



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada

Pacific Region

401 - 1230 Government Street
Victoria, B.C.

V8W 3X4

Bid Fax: (250) 363-3344

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

**Proposal To: Public Works and Government
Services Canada**

We hereby offer to sell to Her Majesty the Queen in right
of Canada, in accordance with the terms and conditions
set out herein, referred to herein or attached hereto, the
goods, services, and construction listed herein and on any
attached sheets at the price(s) set out therefor.

**Proposition aux: Travaux Publics et Services
Gouvernementaux Canada**

Nous offrons par la présente de vendre à Sa Majesté la
Reine du chef du Canada, aux conditions énoncées ou
incluses par référence dans la présente et aux annexes
ci-jointes, les biens, services et construction énumérés
ici sur toute feuille ci-annexée, au(x) prix indiqué(s).

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du

fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Public Works and Government Services Canada - Pacific
Region

401 - 1230 Government Street

Victoria, B. C.

V8W 3X4

Title - Sujet 10.2-10.4 Aluminum Sea Truck	
Solicitation No. - N° de l'invitation F7044-180030/A	Date 2018-07-16
Client Reference No. - N° de référence du client F7044-180030	
GETS Reference No. - N° de référence de SEAG PW-\$XLV-166-7550	
File No. - N° de dossier XLV-8-41059 (166)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-08-27	Time Zone Fuseau horaire Pacific Daylight Saving Time PDT
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: Castle, David G.	Buyer Id - Id de l'acheteur xlvl66
Telephone No. - N° de téléphone (250) 217-6555 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Fisheries and Oceans Canada See herein	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein	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

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PART 1 - GENERAL INFORMATION

1.1 Introduction

The bid solicitation is divided into seven parts plus attachments and annexes, as follows:

- Part 1 General Information: provides a general description of the requirement;
- Part 2 Bidder Instructions: provides the instructions, clauses and conditions applicable to the bid solicitation;
- Part 3 Bid Preparation Instructions: provides Bidders with instructions on how to prepare their bid;
- Part 4 Evaluation Procedures and Basis of Selection: indicates how the evaluation will be conducted, the evaluation criteria that must be addressed in the bid, and the basis of selection;
- Part 5 Certifications and Additional Information: includes the certifications and additional information to be provided;
- Part 6 Security, Financial and Other Requirements: includes specific requirements that must be addressed by Bidders; and
- Part 7 Resulting Contract Clauses: includes the clauses and conditions that will apply to any resulting contract.

The Annexes include the Technical Statement of Requirement, the Basis of Payment, the list of Subcontractors, the Bidder Questions and Canada Responses and the Federal Contractors Program for Employment Equity - Certification, the Insurance Requirements,

1.2 Summary

Canadian Coast Guard – Department of Fisheries and Oceans Canada has a requirement for one (1) all welded 10.2 - 10.4 meters aluminum sea truck vessel with a cabin as per Annex A – Technical Statement of Requirement (TSOR).

The boat is to be delivered to: Fisheries and Oceans Canada
Institute of Ocean Sciences – Sidney, BC

1.2.1 The Federal Contractors Program

The Federal Contractors Program (FCP) for employment equity applies to this procurement; refer to Part 5 – Certifications and Additional Information, Part 7 - Resulting Contract Clauses and the annex titled Federal Contractors Program for Employment Equity - Certification."

1.2.2 Electronic Bids

This bid solicitation allows bidders to use the epost Connect service provided by Canada Post Corporation to transmit their bid electronically. Bidders must refer to Part 2 entitled Bidder Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

1.2.3 Sourcing Strategy

"The requirement is subject to the provisions of the World Trade Organization Agreement on Government procurement (WTO-AGP), the North American Free Trade Agreement (NAFTA), the Canada-European Union comprehensive Economic and Trade Agreement (CETA), and the Canadian Free Trade Agreement (CFTA)."

1.3 Debriefings

Bidders may request a debriefing on the results of the bid solicitation process. Bidders should make the request to the Contracting Authority within 15 working days from receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

2.1 Standard Instructions, Clauses and Conditions

All instructions, clauses and conditions identified in the bid solicitation by number, date and title are set out in the Standard Acquisition Clauses and Conditions (SACC) Manual (<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

Bidders who submit a bid agree to be bound by the instructions, clauses and conditions of the bid solicitation and accept the clauses and conditions of the resulting contract.

The 2003 2018-05-22 Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2.1.1 Bid Validity Period

Standard Instructions - Goods or Services - Competitive Requirements is amended as follow:

Delete: 60 days

Insert: 90 days

The 2003 standard instructions is amended as follows:

- section 05, entitled Submission of bids, is amended as follows:
 - subsection 1 is deleted entirely and replaced with the following: "Canada requires that each bid, at solicitation closing date and time or upon request from the Contracting Authority, be signed by the Bidder or by an authorized representative of the Bidder. If a bid is submitted by a joint venture, it must be in accordance with section 17."
 - paragraph 2.d is deleted entirely and replaced with the following: "send its bid only to the specified Bid Receiving Unit of Public Works and Government Services Canada (PWGSC) specified in the bid solicitation, or to the address specified in the bid solicitation, as applicable;"
 - paragraph 2.e is deleted entirely and replaced with the following: "ensure that the Bidder's name, and return address, bid solicitation number, and solicitation closing date and time are clearly visible on the bid; and,"
 -
- section 06, entitled Late bids, is deleted entirely and replaced with the following: "PWGSC will return or delete bids delivered after the stipulated solicitation closing date and time, unless they qualify as a delayed bid as described in section 07. For late bids submitted using means other than the Canada Post Corporation's epost Connect service, the physical bid will be returned. For bids submitted electronically the late bid will be deleted. As an example, bids submitted using Canada Post Corporation's epost Connect service, an epost Connect conversation initiated by the Bid Receiving Unit via the epost Connect service pertaining to a late bid will be deleted. Records will be kept documenting the transaction history of all late bids submitted using epost Connect."
- section 07, entitled Delayed bids, is amended as follows:
 - subsection 1 is deleted and replaced as follows:
 1. A bid delivered to the specified Bid Receiving Unit after the solicitation closing date and time but before the contract award date may be considered, provided the bidder can prove the

delay is due solely to a delay in delivery that can be attributed to the Canada Post Corporation (CPC) (or national equivalent of a foreign country). Private courier (Purolator Inc., Fedex Inc., etc.) is not considered to be part of CPC for the purposes of delayed bids.

- a. The only pieces of evidence relating to a delay in the CPC system that are acceptable to PWGSC are:
 - i. a CPC cancellation date stamp;
 - ii. a CPC Priority Courier bill of lading;
 - iii. a CPC Xpresspost label;that clearly indicates that the bid was sent before the solicitation closing date.
- b. The only piece of evidence relating to a delay in the epost Connect service provided by CPC system that is acceptable to PWGSC is a CPC epost Connect service date and time record indicated in the epost Connect conversation history that clearly indicates that the bid was sent before the solicitation closing date and time.

1. epost Connect

- a. Unless specified otherwise in the bid solicitation, bids may be submitted by using the epost Connect service provided by Canada Post Corporation (https://www.canadapost.ca/web/en/products/details.page?article=epost_connect_send_a).
 - i. PWGSC regional offices: The only acceptable email address to use with epost Connect for responses to bid solicitations issued by PWGSC regional offices is identified in the bid solicitation.
- b. To submit a bid using epost Connect service, the Bidder must either:
 - i. send directly its bid only to the specified PWGSC Bid Receiving Unit, using its own licensing agreement for epost Connect provided by Canada Post Corporation; or
 - ii. send as early as possible, and in any case, at least six business days prior to the solicitation closing date and time (in order to ensure a response), an email that includes the bid solicitation number to the specified PWGSC Bid Receiving Unit requesting to open an epost Connect conversation. Requests to open an epost Connect conversation received after that time may not be answered.
- c. If the Bidder sends an email requesting epost Connect service to the specified Bid Receiving Unit in the bid solicitation, an officer of the Bid Receiving Unit will then initiate an epost Connect conversation. The epost Connect conversation will create an email notification from Canada Post Corporation prompting the Bidder to access and action the message within the epost Connect conversation. The Bidder will then be able to transmit its bid afterward at any time prior to the solicitation closing date and time.
- d. If the Bidder is using its own licensing agreement to send its bid, the Bidder must keep the epost Connect conversation open until at least 30 business days after the solicitation closing date and time.
- e. The bid solicitation number should be identified in the epost Connect message field of all electronic transfers.
- f. It should be noted that the use of epost Connect service requires a Canadian mailing address. Should a bidder not have a Canadian address, they may use the Bid Receiving Unit address specified in the solicitation in order to register for the epost Connect service.
- g. For bids transmitted by epost Connect service, Canada will not be responsible for any failure attributable to the transmission or receipt of the bid including, but not limited to, the following:
 - i. receipt of a garbled, corrupted or incomplete bid;
 - ii. availability or condition of the epost Connect service;
 - iii. incompatibility between the sending and receiving equipment;
 - iv. delay in transmission or receipt of the bid;
 - v. failure of the Bidder to properly identify the bid;
 - vi. illegibility of the bid;

- vii. security of bid data; or
- viii. inability to create an electronic conversation through the epost Connect service.
- h. A bid transmitted by epost Connect service constitutes the formal bid of the Bidder and must be submitted in accordance with section 05."

2.1.2 SACC Manual Clauses

A9125T - Valid Labour Agreement	2007-05-25
B1000T - Condition of Material	2014-06-26

2.1.3- Equivalent Products

1. Products that are equivalent in form, fit, function and quality to the item(s) specified in the bid solicitation will be considered where the Bidder:
 - a. designates the brand name, model and/or part number of the substitute product;
 - b. states that the substitute product is fully interchangeable with the item specified;
 - c. provides complete specifications and descriptive literature for each substitute product;
 - d. provides compliance statements that include technical specifics showing the substitute product meets all mandatory performance criteria that are specified in the bid solicitation; and
 - e. clearly identifies those areas in the specifications and descriptive literature that support the substitute product's compliance with any mandatory performance criteria.
2. Products offered as equivalent in form, fit, function and quality will not be considered if:
 - a. the bid fails to provide all the information requested to allow the Contracting Authority to fully evaluate the equivalency of each substitute product; or
 - b. the substitute product fails to meet or exceed the mandatory performance criteria specified in the bid solicitation for that item.
3. In conducting its evaluation of the bids, Canada may, but will have no obligation to, request bidders offering a substitute product to demonstrate, at the sole cost of bidders, that the substitute product is equivalent to the item specified in the bid solicitation.

2.2 Submission of Bids

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the bid solicitation.

Bids must be submitted only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit specified below by the date, time and place indicated on page 1 of the bid solicitation.

1) Hard Copies Bid

Bid Receiving Unit
Public Services and Procurement Canada
401 – 1230 Government Street
Victoria, B.C. V8W 3X4

2) Electronic Bid

Electronic address for epost Connect service:

TPSGC.RPReceptiondessousmissions-PRBidReceiving.PWGSC@tpsgc-pwgsc.gc.ca

Notice to bidders: All bids to be delivered electronically to BRUs must be through the use of epost Connect service in order to meet Canada's privacy security requirements.

2.3 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than **5 days** before the bid closing date. Enquiries received after that time may not be answered.

Bidders should reference as accurately as possible the numbered item of the bid solicitation to which the enquiry relates. Care should be taken by bidders to explain each question in sufficient detail in order to enable Canada to provide an accurate answer. Technical enquiries that are of a proprietary nature must be clearly

marked "proprietary" at each relevant item. Items identified as "proprietary" will be treated as such except where Canada determines that the enquiry is not of a proprietary nature. Canada may edit the question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

2.4 Applicable Laws

Any resulting contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in British Columbia.

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

2.5 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least 5 days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

3.1.1 OPTION 1: Electronic Delivery of Bids

If the Bidder chooses to submit its bid electronically, Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. Bidders must provide their bid in a single transmission. The epost Connect service has the capacity to receive multiple documents, up to 1GB per individual attachment.

The bid must be gathered per section and separated as follows:

Section I:	Technical Bid
Section II:	Management Bid
Section III:	Financial Bid
Section IV:	Certifications

3.1.2 OPTION 2: Hard Copies Delivery of Bids

If the Bidder chooses to submit its bid in hard copies, Canada requests that the Bidder submits its bid in separately bound sections as follows:

Canada requests that bidders provide their bid in separately bound sections as follows:

Section I:	Technical Bid – Two (2) hard copies
Section II:	Management Bid- Two (2) hard copies
Section III:	Financial Bid – One (1) hard copy
Section IV:	Certifications - One (1) hard copy

Prices must appear in the financial bid only. No prices must be indicated in any other section of the bid.

Canada requests that bidders follow the format instructions described below in the preparation of their bid:

(a) use 8.5 x 11 inch (216mm x 279 mm) paper;

- (b) use a numbering system that corresponds to the bid solicitation.

In April 2006, Canada issued a policy directing federal departments and agencies to take the necessary steps to incorporate environmental considerations into the procurement process Policy on Green Procurement (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>).

To assist Canada in reaching its objectives, bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.

3.2 Section I - Technical Bid

The Technical Statement of Requirements, Annex A, is entirely mandatory. In their technical bid, Bidders must demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability in a thorough, concise and clear manner for carrying out the work.

The technical bid should address clearly and in sufficient depth the points that are subject to the evaluation criteria against which the bid will be evaluated. Simply repeating the statement contained in the bid solicitation is not sufficient. In order to facilitate the evaluation of the bid, Canada requests that Bidders address and present topics in the order of the evaluation criteria under the same headings. To avoid duplication, Bidders may refer to different sections of their bids by identifying the specific paragraph and page number where the subject topic has already been addressed.

The technical bid must demonstrate the vessels will be fully seaworthy, operable and fit in all regards for the purposes intended.

3.2.1 Bidder's Check List and Technical Confirmation

The Bidders must review for bidding purpose the **Annex F - BID PACKAGE CHECKLIST** and provide it with the bid.

3.3 Section II: Management Bid

In their management bid, Bidders must describe their capability, experience and project management team by providing all documentation as requested in the following articles,

Bidder to select one of the following option for their bid

3.3.1 OPTION 1: Vessel Construction Experience (Same type built for last 8 years)

The bid must provide objective evidence that the bidder has proven capability in the construction of vessels of the size, type and complexity which is the subject to this bid solicitation, by providing detailed information of at a minimum 2 boats built within the last 8 years. Prototype hulls will not be considered as fulfilling this requirement. The bid must include the following details for each vessel submitted as evidence of construction capability:

- a) General Arrangement drawings;
- b) Photographs;
- c) References;
- d) Builder's plates (if applicable); and
- e) Hull identification numbers confirming multiple builds.

3.3.2 Marine Drafting and Engineering Capability

The bid must provide objective evidence in the form of a statement, signed by an authorized representative of the Bidder that the bidder has either:

- a) In-house capabilities for marine drafting and engineering or
- b) A written commitment from a supplier that will providing marine drafting and engineering services to the Bidder for the duration of the Contract. The supplier must have marine drafting and engineering experience and capabilities on vessel construction projects similar in size, type and complexity to the subject bid solicitation..

3.3.3 Contractor Quality Management System

The bid must provide objective evidence that the Bidder has a Quality Assurance Program, which must be in place during the performance of the Work, and which addresses the quality control elements below.

The objective evidence may be in the form of a copy of the Bidder's Quality Assurance Manual which addresses these elements. Proof of registration with a recognized quality assurance organization whose system addresses the minimum requirements below, may be submitted for consideration.

The quality control elements must include, as a minimum:

- a) Management Representative
- b) Quality Assurance Manual
- c) Quality Assurance Program
- d) Descriptions Quality Reporting Organization Documentation
- e) Measuring and Testing
- f) Equipment Procurement
- g) Inspection and Test Plan
- h) Incoming Inspection
- i) In-Process Inspection
- j) Final Inspection Special Processes Quality Records
- k) Non Conformance
- l) Corrective Action

The Bidder's facilities may be audited by Canada, or its authorized representative, prior to award of contract to ensure that quality management system is in place in accordance with the foregoing requirement.

3.3.4 Project Schedule

1. As part of its technical bid, the Bidder must propose its preliminary project schedule, in MS Project or equivalent. The Bidder must provide a preliminary project schedule, in MS Project format or equivalent, indicating the sequence and the completion dates of project milestones, deliverables, and project tasks based on a contract award as "day 0." The project schedule should include the Bidder's work breakdown structure, the scheduling of main activities and milestone events and any potential problem areas involved in completing the Work.
2. The Bidder's schedule must also provide a target date for each of the following significant events for each boat as applicable:
 - a) hull materials delivered to Contractor and sustained construction commenced;
 - b) hull and deck completed, but not closed in to allow for full inspection of the structure and welding. The Contractor will be required to supply a hard copy of the material certificates and construction drawings to the Technical/Inspection Authority one week prior to inspection by the Technical/Inspection Authority;
 - c) outfitting/electrical 75% complete but all equipment and components delivered to the Contractor and available for full inspection. The Contractor will be required to supply a hard copy of the list of equipment and electrical supplies to the Technical/Inspection Authority one week prior to inspection by the Technical/Inspection Authority;
 - d) technical manuals delivered to Canada for approval (no less than 14 days prior to the planned delivery date);

- e) Contractor's tests and trial and final sea trials required by the TSOR;
- f) boat and trailer delivered to Canada for approval; and
- g) the start and the end of the 12 month warranty period.

Note: Technical Manuals will not be returned once approved.

