



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Bid Receiving - PWGSC / Réception des
soumissions – TPSGC

11 Laurier St. / 11, rue Laurier

Place du Portage, Phase III

Core 0B2 / Noyau 0B2

Gatineau

Quebec

K1A0S5

Bid Fax: (819) 997-9776

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

Marine Emergency Response Division/Division des
Interventions en cas d'urgence maritime

Centennial Towers 7th Floor - 7W11

200 Kent Street

Ottawa

Ontario

K1A0S5

Title - Sujet Boom Reel Trailer System(s)		
Solicitation No. - N° de l'invitation F7047-190090/A	Date 2020-03-03	
Client Reference No. - N° de référence du client F7047-190090		
GETS Reference No. - N° de référence de SEAG PW-\$ERD-009-27653		
File No. - N° de dossier 009erd.F7047-190090	CCC No./N° CCC - FMS No./N° VME	
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2020-04-15		Time Zone Fuseau horaire Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input checked="" type="checkbox"/> Other-Autre: <input type="checkbox"/>		
Address Enquiries to: - Adresser toutes questions à: Sobti, Shaloo		Buyer Id - Id de l'acheteur 009erd
Telephone No. - N° de téléphone (613) - 943 (1985)		FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes		

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

TABLE OF CONTENTS

PART 1 - GENERAL INFORMATION	3
1.1 INTRODUCTION.....	3
1.2 SUMMARY	3
1.3 DEBRIEFINGS	4
PART 2 - BIDDER INSTRUCTIONS	5
2.1 STANDARD INSTRUCTIONS, CLAUSES AND CONDITIONS.....	5
2.2 SUBMISSION OF BIDS.....	5
2.3 FORMER PUBLIC SERVANT.....	5
2.4 ENQUIRIES - BID SOLICITATION.....	7
2.5 APPLICABLE LAWS.....	7
PART 3 - BID PREPARATION INSTRUCTIONS.....	8
3.1 BID PREPARATION INSTRUCTIONS	8
PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION	11
4.1 EVALUATION PROCEDURES.....	11
4.2 BASIS OF SELECTION.....	16
PART 5 - CERTIFICATIONS AND ADDITIONAL INFORMATION	17
5.1 CERTIFICATIONS REQUIRED WITH THE BID	17
5.2 CERTIFICATIONS PRECEDENT TO CONTRACT AWARD AND ADDITIONAL INFORMATION	17
PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS.....	20
PART 7 - RESULTING CONTRACT CLAUSES	21
7.1 REQUIREMENT.....	21
7.2 STANDARD CLAUSES AND CONDITIONS.....	23
7.3 SECURITY REQUIREMENTS	23
7.4 TERM OF CONTRACT	23
7.5 AUTHORITIES	24
7.6 PROACTIVE DISCLOSURE OF CONTRACTS WITH FORMER PUBLIC SERVANTS	25
7.7 PAYMENT	25
7.8 INVOICING INSTRUCTIONS	28
7.9 CERTIFICATIONS AND ADDITIONAL INFORMATION.....	28
7.10 APPLICABLE LAWS.....	29
7.11 PRIORITY OF DOCUMENTS	29
7.12 FOREIGN NATIONALS (CANADIAN CONTRACTOR OR FOREIGN CONTRACTOR).....	29
7.13 INSURANCE	29
7.14 ACCESS TO FACILITIES AND EQUIPMENT	30
7.15 SHIPPING INSTRUCTIONS	31

SCHEDULE A - BASIS OF PAYMENT

SCHEDULE B - DELIVERIES AND MILESTONES

ANNEX "A" - STATEMENT OF WORK OR REQUIREMENT (SOW)

ANNEX "B" - TECHNICAL STATEMENT OF REQUIREMENTS (TSOR)

ANNEX "C" - TASK AUTHORIZATION FORM PWGSC-TPSGC 572

ANNEX "1" TO PART 3 OF THE BID SOLICITATION - ELECTRONIC PAYMENT INSTRUMENTS

ANNEX “2” TO PART 3 OF THE BID SOLICITATION - BIDDER’S CHECKLIST

ANNEX “1” TO PART 4 OF THE BID SOLICITATION - TECHNICAL BID EVALUATION PLAN

ANNEX “2” TO PART 4 OF THE BID SOLICITATION - CERTIFICATION OF COMPLIANCE

**ANNEX “1” TO PART 5 OF THE BID SOLICITATION - FEDERAL CONTRACTORS PROGRAM FOR
EMPLOYMENT EQUITY – CERTIFICATION**

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, 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 Statement of Work, Technical Statement of Requirement, the Technical Evaluation Plan and various other forms.

