintained to the public washroom;

-At the east side of the bridge at the ends of the wingwalls, the fencing/walkway will extend from south to north (perpendicular to the roadway) from landscaped area to landscaped area effectively separating the construction area.

The temporary fencing and ramp access to the public washroom may not be necessary if work in that area has not started prior to the Construction Season Shutdown.

Solicitation No.:	Amendment No.:	Contracting Authority:	Ver.02.08.21
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- .4 CONSTRUCTION SEASON SHUTDOWN- It is of critical importance that the Work of this contract does not impede navigation or the operation of the canal during the operating season. No construction activities shall occur from June 23rd, 2022 to September 6th, 2022. During the construction season shut down the contractor will still be responsible for maintaining any temporary fencing and walkways that have been installed to accommodate public use of the site. The Contractor shall demobilize from the site and may choose to store equipment and/or materials in the east parking lot as shown on the contract drawings for the duration of the shutdown.
- .5 Work that may cause impediment to navigational traffic in the canal and/or to users of the site shall be completed by June 23rd, 2022, including the following:
 - .1 All excavation for concrete placement.
 - .2 All concrete work, except for casting the top of the ballast walls on both abutments. The top of the ballast walls on both abutments should not be cast prior to the shutdown as the swing bridge will need to be in place to determine the final elevation of the deck after balancing, which will determine the final elevation of the top of the ballast walls.
 - .3 All work that precedes the placement of the swing bridge on the pivot pier.
 - .4 All work required to complete the concrete sidewalk and restore access to the public washroom on the west side of the lock station blockhouse.
- .6 All excavations shall be backfilled, and the landscaping reinstated as outlined elsewhere in the contract documents prior to the start of the construction shutdown on June 23rd, 2022 to secure the site and allow full operation of the canal without hazards or accommodations.
- .7 Once the construction shutdown is over the execution of all remaining works shall not impede navigational traffic in the canal in any way for the remainder of the operating season. However, swinging the superstructure for commissioning/balancing purposes between boat traffic after September 6th, 2022 may be acceptable provided no interference occurs and there is a contingency plan to clear the canal should the bridge not function, and could be planned for accordingly.
- .8 Swing Bridge operating, open to roadway traffic, and commissioning complete by December 2nd, 2022.
- **Q12**. Are there specs for the metal railing at the abutments as shown on drawing S8 and S11. Are these railings galvanised and coated?
- A12. The steel railing at the abutments and on the west retaining wall as shown on drawings S8, S11, and S12 are to be Grade A, Type S railing manufactured in accordance with ASTM A53/A53M 20 Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless. These railings are to be coated (black). The steel plates used to connect the pipe to the concrete shall be per G40.20-13/G40.21-13 and Grade 300W is acceptable however if for ease of ordering and if the cost is relatively the same the superior Grade 350WT is also acceptable though not necessary for this particular application.

On Drawing S12 Detail Steel Railing To Concrete Post Connection the horizontal (interior pipe) shall be 38mm nominal dia. Schedule 80 where it is currently shown as 50mm dia. and schedule 160. Similarly the "sleeve" that connects to the plate is currently labeled as schedule 80 where it should be schedule 160. The intent with the varying thicknesses is to minimize the gap between the connecting pieces and the pipe rail itself.

- Q13. On the price form the Specification Reference for Item 17 is 03 30 00. Should this be 32 17 23?
- A13. Yes.
- **Q14.** Please provide a spec for the injection hose and associated injection grout, for the detail 2/S8 and 3/S12 steel nosing angles.