3.3.5 Preliminary Drawings

The following must be included with the Bids:

- a) draft stability calculation;
- b) calculated lightship weight;
- c) general arrangement;
- d) structural drawings showing deck plan, a centerline profile and frame station construction details;
- e) detailed lines plan;
- f) a drawing of the fuel supply arrangement.

3.3.6 Subcontractors

A list, in the form of the attached **Annex D** of subcontracts for labor and/or material must be included with the Bidder's Proposal, stating the name and address of each subcontractor, and a description (Make, Model No.) of the goods or services to be supplied by each.

3.3.8 OPTION 2: Vessel Construction Experience (Vessel constructed and built by design)

The Bidder must provide objective evidence that it has a proven capability in the construction of vessels of the size, type and complexity which is the subject to this RFP.

The vessel is constructed, manufactured in accordance with the recommended practices and standards for the type of vessel and must be built according to rules and standards such as:

- a) the Nordic Boat Standard (for commercial vessels less than 15 m),
- b) the International Organization for Standardization (ISO),
- c) a classification society such:
 - i. the American Bureau of Shipping (ABS),
 - ii. Lloyd's Register of Shipping (LRS),
 - iii. Bureau Veritas (BV),
 - iv. Det Norske Veritas (DNV) or
 - v. Germanischer Lloyd (GL).

The vessel design, construction, manifesting results must comply with the TP 1332 – Construction Standards for Small vessels latest editions and the vessel be registered under the Transport Canada Marine Safety-Small Vessel Compliance Program (SVCP). Bidder must provide a detailed description of the rules and standards utilized for their design submission and how the design will meet TP1332 related to stability, ABYC and the construction scantlings.

3.3.9 Design

The design at the time of the bids must be provided and certified by a marine engineering firms or qualified persons/ engineer (stamped) confirming the design meet the above section **3.3.8 OPTION 2 1 a), or b) or c)**

The design must include the following preliminary drawing:

- a) draft stability calculation;
- b) calculated lightship weight;
- c) general arrangement;
- d) structural drawings showing deck plan, a centerline profile and frame station construction

- e) details;
- e) detailed lines plan;
- f) a drawing of the fuel supply arrangement.

3.3.10 Supporting calculations

The design must be supported by calculations and test documents proving the design achieves the requirements identified in Annex A of the RFP. Bidder must provide a detailed calculations specific to the rules and standards utilized for the specific design submission and how the design will meet TP1332 related to stability, ABYC and the construction scantlings.

3.3.11 Marine Drafting and Engineering Capability

The Bidder must provide objective evidence in the form of a statement, signed by an authorized representative that it has either:

- a) In-house capabilities for marine drafting and engineering or
- b) Has a written commitment from a supplier to provide marine drafting and engineering services for the duration of the Contract.

The supplier must have marine drafting and engineering experience and capabilities on vessel construction projects similar in size, type and complexity to the subject RFP.

3.3.12 Contractor Quality Management System

The Bidder must provide objective evidence that it has a Quality Assurance Program, which must be in place during the performance of the Work, and which addresses the quality control elements below.

The objective evidence may be in the form of a copy of the Bidder's Quality Assurance Manual which addresses these elements. Proof of registration with a recognized quality assurance organization whose system addresses the minimum requirements below, may be submitted for consideration.

The quality control elements must include, as a minimum:

- a) Quality Assurance Manual or Quality Assurance Program Descriptions
- b) Inspection and Test Plan
- c) Final Inspection
- d) Quality Records

Bidder facilities may be audited by Canada, or its authorized representative, prior to award of contract to ensure that a system is in place in accordance with the foregoing requirement.

The Contractor will be required to submit completed quality assurance documentation with each claim for payment, as applicable.

3.3.13 Project Schedule

1. As part of its technical bid, the Bidder must propose its preliminary project schedule, in MS Project or equivalent. The Bidder must provide a preliminary project schedule, in MS Project format or equivalent, indicating the sequence and the completion dates of project milestones, deliverables, and project tasks based on a contract award as "day 0." The project schedule should include the Bidder's work breakdown structure, the scheduling of main activities and milestone events and any potential problem areas involved in completing the Work.
2. The Bidder's schedule must also provide a target date for each of the following significant events for each boat as applicable:
 - (a) Design validation, maximum 20 calendar days.
 - (b) hull materials delivered to Contractor and sustained construction commenced;
 - (c) hull and deck completed, but not closed in to allow for full inspection of the structure and

- welding. The Contractor will be required to supply a hard copy of the material certificates and construction drawings to the Technical/Inspection Authority one week prior to inspection by the Technical/Inspection Authority;
- (d) outfitting/electrical 75% complete but all equipment and components delivered to the Contractor and available for full inspection. The Contractor will be required to supply a hard copy of the list of equipment and electrical supplies to the Technical/Inspection Authority one week prior to inspection by the Technical/Inspection Authority;
 - (e) technical manuals delivered to Canada for approval (no less than 14 days prior to the planned delivery date);
 - (f) Contractor's tests and trial and final sea trials required by the TSOR;
 - (g) boat and trailer delivered to Canada for approval; and
 - (h) the start and the end of the 12 month warranty period.

Note: Technical Manuals will not be returned once approved.

3.3.14 Subcontractors

A list, in the form of the attached **Annex D** of subcontracts for labor and/or material must be included with the Bidder's Proposal, stating the name and address of each subcontractor, and a description (Make, Model No.) of the goods or services to be supplied by each.

3.4 Section III: Financial Bid

Bidders must submit their financial bid in accordance with the **Annex E – DETAILED FINANCIAL PRESENTATION SHEET**. The total amount of Applicable Taxes must be shown separately.

3.4.1 Exchange Rate Fluctuation

C3011T - Exchange Rate Fluctuation 2013-11-06

3.4.2 Firm Price

Bidders must indicate the Bid price excluding taxes for each of the following Items in **Annex E – DETAILED FINANCIAL PRESENTATION SHEET**

3.4.3 Unscheduled Work

Bidders must provide the information requested in the **Annex E – DETAILED FINANCIAL PRESENTATION SHEET**.

The unscheduled work rates will be included in and form part of the bid evaluation.

3.4.4 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex "G" Electronic Payment Instruments, to identify which ones are accepted.

If Annex "G" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

Acceptance of Electronic Payment Instruments will not be considered as an evaluation criterion.

3.5 Section IV: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including

- the technical, management and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

4.1.1.1 Mandatory Technical Criteria

In order to be compliant, Bidder's proposal must, to the satisfaction of Canada, meet all requirements of the Annex A- TSOR and provide all information as requested in **PART 3 - BID PREPARATION INSTRUCTIONS, 3.1 Section I, Technical Bid**

4.1.2 Management Evaluation

4.1.2.1 Mandatory Management Criteria

In order to be compliant, Bidder's proposal must, to the satisfaction of Canada, meet all requirements and provide all information as requested in **PART 3 - BID PREPARATION INSTRUCTIONS, 3.3 Section II – Management Bid.**

4.1.3 Financial Evaluation

A0222T, Evaluation of Price – Canadian / Foreign Bidders 2014-06-26

4.1.3.1 Mandatory Financial Criteria

In order to be compliant, Bidder's proposal must, to the satisfaction of Canada, meet all requirements and provide all information as requested in **PART 3 - BID PREPARATION INSTRUCTIONS, 3.4 Section III – Financial Bid.**

4.2 Basis of Selection

4.2.1 Mandatory Technical Criteria

A bid must comply with the requirements of the bid solicitation and meet all mandatory technical evaluation criteria to be declared responsive. The responsive bid with the lowest evaluated price will be recommended for award of a contract.

A mandatory requirement is described using the words "shall", "must", "will", "is required" or "is mandatory".

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

Bidders must provide the required certifications and associated information to be awarded a contract.

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default in carrying out any of its obligations under the Contract, if any certification made by the Bidder is found to be untrue whether made knowingly or unknowingly, during the bid evaluation period or during the contract period.

The Contracting Authority will have the right to ask for additional information verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority may render the bid non-responsive or constitute a default under the Contract.

5.1 Certifications Required with the Bid

Bidders must submit the following duly completed certifications as part of their bid.

5.1.1 Integrity Provisions - Declaration of Convicted Offences

In accordance with the Integrity Provisions of the Standard Instructions, all bidders must provide with their bid, **if applicable**, the declaration form available on the [Forms for the Integrity Regime](http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html) website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

5.2 Certifications Precedent to Contract Award and Additional Information

The certifications and additional information listed below should be submitted with the bid, but may be submitted afterwards. If any of these required certifications or additional information is not completed and submitted as requested, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the certifications or the additional information listed below within the time frame provided will render the bid non-responsive.

5.2.1 Integrity Provisions – Required Documentation

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "[FCP Limited Eligibility to Bid](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#)" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\)](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) - [Labour's](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#) website (<https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#>).

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#)" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "[FCP Limited Eligibility to Bid](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#)" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex titled [Federal Contractors Program for Employment Equity - Certification](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#), before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex [Federal Contractors Program for Employment Equity - Certification](https://www.canada.ca/en/employment-social-development/programs/employment-equity/federal-contractor-program.html#), for each member of the Joint Venture.

5.2.3 Additional Certifications Precedent to Contract Award

5.2.3.1 Workers Compensation Certification – Letter of Good Standing

The Bidder must have an account in good standing with the applicable provincial or territorial Workers' Compensation Board.

The Bidder must provide, **within 5 calendar days** following a request from the Contracting Authority, a certificate or letter from the applicable Workers' Compensation Board confirming the Bidder's good standing account. Failure to comply with the request may result in the bid being declared non-responsive.

5.2.3.2 Welding Certification

1. Welding must be performed by a welder certified by the Canadian Welding Bureau and in accordance with the requirements of the following Canadian Standards Association (CSA) standards:
 - (a) CSA W47.2 (current version) , Certification of Companies for Fusion Welding of Aluminum 2.1
2. Before contract award and **within 5 calendar days** of the written request by the Contracting Authority, the successful Bidder must submit evidence demonstrating its certification by CWB in accordance with the CSA welding standards..

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirements

There is no security requirement applicable to this contract.

6.2 Financial Capability

A9033T - Financial Capability

2012-07-16

6.3 Insurance Requirements Letters

The Bidder must provide a letter from an insurance broker or an insurance company licensed to operate in Canada stating that the Bidder, if awarded a contract as a result of the bid solicitation, can be insured in accordance with the Insurance Requirements specified in **Part 7 - Resulting Contract Clause 7.21**.

If the information is not provided in the bid, the Contracting Authority will so inform the Bidder and provide the Bidder with a time frame within which to meet the requirement. Failure to comply with the request of the Contracting Authority and meet the requirement within that time period will render the bid non-responsive.

PART 7 - RESULTING CONTRACT CLAUSES

The following clauses and conditions apply to and form part of any contract resulting from the bid solicitation.

7.1 Requirement

Canadian Coast Guard – Department of Fisheries and Oceans Canada has a requirement for one (1) all welded 10.2 -10.4 meters aluminum sea truck vessel with a cabin as per Annex A – Technical Statement of Requirement (TSOR) and Bidders questions and answers – Annex D.

The boats are to be delivered to:
Fisheries and Oceans Canada
Institute of Ocean Sciences, Sidney, BC

7.2 Standard Clauses and Conditions

All clauses and conditions identified in the Contract by number, date and title are set out in the [Standard Acquisition Clauses and Conditions Manual](https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual)(<https://buyandsell.gc.ca/policy-and-guidelines/standard-acquisition-clauses-and-conditions-manual>) issued by Public Works and Government Services Canada.

7.2.1 General Conditions

2030, 2016-04-04, General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

1028, (2010-08-16), Ship Construction - Firm Price, apply to and form part of the Contract.

7.2.2.1 Conduct of Work.

The Supplemental General Conditions 1028, Article 02 (2010-08-16), Conduct of Work, delete Paragraph 1, entitled "Canadian Labour", in its entirety.

7.2.2.2 Warranty.

The Supplemental General Conditions 1028, Article 12 (2010-08-16), Warranty, Paragraph 3 is deleted and replaced with the following:

The warranty periods for the vessel, from the date of its delivery to and acceptance by Canada, are:

- a) Twelve (12) months for the boat propelling machinery and auxiliaries, fittings and equipment of all kinds (excluding Government Supplied Material).
- b) Twenty four (24) months for the vessel hull and welding."

7.3 Security Requirements

There is no security requirement applicable to the Contract.

7.4 Term of Contract

7.4.1 Period of the Contract

The period of the contract is from date of contract award to **August 30, 2019** (365 days later) inclusive.

7.4.2 Optional Goods

The Contractor grants to Canada the irrevocable option to acquire up to up to two (2) additional boat with trailer, as described at Annex A of the Contract under the same conditions and at the prices stated in the Contract or negotiated by Canada. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

The Contracting Authority may exercise the option at any time before the expiry of the Contract by sending a written notice to the Contractor.

7.4.3 Delivery Date

All the deliverables must be received in by **February 28, 2019**.

7.4.4 Shipping Instructions - Delivered Duty Paid

Goods must be consigned and delivered to the destination specified in the contract:

Incoterms 2000 "DDP Delivered Duty Paid" delivery point article 7.4.5

7.4.5 Delivery Points

Delivery of the requirement will be made to:

Fisheries and Oceans Canada
Institute of Ocean Sciences
Sidney, BC

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

The Contracting authority will be determined at Contract award.

Name: TBD
Title: TBD
Section: TBD
Directorate: TBD
Public Services and Procurement Canada
Address: TBD
Telephone: TBD
Facsimile: TBD
E-mail: TBD

The Contracting Authority is responsible for the management of the Contract, and any changes to the Contract must be authorized in writing by the Contracting Authority. The Contractor must not perform work in excess of or outside the scope of the Contract based on verbal or written requests or instructions from anybody other than the Contracting Authority.

7.5.2 Technical Authority

The Technical Authority for the Contract is:

The Technical authority will be determined at Contract award.

Name: TBD
Title: TBD
Organization: TBD
Address: TBD
Telephone: TBD
Facsimile: TBD
E-mail: TBD

The Technical Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for all matters concerning the technical content of the Work under the Contract. Technical matters may be discussed with the Technical Authority, however the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.3 Inspection Authority

The Inspection Authority for the Contract is:

The Inspection authority will be determined at Contract award.

Name: TBD
Title: TBD
Organization: TBD
Address: TBD
Telephone: TBD
Facsimile: TBD
E-mail: TBD

The Inspection Authority named above is the representative of the department or agency for whom the Work is being carried out under the Contract and is responsible for inspection of the Work and acceptance of the finished work. The Inspection Authority may be represented on-site by a designated inspector and any other Government of Canada inspector who may from time to time be assigned in support of the designated Inspector.

7.5.4 Contractor's Representative

Name and telephone numbers of the person responsible for production:

The Contractor's representatives will be determined at Contract award.

Name: TBD
Telephone: TBD
Facsimile: TBD
E-mail: TBD

Name and telephone numbers of the person responsible for delivery:

Name: TBD
Telephone: TBD
Facsimile: TBD
E-mail: TBD

7.6 Payment

7.6.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price of \$ _____. Customs duties and Applicable Taxes are extra, if applicable.

7.6.2 Payment for Fuels, Oils and Lubricants

The Contractor is responsible for the supply and cost of all fuel, lubricating oil, hydraulic oil and other lubricants sufficient for fully charging all systems as required for operating the machinery and other equipment and for performing all tests and trials.

7.6.3 Field Engineering and Supervisory Services

If Field Service Representatives (FSR) and/or Supervisory Services are required for the Work, the cost of all such services is to be included in the price for the Work.

7.6.4 Limitation of Price

Canada will not pay the Contractor for any design changes, modifications or interpretations of the Work unless they have been approved, in writing, by the Contracting Authority before their incorporation into the Work.

7.6.5 Milestone Payment -Subject to Holdback

1. Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract, up to **90** percent of the amount claimed and approved by Canada if:
 - a. an accurate and complete claim for payment using form [PWGSC-TPSGC 1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
 - b. the total amount for all milestone payments paid by Canada does not exceed **90** percent of the total amount to be paid under the Contract;
 - c. all the certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives;
 - d. all work associated with the milestone and as applicable any deliverable required have been completed and accepted by Canada.
2. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of the item if the Work has been accepted by Canada and a final claim for the payment is submitted.

7.6.6 Schedule of Milestones

The schedule of milestones for each vessel for which payments will be made in accordance with the Contract is as follows:

Milestone No:	Description and Deliverable (s)	Firm Amount (\$)
A	Hull materials delivered to Contractor and sustained construction commenced	32% of the Firm Unit Price (TBD at contract award
B	Boat, trailer and technical manuals delivered at destination and accepted by Canada	65% of the Firm Unit Price (TBD at contract award
C	End of the 12 month warranty period only.	3% of the Firm Unit Price (TBD at contract award

The milestones shown above must be included and identified in all production schedules.

Milestone A: A payment no earlier than upon the material delivery being at the Contractor manufacturing facility with material price support provided to the Contracting Authority and the commencement of sustained construction..

Milestone B: A payment after the completion of delivery at destination and the acceptance of the boat, trailer and manual by Canada.

Milestone C: A payment for completion of the twelve month warranty period only.

- a) Twelve (12) months for the boat propelling machinery and auxiliaries, fittings and equipment of all kinds (excluding Government Supplied Material).
- b) Twelve (12) months for the vessel hull and welding of the total twenty four months vessel hull and welding warranty. Remaining (12) months of the vessel hull and welding warranty, no holdback will be retained.

7.6.7 Warranty Holdback

A warranty holdback of 3% will be applied to the claim(s) for payment. This holdback is payable by Canada upon the expiry of the warranty holdback period of applicable to the Work. Applicable Taxes will be calculated on this outstanding work holdback amount and paid at the time that the warranty holdback is released.