1.2 Summary

The Canadian Coast Guard is the lead federal agency responsible for ensuring the clean-up of all ship source and mystery source pollution spills into waters under Canadian jurisdiction. To fulfill this mandate, the Canadian Coast Guard requires Boom Reel Trailer System(s) as a means of rapid transportation and deployment/recovery for fence boom and associated accessories.

The Canadian Coast Guard has a requirement for Boom Reel Trailers and supporting accessories as described in this bid solicitation.

The period of the resulting contract will be from the date of contract to March 31, 2025 (inclusive) as specified in the resulting contract clauses under the same conditions. Delivery destinations are identified in Schedule A.

This procurement is part of the Environmental Response Equipment (ERE) Program for the Canadian Coast Guard, and forms part of the Oceans Protection Plan announced in November 2016. Under the ERE Program, Canadian Coast Guard is renewing its suite of environmental response equipment, ensuring a robust and strategic national response capability. The ERE Program will replace aging environmental response equipment and introduce some new technologies to over 80 locations across the country through approximately 50 to 100 unique procurements for different types of equipment. Public Works and Government Services Canada (also known as Public Services and Procurement Canada) is leading this procurement on behalf of the Canadian Coast Guard.

Enquiries regarding this bid solicitation must be directed only to the Contracting Authority identified in the bid solicitation.

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), Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the Canadian Free Trade Agreement (CFTA). This bid solicitation may establish a contract with task authorizations (TA) for the delivery of the requirement detailed in the bid solicitation, to the Identified Users across Canada, including areas subject to Comprehensive Land Claims Agreements.

This procurement may be subject to the Huron-Wendat Nation (2008). At the time when a Task Authorization is issued, the Contracting Authority and/or Project Authority will discuss with the Contractor to determine if there is an opportunity to include an Indigenous Benefits Plan which generates socio-economic benefits (employment, training and subcontracting) for Indigenous people or businesses.

“The Phased Bid Compliance Process (PBCP) applies to this requirement”.

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.

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.

Bidders intending to submit bids should obtain solicitation documents directly from <http://BuyAndSell.gc.ca>. Solicitation amendments, if and when issued, will be available on <http://BuyAndSell.gc.ca>. It is the responsibility of the Bidder to ensure that all amendments issued during the solicitation period have been obtained and addressed in the submitted bid. Bidders basing their submissions on solicitation documents obtained from other sources do so at their own risk. Learn how to receive notifications about solicitation amendments at <https://buyandsell.gc.ca/procurement-data/tenders/follow-opportunities>.

Businesses interested in learning more about selling to the Government of Canada are encouraged to review <https://BuyAndSell.gc.ca/for-businesses/selling-to-the-government-of-canada>.

The Office of Small and Medium Enterprises (OSME) offers free seminars to businesses interested in learning about the general procurement process and how to sell goods and services to the government. Refer to <http://www.tpsgc-pwgsc.gc.ca/app-acq/pme-sme/index-eng.html> for more information about OSME's seminars and other services.

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 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.

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](#) (2019-03-04) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of [2003](#), Standard Instructions - Goods or Services - Competitive Requirements, is amended as follows:

Delete: 60 days

Insert: 180 days

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 in the bid solicitation.

Note: For bidders choosing to submit using epost Connect for bids closing at the Bid Receiving Unit in the National Capital Region (NCR) the email address is:

tpsgc.dgareceptiondessoumissions-abbidreceiving.pwgsc@tpsgc-pwgsc.gc.ca

Note: Bids will not be accepted if emailed directly to this email address. This email address is to be used to open an epost Connect conversation, as detailed in Standard Instructions [2003](#), or to send bids through an epost Connect message if the bidder is using its own licensing agreement for epost Connect.

Due to the nature of the bid solicitation, bids transmitted by facsimile to PWGSC will not be accepted.

2.3 Former Public Servant

Contracts awarded to former public servants (FPS) in receipt of a pension or of a lump sum payment must bear the closest public scrutiny, and reflect fairness in the spending of public funds. In order to comply with Treasury Board policies and directives on contracts awarded to FPSs, bidders must provide the information required below before contract award. If the answer to the questions and, as applicable the information required have not been received by the time the evaluation of bids is completed, Canada will inform the Bidder of a time frame within which to provide the information. Failure to comply with Canada's request and meet the requirement within the prescribed time frame will render the bid non-responsive.

