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Québec
Québec
G1J 0C7

LETTER OF INTEREST
LETTRE D'INTÉRÊT

Comments - Commentaires

Title - Sujet Lettre d'intérêt - Travaux réfection	
Solicitation No. - N° de l'invitation EE517-191240/A	Date 2018-09-18
Client Reference No. - N° de référence du client EE517-191240	GETS Ref. No. - N° de réf. de SEAG PW-\$QCM-009-17484
File No. - N° de dossier QCM-8-41090 (009)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-10-19	
Time Zone Fuseau horaire Eastern Daylight Saving Time EDT	
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Thellend, François	Buyer Id - Id de l'acheteur qcm009
Telephone No. - N° de téléphone (418) 649-2889 ()	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: PWGSC/TPSGC ESC 1 - MPO/Transport CST 1 - DFO/TC 1550, Avenue d'Estimauville QUEBEC Québec G1J0C7 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

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

Delivery Required - Livraison exigée Voir doc	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

Issuing Office - Bureau de distribution
TPSGC-PWGSC
601-1550, Avenue d'Estimauville
Québec
Québec
G1J 0C7

Letter of Interest

Major Rehabilitation of the Prince Shoal Pillar
Tadoussac (Québec)
Project R.080227.120

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1. OBJECTIVE OF NOTICE

The purpose of this notice is to inform the marine/offshore construction industry that a major rehabilitation project for the Prince Shoal Pillar (Tadoussac Lighthouse, Quebec) is being designed. The Notice also outlines the proposed evaluation criteria and invites the industry to comment on the feasibility of completing this project with the parameters and conditions described herein. The project will be managed by the Department of Public Works and Government Services Canada (PWGSC) on behalf of the Department of Fisheries and Oceans Canada (DFO).

2. SUMMARY OF WORK

2.1 Context

The Prince Shoal Pillar, located in the middle of the St. Lawrence River 7 km east of Tadoussac, is the subject of a major rehabilitation project. The gravity type structure of the lighthouse has significant damage to the outer shell of the structure of its foundation and exposes sealing problems at the level of the housing unit. The lighthouse rehabilitation project was developed to ensure the durability of the structure and to ensure the continuity of navigation services on the St. Lawrence River.

The scope of work will include:

- Consolidation by strengthening the foundations of the pillar.
- The water-tightness of the housing unit as a whole by replacing doors, windows and accesses.
- The work of painting and sealing of the water-tight joints.
- The installation of an aluminum cladding on the lighthouse tower

The rehabilitation conception of the foundation of the structure consists of designing and building a new shop-built shell, transporting it to the site and installing it by concreting. The work will be completed by a concrete filling. The shape of the initial pillar will be respected which will have the effect of maintaining its ice-breaking effectiveness. In this manner the heritage aspect will be preserved.

The construction period will extend over more than one year to provide the contractor with two summer periods to carry out the work on the site.

2.2 Work Description

The project consists, generally, of the repair/rehabilitation of the lighthouse and will include, but not be limited to, the following:

- .1 Surveys of existing structure and the seabed receiving the new shell;
- .2 Replacement of doors, windows and access to ensure watertightness of the housing unit as a whole;
- .3 Painting and sealing of joints;
- .4 Rehabilitation of access hatches;
- .5 Painting all exterior surfaces from the floor of the lower corridor;
- .6 Repairs of the three (3) ladders between the new shell and access hatches;
- .7 Design and manufacture of a new steel hull according to the construction method chosen by the contractor;
- .8 Dredging of the seabed to prepare the seat of the steel shell;
- .9 Placing of fill material of controlled aggregate size;

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- .10 Transportation of the new shell by barge to the site, in a minimum number of sections;
- .11 Design and fabrication of all installation and pouring systems and structures;
- .12 Casting operation of the shell;
- .13 Assembling the lower and upper shell, according to the Contractor's plan;
- .14 Concreting by tremie of filler concrete between the existing foundation structure and the new shell;
- .15 Closing of construction openings in the steel shell;
- .16 Painting between the new shell and the floor of the alleyway;
- .17 Establishment of an anti-scour protection;
- .18 Supply and delivery to the site of all materials and components, permanent and temporary, to perform all direct and indirect work;
- .19 Mobilization, demobilization, supply, operation and maintenance of all construction equipment, marine/offshore installation;
- .20 Supply of the necessary personnel to execute all the work, including their accommodation and transportation;
- .21 All the logistics required to complete the work according to the schedule;
- .22 Establishing and maintaining a Health and Safety program and providing the necessary personnel to ensure a safe environment during the work;
- .23 Planning and implementation of mitigation and personnel to protect the environment and habitat of at-risk species;
- .24 All equipment, as well as all operations and works will be operated and/or executed in consideration and respect for the environment and habitat of species at risk.
- .25 Replacement of the doors and windows.
- .26 Installation of aluminum cladding anchored to the lighthouse tower.