7.6.8 Outstanding Work Holdback

In addition to any amount held under the Warranty Holdback Clause, a holdback of twice the estimated value of outstanding work will be held until completion of the Work.

Applicable Taxes will be calculated on this outstanding work holdback amount and paid at the time that the outstanding work holdback is released.

7.7 Invoicing Instructions

1. The Contractor must submit a claim for payment using form PWGSC-TPSGC 1111, Claim for Progress Payment.

Each claim must show:

- (a) all information required on form PWGSC-TPSGC 1111;
 - (b) all applicable information detailed under the section entitled "Invoice Submission" of the general conditions;
 - (c) the description and value of the milestone claimed as detailed in the Contract;
 - (d) Quality assurance documentation when applicable and/or as requested by the Contracting Authority.
2. Applicable taxes, as applicable, must be calculated on the total amount of the claim before the holdback is applied. At the time the holdback is claimed, there will be no applicable taxes payable as it was claimed and payable under the previous claims for progress payments.
3. The Contractor must prepare and certify 1 original and 1 copy of the claim on form PWGSC-TPSGC 1111, and forward it to the Contracting Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.
4. The Contracting Authority will then forward the original of the claim to the Technical Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.
5. The Contractor must not submit claims until all work identified in the claim is completed.

7.7.1 Electronic Payment of Invoices – Contract

The Contractor accepts to be paid using any of the following Electronic Payment Instrument(s):

- a. Direct Deposit (Domestic and International);
- b. Electronic Data Interchange (EDI);
- c. Wire Transfer (International Only);

7.8 Work Acceptance

The Inspection Authority, in conjunction with the Contractor, will prepare a list of outstanding work items at the end of the work period. This list will form the annexes to the formal acceptance document for the vessel. A contract completion meeting will be convened by the Inspection Authority on the work completion date to review and sign off the form PWGSC-TPSGC 1105,

- 1) The Contractor must complete the above form in 3 copies, which will be distributed by the Inspection Authority as follows:
 - a) original to the Contracting Authority;
 - b) one copy to the Technical Authority;
 - c) one copy to the Contractor.

7.8.1 Procedures for Design Change/Deviations

The Contractor must follow these procedures for any proposed design change/deviation to contract specifications.

The Contractor must complete Part 1 of form [PWGSC-TPSGC 9038 \(PDF 241 KB\)](#) - ([Help on File Formats](#)), Design Change/Deviation, and forward 2 copies to the Technical Authority and 1 copy to the Contracting Authority.

7.9 Certifications and Additional Information

7.9.1 Compliance

Unless specified otherwise, the continuous compliance with the certifications provided by the Contractor in its bid or precedent to contract award, and the ongoing cooperation in providing additional information are conditions of the Contract and failure to comply will constitute the Contractor in default. Certifications are subject to verification by Canada during the entire period of the Contract.

7.9.2 Federal Contractors Program for Employment Equity - Default by the Contractor

The Contractor understands and agrees that, when an Agreement to Implement Employment Equity (AIEE) exists between the Contractor and Employment and Social Development Canada (ESDC)-Labour, the AIEE must remain valid during the entire period of the Contract. If the AIEE becomes invalid, the name of the Contractor will be added to the "[FCP Limited Eligibility to Bid](#)" list. The imposition of such a sanction by ESDC will constitute the Contractor in default as per the terms of the Contract.

7.9.3 Welding-Contract

1. The Contractor must ensure that welding is performed by a welder certified by the Canadian Welding Bureau (CWB) in accordance with the requirements of the following Canadian Standards Association (CSA) standards:
 - (a) CSA W47.2 (current version) , Certification of Companies for Fusion Welding of Aluminum 2.1.
2. In addition, welding must be done in accordance with the requirements of the applicable drawings and specifications.
3. Before the commencement of any fabrication work, and upon request from the Inspection Authority, the Contractor must provide approved welding procedures and/or a list of welding personnel he intends to use in the performance of the Work. The list must identify the CWB welding procedure qualifications attained by each of the personnel listed and must be accompanied by a copy of each person's current CWB welding certification.

7.9.4 Workers Compensation

The Contractor must maintain its account in good standing with the applicable provincial or territorial Workers' Compensation Board for the duration of the Contract.

7.9.5 Trade Qualifications

The Contractor must use qualified, certified (where applicable) and competent tradespeople and supervision to ensure a uniform high level of workmanship. The Contracting Authority may request to view and record details of the certification and/or qualifications held by the Contractor's tradespeople. This request should not be unduly exercised but only to ensure qualified tradespeople are on the job.

7.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____ (Insert the name of the province or territory as specified by the Bidder in its bid, if applicable.)

7.11 Priority of Documents

If there is a discrepancy between the wording of any documents that appear on the list, the wording of the document that first appears on the list has priority over the wording of any document that subsequently appears on the list.

- (a) the Articles of Agreement;
- (b) the supplemental general conditions 1028, (2010-08-16), Ship Construction Firm Price;
- (c) the general conditions 2030, (2018-06-21), Goods (Higher Complexity);
- (d) Annex A, Technical Statement of Requirement (TSOR)
- (e) Annex B, Basis of Payment
- (f) Annex C, Bidder Questions and Canada Responses;
- (g) Annex D, Subcontractors; AND
- (h) the Contractor's bid dated_____.

7.12 Trade Qualifications

The Contractor must use qualified, certified (where applicable) and competent tradespeople and supervision to ensure a uniform high level of workmanship. The Contracting Authority may request to view and record details of the certification and/or qualifications held by the Contractor's tradespeople.

7.13 Quality Management Systems

1. The Contractor must have in place a Quality Assurance Program approved by the Inspection Authority during the performance of the Work which addresses the quality control elements below.
2. The quality control elements must include, as a minimum:
 - Quality Assurance Manual or Quality Assurance Program Descriptions
 - Inspection and Test Plan
 - Final Inspection
 - Quality Records

7.14 Post Contract Award/Pre-Production Meeting

Within **3 working days** of the receipt of the contract, the Contractor must contact the Contracting Authority to determine the details of a pre-production meeting. The meeting will be held at the Contractor's plant or via telephone or video conference. Travel and living expenses for Canada's representatives will be arranged and paid for by the Canada.

7.15 Project Schedule

1. The Contractor must provide an updated detailed project schedule in MS Project format or equivalent to the Contracting Authority and the Technical Authority **5 days after award of Contract.**
2. This schedule must highlight the specific dates for the events listed below.
 - a. hull materials delivered to Contractor and sustained construction commenced;
 - b. hull and deck completed, but not closed in to allow for full inspection of the structure and welding. The Contractor must supply a hard copy of the material certificates and construction

- drawings to the Technical/Inspection Authority one week prior to inspection by the Technical/Inspection Authority;
- c. outfitting/electrical 75% complete but all equipment and components delivered to the Contractor and available for full inspection. The Contractor must supply a hard copy of the list of equipment and electrical supplies to the Technical/Inspection Authority one week prior to inspection by the Technical/Inspection Authority;
- d. technical manuals delivered to Canada for approval (no less than 14 days prior to the planned delivery date);
- e. Contractor's tests and trial and final sea trials required by the TSOR;
- f. boat and trailer delivered to Canada for approval;

Note: Technical Manuals will not be returned once approved.

3. The schedule is to be regularly updated and available in the Contractor's authority for review by Canada's authorities to determine the progress of the Work.

7.16 Progress Report

1. The Contractor must submit monthly reports on the progress of the Work in an electronic format to the Technical Authority and to the Contracting Authority.
2. The progress report must contain 2 Parts:
 - a. PART 1: The Contractor must answer the following three questions:
 - i. is the project on schedule?
 - ii. is the project within budget?
 - iii. is the project free of any areas of concern in which the assistance or guidance of Canada may be required?

Each negative response must be supported with an explanation.

- b. PART 2: A narrative report, brief, yet sufficiently detailed to enable the Technical Authority to evaluate the progress of the Work, containing at a minimum:
 - i. a description of the progress of each task and of the Work as a whole during the period of the report. Sufficient sketches, diagrams, photographs, etc., must be included, if necessary, to describe the progress accomplished.
 - ii. an explanation of any variation from the schedule.

7.17 Progress Meeting

Progress meetings, chaired by the Contracting Authority, will take place at the Contractor's facility as and when required, generally once a month. Interim meetings may also be scheduled. Contractor's attendees at these meetings will, as a minimum, be its Contract (Project) Manager, Production Manager (Superintendent) and Quality Assurance Manager. Progress meetings will generally incorporate technical meetings to be chaired by the Technical Authority.

7.18 Progress Review Meetings

Progress review meeting shall encompass total project status as of the review date. The Contractor, at a minimum, must report on the following:

1. Progress to date;
2. Variation from planned progress and the corrective action to be taken during the next reporting period;
3. A general explanation of foreseeable problems and proposed solutions, including an assessment of their impact on the contract in terms of schedule, technical performance and risk. The proposed solution should include the effort involved and the consequences to the schedule (Risk Register);

4. Proposed changes to the schedule;
5. Progress on action items, problems or special issues;
6. Deliverables submitted prior to PRM;
7. Milestones (technical and financial);
8. Activities planned for the next reporting period;
9. Status of any change notifications and requests;
10. Any changes to the PMP; and
11. Other business as mutually agreed to by CANADA and the Contractor.

7.19 SACC Manual clauses

A1009C – Worksite Access,	2008-05-12
B9028C – Access to Facilities and Equipment,	2007-05-25
D0018C – Delivery and Unloading,	2007-11-30
D2000C – Marking,	2007-11-30
D2001C – Labelling,	2007-11-30
D9002C – Incomplete Assemblies,	2007-11-30
H4500C – Lien - Section 427 of the Bank Act,	2010-01-11

7.20 Manuals

1. No later than 14 calendar days prior to delivery of each boat, the Contractor must obtain and deliver to the Technical Authority for approval all Data Books, Operating Instruction Books, Maintenance Manuals and Spare Parts Lists (including part numbers and ordering instructions) for all machinery and equipment fitted on the Vessel as required. Once approved by the TA, the Contractor will provide 2 complete copies in accordance with and as specified in the TSOR.
2. Where manuals are examined by Canada, such examination does not relieve the Contractor of any responsibility under the Contract for ensuring the correctness of all details and adequacy of performance of the Vessel, nor does it obligate Canada to accept, in part or in whole, an item of Work completed in accordance with such manual, nor does it mean such an item of Work meets the requirements of the TSOR.

7.21 Insurance Requirements

1. The Contractor must comply with the insurance requirements specified in **Articles 7.21.1 and 7.21.2** below. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.
2. The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.
3. The Contractor must forward to the Contracting Authority within **10 working days** after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. Coverage must be placed with an Insurer licensed to carry out business in Canada. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

7.21.1 General Commercial Insurance

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.
2. The Commercial General Liability policy must include the following:
 - (a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.

- (b) Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
- (c) Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.
- (d) Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
- (e) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
- (f) Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
- (g) Employees and, if applicable, Volunteers must be included as Additional Insured.
- (h) Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program).
- (i) Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
- (j) Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority 30 days written notice of policy cancellation.
- (k) If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
- (l) Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.
- (m) Non-Owned Automobile Liability - Coverage for suits against the Contractor resulting from the use of hired or non-owned vehicles.
- (n), (o), (p), (q) not used.
- (r) Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

Director Business Law Directorate, Quebec Regional Office (Ottawa), Department of Justice,
284 Wellington Street, Room SAT-6042, Ottawa, Ontario, K1A 0H8

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,

Department of Justice
234 Wellington Street, East Tower Ottawa, Ontario K1A 0H8

A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

7.21.2 Marine Liability Insurance

1. The Contractor must obtain Protection & Indemnity (P&I) insurance that must include excess collision liability and pollution liability. The insurance must be placed with a member of the International Group of Protection and Indemnity Associations or with a fixed market in an amount of not less than the limits determined by the Marine Liability Act, S.C. 2001, c. 6. Coverage must include crew liability, if it is not covered by Worker's Compensation as detailed in paragraph (2.) below.
2. The Contractor must obtain Worker's Compensation insurance covering all employees engaged in the Work in accordance with the statutory requirements of the Territory or Province or state of nationality, domicile, employment, having jurisdiction over such employees. If the Contractor is assessed any additional levy, extra assessment or super-assessment by a Worker's Compensation Board, as a result of an accident causing injury or death to an employee of the Contractor or subcontractor, or due to unsafe working conditions, then such levy or assessment must be paid by the Contractor at its sole cost.
3. The Protection and Indemnity insurance policy must include the following:
 - (a) Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada as additional insured should read as follows: Canada, represented by Public Works and Government Services Canada.
 - (b) Waiver of Subrogation Rights: Contractor's Insurer to waive all rights of subrogation against Canada as represented by the Canadian Coast Guard and Public Works and Government Services Canada for any and all loss of or damage to the watercraft however caused.
 - (c) Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority 30 days written notice of cancellation.
 - (d) Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
 - (e) Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

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234 Wellington Street, East Tower Ottawa, Ontario K1A 0H8

4. A copy of the letter must be sent to the Contracting Authority. Canada reserves the right to co-defend any action brought against Canada. All expenses incurred by Canada to co-defend such actions will be at Canada's expense. If Canada decides to co-defend any action brought against it, and Canada does not agree to a proposed settlement agreed to by the Contractor's insurer and the plaintiff(s) that would result in the settlement or dismissal of the action against Canada, then Canada will be responsible to the Contractor's insurer for any difference between the proposed settlement amount and the amount finally awarded or paid to the plaintiffs (inclusive of costs and interest) on behalf of Canada.

7.22 Inspection and Acceptance

The Technical Authority is the Inspection Authority. All reports, deliverable items, documents, goods and all services rendered under the Contract are subject to inspection by the Inspection Authority or representative. Should any report, document, good or service not be in accordance with the requirements of the Statement of Work and to the satisfaction of the Inspection Authority, as submitted, the Inspection Authority will have the right to reject it or require its correction at the sole expense of the Contractor before recommending payment.

7.23 Acceptance

1. Canada's provisional acceptance for delivery of the vessel must occur with the execution of a certificate in accordance with form **PWGSC 1105** upon satisfactory completion of the vessel and all trials. The execution of the certificates must in no way relieve the Contractor of any obligations under the Contract.
2. It is understood and agreed that where the work has been substantially completed and the parties have agreed upon the terms and conditions for the Contractor to make good any deficiencies, the certificate referred to above may be executed with a statement attached concerning the rectification of the deficiencies by the Contractor.
3. Canada's final acceptance must occur upon completion of the 12 month warranty period and settlement of all accounts between the parties in relation to the Contract.

7.24 Government Supplied Material – Not used.

ANNEX A
Technical Statement of Requirement

FISHERIES AND OCEANS CANADA

ANNEX A

**Technical Statement of Requirements
Requisition Number F7044-180030 for one (1) 10.2 – 10.4m
Aluminium sea truck with cabin and trailer**

July 3, 2018
Revision 2

TRANSPORT CANADA MARINE SAFETY BRANCH (TCMSB)
TP 1332 (2010 VERSION) APPROVED CONSTRUCTION

Record of Amendments

#	Date	Description	Initials
0	May 31, 2018	Original release	KA
1	June 25, 2018	Minor modifications	KA

[illegible]

N° de l'invitation - Solicitation No.

F7044-180030

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

F7044-180030

N° de la modif - Amd. No.

File No. - N° du dossier

Id de l'acheteur - Buyer ID

XLV166

N° CCC / CCC No./ N° VME - FMS

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ABBREVIATIONS

ABYC	American Boat and Yacht Council
ABS	American Bureau of shipping
AC	Alternating Current
ASTM	American Society for Testing and Materials
CFM	Contractor Furnished Material
CSA	Canadian Shipping Act
CSA	Canadian Standards Association
COLREGS	Collision Regulations
DC	Direct Current
GPS	Global Positioning System
GSM	Government Supplied Material
ISO	International Organization for Standardization
PVC	Polyvinylchloride
TA	Technical Authority (As defined by the Contract)
TCMS	Transport Canada Marine Safety
TSOR	Technical Statement of Requirements
UV	Ultraviolet
VHF	Very High Frequency

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LIST OF REFERENCE DOCUMENTS

REFERENCE	TITLE
ASTM F1166	Standard Practice for Human Engineering Design for Marine Systems, Equipment and Facilities
TP 1332	Construction Standards for Small Boat
TP 13430	Standard For Tonnage Measurement of Ships
TP 14070	Small Commercial Vessel Safety Guide
ISO 12217	Small Boat – Stability and Buoyancy Assessment and Categorization
Canada Shipping Act	Small Vessel Regulations
Canada Shipping Act	Collision Regulations (COLREGS)
ABYC	American Boat and Yacht Council Standards
Canadian Standards Association (CSA) CSA W47.2-M1987	Certification of Companies for Fusion Welding of Aluminium
(CSA) C22.2 No. 183.2-M1983 (R1999)	Standards for DC Electrical Installations on Boat
CT-043-EQ-EG-001-E	Canadian Coast Guard Welding Specification, August 2017

1.0 OVERVIEW

1.1.1 Requirement

1.1.2 The Contractor must design, fabricate and supply quantity one (1) 10.2 -10.4 metre Aluminium sea truck with cabin and Trailer based on the current Transport Canada Marine Safety Branch (TCMSB) Marine Safety Publication TP 1332 "Construction Standards for Small Vessels, 2010 version" (hereinafter referred to as TP 1332). The boat must be outfitted with twin Volvo D6-370 inboard engines and Konrad 620 sterndrives or equivalent.