Definitions

For the purposes of this clause, "former public servant" is any former member of a department as defined in the [Financial Administration Act](#), R.S., 1985, c. F-11, a former member of the Canadian Armed Forces or a former member of the Royal Canadian Mounted Police. A former public servant may be:

- a. an individual;

- b. an individual who has incorporated;
- c. a partnership made of former public servants; or
- d. a sole proprietorship or entity where the affected individual has a controlling or major interest in the entity.

"lump sum payment period" means the period measured in weeks of salary, for which payment has been made to facilitate the transition to retirement or to other employment as a result of the implementation of various programs to reduce the size of the Public Service. The lump sum payment period does not include the period of severance pay, which is measured in a like manner.

"pension" means a pension or annual allowance paid under the [Public Service Superannuation Act](#) (PSSA), R.S., 1985, c. P-36, and any increases paid pursuant to the [Supplementary Retirement Benefits Act](#), R.S., 1985, c. S-24 as it affects the PSSA. It does not include pensions payable pursuant to the [Canadian Forces Superannuation Act](#), R.S., 1985, c. C-17, the [Defence Services Pension Continuation Act](#), 1970, c. D-3, the [Royal Canadian Mounted Police Pension Continuation Act](#), 1970, c. R-10, and the [Royal Canadian Mounted Police Superannuation Act](#), R.S., 1985, c. R-11, the [Members of Parliament Retiring Allowances Act](#), R.S. 1985, c. M-5, and that portion of pension payable to the [Canada Pension Plan Act](#), R.S., 1985, c. C-8.

Former Public Servant in Receipt of a Pension

As per the above definitions, is the Bidder a FPS in receipt of a pension? **Yes () No ()**

If so, the Bidder must provide the following information, for all FPSs in receipt of a pension, as applicable:

- a. name of former public servant;
- b. date of termination of employment or retirement from the Public Service.

By providing this information, Bidders agree that the successful Bidder's status, with respect to being a former public servant in receipt of a pension, will be reported on departmental websites as part of the published proactive disclosure reports in accordance with [Contracting Policy Notice: 2012-2](#) and the [Guidelines on the Proactive Disclosure of Contracts](#).

Work Force Adjustment Directive

Is the Bidder a FPS who received a lump sum payment pursuant to the terms of the Work Force Adjustment Directive? **Yes () No ()**

If so, the Bidder must provide the following information:

- a. name of former public servant;
- b. conditions of the lump sum payment incentive;
- c. date of termination of employment;
- d. amount of lump sum payment;
- e. rate of pay on which lump sum payment is based;
- f. period of lump sum payment including start date, end date and number of weeks;

- g. number and amount (professional fees) of other contracts subject to the restrictions of a work force adjustment program.
- h. For all contracts awarded during the lump sum payment period, the total amount of fees that may be paid to a FPS who received a lump sum payment is \$5,000, including Applicable Taxes.

2.4 Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than ten (10) calendar 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.

2.5 Applicable Laws

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

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.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

3.1.1 Bid Structure

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. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

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

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

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:

Section I: Technical Bid (3 hard copies and 2 electronic copies on CD, DVD or USB storage device)
Section II: Financial Bid (1 hard copy and 1 electronic copy on CD, DVD or USB storage device)
Section III: Certifications (1 hard copy and 1 electronic copy on CD, DVD or USB storage device)

If there is a discrepancy between the wording of the soft copy on electronic media and the hard copy, the wording of the hard copy will have priority over the wording of the soft copy.

If the Bidder is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of any of these copies and the electronic copy provided through epost Connect service, the wording of the electronic copy provided through epost Connect service will have priority over the wording of the other copies.

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

3.1.2 Bid Format

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

- (a) use 8.5 x 11 inch (216 mm 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](https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573) (<https://www.tbs-sct.gc.ca/pol/doc-eng.aspx?id=32573>). 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.

3.1.3 No Conditional Bids

The Bidder's bid must not be made conditionally. Any condition imposed by the Bidder will render the bid nonresponsive and the bid will be given no further consideration.

3.1.4 Section I: Technical Bid

In their technical bid, Bidders should demonstrate their understanding of the requirements contained in the bid solicitation and explain how they will meet these requirements. Bidders should demonstrate their capability and describe their approach 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.

3.1.4.1 Substantial Information

Bidders must demonstrate their compliance with the bid solicitation by providing substantial information describing completely and in detail how the requirement is met or addressed.

