



Fisheries and Oceans  
Canada

## STATEMENT OF WORK AND TECHNICAL SPECIFICATIONS

### **REPAIR of the steel floating DOCKS in SEPT-ÎLES Harbour**

**Fisheries and Oceans Canada – Small Craft Harbours (SCH) wish to receive bids for the repair of corroded areas, the painting of external surfaces metal, leak tests and the installation of new anodes on fourteen (14) floating docks located in the fishing harbour of Sept-Îles.**

#### **Part 1 GENERAL**

##### **1. Schedule**

The contractor shall commence work immediately after receiving confirmation that its bid has been accepted. The work shall be completed and floating pontoons must be reinstalled on the waters before March 13th 2015.

Within two (2) days following the granting of the contract, the contractor must submit to DFO's representative the programme of work that he intends to follow for all works, including the dates of the beginning and end of all parts of the project.

##### **2. Site Visit**

For this tender, no site visits are planned by SCH. It is therefore the responsibility of the contractor to visit the site to become familiar with existing conditions and examine every detail that could affect the cost of the work.

A site visit can be coordinated by the project technician prior to bid closing. Bidders are to contact the Project Technician at 418-962-6314 to make the necessary arrangements.

#### **Part 2 GENERAL DESCRIPTION OF THE WORK**

##### **2.1 Transport of floating docks**

- 2.1.1 Floating docks are currently out of the water. The contractor shall retrieve the fourteen (14) floating docks to be painted and transport them to its workshops, one at a time or in a lot, according to the working method adopted by the contractor and approved by the DFO's representative.
- 2.1.2 Handling must be performed safely in order not to damage the structures while moving them. During this task, the contractor shall ensure he does not intrude into activities taking place in the harbour.
- 2.1.3 The contractor shall contact the Project Authority to agree on the location of storage of floating docks on site, if applicable.



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- 2.1.4 Twelve (12) docks have dimensions of 11, 5 m. x 2, 4 m. ; each weighs about 8 500 Kg. One dock is 15, 4 m. x 2, 4 m and weighs about 11 500 Kg; One last dock is 7.0 m x 2, 4 m. and weighs approximately 6 000 Kg.
- 2.1.5 The contractor shall possibly remove snow from the site for the picking and delivery of the docks ; If necessary the docks should be temporarily stored on site ; this should be done without any damage and with the DFO representative's agreement.

## **2.2 Preparatory work, repairs and replacement of anodes**

### **2.2.1 New metal surfaces**

- 2.2.1.1 Cleaning of new metal surfaces, i.e. remove rust, oxide of rolling, welding slag, dirt, oil, grease and any other foreign substance, according to the methods and standards below.
- 2.2.1.2 Abrasive treatment by blasting - commercial type, according to SSPC-SP-6.

### **2.2.2 Coated metal surfaces to be refurbished**

- 2.2.2.1 Cleaning of metal surfaces to be painted, i.e. remove chipped, cracked, brittle or adherent paint, as well as rust, oxide of rolling, welding slag, dirt, oil, grease and any other foreign substance, following the methods and standards above.
- 2.2.2.2 Abrasive treatment by blasting - commercial type, according to SSPC-SP-6.
- 2.2.2.3 Cleaning with mechanical tools: according to SSPC SP 3.
- 2.2.2.4 Sandblast (treatment of commercial type) of metal rusty or bare surfaces as a result of the failure of the original painting system.
- 2.2.2.5 The compressed air must be free of water and oil before it reaches the nozzle.
- 2.2.2.6 Remove traces left by sandblast on the surfaces as well as products in the cavities and angles to paint, using clean brushes or a vacuum cleaner, or by means of a jet of clean, dry compressed air flow.
- 2.2.2.7 Plan to prepare and repair two (2) areas of rust on each floating dock (total 28 repairs on an area of  $\pm 20$  mm Ø) by welding a steel plate of 50 mm x 50 mm x 4.8 mm for each point of rust.
- 2.2.2.8 In the event that there are more than 28 areas of rust to repair, they will be paid additionally according to the unit price subject to the slip in article 2.1, with each being individually approved by DFO representative.
- 2.2.2.9 Do not apply paint until repaired and prepared surface has been inspected and approved by the DFO representative.

### **2.2.3 Protection of all surfaces**

- 2.2.3.1 Protect surfaces that should not be painted. If they are damaged, clean and rehabilitate them according to the directives of the DFO Project Authority.
- 2.2.3.2 Apply the primer as soon as possible after the surfaces were cleaned, before they deteriorate.
- 2.2.3.3 If traces of rust appear on prepared surfaces, clean again.
- 2.2.3.4 Prevent clean surfaces from contaminated by salts, acids, alkalis and other corrosive chemicals, grease, oil and solvents, prior to application of the layer of primer and between



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subsequent layers of paint. If necessary, remove all traces of contamination and apply the paint without delay. Protect from dust all clean and freshly painted surfaces, as approved by DFO's representative.