1.1.3 The primary role of this vessel will be direct support of Canadian Coast Guard (CCG), Maritime and Civil Infrastructure (MCI) sector for the transportation of equipment, personnel, construction materials and NavAid gear (fixed and floating) for the construction and maintenance of NavAid sites throughout the western region of CCG.

1.1.4 This vessel must be shore-based, launched and recovered by trailer or may be ship based and launched and recovered by ship board crane or davit.

2.0 DESIGN AND CONSTRUCTION REQUIREMENTS

2.1 GENERAL

2.1.1 Unless stated otherwise all components, equipment and material must be Contractor supplied.

2.2 ERGONOMIC DESIGN

2.2.1 Hazardous operating conditions must be prevented by arranging machinery and equipment in a safe manner; providing guards for all electrical, mechanical and thermal hazards to personnel; and providing guards or covers for any controls that might accidentally be activated by contact of personnel.

2.2.2 The boat must be designed and constructed to accommodate both male and female crew from approx. 5' 5" to 6' 4" in height, wearing cold weather clothing and equipment in accordance with ASTM F1166-07 Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities.

2.2.3 Human engineering factors considered in design must include accessibility, visibility, readability, crew efficiency and comfort. All equipment must be accessible for use, inspection, cleaning and maintenance.

2.2.4 Equipment must be accessible for use, inspection, cleaning and maintenance as per ASTM F1166-07.

2.3 VIBRATION

2.3.1 The boat and all components must be free of local vibration that could endanger boat personnel, damage boat structure, machinery or systems, or interfere with the operation or maintenance of boat machinery or systems.

2.3.2 Mounts for movable components, including items moved for stowage, towing or transport must be provided with resilient material as necessary to prevent rattling.

2.3.3 Loosening of fasteners under vibration must be prevented by the use of self-locking fasteners.

2.4 EQUIPMENT PROTECTION

2.4.1 The Contractor is responsible for the care of all equipment. All parts, especially those having working surfaces or passages intended for lubricating oil, must be kept clean and protected during manufacture, storage, assembly and after installation. Equipment must at all times be protected against dust, moisture or foreign matter and must not be subject to rapid temperature changes or extremes in temperature.

2.5 SITE CLEANLINESS

2.5.1 During construction, all chips, shavings, refuse, dirt and water must be removed at the completion of the work shift or sooner. The Contractor must ensure measures are taken to avoid wear and damage incident to construction, and to prevent corrosion or other deterioration. Equipment subject to freezing must be kept drained, except during test and trials. Equipment must be kept clean and protected from the environment prior to installation.

2.6 STRUCTURAL STRENGTH

- 2.6.1** All structures and components (hull, deck, seating, etc.) must be of sufficient strength to withstand when in the Fully Loaded Condition, the lateral and vertical impact-loading that equates to the conditions of the operational requirements.

2.7 LAUNCHING

- 2.7.1** The boat must be capable of being launched, recovered and transported by road trailer.

2.8 STANDARDS

- 2.8.1** Transport Canada Marine Safety Regulation TP 1332 (current edition) Construction Standards for Small Boat. This standard references ISO and ABYC standards covering structure, fuel, electrical, stability and drainage requirements.
- 2.8.2** CSA C22.2 No. 183.2-M1983 (R1999) Standards for DC Electrical Installations on Boat and ABYC 'E' Electrical Standards.
- 2.8.3** CT-043-EQ-EG-001-E Canadian Coast Guard Welding Specification, August 2017.
- 2.8.3.1** This construction contract requires that the primary Contractor be currently certified by the Canadian Welding Bureau (CWB) to standard CSA W47.2M, Division I, II or III - Certification of Companies for Fusion Welding of Aluminum.
- 2.8.3.2** The Contractor must provide a current letter of validation from the CWB indicating compliance with standard CSA W47.2M 1987, Division I, II or III.
- 2.8.3.3** The Contractor will be required to provide approved procedure data sheets for each type of joint and welding position that will be involved in this construction to the Inspection Authority.
- 2.8.3.4** The Contractor will be required to supply a current Welders Certification for each individual welder that will be involved in this construction.
- 2.8.4** The Contractor must construct the boat as per this TSOR and where this TSOR interferes or contravenes the above standard; the above TCMSB TP 1332 standard must take precedence.
- 2.8.5** The Contractor must arrange for Technical/Contracting Authority site visits, during all phases of each boat's construction. The site visits are required to insure that the boat constructed under this TSOR comply with each standard addressed in this TSOR. The Contractor must supply an electronic copy and two (2) hard copies of all construction drawings for the boat design to the Technical Authority.
- 2.8.6** The Contractor must supply a signed letter insuring the proposed boat complies with TCMSB TP 1332 and a completed Small vessel Compliance Form (available from the TCMSB web site), to ensure compliance with the current TCMSB requirements.
- 2.8.7** To facilitate proper inspection of material and workmanship, the Technical Authority/Inspection Authority must be permitted access to the Contractor's facility at any time during construction.
- 2.8.8** The construction, outfit, machinery, equipment, fittings, systems, testing and trials must be to the satisfaction and approval of the Inspection Authority.

2.9 MATERIALS

- 2.9.1** All materials must be corrosion resistant and suitable for use in a salt water environment as detailed in the Operational Requirements. All materials normally subjected to sunlight must resist degradation caused by ultraviolet radiation. Galvanized materials are unacceptable.
- 2.9.2** Dissimilar Metals: Direct contact of electrolytically dissimilar metals is not allowed. Electrolytic corrosion must be prevented by insulating dissimilar materials from each other with gaskets, washers, sleeves, or bushings of suitable insulating material.
- 2.9.3** Aluminium: Aluminium alloy types 5086-H32/5083-H32 must be used for plate; aluminium alloy 6061-T6 (anodized grade), suitable for type 5356 filler alloy, must be used for extruded shapes and welded tubing and pipe. Non-structural items of trim and outfit such as hatch frames, castings, consoles, and hardware items may be of other aluminium alloys suitable for commercial saltwater marine use such as dual rated 5083 / 86 or 5052 or 6063-T54.
- 2.9.4** Stainless Steel: Stainless steel type 316L or 316 must be used for all stainless steel applications except as noted. Alloy 316L must be used in any welded underwater components.
- 2.9.5** Unless specified otherwise, fittings and clamps must be stainless steel. Bolts used in all fittings must be Type 316 stainless steel.
- 2.9.6** Where flexible connections are required for steering and fuel systems, suitable hose with permanently crimped, detachable reusable type fittings must be used.

2.9.7 All materials and equipment must be stored installed and tested in accordance with the manufacturer's guidelines, recommendations and requirements.

2.9.8 Non-hull structural items of trim and outfit such as hatch frames, castings, consoles and hardware items may be of other aluminium alloys suitable for commercial saltwater marine use such as type 5052 or 6063.

2.10 FASTENERS

2.10.1 All fasteners must be of corrosion resistant materials.

2.10.2 Cadmium plated parts and fasteners, including washers, must not be used.

2.10.3 Direct attachment of alloys containing copper to aluminium is not permitted except for an electrical bonding strap.

2.10.4 No fasteners must be directly threaded into aluminum. Aluminium or Stainless steel washers or backing plates must be used as appropriate.

2.10.5 Where nuts will become inaccessible after assembly of the vessel, nuts must be captured or anchored to allow reassembly and prevent backing off. Unless otherwise specified, self-locking nuts must be installed to prevent loosening of fasteners due to shock and vibration.

2.10.6 Fasteners in deck traffic areas must be flush-mounted to eliminate tripping and snagging hazards.

2.11 FACILITIES

2.11.1 The Contractor must have a shop capable of maintaining temperature and humidity. It must be capable of maintaining temperature between 16°C and 25°C. It must be capable of maintaining relative humidity below 70%.

3.0 OPERATIONAL REQUIREMENTS

3.1 GENERAL

3.1.1 Unless otherwise stated, performance must be for conditions of zero sea state and no wind, in salt water with full load and complement. The boat must be designed and constructed for ease of maintenance and repair, long life, and are to be easily supportable in the location of the delivery address of the boat, by local commercial facilities and suppliers. The boat must be expected to have a service life of at least twelve (12) years, with an expected usage of between 150 and 200 hours per year.

3.1.2 Maximum speed: 33 knots unloaded, 28 Knots loaded.

3.1.3 Cruising speed: 18 knots in beaufort force 4 with 16-knot wind.

3.1.4 Endurance: 25 knots for four (4) hours.

3.1.5 Range: 250 nautical miles with 10% reserve at 18-knot cruising speed.

3.2 STEERING

3.2.1 Capable of steering 15° from heading, in Beaufort force 4, with seas from any direction.

3.2.2 Steer and manoeuvre effectively at three (3) knots in Beaufort force 5.

3.2.3 Maintain course, made good over ground, when proceeding at three (3) knots with relative crosswind of 35 knots.

3.2.4 Capable of turning in its own length in Beaufort force 5.

3.2.5 Be able to operate fully in depths of 1.0 metre and be capable of basic manoeuvring in depths of 0.8 metre.

3.3 BEACHING

3.3.1 Capable of beaching on soft (sand, earth or clay) surfaces at a speed of up to five (5) knots without damage to the hull.

3.3.2 Capable of beaching on hard (stone or concrete) surfaces at speeds of up to three (3) knots without damage to the hull.

3.4 ENVIRONMENTAL CONDITIONS

3.4.1 Capable of operating day or night in the following conditions:

3.4.1.1 Average ambient air temperature range: -5 °C to + 30 °C;

- 3.4.1.2 Average water temperature: 0 ° C to +20 ° C;
- 3.4.1.3 Wave heights of four (4) meters (Beaufort force 6);
- 3.4.1.4 Wind speeds of 27 knots minimum;

4.0 VESSEL CONFIGURATION

4.1 Vessel Particulars

- 4.1.1 Length overall – 10.2 to 10.4 metres.
- 4.1.2 Breadth overall – maximised to 2.95 metres.
- 4.1.3 Displacement Normal Load condition: Between 9500 and 9900 kg.
- 4.1.4 Normal load condition:
 - 4.1.4.1 Crew of 2 and 4 workers = 660 kg;
 - 4.1.4.2 Diesel fuel 900 liters = 765 kg;
 - 4.1.4.3 Crew Equipment and Gear = 180 kg; and,
 - 4.1.4.4 Forward deck payload capacity (evenly distributed) = 1815kg.
- 4.1.5 Vessel configured to accommodate – twin diesel inboard engines, Volvo D6-370 with Konrad 620 stern drives or equivalent. Supply, Installation and verification of the inboard engines and stern drives is the responsibility of the contractor. Supply, installation and verification of the controls, gauges and all rigging is the responsibility of the Contractor.

4.2 Hull Form & Structure

- 4.2.1 The vessel must be a modified "V" monohull with single chine and capable of operating in limited depths.
- 4.2.2 Deadrise must be 22 to 25 degrees at transom.
- 4.2.3 Hull shape must not impede water flow to the propulsion units and must direct spray and waves away from onboard personnel.
- 4.2.4 Hull plate – minimum 5/16" thick aluminum.
- 4.2.5 Side plates minimum 3/16" thick aluminum.
- 4.2.6 Gunwales to be 30 inches (750mm) above working deck.
- 4.2.7 The hull is to be primary transversely framed with secondary longitudinal stringers.
- 4.2.8 Main chines must be flat and run the full length of the vessel, tapered into the stem.
- 4.2.9 Transverse bulkheads or lightened plate frames may use type 5052 to facilitate braked tabs.
- 4.2.10 Vessel must have a welded crash bar guard encompassing the stern drives to protect the drives during operations with a swim grid platform over the stern drives. This guard must be reinforced with bolting pads on the transom and fabricated so as not to interfere with the removal of the stern drives.
- 4.2.11 Lenco (or equal) electric trim tabs must be incorporated onto the transom with controls mounted on the operator's console.
- 4.2.12 Top of bulwark must be a minimum of 6" wide with rounded inside edges and flat across their whole width.

4.3 Hull Outfit

- 4.3.1 Removable handrails must be provided on top of gunwales, 6" high port and starboard sided from forward side of the cabin to the bow ramp opening.
- 4.3.2 Handrails must be provided around the perimeter of the aft deck from the aft sides of the cabin to the transom. Handrails must be 36" high and provide for safe egress of personnel when working on the aft deck.
- 4.3.3 A boarding ladder must be provided on the stern of the vessel port side. Permanent with foldable bottom section to clear the waterline.
- 4.3.4 BOW RAMP

- 4.3.4.1 The ramp must be 6' feet wide and minimum 5'-6" long, designed and fabricated to safely carry a 1000-pound (4.4kN) load and must be Certified and tested to 150% of this load by the contractor when the ramp is horizontal and supported by the outboard end. In addition the ramp. Must be capable of withstanding all sea loads when located in the stowed position.
- 4.3.4.2 Hinges must be fitted in a recess at the bow to (so that provide) ensure that the ramp top is inline (parallel) with the main deck when in the horizontal position. Ramp lugs and hinge plates must have stainless steel grommets in way of the stainless steel hinge pins. Lugs and hinges must be robust and connected by full penetration welding. A grease fitting must be fitted at each lug.
- 4.3.4.3 Raising and lowering of the aluminum bow ramp must be completed via a DC powered hydraulic gate system with a manual back-up for both raising and lowering. The hydraulic pump must be able to be operated from two locations, a location near the ramp and at the helm station by the operator. Engagement of the gate must be by a switch located at both locations identified above.
- 4.3.4.4 Both bow ramp hydraulic cylinders with components must be contained in watertight compartments with bolted access panels for servicing.
- 4.3.4.5 The bow ramp must be fitted with a watertight gasket, which seals the door against the hull when the door is fully closed. Locking pins must be supplied and installed port and starboard to positively lock the ramp in its closed position.
- 4.3.4.6 A 24 inch (600mm) hinged fold-over extension is must be provided to extend the bow ramp to a minimum of 7'-6" total length. The extension must fold inboard.

4.3.5 FENDERS

- 4.3.5.1 Two high density rubber compound rub-rails (3 ¼" x 3" (82x75mm) D rubber) must be supplied and installed, mounted inside pre-mounted aluminum channeling. One must be mounted along the gunwale and the second secured along the deck. These must run the length of the vessel on both sides as well as across the front of the bow ramp on both the main bow ramp leading edge and the extension. Fender material must not contain waste rubber with metal fillings.

4.4 DECK

- 4.4.1 Deck plate - aluminum checker plate deck, minimum 1/4" thick.
- 4.4.2 The deck is to be primary transversely framed with secondary longitudinal stringers.
- 4.4.3 All deck hatches to be fitted with flush mounted, watertight, quick hinged access hatches. Bolt down access hatches are not acceptable.
- 4.4.4 Recessed deck tie downs - ½" loop tie downs every 2 ft on both sides of the forward working deck.
- 4.4.5 Aluminum tie up cleats – 8", four mounted on the port side and four mounted on the Stbd side of the vessel on the top of the gunwhale.
- 4.4.6 Forward working deck length from forward side of the cabin to base of the bow ramp when ramp is closed must be a minimum of 6.65m.
- 4.4.7 Forward working deck width at deck level from inside of bulwarks must be a minimum of 2.4m.
- 4.4.8 A reinforced deck area must be provided. A backing plate 24"x14"x ½" (600x350x13mm) welded to underside of deck midships, 2 feet (600mm) forward of cabin and topping plate 24"x14"x ½" (600x350x13mm) welded on topside of deck, directly over backing plate. Below deck "stringers" are to be installed within 6 inches (150mm) of all 4 sides of backing plate providing extra strength to allow for future installation of winch or other machinery.

4.4.9 The cabin working deck must be elevated from forward working deck to allow for engine space below the cabin. A folding aluminum staircase (minimum 42" wide must be provided for access to the cabin from the forward working deck.

4.4.10 An exterior aft working deck at top of bulwark height must be provided a minimum 24" long from aft side of the cabin across the breadth of the vessel.

4.5 DECK OUTFIT

4.5.1 TOWING POST

4.5.1.1 The Contractor must supply and install a cruciform towing post of heavy duty 6 inch (150mm) Schedule 80 aluminum pipe mounted on the stern, midships.

4.5.1.2 A 1½-inch (38mm) solid round crossbar must be fitted at mid height of the tow post.

4.5.1.3 Towing post and substructure must be designed for 6000 lbs(26.7kN) towing capacity, must be Certified and tested to 150% of this load by the contractor, calculations for the tow post must be provided. The safe working load is to be permanently stamped and clearly identified on the top of the tow post in red.

4.5.2 LIFTING LUGS

4.5.2.1 Lifting lugs must be incorporated in the hull structure so as to safely support the maximum barge with full fuel, no cargo, no personnel.

4.5.2.2 Certified for ship board and shoreside lifting, Contractor must provide calculations in support of this requirement.

4.5.2.3 The lifting lugs must be fitted with stainless Steel grommets.

4.5.2.4 The Contractor must supply certified "4 point" lifting slings (nylon soft slings), spreader-bar and shackles for barge. The Contractor must provide test certificates for each sling, the spreader bar and the shackles.