3. CONSTRUCTION SCHEDULE

3.1 General Procedure

The construction schedule of the project is very tight. It is imperative to plan by limiting as much as possible the work at the pillar, to fall within the possible window of work at sea (May to the end of September). No specific execution strategy is recommended and all proposed execution strategies will be considered.

The construction period will extend over more than one year to provide the contractor with two summer periods to carry out the work on the site. The best periods of work at sea (metocean aspect) are from May 1st to September 30th.

Work on the site will be possible for periods of 16 hours per day, and 7 days per week (for work that may impose environmental constraints).

Minimally, the work identified in Articles 2.2.1 to 2.2.7 must be completed in the first year. The rest of the work will have to be completed in the second year.

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3.2 Key Planning Elements

Contractors must establish their schedule according to the following phases:

- .1 Surveying of the existing structure and the seabed
- .2 Design and manufacture of the new shell
- .3 Painting and architecture work
- .4 Preparing the seabed
- .5 Shell Installation
- .6 Concrete filling of the shell
- .7 Finishing work

4. MAIN ISSUES

Major constraints of the Prince Shoal pillar

- Presence of at-risk species (Beluga Whale and Blue Whale) (see 4.1 below).
- Very difficult metocean conditions (see 4.2 below).
- Precarious conditions of the lower part of the pillar (see 4.3 below).
- Period of work at sea generally limited due to weather: early May to late September.

4.1 Major Environmental Aspects

The pillar is located in the Saguenay Marine Park - St. Lawrence River where endangered species, including beluga whales and blue whales, are found.

Limitations may be required to work which is noise related:

- Work with noise levels above 117 db; and
- Suspended material during dredging and concreting

A cetacean surveillance program in a defined area will be set up and monitored; work stoppage may be required.

The speed of navigation of the boats in the Marine Park is limited, as is air traffic (helicopter).

Work methods must be respectful of the environment.

4.2 Metocean Aspects

Contractors will have to consider the following key metocean issues

- .1 High current, in the order of four (4) knots (extreme), variable direction and sudden changes of direction.
- .2 Whirling and lapping due to the presence of the mouth of the Saguenay and the presence of the shoal
- .3 Waves
 - .1 In the order of 2 to 3 m (extreme).
 - .2 Waves affecting the Prince Shoal site from May to October are mainly waves from the south-southwest and northeast.
 - .3 The month of July is the calmest month in terms of waves, with maximum wave Hs in the order of 1.5 m.
 - .4 In June, maximum wave Hs are in the order of 1.6 m.

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- .5 The most turbulent month in terms of waves is October with maximum Hs greater than 1.9 m.
- .6 On average:
 - .1 Wave periods from June to August are approximately 2 s for Hs 0.2 m and 4 s for Hs 0.8 m.
 - .2 The wavelengths of the waves from June to August range from approximately 6 m for Hs from 0.2 m, to 25 m for Hs of 0.8 m.
- .4 Average seabed in the order of -9,00 m CD
- .5 Tide in the order of 7.45 m (extreme).
 - .1 High water levels for design of marine infrastructure:
 - .1 1 year return period : +5.52 m CD
 - .2 10 year return period: +5.85 m CD
 - .3 50 year return period : +6.23 m CD
 - .2 High water levels for operational requirements:
 - .1 12 hours/yr : +5.17 m CD
 - .2 1 day/yr : +5.07 m CD
 - .3 1 week/yr : +4.60 m CD
 - .4 1 month/yr : +4.03 m CD
 - .3 Low water levels for design of marine infrastructure:
 - .1 1 year return period: -0.72 m CD
 - .2 10 year return period: -1.01 m CD
 - .3 50 year return period : -1.22 m CD
 - .4 Low water levels for operational requirements:
 - .1 12 hours/yr: -0.40 m CD
 - .2 1 day/yr: -0.28 m CD
 - .3 1 week/yr: +0.13 m CD
 - .4 1 month/yr: +0.64 m CD
- .6 Winds up to 85 km/h (extreme).
 - .1 The months of June, July and August are the calmest months. The maximum wind speeds expected during these months are of the order of 65 km/h coming from the west-northwest (WNW) or south-southwest (SSW). The months of May and especially of September and October are more windy with maximum wind speeds that can reach 85 km/h. East-North-East winds appear in October, in addition to winds from both directions mentioned above (WNW and SSW)
- .7 This area is recognized as one of the most difficult places to navigate in the St. Lawrence River.

4.3 Aspects Concerning the State of the Exiting Pillar and Seabed

- .1 No scouring .
- .2 Very dense till soils with large boulders.
- .3 The pillar is filled with stone and concrete of poor quality.
- .4 Shotcrete between elevations 2.9 and 5.6 m CD.
- .5 Plates missing between elevations -0.5 and 2.9 m CD.
- .6 Very thin plates between elevations -0.5 and -3.6 m CD.
- .7 The upper structure is to be verified by the contractor for applying construction load.