Bidders should provide with their technical bid, a document indicating clearly where the substantial information can be found for each of the mandatory criterion identified in the Technical Bid Evaluation Plan (Annex 1 to Part 4 of the Bid Solicitation).

Bidders must sign the Certification of Compliance (Annex 2 to Part 4 of the Bid Solicitation). A signed Certification of Compliance (Annex 2 to Part 4 of the Bid Solicitation) will be interpreted as meaning full agreement with the requirement, whereas a non-signed Certification of Compliance (Annex 2 to Part 4 of the Bid Solicitation) will be interpreted as meaning not in full agreement with the requirement and the Bid will be deemed non-responsive and not given any further consideration.

3.1.5 Section II: Financial Bid

3.1.5.1 Bidders must submit their financial bid in accordance with the Schedule A. The Bid must address each of the cost elements in Schedule A. The Bid must be submitted in Canadian Currency.

3.1.5.2 Electronic Payment of Invoices – Bid

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Annex 1 to Part 3 of the Bid Solicitation, to identify which ones are accepted.

If Annex 1 to Part 3 of the Bid Solicitation 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.

3.1.5.3 Exchange Rate Fluctuation

The requirement does not offer exchange rate fluctuation risk mitigation. Requests for exchange rate fluctuation risk mitigation will not be considered. All bids including such provision will render the bid non-responsive.

3.1.5.4 Delivery Dates

Bidder must submit their delivery dates in accordance with Schedule B.

3.1.6 Section III: Certifications

Bidders must submit the certifications and additional information required under Part 5.

3.1.7 Bidder's Checklist

Bidders should refer to Annex 2 to Part 3 of the Bid Solicitation (Bidder's Checklist).

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 and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.
- (c) Canada may retain any independent consultant or use any resources to evaluate any bid or portion thereof. Not all members of the evaluation team will necessarily participate in all aspects of the evaluation.
- (d) Where Canada has made a determination that a bid has failed any individual mandatory element of the Solicitation, Canada reserves the right to not proceed further in the evaluation of the bid and may deem the bid non-responsive.
- (e) Canada will use the Phased Bid Compliance Process described below.

4.1.1 Phased Bid Compliance Process

4.1.1.1 (2018-07-19) General

- (a) Canada is conducting the PBCP described below for this requirement.
- (b) Notwithstanding any review by Canada at Phase I or II of the PBCP, Bidders are and will remain solely responsible for the accuracy, consistency and completeness of their Bids and Canada does not undertake, by reason of this review, any obligations or responsibility for identifying any or all errors or omissions in Bids or in responses by a Bidder to any communication from Canada.

THE BIDDER ACKNOWLEDGES THAT THE REVIEWS IN PHASE I AND II OF THIS PBCP ARE PRELIMINARY AND DO NOT PRECLUDE A FINDING IN PHASE III THAT THE BID IS NON-RESPONSIVE, EVEN FOR MANDATORY

REQUIREMENTS WHICH WERE SUBJECT TO REVIEW IN PHASE I OR II AND NOTWITHSTANDING THAT THE BID HAD BEEN FOUND RESPONSIVE IN SUCH EARLIER PHASE. CANADA MAY DEEM A BID TO BE NON-RESPONSIVE TO A MANDATORY REQUIREMENT AT ANY PHASE.

THE BIDDER ALSO ACKNOWLEDGES THAT ITS RESPONSE TO A NOTICE OR A COMPLIANCE ASSESSMENT REPORT (CAR) (EACH DEFINED BELOW) IN PHASE I OR II MAY NOT BE SUCCESSFUL IN RENDERING ITS BID RESPONSIVE TO THE MANDATORY REQUIREMENTS THAT ARE THE SUBJECT OF THE NOTICE OR CAR, AND MAY RENDER ITS BID NON-RESPONSIVE TO OTHER MANDATORY REQUIREMENTS.

- (c) Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have

the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.

- (d) The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2019-03-04) Standard Instructions – Goods or Services – Competitive Requirements nor Canada's right to request or accept any information during the solicitation period or after bid solicitation closing in circumstances where the bid solicitation expressly provides for this right, or in the circumstances described in subsection (c).
- (e) Canada will send any Notice or CAR by any method Canada chooses, in its absolute discretion. The Bidder must submit its response by the method stipulated in the Notice or CAR. Responses are deemed to be received by Canada at the date and time they are delivered to Canada by the method and at the address specified in the Notice or CAR. An email response permitted by the Notice or CAR is deemed received by Canada on the date and time it is received in Canada's email inbox at Canada's email address specified in the Notice or CAR. A Notice or CAR sent by Canada to the Bidder at any address provided by the Bidder in or pursuant to the Bid is deemed received by the Bidder on the date it is sent by Canada. Canada is not responsible for late receipt by Canada of a response, however caused.