4.5.3 WATERTIGHT DECK HATCHES

4.5.4 The Contractor must supply and install flush-mounted, cast aluminum watertight hatches for access to deck compartments. The hatches must have an aluminum-mounting ring, which is welded to the deck or bulkhead as follows:

4.5.4.1 Aft deck – Two (2) hinged flush hatches, 15" X 24" BOMAR model C41524-H (or equal);

4.5.4.2 Inside cabin on deck – One (1) lift out flush hatch, 24" x 24" for engine room maintenance access;

4.5.4.3 Forward working Deck - Three (3) hinged flush hatches, 15" X 24" BOMAR model C41524-H (or equal). One for each Watertight compartment below deck;

4.5.4.4 Fuel tanks fittings sending unit access hatch – 8" diameter bolted watertight hatch or hatches; and,

4.5.5 The contractor must supply and install one flush/removable "soft patch" bolted down in the forward working deck over the fuel tank. The hatch shall be of watertight construction and installed in such a way as to allow shall be easily removed to facilitate fuel tank removal.

4.5.6 Anchor storage with anchor bit must be provided forward stbd side of the vessel. Anchor bit must be located on top of bulwark with anchor storage on the inside of the bulwark.

4.5.7 The Contractor must install an inboard aft deck wash down system, Jabsco ultra max water pressure system or equal, complete with wash down hose and all accessories. The Contractor must provide a suitable storage location for the hose.

4.5.8 Davit with electric winch - The vessel must be outfitted with a removable davit and electric winch, located on the STBD side of the vessel in a structural bulwark pocket as far forward as possible (in line with where the bow ramp meets the deck). An identical structural pocket must be provided on the port side of the vessel to allow placement of the davit with winch on the port side if required for operations. The davit arm must be long enough to lift the load at centerline of the vessel at the forward leading edge at the top of the bow ramp and must be Certified and tested to 150% of this load by the contractor. The davit and winch must rotate

under load and be rated for 800 lb (363 kg) Safe Working Load (SWL) and be permanently stamped into the davit in red, clearly visible to the operator. The structural pockets must be designed for davit rotation by hand to the inboard side of the vessel only and be limited to 180 degree rotation with four (4) lock positions. Davit must be removable and there must be receivers with power quick connections provided on both sides of the vessel.

4.6 WELDING

4.6.1 Must meet the requirements as identified in section 2.8.3.

4.7 IDENTIFICATION LABELS

All compartment vents, fuel and hydraulic fill and vents, lubrication and grease points, Compartment access hatches, winch control handles, electrical switches, engines, controls and bilge piping discharges shall be clearly identified with a permanently attached label or sign located adjacent to the item. The label shall be engraved or stamped and fabricated of non-corroding material. Riveted, glued or even adhesive labels are acceptable.

5.0 VESSEL CONFIGURATION

The vessel must be an aluminium Landing craft sea truck, a full breadth cabin with exterior bulwark access from the forward primary working deck to the aft deck.

5.1 GENERAL DECK ARRANGEMENT

5.1.1 Open forward deck, length of working space to be minimum 6.7 metres, self-bailing deck with at least eight (8) "non-return" auto scuppers around the perimeter of the vessel.

5.1.2 Full breadth cabin with bulwark walk around bulwark exterior access on port and starboard sides. Minimum inside length of 2.8 metres with sliding door access from the forward deck.

5.1.3 The forward side of the cabin in way of the operator's position must be forward raked.

5.2 CABIN – GENERAL

5.2.1 Cabin must be minimum 2.4m wide by 2.4m long with 195.5 centimetres of headroom internal clearance (6' 5") on centreline.

5.2.2 The interior cabin bulkheads and deck head must have screwed on interior lining plates with thermal insulation between frames. Frame faces must have thermal barrier strip isolating interior panels. Contractor must supply and install a white dybond lining material with trim, painted with Zolotone grey or equal to the interior cabin walls and overhead ceiling.

5.2.3 There must be one sliding weathertight access door to provide access to the forward deck, located on the centreline of the forward cabin bulkhead, sliding to the port side. The door must have a vertical fixed aluminium framed window and have positive retention in the open/closed positions with locksets. All locks and hardware must be of stainless steel construction.

5.2.4 There must be one hinged access hatch on the cabin top for emergency egress Lewmar ocean series 70 (or equal). The hatch must be hinged on the forward side and be located on centreline athwartships and centered on the length of the cabin.

5.2.5 The cabin must be fitted with proven manufacturers' aluminium framed windows (with screens for sliders), ISO Category B certified and sized to maximize visibility, as follows:

5.2.5.1 Two (2) forward facing fixed windows, one on either side of the forward sliding door;

5.2.5.2 Two (2) sliding side windows, one in way of the operator position and a

second mirrored to the port side;

5.2.5.3 Two (2) fixed side window assemblies for the aft of the cabin, one stbd and one port maximised; and,

5.2.5.4 Two (2) aft facing sliding windows, one port side and one starboard side and maximised on the breadth of the cabin.

5.2.6 An exterior ladder must be supplied and installed on the stbd side for access to the cabin top from the aft deck.

5.2.7 Helm Station:

5.2.7.1 The helm station will be on the stbd side of the console, with controls on stbd side, power steering with dual lever binnacle controls, fly by wiresystem;

5.2.7.2 The helm will incorporate a steering system, capable of handling the horsepower of the vessel, with manufacturers' engine controls designed for the power unit;

5.2.7.3 An overhead console must be fitted at the operator's position with space adequate for one VHF radio and a lockable storage compartment, which must not protrude into the headroom of the operator.

5.2.7.4 There will be provision for an array of control gauges and electronic equipment at the helm position, see section 8.2.1;

5.2.7.5 In addition, if not included with above gauge package, jetdrive trim gauge, and fuel level gauge(s) will be installed;

5.2.7.6 There will be a console mounted magnetic compass, see 8.14.13;

5.2.7.7 All lights switches and breakers must be within easy reach of the operator; and

5.2.7.8 Trim tab controls must be provided.

5.3 CABIN – OUTFIT

5.3.1 This boat must be equipped with one (1) shock mitigating marine seats in the cabin with bench settee seating on the port side and aft bulkhead;

5.3.1.1 The Operator's seat must be made with ballistic nylon or other durable upholstery and as a minimum must meet the requirements of the Grammer MSG85/722 seats with arm rests, head rests, rotation and slide functions or equivalent;

5.3.1.2 The settee must be 'L' shaped and will extend from the port side forward bulkhead along the port side and across the aft bulkhead to the stbd side. All material for the settee must be made with ballistic nylon or other durable upholstery as a minimum.

5.3.2 Grab Handles interior - There must be grab handles positioned as follows:

5.3.2.1 One (1) horizontal running athwartships above the operator's seat position;

5.3.2.2 Two (2) horizontal overhead inside the cabin running on the length of the cabin, 12" off centerline port and starboard;

5.3.2.3 Two (2) vertical, on either side of the door opening; and,

5.3.2.4 One (1) horizontal, mounted on the inside perimeter of the cabin just below the bottom of the windows.

5.3.3 Grab Handles exterior - There must be grab handles positioned as follows:

5.3.3.1 Four (4) vertical grab handles, one (1) for each corner of the cabin to assist in climbing onto the bulwark;

5.3.3.2 One (1) vertical outside the door on the starboard side; and,

5.3.3.3 One (1) horizontal mounted to the outside perimeter of the cabin top.

5.3.4 Flooring: All interior floor covering must be non-slip minimum 3/8" thick shock and sound absorbing rubber with embossed tread pattern.

5.3.5 Interior Finish: The interior of the boats must be in a speckled grey colour, Zolotone "Granite" or equal. All rough edges and sharp angled corners must be rounded and ergonomically adapted.

5.3.6 Foot Rests - There must be one (1) footrest for the operator.

5.3.7 An exterior ladder must be supplied and installed for personnel access to the cabin top from the aft deck.

5.3.8 The primary heat for the cabin must be supplied by the Contractor utilizing a bus heater (from the engine cooling system) with defrost system.

5.3.9 The contractor must supply and install a diesel furnace heating system. This heating system must be a Webasto 5000 forced air diesel furnace (or equivalent), configured to perform cabin heating and window defogging with optional inline speed controlled fan for forced air supply. The Contractor must calculate the required size of the total space being serviced by the heater and use this measurement when ordering the system. The Contractor must install the system as per the manufacturer's recommendations.

5.3.10 A carbon monoxide detector (battery powered independent of vessels' electrical system) must be fitted in the cabin, located at deck level.

5.4 HINGED MAST

5.4.1 Vessel must be outfitted with a foldable, hinged mast for the appropriate navigation lighting, radar equipment and antennas. Vessel mast must be able to accommodate the display of day and night signals such as vessel towing/pushing. The Contractor must design the mast based on the requirements identified for Great Lakes lighting requirements found in Canada shipping Act, Collision Regulations, Annex 1. The mast when folded down must not exceed the maximum trailer height (3.83m).

5.4.2 The mast must have a positive engagement lock system when in the operational position (upright) and when in the trailering position (folded). The Contractor must ensure that the mast will not be damaged in either position with effective use of shock mitigation.

6.0 UTILITY LIGHTING

ALL LIGHTING IS TO BE LED POWER MANAGEMENT IS CRITICAL DUE TO VOLUME OF ELECTRONICS

6.1.1 Lighting interior, all lights must have individual switches.

6.1.2 The interior cabin must be equipped with two rows of two overhead LED red/white lights, on port and starboard sides.

6.1.3 There must be three (3) exterior flood lights fitted on the cabin top:

6.1.3.1 Two (2) must be mounted facing forward having one (1) port side and one (1) starboard side;

6.1.3.2 One (1) must be mounted on the centerline of the cabin top, facing aft;

6.1.3.3 These lights must be Hella model 1GB-998-541-001 or equal; and

6.1.3.4 In addition one (1) remote control spotlight must be mounted on the forward starboard side of the cabin top. This light must be Guest Model SPL 12W or equal.

6.1.4 Two (2) 12 VDC power points required, one (1) at the console for the operator and one (1) on the port side of the forward cabin bulkhead. Each power point must include a generic 3-prong power receptacle and USB charging receptacle combo.

6.1.5 Dual isolation transformers and galvanic isolators must be integrated into the vessels electrical system.

6.1.6 There must be one (1) 110V AC power receptacle in the main cabin on the aft bulkhead, port side.

6.1.7 There must be one (1) shore power 110V receptacle, 30-amp connections, on forward exterior bulkhead of cabin to service the vessel.

6.1.8 A front windshield defroster(s) must have a variable three-speed fan and be ducted and integrated with the heater to multiple outlets to be capable of clearing the entire front windshield area of the vessel and blowing either cold or heated air.

6.1.9 Two wipers with pantograph arms must be installed on the port and starboard forward windows. A variable speed switch located on the operator's console must activate wipers individually.

6.1.10 Two recessed bow ramp lights that are spot /flood combination made by Rigid or equivalent, to be placed on either side of the bow. Lights must not protrude from the hull and be waterproof. These lights must be placed on either side of the bow ramp, outside of the rubber push knees.

7.0 LIFESAVING & EMERGENCY EQUIPMENT

The following items must be supplied and provided with stowage / securing arrangements (as appropriate for each item). All fittings, Contractor supplied, must be heavy duty, corrosion resistant stainless steel fittings. All items must be readily accessible:

- 7.1.1** Minimum of two (2) Fire extinguishers (Class B1, marine type);
- 7.1.2** Two (2) paddles;
- 7.1.3** One (1) manual bilge pump (built in), Whale Gusher type;
- 7.1.4** One (1) life buoy with heaving line not less than 15 meters;
- 7.1.5** One (1) watertight flashlight;
- 7.1.6** Six (6) pyrotechnics, three (3) Type A and three (3) Type B or C;
- 7.1.7** One (1) first aid kit;
- 7.1.8** One (1) Air horn;
- 7.1.9** One (1) boat hook, 8 feet long (retractable);
- 7.1.10** One (1) CQR plow anchor with chain/rope locker (or equal) suitable for this vessel with 6' chain and 100 ft. nylon rope;
- 7.1.11** One (1) drogue sea anchor and 100 feet of 1/2 " braided nylon line;
- 7.1.12** Four (4) mooring lines of 30' X 5/8" braided nylon line with eye spliced into one end. And,
- 7.1.13** One (1), eight (8) person life-raft (US Coast Gard approved) with hydrostatic release mounted on the cabin top by the Contractor.

8.0 SYSTEMS GENERAL

8.1 PROPULSION

The vessel must be fitted with a propulsion system consisting of two (2) diesel engines, transmissions with sterndrives. The propulsion system must be installed under the aft cabin in accordance with the manufacturer's recommendations. The engine compartment must be fitted with a ventilation system that provides sufficient air for engine combustion and cooling. The arrangement and capacity must be in accordance with the engine manufacturer's instructions. Calculations used to determine the ventilation system requirements for the engine space must be provided in the manuals. Clearance and access to machinery and equipment must be incorporated in the vessel design to allow unobstructed access to conduct routine inspections and service of the machinery and equipment.

- 8.1.1** DIESEL ENGINE REQUIREMENTS: Twin Marine Diesel Engines, block heaters are not required. Twin Volvo Penta D6-370s with Konrad 620 sterndrives or equivalent and the appropriate sized velvet drive transmissions to work with this propulsion system. All shift actuator controls must be mechanical, electronic will not be acceptable.
- 8.1.2** Inboard engines must have a "Hot Start" plug in for winter starting.
- 8.1.3** Inboard engines must have a wet exhaust.
- 8.1.4** The engine room must have a Transport Canada approved fire suppression system installed, meeting the requirements of TP1332.
- 8.1.5** Inboard engines mounting must have an elastic suspension consisting of anti-vibration pads for dampening of sound and vibration.
- 8.1.6** Inboard engines must have an oil cooler.
- 8.1.7** The electrical system for the engine mounted electrical accessories must be ungrounded two (2) wire-insulated feed and return.
- 8.1.8** RUN-IN OPERATION - The new engines, stern drives and transmissions must be installed and operated in accordance with the engine manufacturer's recommendations. The use of engine manufacturer's approved accessories and equipment is required. The Contractor must not use equipment and components and or operate the engine in a way that would void the engine manufacturer's warranties.
- 8.1.9** ENGINE COOLING SYSTEM - The engines must be fresh water cooled via a closed loop system through a marine heat exchanger. Given the draft and operational conditions, the option of keel cooling would be acceptable for main engines and generator.

8.1.10 PROPULSION JET GUARDS – The vessel must be fitted with a welded 5 cm schedule 40, 6063 alloy aluminum pipe that extends out and around the stern drives to protect the units from impact. This guard must be fabricated to be easily removable to facilitate the removal of the stern drive units.

8.1.11 The propulsion control system installation must include a dual binnacle Engine controls located on the starboard side of the helm console. The controls must conform to engine manufacturer's recommendations and must not interfere with any of the other controls.

8.1.12 The engine package must incorporate a lanyard style automatic shutdown feature (kill switch) for the engines, to be mounted near the ignition switch.

8.1.13 The contractor must supply and install one (1) 5 Kw Marine Diesel Generator (tier 3 or highest available tier) in engine room (operates from main fuel tanks) exhausted away from cabin windows. The generator must meet the following requirements:

8.1.13.1 Genset-Marine Diesel, 5kW with 60Hz network;

8.1.13.2 Enclosure-sound attenuating, mounted;

8.1.13.3 Voltage-120,1 Phase,2 Wire;

8.1.13.4 Alternator-60Hz,Ltd Range,SinglePhase,2or3Wire, 125C Engine Elec'l. System-12 Volt DC, Negative Ground Engine Cooling-Heat Exchanger;

8.1.13.5 Wet Exhaust Elbow;

8.1.13.6 Isolated Ground Kit; and,

8.1.13.7 25' Control extension wiring harness with remote control.

8.2 ENGINES MONITORING AND ALARM SYSTEM

8.2.1 The vessel must be fitted with an engine monitoring system that provides operating parameters via a numerical analogue gauge package installed at the helm position. The gauge panel must provide indications for the engine, as follows:

8.2.1.1 Engines RPM;

8.2.1.2 Jacket water temperature;

8.2.1.3 Lube oil pressure;

8.2.1.4 Lube oil temperature;

8.2.1.5 Exhaust water flow indicator; and

8.2.1.6 Engine hours

8.2.2 Each engine must be fitted with an audible and visual alarm for jacket water high temperature and low lube oil pressure. The alarms must be fitted to the operator console. Gauges must be backlit for night operation with an adjustable dimmer control located at the gauge panel.

8.2.3 All engine monitoring, alarm and electrical cabling must be shielded.

8.2.4 In addition to the analog gauges, the vessel's Navionics system must be connected to the engine monitoring system.

8.3 TRANSMISSION MONITORING AND ALARM SYSTEM

The marine transmission must be fitted with sensors connected to an audible and visual alarm monitoring system, indicating low lube oil pressure and high temperature. The system must be connected to numerical analogue gauges at the wheelhouse console helm position for monitoring. All transmission monitoring, alarm and electrical cabling must be shielded.

8.4 VERIFICATION OF INSTALLATION

Installation of the propulsion, controls, lubrication and fuel systems, manometers, battery connections, are to be verified by an authorized technician. The engines are to be started by the authorized technician, who must provide a written report with a copy for the Technical Authority.

8.5 PROPULSION BREAK-IN

The Contractor is to respect the engine manufacturer's break-in procedures.

8.6 PROTECTION OF CONTROLS

All control cables, electrical wiring for the motor and the steering hydraulic hoses are to be installed in UV resistant plastic pipes (LOOM). These pipes are to be installed in such a manner as to ensure that no cable is immersed in water.

8.7 STEERING

Steering system must be remote hydraulic with self-contained oil reservoir, located in the helm pump and with replaceable seals on the rams. Hydraulic hoses must be of sufficient size and length to prevent pulsing. Hoses must be suitable for use in an exposed marine environment complete with stainless steel fittings.

8.7.1 All hydraulic steering hoses must be routed in such a manner that they are protected from physical damage and so that there is no pinch or chafing points on the hoses.

