Public Works and Government Services Canada | Travaux publics et Services gouvernementaux Canada

RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des soumissions - TPSGC
11 Laurier St./11 rue Laurier
Place du Portage, Phase III
Core 0B2 / Noyau 0B2
Gatineau, Québec K1A 0S5

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
This document contains a security requirement.

Issuing Office - Bureau de distribution
Construction Services Division/Division des services de construction
11 Laurier St./11 Rue Laurier
3C2, Place du Portage
Phase III
Gatineau, Québec K1A 0S5

Title - Sujet Site Services Reconstruction CANMET	
Solicitation No. - N° de l'invitation EJ192-173395/A	**Amendment No. - N° modif.** 001
Client Reference No. - N° de référence du client 20173395	**Date** 2017-07-27
GETS Reference No. - N° de référence de SEAG PW-$$FG-360-73093	
File No. - N° de dossier fg360.EJ192-173395	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2017-08-10**	**Time Zone** **Fuseau horaire** Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. **Plant-Usine:** ☐ **Destination:** ☑ **Other-Autre:** ☐	
Address Enquiries to: - Adresser toutes questions à: Simard, Jean-Pierre	**Buyer Id - Id de l'acheteur** fg360
Telephone No. - N° de téléphone (819) 420-1796 ( )	**FAX No. - N° de FAX** ( ) -
Destination - of Goods, Services, and Construction: **Destination - des biens, services et construction:**	

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

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**

Canada

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
EJ192-173395/A	001	FG 360
Client Ref. No. - N° de réf. du client	**File No. - N° du dossier**	**CCC No./N° CCC - FMS No./N° VME**
20173395	FG360 EJ192-173395/A	R.078445.006

Amendment 001 is issued for the following reason:

- To answer questions from bidders (Q&A); and
- To issue Addendum No. 1 attached hereto.

Q1. Can you please provide an approximate award date for this project so that we calculate how much work will be "winter work"?

A1. If a contract is awarded as a result of this solicitation, it will probably be within 2 weeks after the closing date of the solicitation.

Q2. Can sewer work be completed during the winter months?

A2. Bid as per Plans and Specifications, refer to section 01 00 10, articles 1.25.1, 1.25.2 and 1.25.3.

Q3. Are CAD files available for this project so that we can do quantity take-offs?

A3. No, CAD files are not available. Please use the PDF versions.

Q4. Can you please provide a list of the contractors who attended the site meeting?

A4. There are no list of attendance for the site visit. Please note that a list of Interested Supplier is available when on the solicitation webpage on buyandsell.gc.ca.

Q5. We have concerns about the first completion time given of 16 weeks to complete the pump station due to the long lead time of the pumps and the time it would take to finish the cast-in-place concrete building (which will be done in mostly winter conditions). Is it possible for that date to be pushed back?

A5. Bid as per Plans and Specifications, refer to section 01 00 10, article 1.25.1.

ALL OTHER TERMS AND CONDITIONS REMAIN UNCHANGED

ADDENDUM No. 1

Project Number: R.078445.006

The following changes in the bid documents are effective immediately. This addendum will form part of the contract documents.

DRAWINGS

1 01 Civil

.1 **Delete drawings:** C-3, C-4, C-5, C-10, C-12 and C-13.
Replace with drawings: C-3R, C-4R, C-5R, C-10R, C-12R and C-13R.

SPECIFICATIONS

1 Division 22 – Plumbing

.1 **Add Section:** 22 11 16 – Domestic Water Piping

2 Division 23 – HVAC

.1 **Add Section:** 23 05 17 – Pipe Welding

END OF ADDENDUM No. 1

1 GENERAL

1.01 RELATED REQUIREMENTS

.1 Section 22 11 23 - Domestic Water Packaged Booster Pumps

.2 Section 23 05 17 - Pipe Welding

1.02 REFERENCE STANDARDS

.1 American Society of Mechanical Engineers International (ASME)
  .1 ASME B36.19M-04, Stainless Steel Pipe.

.2 ASTM International
  .1 ASTM A 182/A 182M-16, Standard Specification for Forged or Rolled Alloy and Stainless Steel Pipe Flanges, Forged Fittings, and Valves and Parts for High-Temperature Service.
  .2 ASTM A 269-[15a], Standard Specification for Seamless and Welded Austenitic Stainless Steel Tubing for General Service.
  .3 ASTM A 312/A 312M-[16], Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes.
  .4 ASTM A 351/A 351M-[16], Castings, Austenitic, for Pressure Containing Parts.
  .5 ASTM A 403/A 403M-[16], Wrought Austenitic Stainless Steel Piping Fittings.