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4.4 Preliminary Drawings, Photographs and Videos

- .1 **Preliminary** plans are made available to contractors for consultation and download in PDF format (in electronic appendix to this letter of interest).
The solutions shown on the plans are for demonstration purposes only. No specific construction strategy is recommended and all proposed construction strategies will be considered.
These plans are expected to evolve by the issuance of the request for proposal. Bidders of the Request for Proposal will be required to comply with the plans applicable to the Request for Proposal and not those of this Notice.
- .2 Photographs are made available to contractors for consultation and download (in electronic appendix to this letter of interest).
- .3 They consist of videos captured during an inspection of the pillar carried out in May 2016 (in electronic annex to this letter of interest).

5. EVALUATION CRITERIA CONSIDERED**5.1 Mandatory Requirements**

- .1 Identify the bidder and the members of the bidder's project team.
- .2 Provide bid security: Bidder must include bid security in the form of a bid bond or security deposit of 10% of the bid value.

5.2 Related Requirements

These criteria are summarized and constitute the requirements of the proposals as considered at this stage of project development. Bidders must ensure that they comply with the proposal requirements set out in the request for proposals and not with those of this notice, as these are subject to change

- .1 **Bidders Experience**
The Bidder must submit four (4) projects completed within the last fifteen (15) years that demonstrate knowledge and experience in the construction, repair and/or design/construction (including rehabilitation) of marine and offshore structures, and/or handling heavy or cumbersome marine and offshore structures.
- .2 **Experience of Key Personnel**
The Bidder must demonstrate, through previous projects that the key persons assigned to the project possess the capabilities, experience and skills required to deliver the services listed in the specifications, regardless of their previous association with the business presenting the proposal.

The "Key Personnel" are:

- 1) Project Manager
- 2) Engineer responsible for the design; and
- 3) Superintendent.

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.3 Understanding of project

The bidder must demonstrate that they understand the project objectives, technical requirements, constraints, challenges and project issues that will affect the work methodology for the realization of the project.

.4 Work Plan

.1 The Bidder must demonstrate his ability to provide all required services, meet project challenges, issues and requirements and provide an action plan. To do this, the bidder must:

.1 Describe his execution strategy (temporary improvements required for construction including transportation strategy, handling and installation of structural components); describe the phasing of the work;

.2 Describe working methods, equipment and work crews. The following activities should be in the work methods:

.1 Mobilization and access;

.2 Supply of materials;

.3 Surveys of existing and seabed receiving new shell

.4 Design/manufacture of the new shell;

.5 Cleaning the existing shell;

.6 Dredging/placement of bedding;

.7 Pouring operation of the new shell;

.8 Concrete filling operation;

.9 Operation of finalization of the construction joints of the new shell;

.2 Identify subcontractors and specialists required to complete the Bidder's project team and describe their role in the project. An organizational chart should be provided to identify each of the positions (and incumbents) on the Bidder's project team

.3 Identify the major specialized equipment he intends to use.

.5 Work Scheduling and Timelines

The tenderer must propose a project completion schedule in the form of a Gantt chart. He will have to respect the deadlines of the project and present all the activities listed in the work plan. He will also have to explain how the deadlines will be managed during the realization of the project.

5.3 Required Passing Grade

The technical evaluation will be subject to a minimum passing grade of 60% (per rated criterion). Admissible submissions that do not receive a passing grade will be rejected.

5.4 Financial Evaluation and Selection Method

Bidders will be required to provide a fixed lump-sum price covering all the costs of execution of the project.

The price proposed by the bidder will be divided by the total technical score to establish the cost per point of the proposal. The evaluation committee will recommend the bidder whose responsive bid offers the lowest overall cost-per-point ratio for the award of the contract.

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COMMENTS

This exercise is being done to allow PWGSC to develop a market framework that is the most appropriate for the execution of this project. As a result, PWGSC would be interested in receiving any comments regarding:

1. Interest in the project
2. Feasibility of the project;
3. Perceived issues;
4. Work method (prefabrication, site assembly, offshore, etc.);
5. Documents that are considered essential in addition to drawings and specifications, existing drawings and geotechnical studies;
6. Schedule.

Contractors are invited to provide their comments in writing by e-mail to Francois.Thellend@tpsgc-pwgsc.gc.ca, by fax to 418-648-2209 or to the following address for the attention of Francois Thellend:

Public Works and Government Services Canada
Acquisitions Branch
1550 av. d'Estimauville Québec, Québec
G1J 0C7

Public Works and Government Services Canada will take note of all comments made but not related thereto. This notice does not constitute a bid solicitation and does not represent a commitment to future purchases or contracts.