8.7.2 The hydraulic hoses must be of sufficient size and length to prevent pulsing. The hoses must be suitable for use in an exposed marine environment complete with stainless steel fittings.

8.7.3 The steering connection must be of robust construction, to eliminate fore and aft or lateral movement of fixture.

8.7.4 The steering system must be as recommended by the manufacture for this drive unit.

8.7.5 The steering wheel must be covered with an antishock material, with a removable stainless steel speed knob.

8.7.6 TRIM TABS

To control the trim of the vessel, hydraulically operated trim tabs of suitable size, based on vessel design, must be fitted at the transom. The power trim controls and position indicator must be located at the helm position. Trim tabs must be protected when a full emergency stop is executed.

8.8 ENGINE/JET BREAK IN

The Contractor is to respect the engine/jet drive manufacturer's break-in procedures and must have the appropriate authorized technician present during the break in period.

8.9 FUEL SYSTEMS

ALL FUEL SYSTEM HOSES TO BE USCG A RATED.

8.9.1 The fuel system must meet with all requirements of TP 1332 "Construction Standards for Small Vessels", which reference the ABYC standards.

8.9.2 There must be inspection hatches (8") in the deck, to allow access to the fuel pick-ups, (with the required 'demand anti siphon' valve at the tank if flow rates meet the manufacturer's requirement), vent, and fill connections, and tank level indicators.

8.9.3 Arrangements must be provided for the fuel tank(s) and associated lines, vents, fills, and on / off valves, to be fitted to the vessel.

8.9.4 Fuel lines from the required inboard shutoff valve or manifold to the engines to be protected against chafing and wear.

8.9.5 A fuel / water separator filter is to be mounted "in-line" to each engine with easy access to drain the sediment bowl.

8.9.6 Fuel shutoff maintenance valves are to be installed at filter/ manifold system and be easily accessible by vessel operators.

8.9.7 Fuel fills and vents to be located on the stbd side of the vessel, designed with a cofferdam so that fuel will not come on board during filling and must be properly labelled and lockable.

8.9.8 Valves and fittings used in the fuel system must be of non-corroding materials, and all fuel valves must be readily accessible and labelled.

8.9.9 Each fuel vent must be fitted with a ball check valve.

8.9.10 If two fuel tanks are fitted, the contractor must allow for cross feed and filtration.

8.10 ELECTRICAL SYSTEM

The electrical system design, component selection and installation must be in accordance with Canadian Standards Association C22.2 NO. 183.2-M1983 (R1999) "Standards for D.C. Electrical Installations on Boats", and TP1332 and/or ABYC 'E' as referenced by TP1332. All electrical equipment and hardware must be installed in accordance with the manufacturer's specifications

8.10.1 12V DC distribution system must be provided to power the engine starting and vessel service loads including:

8.10.1.1 Navigation lights;

8.10.1.2 Exterior lighting;

8.10.1.3 Navigational equipment;

8.10.1.4 Instrumentation;

8.10.1.5 Bilge pumps;

8.10.1.6 Electronics;

8.10.1.7 Communications; and

8.10.1.8 Ancillary Items.

8.10.2 All electrical equipment must be readily accessible for performing maintenance.

8.11 BATTERIES, CABLES AND CHARGING SYSTEMS

8.11.1 Two (2) dedicated starting batteries for the engines. Dual-battery system with a minimum of 1100 cranking amps for each battery and dual-battery selector switch mounted in a recessed position that conforms to engine manufacturer's specifications.

8.11.2 One (1) battery, sized to meet the house load.

8.11.3 One (1) battery, sized to meet the 5 Kw generator.

8.11.4 Batteries must be marine grade, 12 V, deep cycle maintenance free glass mat or gel type (no custom batteries), and with the ability to cross connect for inboard or outboard start-up of either engine from either battery where the system has a house battery in addition to the start batteries, the house battery must be able to be joined to the start batteries if necessary.

8.11.5 Battery switches must be Certification Agency, (CE, CSA, USCG, etc.) approved and must be mounted to prevent snagging or accidental switching.

8.11.6 Battery compartment must be weather tight and fitted with a suitable means of gas venting including for 'sealed' batteries.

8.11.7 Cables for all electrical distribution must be ample in size for the particular service, of marine grade tinned boat cable.

8.11.8 The electrical system design, component selection and installation must be in accordance with TP1332 and/or ABYC 'E' as referenced by TP1332. All electrical equipment and hardware must be installed in accordance with the manufacturer's specifications.

8.11.9 Breaker panels to be appropriately sized for the equipment detailed in this TSOR with a minimum of two (2) spares. All breakers must have toggle guards installed.

8.11.10 One (1) remote 12V marine grade accessory plug must be supplied and installed near the operators.

8.11.11 All fitted electrical equipment must be capable of operating simultaneously with any other fitted electronics equipment without causing interference to any electronic equipment or to the magnetic compass.

8.11.12 All operation switches for equipment must be labelled.

8.11.13 A battery charger is to be supplied and installed on the vessel. It must be used to charge both battery banks when the vessel is on shore power.

8.11.14 A shore power connection must be fitted complete with a marine grade service rated 30-ft shore power cable, capable of supplying 120V AC, 30 ampere, single-phase service on the vessel.

8.12 CABLING INSTALLATION

PROTECTION OF CONTROLS - All control cables, electrical wiring for the engines and the steering hydraulic hoses are to be installed in UV resistant plastic pipes (LOOM) or equal. These pipes are to be installed in such a manner as to ensure that no cable is immersed in water.

8.12.1 Cables must be grouped into wiring harnesses wherever possible. All wiring harnesses must be routed through protective conduit pipe. Where impractical cables and conductors must be supported with clamps or straps at least every 18 inches on horizontal runs and every 14 inches on vertical runs.

8.12.2 Cabling / conductors passing through watertight boundaries, decks, bulkheads or other exposed surfaces must be installed to maintain watertight integrity of the structure. Cable entry into watertight enclosures must be through watertight marine glands of suitable size.

8.12.3 Cabling / conductors passing through structures without watertight glands, must be protected against chafing by the use of abrasive resistant grommets.

8.12.4 Routing cables through foamed spaces must be avoided wherever possible. Cables that must be routed through foamed spaces must be run in PVC conduit pipe. The pipe must be arranged in a manner that prevents water from becoming entrapped in the pipe.

8.13 NAVIGATION LIGHTING & EQUIPMENT (COLREGS)

www.tc.gc.ca/acts-regulations/GENERAL/C/csa/regulations/010/csa014/csa14.html

8.13.1 Navigation lighting fixtures must be of such a design as to resist the effects of vibration and moisture and must be provided with adequate protection from damage.

8.13.2 Particular COLREGS rules to note (vessels under 12 M.); Rules 22, 23, and Annex 1, rules 2, 9, and 10. (NOTE: The lights must be installed parallel to the "Normal Load" waterline that often may not be parallel to the deck. Vessel will be primarily based on the Great Lakes and must meet specific great lakes vessel requirements such as having zero horizontal sector obscurement (Annex 1, 9 (c)).

8.13.3 The navigation lights must be mounted so as not to interfere with vision of the operator.

8.13.4 LED lighting must be used where available

8.13.5 Navigation lights must be permanently fitted to vessel with protected wiring and must be waterproof.

8.13.6 The fixtures must be of such a design as to resist the effects of vibration and must be provided with adequate protection from damage that may occur when lying alongside a vessel or a pier. (The Hella NaviLED Series of lights, including the NaviLED 360 all-round light and NaviLED side lights meet this requirement or equivalent.)

8.13.7 Non-white lighting must be wired together on a separate breaker of the 12 volt DC electrical system. All lighting must be clear above or not interfere with the radar scanner. One (1) three way rocker switch, labelled "NAV" which turns on all Nav lights. When switched to the "ANC" side, only the anchor light is on.

8.14 ELECTRONIC AND NAVIGATION EQUIPMENT

The Contractor must supply and install the following electronics or equivalent and integrate a NMEA2000 bus to interconnect the equipment. All antennas must be mounted on cabin top with fold down connections for road travel. All cable penetrations must pass through watertight glands:

8.14.1 Simrad NSSevo3 12" Display, c/w GPS, Sounder, Wi-Fi and HDMI out and radar capabilities.

The system must be able to interface with Regulus II BSB charts;

8.14.2 4G Broadband Radar for Simrad NSS series includes Scanner, scanner cable 20m (66 ft), R110 interface box, Yellow Ethernet cable- 1.8m (6ft);

8.14.3 XSONIC Airmar SS75M 20deg Sounder;

8.14.4 Simrad auto pilot system, AP70 thruster pack;

8.14.5 NAIS 400 AIS transmit/receive/ gamss 2 Antenna;

8.14.6 Navionics Gold 2XG Canada Charts;

8.14.7 GS-25 GPS antenna/N2k Kit (for radar overlay);

8.14.8 N2K-T-RD micro-C T-Connector for connection of an additional network device;

8.14.9 NMEA 2000 Starter kit;

8.14.10 SimNet to Micro-C (male) cable connects SimNet product to NMEA 2000® backbone 0.5 m (1.6 ft);

8.14.11 One (1) ICOM M605 VHF with DSC capabilities radio;

8.14.12 Loudhailer with siren multifunction;

8.14.13 Antenna, specification is Comrod AV60P-8 and Shakespeare 4187 -HD SS ratchet mount and 408 stand-off bracket;

8.14.14 Clarion 437 M309 CD AM/FM stereo with two (2) 6.5" waterproof speakers;

8.14.15 The Contractor must supply and install an electric horn that meets the requirements of the Canadian Standards Association (CSA) Collision Regulations. The horn must be operated by a spring-loaded switch located on the operator's console; and

8.14.16 The Contractor must provide and install a direct read compass with light on the vessel. The magnetic compass must be mounted on the centreline of the operator stations, in easy view of the operator when facing forward. Deviation card development is the Contractors responsibility. (The Ritchie Explorer meets this requirement.)

8.14.17 Externally Mounted EPIRB ACR RLB-35 or equal.

8.15 DRAINAGE & BILGE SYSTEMS

8.15.1 An electric bilge pump with 2000 gph capacity must be fitted in the main hull or largest watertight division as well as a fixed manual operated bilge pump of the diaphragm type. The bilge pump(s) must be located so that they take suction from the lowest point of the hull. Piping must be installed which will allow the bilge pump(s) to discharge directly overboard. Any additional watertight division of the hull will be serviced by a bilge pump of 1500 GPH capacity. The wire gauge for all bilge pumps must be a minimum of 10 gauge.

8.15.2 An automatic level sensor control must be fitted that turns on the electric bilge pump (Non-Pedal type) when water is present in the bilge. The electric bilge pump control switch must be located on the operator's console, with settings for 'momentary on', 'off', and 'automatic' operation. An indicator light must be provided at the control that lights when the bilge pump is operating.

8.15.3 High water alarm for the engine installation space and every other space serviced by a bilge pump.

8.15.4 Hull drainage - a brass or stainless steel threaded plug must be provided in the lowest point to drain the hull when out of the water.

8.15.5 Valves and handles must be made of non-corroding materials and must be located where they are readily accessible for operation, maintenance or removal.

8.15.6 GENERAL - Any forward water retaining compartment without pump must have a piped drain to the aft bilge with a stainless steel ball valve. The valve must be readily accessible for testing or draining the forward bilge to the aft pump.

8.16 PAINTING AND CORROSION PROTECTION

Aluminium components must have a clear coat painted finish on all specified exterior and interior surfaces, comprised of suitable etch, primers, and topcoat per the Vessel Particulars. Typical single coat paint systems can be applied in the 5 to 7-mil thickness range per coating set. Typical system components would be: a) etch-primer; b) two (2) coats of primer; and c) minimum two (2) topcoats.

8.16.1 The standard color of the console of the vessel must be international F000, Mist grey. All upholstery must be grey.

8.16.2 Hull above the water line: Sharkskin seal or equal.

8.16.3 Superstructure: Sharkskin seal or equal.

8.16.4 Exterior decks and top of bulwarks (around the perimeter of the vessel): Anti-slip, Sure-Foot grey.

8.16.5 Underwater hull antifouling for Aluminum Trilux II color: Black

8.16.6 Prior to delivery, the Contractor must ensure that all non-painted interior or exposed surfaces are free of cosmetic blemishes, including all construction marks, scratches, gouges and stains.

9.0 TRAILER

9.1 The Contractor must supply a triple axle bunk trailer to fit the boat, aluminum I beam construction with a net carrying capacity of 20,500 lb's. The trailer must be certified commercial requirements in accordance with Department of Transport regulations for towing the vessel, and be constructed and equipped with the following:

9.1.1 Triple axle trailer, safety chains and positive pressure air tight bearing protection with grease nipples;

9.1.2 Aluminum I Beam Construction;

9.1.3 Galvanized Dura-Flex Torsion Axles;

9.1.4 316 Stainless Steel Caliper / MAXX Rotor 3 Axle Brakes;

9.1.5 1600 PSI Dexter Elec / Hydr Brake Actuator;

9.1.6 25k Bulldog 2 5/16" Ball Coupler;

9.1.7 17.5" Galvanized Wheels;

9.1.8 215/75R17.5 Medium Truck Tires;

9.1.9 10,000# Bulldog Side Wind Type Jack;

9.1.10 3500lb Winch on Custom Aluminum Stand;

9.1.11 14,000lb Dyneema Winch Rope & Snatch Block;

- 9.1.12** Commercial Bow Stop;
- 9.1.13** Safety Lube Lubrication System with TIMKEN Bearings;
- 9.1.14** Marine Grade PT Bunks W/ UHMW Polymer;
- 9.1.15** All Stainless Steel Fasteners, 316;
- 9.1.16** Diamond Plate Fenders 300lb Live Load;
- 9.1.17** Polymer, Roller and Guides in V Assembly;
- 9.1.18** 3/4" D-RING Tie Downs (aft/midship) Trailer must feature bunks that the vessel must rest on, adjusted to suit the chine of the vessel;
- 9.1.19** 17.5" Spare tire with Mount;
- 9.1.20** 12V LED Lights (16 ga double jacketed water tight sys);
- 9.1.21** Galvanic barrier corrosion protection;
- 9.1.22** Stainless steel calipers, mounting brackets and rotors with appropriate brake pads;
- 9.1.23** Diamond plate tool box, lug wrench, jack, hub with bearings and grease;
- 9.1.24** Custom aluminum front ladder to board the vessel when loaded on the trailer;
- 9.1.25** Trailer to be supplied with two (2) ratchet tie down straps with hooks securing boat to trailer aft. Turnbuckle to be provided for securing boat to trailer forward; and,
- 9.1.26** The contractor must record the trailer sales and registration information and provide the information in each vessel manual.

10.0 TESTS & TRIALS

The Contractor must conduct their own inspections, tests and trials to verify successful completion of the Work in accordance with this TSOR and the proper operation of the vessel and all associated equipment. The requirements for inspections, tests and trials and associated deliverable documentation are defined in the Contract and Annexes to the contract including any test, trials or sample reports attached thereto. All discrepancies identified through the inspection, test and trials processes must be corrected prior to delivery.

10.1 The Contractor must inspect and test the following items, as a minimum, for adherence to the contract requirements and proper operation (proper operation means that the equipment can be started, operated, connected together and demonstrated to function in a normal fashion, as applicable). All discrepancies must be corrected prior to delivery. The required inspections and tests are minimums and are not intended to supplant any controls, examinations, inspections or tests normally employed by the Contractor to assure the quality of the boat:

- 10.1.1** Weight;
- 10.1.2** Construction Quality;
- 10.1.3** Propulsion Engines, including starting;
- 10.1.4** Steering System;
- 10.1.5** Fuel System;
- 10.1.6** Electrical System; and
- 10.1.7** Electronics.

10.2 Sea Trials – General

- 10.2.1** Sea trials must be conducted by the Contractor to demonstrate the boat and their equipment conform to the requirements as stated in the contract. All expenses incident to the trials must be borne by the Contractor, including fuel unless otherwise specified. A crew provided by the Contractor must operate the boat during sea trials. The minimum acceptable sea trial is identified in Appendix A.
- 10.2.2** All Sea Trial instrumentation and equipment must be furnished and operated by the Contractor. Trial instrumentation, where applicable, must not replace the boat's instruments.
- 10.2.3** The Contractor must submit a Test & Trials Plan, including a description of all of the acceptance trials to be performed for each boat. The boat must operate in the Normal Loaded Condition.