.3 American National Standards Institute/American Water Works Association (ANSI)/(AWWA)
  .1 ANSI/AWWA C111/A21.11-[12], Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
  .2 ANSI/AWWA C206-[03], Field Welding of Steel Water Pipe.

.4 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  .1 Material Safety Data Sheets (MSDS).

.5 Manufacturer's Standardization Society of the Valve and Fittings Industry (MSS).
  .1 MSS-SP-67-[02a], Butterfly Valves.
  .2 MSS-SP-70-[06], Grey Iron Gate Valves, Flanged and Threaded Ends.
  .3 MSS-SP-71-[05], Grey Iron Swing Check Valves, Flanged and Threaded Ends.

.6 National Research Council (NRC)
  .1 National Plumbing Code of Canada (NPC) 2015.

.7 Transport Canada (TC)
  .1 Transportation of Dangerous Goods Act, 1992, c. 34 (TDGA).

1.03 ACTION AND INFORMATIONAL SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

.2 Product Data
  .1 Provide manufacturer's printed product literature and datasheets for insulation and adhesives, and include product characteristics,

performance criteria, physical size, finish and limitations.

.3 Closeout Submittals:
.1 Provide maintenance data for incorporation into manual specified in Section 01 78 00 - Closeout Submittals.

1.04 DELIVERY, STORAGE AND HANDLING

.1 Packaging Waste Management: remove for reuse and return packaging materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal.

.2 Place materials defined as hazardous or toxic in designated containers.

.3 Handle and dispose of hazardous materials in accordance with Regional and Municipal regulations.

2 PRODUCTS

2.01 PIPING

.1 Domestic cold water piping, within building/pump station and transition to site water distribution system:
.1 Stainless Steel, Type: 304L, Schedule: 40 to ASTM A312

.2 Shop fabricated stainless steel piping shall be used for the incoming water service inside the building/pump station.

.3 Qualifications: All shop fabricated stainless steel pipe and fittings shall be furnished by a single fabricator of stainless steel piping. The pipe and fittings shall be shop fabricated and field installed in accordance with common industry wide practices and methods and shall comply with these specifications.

.4 Pipes and Fittings, 75mm diameter and larger. Pipes shall be manufactured from ASTM-A240 annealed and pickled sheets and plates in accordance with ASTM A778 in Grade TP 304L. Pipe shall be manufactured to nominal pipe sizes as listed in ANSI B36.19, Table 2, and shall be Schedule 40.

2.02 FITTINGS

.1 Fittings shall be butt weld type manufactured in accordance with ASTM-A-774 of the same grade (alloy) and in the same thickness as the pipe. Long radius elbows up to 250mm diameter shall be smooth flow type. All short radius, special radius, and reducing elbows; and long radius elbows greater than 250mm diameter shall be of mitered construction with at least (5) miter sections for 90 degree bends, (3) mitered sections for 45 and 60 degree bends, and (2) mitered sections for 30 degree and smaller bends. Reducers may be straight tapered, cone type. Tees, crosses, laterals and wyes may be shop fabricated from the specified pipe.

.2 The finish on the raw material, manufactured to ASTM A-240 will be No. 1, HRAP (hot rolled annealed and pickled) or better. The finish on the completed pipe and fittings shall be as specified in ASTM A778 and A774, respectively.

.3 Flanged pipe ends shall be made up of grade TP 304L stainless steel slip-over type rolled angle face rings and hot dipped galvanized steel or ductile iron backing flanges drilled to ANSI 16.1 class 125 standard.

2.03 JOINTS

.1 Flanges shall be provided as a minimum at all flanged valves, meters, couplings, and other equipment. Couplings will be provided only where shown on the drawings.

3 EXECUTION

3.01 APPLICATION

.1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.02 STAINLESS STEEL PIPES FABRICATION

.1 After the manufacture of individual stainless steel fittings and pipe lengths, they shall be pickled by immersion in a tank containing an ambient nitric hydrofluoric acid solution made up from Oakite Deoxidizer SS, or equal, and monitored to generally maintain a 25% or higher solution by volume of water. The duration of immersion shall be 15 to 20 minutes and may be supplemented by manually scrubbing or brushing with nonmetallic pads or stainless steel wire brushes. The acid treatment shall be followed by immersion in a rinse water tank, followed if necessary by a spray rinse. The stainless steel products shall then be allowed to air dry to achieve passivation

.2 Welding of pipe spools shall be performed using welders and procedures qualified in accordance with ASME Section IX. Heavier walls shall be beveled according to procedure, root pass welded with the TIG (GTAW), and have subsequent weld passes performed using the TIG (GTAW), MIG (GMAW), or Metallic Arc (SMAW) process. Filler metal of equal or superior ELC grades only shall be added to all welds to provide a cross section at the weld equal to or greater than the parent metal. Weld deposit shall be smooth and evenly distributed.