4.1.1.2 (2018-03-13) Phase I: Financial Bid

- (a) After the closing date and time of this bid solicitation, Canada will examine the Bid to determine whether it includes a Financial Bid and whether any Financial Bid includes all information required by the solicitation. Canada's review in Phase I will be limited to identifying whether any information that is required under the bid solicitation to be included in the Financial Bid is missing from the Financial Bid. This review will not assess whether the Financial Bid meets any standard or is responsive to all solicitation requirements.
- (b) Canada's review in Phase I will be performed by officials of the Department of Public Works and Government Services.
- (c) If Canada determines, in its absolute discretion that there is no Financial Bid or that the Financial Bid is missing all of the information required by the bid solicitation to be included in the Financial Bid, then the Bid will be considered non-responsive and will be given no further consideration.
- (d) For Bids other than those described in c), Canada will send a written notice to the Bidder ("Notice") identifying where the Financial Bid is missing information. A Bidder, whose Financial Bid has been found responsive to the requirements that are reviewed at Phase I, will not receive a Notice. Such Bidders shall not be entitled to submit any additional information in respect of their Financial Bid.
- (e) The Bidders who have been sent a Notice shall have the time period specified in the Notice (the "Remedy Period") to remedy the matters identified in the Notice by providing to Canada, in writing, additional information or clarification in response to the Notice. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the Notice.

- (f) In its response to the Notice, the Bidder will be entitled to remedy only that part of its Financial Bid which is identified in the Notice. For instance, where the Notice states that a required line item has been left blank, only the missing information may be added to the Financial Bid, except that, in those instances where the addition of such information will necessarily result in a change to other calculations previously submitted in its Financial Bid, (for example, the calculation to determine a total price), such necessary adjustments shall be identified by the Bidder and only these adjustments shall be made. All submitted information must comply with the requirements of this solicitation.
- (g) Any other changes to the Financial Bid submitted by the Bidder will be considered to be new information and will be disregarded. There will be no change permitted to any other Section of the Bidder's Bid. Information submitted in accordance with the requirements of this solicitation in response to the Notice will replace, in full, **only** that part of the original Financial Bid as is permitted above, and will be used for the remainder of the bid evaluation process.
- (h) Canada will determine whether the Financial Bid is responsive to the requirements reviewed at Phase I, considering such additional information or clarification as may have been provided by the Bidder in accordance with this Section. If the Financial Bid is not found responsive for the requirements reviewed at Phase I to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase I to the satisfaction of Canada, will receive a Phase II review.

4.1.1.3 (2018-03-13) Phase II: Technical Bid

- (a) Canada's review at Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible Mandatory Criterion. This review will not assess whether the Technical Bid meets any standard or is responsive to all solicitation requirements. Eligible Mandatory Criteria are all mandatory technical criteria that are identified in this solicitation as being subject to the PBCP. Mandatory technical criteria that are not identified in the solicitation as being subject to the PBCP, will not be evaluated until Phase III.
- (b) Canada will send a written notice to the Bidder (Compliance Assessment Report or "CAR") identifying any Eligible Mandatory Criteria that the Bid has failed to meet. A Bidder whose Bid has been found responsive to the requirements that are reviewed at Phase II will receive a CAR that states that its Bid has been found responsive to the requirements reviewed at Phase II. Such Bidder shall not be entitled to submit any response to the CAR.
- (c) A Bidder shall have the period specified in the CAR (the "Remedy Period") to remedy the failure to meet any Eligible Mandatory Criterion identified in the CAR by providing to Canada in writing additional or different information or clarification in response to the CAR. Responses received after the end of the Remedy Period will not be considered by Canada, except in circumstances and on terms expressly provided for in the CAR.
- (d) The Bidder's response must address only the Eligible Mandatory Criteria listed in the CAR as not having been achieved, and must include only such information as is necessary to achieve such compliance. Any additional information provided by the Bidder which is not necessary to achieve such compliance will not be considered by Canada, except that, in those instances where such a response to the Eligible Mandatory Criteria specified in the CAR will necessarily result in a consequential change to other parts of the Bid, the Bidder shall identify such additional changes, provided that its response must not include any change to the Financial Bid.