As a minimum, the following trials must be conducted for each boat:

- 10.2.3.1 Speed Trials - The speed trials must be done over a course at least one (1) nautical mile in length. Two (2) runs must be made over the course, one (1) in each direction with the speeds for the two (2) runs averaged. The use of GPS data (averaged) is acceptable;
- 10.2.3.2 Endurance Trial -The boat must operate in the Normal Loaded Condition, at maximum speed for no more than the maximum time allowed if it has not operated for the minimum break-in period (typically five (5) hours);
- 10.2.3.3 Astern Propulsion - The boat must be operated and manoeuvred using astern propulsion to establish the astern performance. During the backing performance tests the throttles must be set to provide 1/3 of the rated engine horsepower; and
- 10.2.3.4 Steering Gear - Tests must be conducted on the steering gear to demonstrate the adequacy of the steering system under all operations. Maneuvering tests must be performed to ensure that each boat meets the stated requirements. Maneuvering trials must be conducted in the Normal Load Condition and repeated in the Full Load Condition.
- 10.2.4 The Contractor must provide a Tests & Trials Sheet, (Appendix A) for each boat and include this sheet in the technical publications (see SECTION 9.4).
- 10.2.5 The Contractor must notify the Contracting Authority and the Technical Authority Canada no less than two (2) weeks prior to sea trials. At a minimum, the Technical Authority must witness and attend the sea trials. Sea trial results must be forwarded to the Technical Authority prior to the delivery of the boat.
- 10.2.6 At the conclusion of sea trials, each boat must be thoroughly cleaned and inspected. Engine cooling systems must be flushed through with fresh water. The Contractor must repair any damage to the boat or ancillary equipment resulting from sea trials to the satisfaction of Canada.
- 10.2.7 For the purpose of the trials, Normal Loaded Condition must be considered to be the basic boat, fitted with all normal equipment, full fuel, with complement and loads per Boat Particulars, SECTION 4.
- 10.3 Final Inspection must not be performed until all tests have been satisfactorily completed with data available for review. The boat must be ready for delivery in all respects, except for final preparation for shipment. The Contractor must provide personnel, as required, to resolve questions and to demonstrate equipment operation maintenance accessibility, removal and installation.
- 10.4 Stability examination per TP1332, with ISO Design Category "C" further must require the Contractor to record all stability calculations and assessment utilizing ISO 12217-1, ISO 11812 and ISO 12216 with all detailed calculation worksheets, providing a copy for each boat produced as per SECTION 9.4.1.
- 10.5 Final Inspection - Upon delivery, the Technical Authority, or a representative of the Technical Authority must conduct the final delivery inspection. The Contractor must document the results of the delivery and provide these results to the Technical Authority and the Contracting Authority for Acceptance as per the Contract. The Contractor must repair any damage to the boat/equipment resulting from shipping to the satisfaction of Canada.

11.0 DOCUMENTATION

- 11.1 All documentation to be included in the Technical Publications must be provided in both official languages (French and English).
- 11.2 National Asset Code
 - 11.2.1 The National asset code for this vessel will be supplied at contract award. The Contractor must add this five (5) character code to the builder's plate of the boat with the prefix "National Asset Code".

11.3 Builder's Plate

11.3.1 A Builder's plate must be affixed to the vessel and trailer in a readily visible location, e.g. for a boat, in way of the operator position, for a trailer on the left side of the tongue.

11.3.2 The plate must be made of a weather resistant material compatible with that to which it is affixed.

11.3.3 The dimensions of the plate must be not less than 200mm x 125mm.

11.3.4 The plate must contain the following information, permanently etched:

11.3.4.1 National Asset Code;

11.3.4.2 Builder;

11.3.4.3 Hull Number;

11.3.4.4 Year of Construction; and,

11.3.4.5 Lightship Weight in kilograms.

11.4 Technical Publications

11.4.1 The Contractor must provide, upon delivery of the boat, complete set of technical publications of a comprehensive owner/operator manual that provides a physical and functional description of the boat, it's machinery and equipment, AC and DC electrical system schematics as well as delivery testing and sea trial results (Appendix A) including stability calculation documentation.

11.4.2 The Contractor is to provide copies of the technical publications as follows:

11.4.2.1 One (1) complete hard copy and one (1) electronic copy of technical publications to be delivered with the boat.

11.4.2.2 One (1) complete hard copy and one (1) electronic copy of technical publications to be delivered to the Technical Authority.

12.0 SHIPPING AND DELIVERY

Prior to shipping, the boat is to be cleaned, appropriately protected and covered in accordance with the instructions specified in this section.

12.1 Prior to shipping, the boat must be secured on their respective trailer, cleaned, preserved and covered in accordance with this section. All areas of the boat are to be cleaned prior to covering for shipping. Bilges are to be dry and free of oil and debris and the fuel tanks must be full with fuel stabilizer added.

12.2 The propulsion systems must be preserved in accordance with the manufacturer's recommendations for storage of up to one year in an environment that must be subjected to freezing temperatures.

12.3 The batteries are to be disconnected. A warning plate is to be tied to the steering wheel with a wire indicating that the boat has been protected for shipping and storage and must not be started until the propulsion machinery has been reactivated.

12.4 All contact points with the boat are to be padded. A shrink wrap cover is to be provided to protect the boat during shipping and storage.

12.5 Means of Delivery: The Contractor must deliver the vessel/trailer combination; the trailer supplied for the boat must not be utilized as means of delivery.

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APPENDIX A**SMALL BOAT / VESSEL TESTS & TRIALS SHEET****CONTRACT #F7044-180030****Small Boat / Vessel Builder:****Small Boat / Vessel Description:****Hull Identification Number:****National Asset Code:****Date of Trials:****Personnel in Attendance:****Builder****PWGSC****DFO****DFO****Time: _____ hrs Departing from _____****Small Boat / Vessel Weights:**

Dry Weight of Hull with cabin:

____ lbs/ _____
kg

Furnishings & Fittings:

____ lbs/ _____
kg

Engines & Equipment:

____ lbs/ _____
kg

Fuel:

____ Imp
gal

Fuel:

____ Litres

____ lbs/ _____
kg**Total Weight of Small Boat/Vessel:**____ **lbs/** _____
kgNumber of Crew _____ and operating
equipment:____ lbs/ _____
kg**Test Total Laden Weight:**

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		_____ lbs/ _____ kg
	Trailer weight:	_____ lbs/ _____ kg
	Boat & Trailer weight:	_____ lbs/ _____ kg
Motors: Starting - Operation		
"IDENTIFY INBOARD/OUTBOARDS"		
	Port	<input type="radio"/> Immediate, Yes / No
	Starboard	<input type="radio"/> Immediate, Yes / No
Propellers/Impellers	Pitch	_____
	Diameter	_____
	No. of Blades	_____
	Stainless Steel or Aluminum	<input type="radio"/> S/S ____ AL
Static Attitude & Trim:		
Weather Conditions: Refer to attached Beaufort Wind Scale. BWS No. _____		
Speed Trials	Speed Required _____ - _____ knots	
	Cruising Speed: measured mile 1 way	_____ kts @ _____ rpm
	Cruising Speed: measured mile return	_____ kts @ _____ rpm
	Averaged Cruising Speed:	_____ kts @ _____ rpm
	Maximum Speed: measured mile 1 way	_____ kts @ _____ rpm
	Maximum Speed: measured mile return	_____ kts @ _____ rpm
	Average Maximum Speed _____ kts @ _____ rpm	
Full Throttle	From dead stop to plane	_____ seconds

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	From dead stop to 30 knots	_____ seconds
Astern Propulsion:	Straight line to 2000 rpm	<input type="radio"/> Issues, Yes / No
	Hard a-port	<input type="radio"/> Issues, Yes / No
	Hard a-starboard	<input type="radio"/> Issues, Yes / No
	Emergency stop	_____ seconds
Tubes (if applicable)	No. of Chambers	_____
	Semi-auto fill system	<input type="radio"/> Yes / No
	Time to fill all chambers	_____ seconds
Endurance Trials: X = gallons or Litres	Fuel consumption	
	Port & Starboard Motor: at cruise:	_____ X/hr @ _____ rpm
	Port & Starboard Motor: at full throttle:	_____ X/hr @ _____ rpm
Steering: Acceptable Y /N	Straight line	<input type="radio"/> Yes / No
	Hard-Port radius of turn. Full Throttle	_____ feet
	Hard-Starboard radius of turn. Full Throttle	_____ feet
	Lock to lock = 35 degrees pt. & starboard	<input type="radio"/> Yes / No
	Effective steering 0-5 knots	<input type="radio"/> Yes / No
	5-10 knots	<input type="radio"/> Yes / No
	20-30 knots	<input type="radio"/> Yes / No
	Full speed	<input type="radio"/> Yes / No
Outboard/Inboard Leg Trim Control:	From fully raised to fully lowered.	<input type="radio"/> Acceptable Yes / No
Trim Tab Operation:	Fully raised, fully lowered.	<input type="radio"/> Acceptable Yes / No
Engine Controls:	Start	<input type="radio"/> Issues, Yes / No

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	Shift	<input type="radio"/> Issues, Yes / No
	Throttle	<input type="radio"/> Acceptable Yes / No
Engine Gauges:	Tachometer	<input type="radio"/> Acceptable Yes / No
	Fuel gauges	<input type="radio"/> Acceptable Yes / No
	Trim gauges	<input type="radio"/> Acceptable Yes / No
	Oil pressure	<input type="radio"/> Acceptable Yes / No
	Voltmeter	_____ volts
Cabin Sound Levels:	Cruising speed- door & windows closed	_____ dbA @ _____ rpm
	Cruising speed- door & windows open	_____ dbA @ _____ rpm
	Full speed- door & windows closed	_____ dbA @ _____ rpm
	Full speed- door and windows open	_____ dbA @ _____ rpm
Outboard/Inboard engine operation:	Starting	<input type="radio"/> Acceptable Yes / No
	Shifting	<input type="radio"/> Acceptable Yes / No
	Throttle	<input type="radio"/> Acceptable Yes / No
	Raise	<input type="radio"/> Acceptable Yes / No
	Lower	<input type="radio"/> Acceptable Yes / No
Loaded Vessel Drop Test:	If applicable	<input type="radio"/> Acceptable Yes / No
Lifting Bridle Certified:	If applicable	<input type="radio"/> Acceptable Yes / No
Rollover test	If applicable	<input type="radio"/> Acceptable Yes / No

Notes:

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Beaufort Wind Scale Identifier

Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
0	Less than 1	Less than 1	Calm	Sea surface like a mirror, but not necessarily flat.	Smoke rises vertically.
1	1 - 5	1 - 3	Light air	Ripples with the appearance of scales are formed, but without foam crests.	Direction of wind shown by smoke drift, but not wind vanes.
2	6 - 11	4 - 6	Light breeze	Small wavelets, still short but more pronounced. Crests do not break. When visibility good, horizon line always very clear.	Wind felt on face. Leaves rustle. Ordinary vane moved by wind.
3	12 - 19	7 - 10	Gentle breeze	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered whitecaps.	Leaves and small twigs in constant motion. Wind extends light flag.

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Force	Wind Speed		Descriptive Term	Effects Observed at Sea	Effects Observed on Land
	Km/h	Knots			
4	20 - 28	11 - 16	Moderate breeze	Small waves, becoming longer. Fairly frequent whitecaps.	Raises dust and loose paper. Small branches are moved.
5	29 - 38	17 - 21	Fresh breeze	Moderate waves, taking a more pronounced long form. Many whitecaps are formed. Chance of some spray.	Small trees with leaves begin to sway. Crested wavelets form on inland waters.
6	39 - 49	22 - 27	Strong breeze	Large waves begin to form. The white foam crests are more extensive everywhere. Probably some spray.	Large branches in motion. Whistling heard in telephone wires. Umbrellas used with difficulty.
7	50 - 61	28 - 33	Near gale	Sea heaps up and white foam from breaking waves begins to be blown in streaks along the direction of the wind.	Whole trees in motion. Inconvenience felt in walking against wind.
8	62 - 74	34 - 40	Gale	Moderately high waves of greater length. Edges of crests begin to break into the spindrift. The foam is blown in well-marked streaks along the direction of the wind.	Breaks twigs off trees. Generally impedes progress. Walking into wind almost impossible.
9	75 - 88	41 - 47	Strong gale	High waves. Dense streaks of foam along the direction of the wind. Crests of waves begin to topple, tumble and roll over. Spray may affect visibility.	Slight structural damage occurs, e.g. roofing shingles may become loose or blow off.
10	89 - 102	48 - 55	Storm	Very high waves with long overhanging crests. Dense white streaks of foam. Surface of the sea takes a white appearance. The tumbling of the sea becomes heavy and shock-like. Visibility affected.	Trees uprooted. Considerable structural damage occurs.
11	103 - 117	56 - 63	Violent storm	Exceptionally high waves. Sea completely covered with long white patches of foam. Visibility affected.	Widespread damage.
12	118 - 133	64 - 71	Hurricane	Air filled with foam and spray. Sea entirely white with foam. Visibility seriously impaired.	Rare. Severe widespread damage to vegetation and significant structural damage possible.

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BEAUFORT FORCE 0
WIND SPEED: LESS THAN 1 KNOT
SEA: SEA LIKE A MIRROR



BEAUFORT FORCE 1
WIND SPEED: 1-3 KNOTS
SEA: WAVE HEIGHT: 1M (3FT), RIPPLES WITH THE APPEARANCE OF SCALES, BUT WITHOUT FOAM CRESTS



BEAUFORT FORCE 2
WIND SPEED: 4-6 KNOTS
SEA: WAVE HEIGHT: 2.3M (5-10 FT), SMALL WAVELETS, CRESTS HAVE A GLASSY APPEARANCE AND DO NOT BREAK



BEAUFORT FORCE 4
WIND SPEED: 11-16 KNOTS
SEA: WAVE HEIGHT: 1-1.5M (3.5-5 FT), SMALL WAVES BECOMING LONGER, FAIRLY FREQUENT WHITE HORSES



BEAUFORT FORCE 5
WIND SPEED: 17-21 KNOTS
SEA: WAVE HEIGHT: 2-2.5M (6-8 FT), MODERATE WAVES TAKING MORE PRONOUNCED LONG FORM, MANY WHITE HORSES, CHANCE OF SOME SPRAY



BEAUFORT FORCE 6
WIND SPEED: 22-27 KNOTS
SEA: WAVE HEIGHT: 3-4M (9.5-13 FT), LARGER WAVES BEGIN TO FORM, SPRAY IS PRESENT, WHITE FOAM CRESTS ARE EVERYWHERE



BEAUFORT FORCE 7
WIND SPEED: 28-33 KNOTS
SEA: WAVE HEIGHT: 4-5.5M (13.5-18 FT), SEA HEAPS UP, WHITE FOAM FROM BREAKING WAVES BEGINS TO BE BLOWN IN STREAKS ALONG THE WIND DIRECTION



BEAUFORT FORCE 8
WIND SPEED: 34-40 KNOTS
SEA: WAVE HEIGHT: 5.5-7.5M (18-25 FT), MODERATELY HIGH WAVES OF GREATER LENGTH, EDGES OF CREST BEGIN TO BREAK INTO THE SPINDRIFT, FOAM BLOWN IN WELL-MARKED STREAKS ALONG WIND DIRECTION



BEAUFORT FORCE 9
WIND SPEED: 41-47 KNOTS
SEA: WAVE HEIGHT: 7-10M (23-33 FT), HIGH WAVES, DENSE STREAKS OF FOAM ALONG DIRECTION OF THE WIND, WAVE CRESTS BEGIN TO TOPPLE, TUMBLE AND ROLL OVER, SPRAY MAY AFFECT VISIBILITY



BEAUFORT FORCE 10
WIND SPEED: 48-55 KNOTS
SEA: WAVE HEIGHT: 8-12.5M (26-41 FT), VERY HIGH WAVES WITH LONG OVERHANGING CRESTS, THE RESULTING FOAM, IN GREAT PATCHES, IS BLOWN IN DENSE WHITE STREAKS ALONG WIND DIRECTION, ON THE WHOLE, SEA SURFACE TAKES A WHITE APPEARANCE, TUMBLING OF THE SEA IS HEAVY AND SHOCK-LIKE, VISIBILITY AFFECTED



BEAUFORT FORCE 11
WIND SPEED: 56-63 KNOTS
SEA: WAVE HEIGHT: 11.5-16M (37-53 FT), EXCEPTIONALLY HIGH WAVES, SMALL-MEDIUM SIZED SHIPS MAY BE LOST TO VIEW BEHIND THE WAVES, SEA COMPLETELY COVERED WITH LONG WHITE PATCHES OF FOAM BLOWN ALONG WIND DIRECTION, EVERYWHERE, THE EDGES OF WAVE CRESTS ARE BLOWN INTO FROTH



BEAUFORT FORCE 12
WIND SPEED: 64 KNOTS
SEA: SEA COMPLETELY WHITE WITH DRIVING SPRAY, VISIBILITY VERY SERIOUSLY AFFECTED, THE AIR IS FILLED WITH FOAM AND SPRAY

APPENDIX B

Final Deliverable Data Package

The Final Data Package which must be delivered to Canada is as defined in the Contract, but must include, as a minimum the technical publications identified in this appendix.

1.0 Comprehensive Owner/Operator Manuals

1.1 Deliverables

- 1.1.1** One (1) complete hard copy and one (1) complete USB stick electronic copy set of the manuals per vessel delivered for the operator of each vessel, to be delivered with the vessel.
- 1.1.2** One (1) complete hard copy and one (1) complete USB stick electronic copy set of the manuals per vessel delivered for the Technical Authority, to be delivered to the same address identified for invoices.

1.2 Content

The manuals must provide a physical and functional description of the craft, it's machinery and equipment, as well as delivery testing and sea trial result documentation. The manuals must include as a minimum the following three sections and as detailed below:

- General Information
- Technical Information
- Spare Parts List

1.2.1 GENERAL INFORMATION SECTION

The General Information Section must include a description of the arrangement and function of all structures, systems, fittings and accessories that comprise the boat, with illustrations as appropriate:

- 1.2.1.1 Operating procedures;
- 1.2.1.2 Basic operating characteristics (such as temperatures, pressures, flow rates)
- 1.2.1.3 Installation criteria and drawings, assembly and disassembly instructions with comprehensive illustrations showing each step;
- 1.2.1.4 Recommended planned maintenance; and
- 1.2.1.5 Complete troubleshooting procedures.

1.2.2 TECHNICAL INFORMATION SECTION

The Technical Information Section a complete set of detailed owner / operator instructions, drawings (Section 15), parts lists and supplemental data for all components of the boat (whether acquired from external sources or custom-manufactured).