.3 After shop fabrication into pipe spools, exterior welds shall be manually scrubbed or brushed with non metallic pads or stainless steel wire brushes to remove weld discoloration, rinsed with clean water and allowed to air dry. All fabricated piping shall have openings plugged and flanges secured for storage and/or transport after fabrication. All fabricated piping shall be piece marked with identifying numbers or codes which correspond to the contractors layout and installation drawings. The marks will be located on the spools at opposite ends and 180 degrees apart.

3.03 INSTALLATION

.1 Install in accordance with National Plumbing Code of Canada 2015 and local authority having jurisdiction.

.2 Install pipe work in accordance with Section 23 05 05 - Installation of Pipework and section 33 11 16 – Site Water Utility Distribution Piping, supplemented

as specified herein.

.3 Assemble piping using fittings manufactured to ANSI and Standard Council of Canada (SCC) standards.

.4 Connect to fixtures and equipment in accordance with manufacturer's written instructions unless otherwise indicated.

3.04 PRESSURE TESTS

.1 Conform to requirements of Section 21 05 01 - Common Work Results for Mechanical.

.2 Test pressure: greater of 1 time maximum system operating pressure or 860 kPa.

3.05 FLUSHING AND CLEANING

.1 Flush entire system for 8 h. Ensure outlets flushed for 2 hours. Let stand for 24 hours, then draw one sample off longest run. Submit to testing laboratory to verify that the system is clean to City of Ottawa potable water standards and guidelines. Let system flush for additional 2 hours, then draw off another sample for testing.

3.06 PRE-START-UP INSPECTIONS

.1 Systems to be complete, prior to flushing, testing and start-up.

.2 Verify that system can be completely drained.

.3 Ensure that pressure booster systems are operating properly.

.4 Ensure that air chambers, expansion compensators are installed properly.

3.07 DISINFECTION

.1 Flush out, disinfect and rinse system to requirements of authority having jurisdiction and to the approval of the Departmental Representative.

.2 Coordinate with Section 33 11 16 - Site Water Utility Distribution Piping.

.3 Upon completion, provide laboratory test reports on water quality for the Departmental Representative’s approval.

3.08 PERFORMANCE VERIFICATION

.1 Scheduling:

.1 Verify system performance after pressure and leakage tests and disinfection are completed, and Certificate of Completion has been issued by authority having jurisdiction.

.2 Procedures:

.1 Verify that flow rate and pressure meet Design Criteria.

.2 Verify compliance with safety and health requirements.

.3 Check for proper operation of water hammer arrestors. Run one outlet for 10 seconds, then shut of water immediately. If water hammer occurs, replace water hammer arrestor or re-charge air chambers. Repeat for outlets and flush valves.

.4 Confirm water quality consistent with supply standards, and ensure no residuals remain as result of flushing or cleaning.

.3 Reports:

.1 In accordance with Section 01 91 13 - General Commissioning (Cx) Requirements: Reports, using report forms as specified in Section 01 91 13 - General Commissioning (Cx) Requirements: Report Forms and Schematics.

.2 Include certificate of water flow and pressure tests conducted on incoming water service, demonstrating adequacy of flow and pressure.

3.09 OPERATION REQUIREMENTS

.1 Co-ordinate operation and maintenance requirements including, cleaning and maintenance of specified materials and products with Section 23 05 05 - Installation of Pipework.

3.10 CLEANING

.1 Clean in accordance with Section 01 74 11 - Cleaning.

END OF SECTION

1 GENERAL

1.01 RELATED REQUIREMENTS

.1 Section 22 11 16 - Domestic Water Piping

.2 Section 22 11 23 - Domestic Water Packaged Booster Pumps

1.02 REFERENCE STANDARDS

.1 American National Standards Institute/American Society of Mechanical Engineers (ANSI/ASME)
- .2 ANSI/ASME B31.3-2006, Process Piping.
- .3 ANSI/ASME Boiler and Pressure Vessel Code-2007:
  - .1 BPVC 2007 Section I: Power Boilers.
  - .2 BPVC 2007 Section V: Nondestructive Examination.
  - .3 BPVC 2007 Section IX: Welding and Brazing Qualifications.