### 2.2.4 Replacement of anodes

2.2.4.1 Replace the existing zinc anodes (approx.. 154) by new anodes supplied by DFO (see Appendix for drawing of anode). The contractor shall provide labour and all other parts for the installation of new anodes in the same way the existing ones are installed. Note that payment of item 2.2 of the bid slip will be paid by unit for work actually performed on approval of the DFO representative.

2.2.4.2 Provide all accessories and hardware required for perfect interconnection and installation of anodes.

## 2.3 Painting of the floating docks

### 2.3.1 Material

2.3.1.1 **Primer:** basic coating to use is the "Amerlock 2/400GFK High-solids glass flake epoxy coating" of the company "Amercoat Canada" or equivalent.

1) Apply two (2) layers of 200 microns with tolerance of 25 microns.

2) The shade of the second primer must be sufficiently different from the first layer to make it possible to distinguish them easily.

2.3.1.2 **Finish Paint** : the surface coating to be used is the "Amershield Aliphatic polyurethane coating" the company "Amercoat Canada" or equivalent ; plan to add anti-skid particles to the last layer. A layer of 125 microns in black color must be applied, while respecting the indications of the manufacturer taking into account the presence of anti-skid particles.

2.3.1.3 **Abrasive blasting:** According to SSPC (Steel Structures Painting Council), see preparatory work, Item #2.2.

2.3.1.4 **Anti-skid particles:** according to the recommendations of experts, ensuring compatibility with paint system prescribed.

## 2.4 Paint application

### 2.4.1 Paint mixes

2.4.1.1 Do not thin the paint to be applied by brush; use paint such as received from the manufacturer.

2.4.1.2 Before and during the application of the paint, mix it in the container to eliminate lumps, perfectly disperse pigments, and keep a homogeneous mixture.

2.4.1.3 Do not mix the paint or try to maintain the suspension by means of an air jet.

2.4.1.4 Thin the paint to spray according to the manufacturer's instructions. If these instructions are not listed on the container, contact the manufacturer to obtain a written copy. A copy of the instructions must be sent to DFO representative.

### 2.4.2 Number of layers of paint (as recommended by the manufacturer)

2.4.2.1 Apply 2 coats of primer to get a dry film with a thickness of 400 microns, on all surfaces stripped or subject to a stripping of abrasive blast (treatment as specified).



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- 2.4.2.2 Apply 1 coat of polyurethane paint to get a dry film of 125 microns thick containing anti-skid particles according to the manufacturer's recommendations and the approval of the DFO representative.
- 2.4.3 Types of applications (such as recommended by the manufacturer)
  - 2.4.3.1 Apply the paint by spray, by brush or with a combination of both methods. Use skins of sheep or the whitewashes when it is impossible to proceed otherwise in hard to reach places.
  - 2.4.3.2 If the surface to be painted is not sheltered, avoid applying the paint in the following cases:
    - .1 When the ambient air temperature is below 5 degrees Celsius or will go down to 0 degrees Celsius before the paint dries;
    - .2 When the surface temperature is more than 50 ° c, unless the paint is specifically formulated to be applied to high temperature;
    - .3 When there is fog or mist, it's raining or snowing, that there is risk of rain or snow, or relative humidity is more than 85%;
    - .4 When the surface is wet, humid or frosty;
    - .5 When the previous layer is not completely dry.
  - 2.4.3.3 Provide and install a shelter when it is necessary to apply the paint in wet or cold weather. Protect shelter or heat the painted surfaces and the ambient air so as to meet requirements for temperature and humidity in 2.4.3.2. Protect painted surfaces until the paint is dry or that atmospheric conditions make such unnecessary protection.

## **2.5 References**

- 2.5.1 American Society for Testing and Materials International, (ASTM).
  - 1.2.1.1 ASTM D610-08, Test Method for Evaluating Degree of Rusting on Painted Steel Surfaces.
  - 1.2.1.2 ASTM D2369-07, Standard Test Method for Volatile Content of Coatings.
- 2.5.2 Steel Structures Painting Council (SSPC).
  - 1.2.2.1 SSPC-SP-6/NACE No. 3-07, Commercial Blast Cleaning.
  - 1.2.2.2 SSPC-Vis-1-02, Visual Standard for Abrasive Blast Cleaned Steel (Standard Reference Photographs) Editorial Changes September 1, 2000 (Steel Structures Painting Manual, Chapter 2 - Surface Preparation Specs.).
  - 1.2.2.3 SSPC-PA-2(04), Measurement of Dry Coating Thickness With Magnetic Gages.
  - 1.2.2.4 SSPC Good Painting Practices, Volume 1, 4th Edition.