- 1.2.2.1 "As Fitted", dimensioned drawings must be produced for manuals to record the vessel particulars:
 - 1.2.2.1.1 Calculated lightship weight;
 - 1.2.2.1.2 General arrangement, Plan Profile section views;
 - 1.2.2.1.3 Structural drawings showing deck plan, a centerline profile and frame station construction details;
 - 1.2.2.1.4 Detailed lines plan;
 - 1.2.2.1.5 Drawing of the fuel and propulsion supply arrangement; and,
 - 1.2.2.1.6 Drawing of the electrical supply and functions of the vessel.
- 1.2.2.2 Parts list must include the name, part number and serial number if applicable of the parts, items or components and must indicate the supplier (name, address, phone number, email address) of this part, equipment or component and in which part of the specification the item appears.
- 1.2.2.3 Hull Serial Number (HIN), copy of builders plate, TEST and TRIAL results as per completed Attachment 1 of Appendix II, serial or manufacturer's numbers, and equipment warranty cards.
- 1.2.2.4 Engine(s) and equipment: including engine and propulsion serial numbers.

- 1.2.2.5 If applicable, collars; including collar material and glue materials and procedures necessary for onboard repair of the collar.
- 1.2.2.6 Acceptance Certificates, and compliance sheets or certificates distributed with equipment i.e. life-saving appliances, lifting appliances, engine test reports, calibration certificates, Nav light certificates, Fire suppression material certificates, flotation foam rating sheets
- 1.2.2.7 Pre-trial shop Testing Check Sheet.
- 1.2.2.8 Electronics, (if applicable): including model and serial numbers.
- 1.2.2.9 Regulatory and Stability documentation: as required per TP 1332, which, references ISO12217 or ISO 6185 for RIBs (if applicable).

1.2.3 SPARE PARTS LIST SECTION

The Spare Parts List section must include a list of recommended initial onboard spare parts to be stocked for the vessel. The list must include the name, part number and serial number if applicable of the parts, items or components and must indicate the supplier (name, address, phone number, email address) of this part, equipment or component and in which part of the TSOR the item appears. At a minimum this list must include the following items (as applicable):

- 1.2.3.1 Propulsion: Propellers, filters, water pump impeller, batteries, throttle and shift cables, special engine tools.
- 1.2.3.2 Electrical: panel breakers, fuses, light bulbs;
- 1.2.3.3 Boat Structures and Fittings: Miscellaneous commonly used fasteners.

2.0 ADDITIONAL DELIVERABLE DOCUMENTATION

2.1.1 The following additional documentation must be supplied in both sets of Technical publication manuals delivered (defined in 8.4.2):

- 2.1.1.1 Tonnage Registration Certificate in accordance with TP 13430 - <http://www.tc.gc.ca/eng/marinesafety/svcp-gt-3948.htm> ;
- 2.1.1.2 Registration to the Small Vessel Compliance Program (SVCP) Website: <http://www.tc.gc.ca/eng/marinesafety/svcp-menu-3633.htm> ;
- 2.1.1.3 Two (2) Bill of Sales, one (1) for the vessel and one (1) for the trailer;
- 2.1.1.4 Test & Trial results as required by Appendix A;
- 2.1.1.5 Acceptance Certificates, i.e. life-saving appliances, lifting appliances, engine test reports, calibration certificates, extinguishers, etc;
- 2.1.1.6 A valid Motor Vehicle Registration Certificate for the relevant Province, for the trailer; and
- 2.1.1.7 All testing check sheets created and completed by the builder.

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Annex B – Basis of Payment

B-1 Proposed Work Location:

Contractor's Facility _____

B-2 Contract Price

The price is in Canadian dollars, customs duties are included and applicable taxes are extra Incoterms 2000 -DDP to destination.

Item	Description	Quantities	Firm Unit Price
a.	Known Work –(boat) As per Part 7, article 7.2 and Annex A - Technical Statement of Requirement and Annex D - Bidders Questions and Canada's Responses	1	\$ _____
b.	Known Work –(trailer) As per Part 7, article 7.2 and Annex A - Technical Statement of Requirement and Annex D - Bidders Questions and Canada's Responses	1	\$ _____
c.	Shipping and Delivery (Boat and trailer) Incoterms 2000 DDP to destination Destination Sidney, Bc per Part 7, article 7.4.4 and 7.4.5	1	\$ _____
d.	PRICE [a + b + c] For a Firm PRICE of:		\$ _____

B-3 Charge-out Rate / Material Mark-up / Options

For the performance of the Work as a result of approved additional Work including Design or Engineering Change, or change in the scope of Work, the Contractor shall be paid the firm hourly charge-out rate of:

\$ _____ per hour, Applicable taxes extra,

This rate is to be a blended rate for all classes of labour, engineering and foreperson and includes all overheads, supervision and profit.

The firm hourly charge-out labour rate will remain firm for the term of the Contract and any subsequent amendments.

Overtime

Overtime shall not be paid unless authorized in writing by the Contracting Authority and for authorized additional Work only.

The Overtime Rates are as follows:

Time and One-Half Rate: \$ _____ / per person hour

Double Time Rate: \$ _____ / per person hour

Overtime shall be calculated and paid as follows:

Time and One-Half: "Time and One-Half Rate" x Charge Out Rate

Double Time: "Double Time Rate" x Charge Out Rate

B-4 Material for Additional Work including Design or Engineering Change:

For the performance of the Work to procure additional Material as a result of approved additional Work including Design Change or change in the scope of Work, the Contractor shall be paid the Direct Material Cost as defined in Contract Cost Principles 1031-2 plus a firm mark-up of 10% GST/HST extra, as applicable. Other than the 10% mark-up, no additional charges relating to material procurement, insurance, handling, store keeping and activities of this nature, or any other charge whatsoever, will be accepted as part of the additional Work prices.

The material mark-up rate will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Charge-out Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

The material mark-up rate will remain firm for the term of the Contract and any subsequent amendments.

B-5 Price for additional - Optional Boat and trailer:

- (i) if additional funding becomes available, DFO may choose to exercise the option to purchase up to 1 additional Aluminum Boat and trailer built in accordance with the TSOR, **Annex "A" Technical Statement of Requirements (Contract)** and **Annex "C" – Bidders Questions and Canada Responses.(Contract)**

- (ii) Canada reserves the right to negotiate the priced option.

The price is in Canadian dollars, customs duties are included and applicable taxes are extra

Item	Description	Unit	Price unit	Extended Firm Price
a.	Known Work – additional (boats) As per Part 7, article 7.2 and Annex A - Technical Statement of Requirement and Annex D - Bidders Questions and Canada's Responses. Shipping and Delivery Incoterms 2000 DDP to destination excluded	1	\$ _____	\$ _____ 1
b.	Known Work –additional (trailers) As per Part 7, article 7.2 and Annex A - Technical Statement of Requirement and Annex D - Bidders Questions and Canada's Responses. Shipping and Delivery Incoterms 2000 DDP to destination excluded	1	\$ _____	\$ _____
c.	PRICE [a + b] For a Firm PRICE of:			\$ _____

B-6 Charge-out Rate / Material Mark-up / Options

For the performance of the Work as a result of approved additional Work including Design or Engineering Change, or change in the scope of Work, the Contractor shall be paid the firm hourly charge-out rate of:

\$ _____ per hour, Applicable taxes extra,

This rate is be a blended rate for all classes of labour, engineering and foreperson and includes all overheads, supervision and profit.

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The firm hourly charge-out labour rate will remain firm for the term of the Contract and any subsequent amendments.

Overtime

Overtime shall not be paid unless authorized in writing by the Contracting Authority and for authorized additional Work only.

The Overtime Rates are as follows:

Time and One-Half Rate: \$ _____ / per person hour

Double Time Rate: \$ _____ / per person hour

Overtime shall be calculated and paid as follows:

Time and One-Half: "Time and One-Half Rate" x Charge Out Rate

Double Time: "Double Time Rate" x Charge Out Rate

B-7 Material for Additional Work including Design or Engineering Change / Options

For the performance of the Work to procure additional Material as a result of approved additional Work including Design Change or change in the scope of Work, the Contractor shall be paid the Direct Material Cost as defined in Contract Cost Principles 1031-2 plus a firm mark-up of 10% GST/HST extra, as applicable. Other than the 10% mark-up, no additional charges relating to material procurement, insurance, handling, store keeping and activities of this nature, or any other charge whatsoever, will be accepted as part of the additional Work prices.

The material mark-up rate will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Charge-out Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

The material mark-up rate will remain firm for the term of the Contract and any subsequent amendments.

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ANNEX – C - BIDDER QUESTIONS AND CANADA RESPONSES

Reference	Reference description	Bidder Questions	Canada's Responses

Completed and updated during the solicitation process.

[illegible]

ANNEX - E - DETAILED FINANCIAL BID PRESENTATION SHEET

The price of the bid will be evaluated in Canadian dollars, customs duties are included and applicable taxes are Incoterms 2000 DDP to destination.

Item	Description	Quantities	Extended Firm Price
a.	Known Work –(boat) As per Part 7, article 7.2 and Annex A - Technical Statement of Requirement and Annex C - Bidders Questions and Canada's Responses	1	\$ _____
b.	Known Work –(trailer) As per Part 7, article 7.2 and Annex A - Technical Statement of Requirement and Annex D - Bidders Questions and Canada's Responses	1	\$ _____
c.	Shipping and Delivery (Boat and trailer) Incoterms 2000 DDP to destination Destination Sidney, BC per Part 7, article 7.4.4 and 7.4.5	1	\$ _____
d	Unscheduled Work (for evaluation) <i>Labour Cost:</i> Estimated labour hours at a firm <i>Charge-out Labor Rate</i> , including overhead and profit: 50 person hours X \$ _____ per hour for a PRICE of: See articles E-1 below.	50	\$ _____
e.	EVALUATION PRICE [a + b + c + d] For an EVALUATION PRICE of: (customs duties are included and applicable taxes are excluded)		\$ _____

E-1 Charge-out Rate / Material Mark-up / Options

For the performance of the Work as a result of approved additional Work including Design or Engineering Change, or change in the scope of Work, the Contractor shall be paid the firm hourly charge-out rate of:

\$ _____ per hour, GST/HST extra,

This rate shall be a blended rate for all classes of labor, engineering and foreperson and shall include all overheads, supervision, overhead profit.

The firm hourly charge-out labour rate will remain firm for the term of the Contract and any subsequent amendments.

E-2 Overtime

Overtime shall not be paid unless authorized in writing by the Contracting Authority and for authorized additional Work only.

The Overtime Rates are as follows:

Time and One-Half Rate: \$ _____ / per person hour

Double Time Rate: \$ _____ / per person hour

Overtime shall be calculated and paid as follows:

Time and One-Half: "Time and One-Half Rate" x Charge Out Rate

Double Time: "Double Time Rate" x Charge Out Rate

E-3 Material for Additional Work including Design or Engineering Change:

For the performance of the Work to procure additional Material as a result of approved additional Work including Design Change or change in the scope of Work, the Contractor shall be paid the Direct Material Cost as defined in Contract Cost Principles 1031-2 plus a firm mark-up of 10% GST/HST extra, as applicable. Other than the 10% mark-up, no additional charges relating to material procurement, insurance, handling, store keeping and activities of this nature, or any other charge whatsoever, will be accepted as part of the additional Work prices.

The material mark-up rate will also apply to subcontracted costs. The mark-up rate includes any allowance for material and subcontract management not allowed for in the Charge-out Labour Rate. The Contractor will not be entitled to a separate labour component for the purchase and handling of materials or subcontract administration.

The material mark-up rate will remain firm for the term of the Contract and any subsequent amendments.

E-4 Price for additional boat and trailer:

- a) if additional funding becomes available, DFO may choose to exercise the option to purchase up to 1 additional Aluminum Boat and trailers built in accordance with the TSOR, **Annex "A" Technical Statement of Requirements (Contract) and Annex "C" – Bidders Questions and Canada Responses.**(Contract)
- b) Canada reserves the right to negotiate the priced option.
- c) for the supply of 1 additional boat and 1 trailer (GST/HST and transportation charge excluded): A firm price of \$_____ (CAD)

E-5 Optional items

- 1. If additional funding becomes available, Canada may choose to exercise the option, in whole or in part, to purchase up to **1 additional boat & trailer** built in accordance with the Annex "A" and Annex "D".
- 2. The price quoted for the option must be firm, remain valid and open for acceptance by Canada for one 1 year after the delivery of the initial vessel. The option proposed must be in accordance with the terms and conditions of this bid solicitation.
- 3. The proposed optional items will not form part of the Evaluation for the award of a contract in response to this RFP.
- 4. Only the option proposed by the successful bidder may be considered by Canada.
- 5. The option, if incorporated into the Contract, in whole or in part, may or may not be exercised at the sole discretion of Canada.
- 6. Canada reserves the right to negotiate the priced option.

ANNEX - F – BID PACKAGE CHECKLIST

Instruction to Bidders: Table F-1 is a check list for self-verification purposes.

Table F-1 Bidder's Bid Package Check List**F1.1**

Regardless of requirements specified elsewhere in this bid solicitation and its associated Technical Statement of Requirements, the following are the documents that must be submitted with the bid by the solicitation closing date and time. The bid must be compliant on each item to be considered responsive:

M: Mandatory with the bid.

48 Hrs: Must be provided within **48 hours** of the written request.

5 or 10days: Must be provided within **5 or 10 working days** of the written request.

No.	Solicitation Reference	Solicitation Reference	Description	Period	Document provided
	Front Page	Front Page	<u>Request for Proposal</u> document part 1 page 1 completed and signed;	M	<input type="checkbox"/>
	Part 3	3.2	Section I- Technical Bid	M	<input type="checkbox"/>
	Part 3	3.3	Section II – Management Bid Option 1 or Option 2	M	<input type="checkbox"/>
	Part 3	3.4	Section III - Financial Bid - Annex D- Detailed Financial Bid Presentation Sheet	M	<input type="checkbox"/>
	Part 3	3.3.13	Project Schedule	M	<input type="checkbox"/>
	Annex F	Annex F	Bid Package Checklist		
	Annex H	Annex H	Federal Contractors Program for Employment Equity- Certification	M	<input type="checkbox"/>
	Part 2	2.4	Applicable laws	48 hrs.	<input type="checkbox"/>
	Part 3	3.3.6 or 3.3.14	Subcontractors	48 hrs.	<input type="checkbox"/>
	Part 3	3.3.3 or 3.3.12	Contractor quality Management Plan	48 hrs.	<input type="checkbox"/>
	Part 7	7.5.3	Contractor representative	48 hrs.	<input type="checkbox"/>
	Part 6	6.3	Insurance requirement	48 hrs.	<input type="checkbox"/>
	Part 5	5.2.3.1	Worker Compensation Certificate	48 hrs.	<input type="checkbox"/>
	Part 5	5.2.3.2	Welding certification - Bid	48 hrs.	<input type="checkbox"/>

F1.2 Contract Deliverable Requirements

The following information may be requested by the Contracting Authority, and it must be provided within the conditions stated in the table below of the written request:

No	Contract	Article	Description	Period after contract award	Document provided
<u>Other documentation after contract award (Reminder)</u>					
1	Part 7	7.15	Project Schedule	5 days	
3	Part 7	7.21	Insurance certificate	10 days	

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ANNEX - G - to PART 3 OF THE BID SOLICITATION

ELECTRONIC PAYMENT INSTRUMENTS

As indicated in Part 3, clause 3.1.2, the Bidder must identify which electronic payment instruments they are willing to accept for payment of invoices.

The Bidder accepts any of the following Electronic Payment Instrument(s):

- () Direct Deposit (Domestic and International);
- () Electronic Data Interchange (EDI);
- () Wire Transfer (International Only);

ANNEX - H - FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY – CERTIFICATION

I, the Bidder, by submitting the present information to the Contracting Authority, certify that the information provided is true as of the date indicated below. The certifications provided to Canada are subject to verification at all times. I understand that Canada will declare a bid non-responsive, or will declare a contractor in default, if a certification is found to be untrue, whether during the bid evaluation period or during the contract period. Canada will have the right to ask for additional information to verify the Bidder's certifications. Failure to comply with any request or requirement imposed by Canada may render the bid non-responsive or constitute a default under the Contract.

For further information on the Federal Contractors

Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\) – Labour's](#) website.

Date: _____ (YYYY/MM/DD) (If left blank, the date will be deemed to be the bid solicitation closing date.)

Complete both A and B.

A. Check only one of the following:

- ☐ A1. The Bidder certifies having no work force in Canada.
- ☐ A2. The Bidder certifies being a public sector employer.
- ☐ A3. The Bidder certifies being a [federally regulated employer](#) being subject to the [Employment Equity Act](#).
- ☐ A4. The Bidder certifies having a combined work force in Canada of less than 100 permanent full-time and/or permanent part-time employees.

A5. The Bidder has a combined workforce in Canada of 100 or more employees; and

- ☐ A5.1. The Bidder certifies already having a valid and current [Agreement to Implement Employment Equity](#) (AIEE) in place with ESDC-Labour.

OR

- ☐ A5.2. The Bidder certifies having submitted the [Agreement to Implement Employment Equity \(LAB1168\)](#) to ESDC-Labour. As this is a condition to contract award, proceed to completing the form Agreement to Implement Employment Equity (LAB1168), duly signing it, and transmit it to ESDC-Labour.

B. Check only one of the following:

- ☐ B1. The Bidder is not a Joint Venture.

OR

- ☐ B2. The Bidder is a Joint venture and each member of the Joint Venture must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification. (Refer to the Joint Venture section of the Standard Instructions)