.2 American National Standards Institute/American Water Works Association (ANSI/AWWA)
- .1 ANSI/AWWA C206-[03], Field Welding of Steel Water Pipe.

.3 American Welding Society (AWS)
- .1 AWS C1.1M/C1.1-2000(R2006), Recommended Practices for Resistance Welding.
- .2 AWS Z49.1-2005, Safety in Welding, Cutting and Allied Process.
- .3 AWS W1-2000, Welding Inspection Handbook.

.4 Canadian Standards Association (CSA International)
- .1 CSA W47.2-M1987(R2009), Certification of Companies for Fusion Welding of Aluminum.
- .2 CSA W48-06, Filler Metals and Allied Materials for Metal Arc Welding.
- .3 CSA B51-03(R2009), Boiler, Pressure Vessel and Pressure Piping Code.
- .4 CSA-W117.2-2006, Safety in Welding, Cutting and Allied Processes.
- .5 CSA W178.1-2008, Certification of Welding Inspection Organizations.
- .6 CSA W178.2-2008, Certification of Welding Inspectors.

1.03 ACTION AND INFORMATIONAL SUBMITTALS

.1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.04 QUALITY ASSURANCE

.1 Qualifications:
- .1 Welders:
  - .1 Welding qualifications in accordance with CSA B51.
  - .2 Use qualified and licensed welders possessing certificate for each procedure performed from authority having jurisdiction.
  - .3 Submit welder's qualifications to Departmental Representative.
  - .4 Each welder to possess identification symbol issued by authority having jurisdiction.
  - .5 Certification of companies for fusion welding of aluminum in

accordance with CSA W47.2.

.2 Inspectors:

.1 Inspectors qualified to CSA W178.2.

2 PRODUCTS

2.02 ELECTRODES

.1 Electrodes: in accordance with CSA W48 Series.

3 EXECUTION

3.01 APPLICATION

.1 Manufacturer's Instructions: comply with manufacturer's written recommendations, including product technical bulletins, handling, storage and installation instructions, and datasheets.

3.02 QUALITY OF WORK

.1 Welding: in accordance with ANSI/ASME B31.1, ANSI/ASME Boiler and Pressure Vessel Code, Sections I and IX and ANSI/AWWA C206, using procedures conforming to AWS B3.0, AWS C1.1, and applicable requirements of provincial authority having jurisdiction.

3.03 INSTALLATION REQUIREMENTS

.1 Identify each weld with welder's identification symbol.

.2 Backing rings:

.1 Where used, fit to minimize gaps between ring and pipe bore.

.2 Do not install at orifice flanges.

.3 Fittings:

.1 NPS 2 and smaller: install welding type sockets.

.2 Branch connections: install welding tees or forged branch outlet fittings.

3.04 INSPECTION AND TESTS - GENERAL REQUIREMENTS

.1 Review weld quality requirements and defect limits of applicable codes and standards with Departmental Representative before work is started.

.2 Formulate "Inspection and Test Plan" in co-operation with Departmental Representative.

.3 Do not conceal welds until they have been inspected, tested and approved by inspector.

.4 Provide for inspector to visually inspect welds during early stages of welding procedures in accordance with Welding Inspection Handbook. Repair or replace defects as required by codes and as specified.

3.05 SPECIALIST EXAMINATIONS AND TESTS

.1 General:

.1 Perform examinations and tests by specialist qualified to CSA W178.1 and CSA W178.2 and approved by Departmental Representative.

.3 Inspect and test 25 % of welds in accordance with "Inspection and Test Plan" by non-destructive visual examination.

.2 Hydrostatically test welds to ANSI/ASME B31.1.

.3 Visual examinations: include entire circumference of weld externally and wherever possible internally.

.4 Failure of visual examinations:

.1 Upon failure of welds by visual examination, perform additional testing as directed by Departmental Representative of total of up to 10% of welds, selected at random by Departmental Representative.

3.06 DEFECTS CAUSING REJECTION

.1 As described in ANSI/ASME B31.1 and ANSI/ASME Boiler and Pressure Vessels Code.

3.07 REPAIR OF WELDS WHICH FAILED TESTS

.1 Re-inspect and re-test repaired or re-worked welds at Contractor's expense.

.2 Claims for delays in completion of project will not be entertained for reasons of failures of welds to pass examinations

3.08 CLEANING

.1 Clean in accordance with Section 01 74 11 - Cleaning.

.2 Waste Management: separate waste materials in accordance with Section 01 74 21 - Construction/Demolition Waste Management and Disposal

END OF SECTION