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- **A14**. The injection hose and associated injection grout to be used in the armoring angles are listed in the Provincial Designated Sources for Materials List DSM 9.40.18 and the injection grout should be epoxy vs. cementitious. The intent will be to place the concrete in the upper portion of the ballast wall once the swing bridge has been balanced and at its "final" location. The intent with including the injection hose is as a contingency should there be voids/gaps under the armoring angles. If after the ballast is poured, the angle is sound, the injection hoses will not be used.
- Q15. All dimensions listed are that of full dimension, rough-sawn lumber. Dressed dimensions come down to nominal sizes, generally ½" undersize. Eg: 12x12 rough sawn will dress down to 11-1/2" x 11-1/2". Therefore, if a dressed/planed surface is required, we would have to order the next size up timber (14" x 14") and dress it down turning 2" of timber to sawdust, just to achieve an actual 12" x 12" dressed size. Once the lumber is incised, the surface becomes roughened again as well. These bridges are generally supplied in rough-sawn/full sawn timber, incised and pressure-treated. For the lumber shown on the drawings please clarify wood dimensions provided are rough/full sawn or dressed down / dressed four sides (D4S) and clarify which lumber is D4S.
- A15. ROUGH CARPENTRY Section 06 10 11, page 3 of 6, sub-section 2.1.6 MATERIALS

The following sentence is deleted: "All sizes of sawn wood are dressed finished sizes not nominal sizes."

And replaced with:

"All sizes of sawn wood are full rough sawn sizes unless noted otherwise."

The intent being that the timber to be installed on the bridge will have the cross-sectional dimensions (within tolerance) of that shown on the contract drawings. An exception to this is the pedestrian railing on the bridge which is shown to be to nominal dimensions per the 1984 design and to be smooth for public use. The intent for the railing is to match the sizes/appearance of the current railing that is on the existing bridge and the contractor will be responsible for confirming these dimensions in the field prior to ordering.

- **Q16.** We also wanted to check on the pedestrian railing as well for the same reasons. However, we understand that a railing that is rough-sawn may cause splinters. Sizes stated are full-sawn, but if we D4S they will be nominal, so we wanted to clarify the finish here as well.
- A16. The pedestrian railing shall be to the nominal dimensions (dressed). The intent for the railing is to match the sizes/appearance of the current railing that is on the existing bridge and the contractor will be responsible for confirming these dimensions in the field prior to ordering.
- **Q17**. Part 2.1.1 of spec section 06 05 73 states that 'All wood used for the Pedestrian Railing (SPF)' Can the Pedestrian Railing be Douglas instead of SPF?
- A17. To clarify, wood for the pedestrian railing is to be Douglas Fir Grade SS. WOOD TREATMENT Section 06 05 73, page 3 of 5, sub-section 2.1.1 MATERIALS fifth sentence

The first part of the fifth sentence is deleted: "All wood used for the Pedestrian Railing (SPF)...."

And replaced with: "All wood used for the Pedestrian Railing (Douglas Fir)..."

Prospective bidders should note the following specification reference when obtaining quotes for the wood supply:

WOOD TREATMENT Section 06 05 73, Sub-section 3 EXECUTION, 3.1 SHOP FABRICATION

.1 "Cutting, framing, drilling, and grooving of wood shall be performed prior to Preservative treatment. Field-cutting and drilling of treated dimensional lumber shall only be permitted where absolutely necessary. If field-modification of treated wood is required, written notification shall be submitted to the Departmental Representative identifying the location, detail, and a field treatment plan. Preservative Treated Wood shall be marked with an end tag to certify that it has been treated to the applicable CSA treatment standard. The end tag should show the preservative used, the use category, the product group and a plant identification number."

- **Q18.** Will Parks Canada please make As-Built Drawings or existing drawings for the Lower Brewers Mills Swing Bridge available to Contractors?
- A18. Yes.
- **Q19.** Please indicate the physical locations of the Hydraulic Equipment (Pumps, Cylinders etc) to allow Contractors to estimate the required length of piping or hose that will be required.
- **A19.** The lift mechanism is contained within the West End Beam, please refer to the mechanical drawings (M01-M14) for more information. If you have questions regarding the location of equipment, please provide specific drawing/section references. For clarification, the intent of the design is to provide PCA with a swing bridge that is moveable "by hand" through the use of a crank/hydraulic pump lift mechanism.
- Q20. If work is able to progress without impediment to navigational traffic in the canal, would Parks Canada allow Contractors to continue working through the May 2nd September 6th Construction Shutdown? As work is reasonably not able to start until February 2022, we have concerns with the schedule as currently laid out if Contractors are unable to work through the Construction Shutdown. Please advise.
- A20. Please see responses to Q&A's number 10 and 11.

ALL OTHER TERMS & CONDITIONS REMAIN UNCHANGED