## **2.6 Documents/samples to submit**

- 2.6.1 Technical specs
  - 2.6.1.1 Submit data, technical specifications and the manufacturer's documentation for products to DFO Project Authority at least two (2) weeks prior to use in order to obtain approval.



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2.6.1.2 Submit data sheets listed in art. 2.3.

2.6.1.3 Submit two (2) copies of MSDSs required under WHMIS (information system on hazardous materials in the workplace). Ensure that the VOC content of paint products is indicated.

2.6.1.4 Upon request, the DFO Project Authority will provide a list of registered paint products.

2.6.1.5 Paint products that do not appear on the list of approved products MPI (Master Painters Institute) must be approved by the DFO Project Authority before being used for the purposes of the present work. If it is proposed to use a painting product not registered, submit to the DFO Project Authority all sheets at least two (2) weeks before the start of the work of painting. Provide all relevant information to the DFO Project Authority relating to the product to help its representative to verify its equivalence.

**2.6.2 Manufacturer's instructions**

2.6.2.1 Submit to the DFO Project Authority the manufacturer's instructions concerning the application of the paint.

**2.7 General requirements**

2.7.1 The Contractor shall submit proof of compliance with the CSST. It will comply with the requirements and obligations of contractor as outlined in the Law on Health and Safety at Work in the province of Quebec. If required, refer to DFO Project Authority a copy of the notice of initiation site and prevention program submitted to the CSST.

2.7.2 The contractor shall take effective measures for the protection of the environment and avoid the risk of spillage or contamination in the environment.

2.7.3 The contractor shall comply with all laws and obligations in the field of construction (contributions, collective agreements, licence...)

2.7.4 The contractor shall hold a civil liability and property damage insurance and provide a copy to the DFO Project Authority.

2.7.5 The contractor shall give all notices and get and pay all duties and applicable building permit.

2.7.6 The contractor shall perform the work following the methods likely to inconvenience the least possible occupants and users of the harbour of Sept-Îles and adjacent properties.

2.7.7 All materials used will be new and must receive the prior approval of the DFO Project Authority.

2.7.8 The price submitted by the contractor for the work is fixed and valid for the duration of the contract and no claim for incremental costs incurred by the contractor, will be, unless additional works are required.

2.7.9 At the end of the project, the DFO Project Authority will inspect the work performed.

2.7.10 No final payment will not be issued until all noted deficiencies are rectified to the satisfaction of the DFO Project Authority.

Any questionable Act may assume or reflect the collusion between contractors, shall be liable to legal sanctions that could lead to the definitive withdrawal of the firm bidder.

**2.8 Special technical clauses**

2.8.1 Gross welds and sharp edges must be ironed out at the wheel and the burrs left by welding must be removed.



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Leak tests should be made such as the following specifications:

- 2.8.2.1 The tightness of each compartment of the pontoon will be verified by air pressure and visual inspection. Air pressure testing will be done with a pressure of 10 kPa and shall be kept for 2 hours.
- 2.8.2.2 A soapy liquid must be applied on the joint for the test.
- 2.8.3 Securely tighten the plugs, once the completed tests
- 2.8.4 At the end of the work, the contractor shall provide a file of all activities with identification of photos.

## **2.9 Attached files:**

- Typical drawing of steel floating dock.
- Typical drawing of anode.



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### Part 3 BID FORM

#### 3.1 Repair of (14) steel floating docks, Harbour of Sept-Îles

Art.	Description	Quantity	Unit price	Type of price	Total
1.0	Mobilization and demobilization (including transport and snow removal if required)	1		Global	
2.0	Preparatory work for paint including approximately 28 repairs types (2. repar / floating dock as an average) on an area of approximately 20 mm in diameter	28		Unit	
2.1	<b>Option &gt; one extra typical repair on a 20 mm area (as 2.0) (this item is optional)</b>	1		Unit	
2.2	Replacement of anodes supplied by PPB including fixing accessories	154		Unit	
3.0	Paint system	1		Global	
	<b>SUBTOTAL</b> (excluding Art. 2.1 and two (2) taxes):				
	<b>TPS</b>				
	<b>TVQ</b>				

**GRAND TOTAL (excluding Art. 2.1):**

\_\_\_\_\_

Take note that Article 2.1 is optional; PPB reserves the right to award the contract with or without these items and to change the number in progress.

**Bidder:**

\_\_\_\_\_

**Authorized representative & title (provide resolution and attach):  
(capital letter)**

\_\_\_\_\_

**Signature of the authorized representative:**

\_\_\_\_\_ Date : \_\_\_\_\_