- (e) The Bidder's response to the CAR should identify in each case the Eligible Mandatory Criterion in the CAR to which it is responding, including identifying in the corresponding section of the original Bid, the wording of the proposed change to that section, and the wording and location in the Bid of any other consequential changes that necessarily result from such change. In respect of any such consequential change, the Bidder must include a rationale explaining why such consequential change is a necessary result of the change proposed to meet the Eligible Mandatory Criterion. It is not up to Canada to revise the Bidder's Bid, and failure of the Bidder to do so in accordance with this subparagraph is at the Bidder's own risk. All submitted information must comply with the requirements of this solicitation.
- (f) Any changes to the Bid submitted by the Bidder other than as permitted in this solicitation, will be considered to be new information and will be disregarded. Information submitted in accordance with the requirements of this solicitation in response to the CAR will replace, in full, **only** that part of the original Bid as is permitted in this Section.
- (g) Additional or different information submitted during Phase II permitted by this section will be considered as included in the Bid, but will be considered by Canada in the evaluation of the Bid at Phase II only for the purpose of determining whether the Bid meets the Eligible Mandatory Criteria. It will not be used at any Phase of the evaluation to increase or decrease any score that the original Bid would achieve without the benefit of such additional or different information. For instance, an Eligible Mandatory Criterion that requires a mandatory minimum number of points to achieve compliance will be assessed at Phase II to determine whether such mandatory minimum score would be achieved with such additional or different information submitted by the Bidder in response to the CAR. If so, the Bid will be considered responsive in respect of such Eligible Mandatory Criterion, and the additional or different information submitted by the Bidder shall bind the Bidder as part of its Bid, but the Bidder's original score, which was less than the mandatory minimum for such Eligible Mandatory Criterion, will not change, and it will be that original score that is used to calculate any score for the Bid
- (h) Canada will determine whether the Bid is responsive for the requirements reviewed at Phase II, considering such additional or different information or clarification as may have been provided by the Bidder in accordance with this Section. If the Bid is not found responsive for the requirements reviewed at Phase II to the satisfaction of Canada, then the Bid shall be considered non-responsive and will receive no further consideration.
- (i) Only Bids found responsive to the requirements reviewed in Phase II to the satisfaction of Canada, will receive a Phase III evaluation.

4.1.1.4 (2018-03-13) Phase III: Final Evaluation of the Bid

- (a) In Phase III, Canada will complete the evaluation of all Bids found responsive to the requirements reviewed at Phase II. Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) A Bid is non-responsive and will receive no further consideration if it does not meet all mandatory evaluation criteria of the solicitation.

4.1.2 Technical Evaluation

The Technical Bid Evaluation Plan and mandatory technical evaluation criteria are included in the Technical Bid Evaluation Plan (Annex 1 to Part 4 of the Bid Solicitation).

Where the requirement for method of compliance is the "Certification of Compliance", the evaluation team will consider a bid compliant if the Bidder provides a completed and signed "Certification of Compliance (Annex 2 to Part 4 of the Bid Solicitation)" document.

4.1.2.1 Mandatory Technical Criteria

All mandatory technical evaluation criteria are included in the Technical Bid Evaluation Plan (Annex 1 to Part 4 of the Bid Solicitation). **The Phased Bid Compliance Process will apply to all mandatory technical criteria.**

4.1.3 Financial Evaluation

1. The price of the bid will be evaluated in Canadian dollars, Delivered Duty Paid at destination, Incoterms 2010, Canadian Custom Duties and Excise Taxes included where applicable, Goods and Services Tax or the Harmonized Sales Tax extra. Additional terms specific to a particular evaluated price may also apply.
2. The following "Evaluated Price" equation will be used to determine the evaluated price of the bid based on the prices inserted by the Bidder in its bid Schedule A (Basis of Payment). Using the Items listed in Schedule A:

	Evaluated Price = A + B + C + D
A.	A = Sum of the extended prices of items 1 (inclusive)
B.	B = Unit Price DDP Destination of item 2
C.	C = Sum of the extended prices of items 3 – 5 (inclusive)
D.	D = For evaluation purposes, the hourly rate identified by the Bidder for the optional services and unscheduled work (Article 7.1.2) will be multiplied by 1000 hours*.

* 1000 hours is used for evaluation purpose only and is no way represent commitment by Canada

Extended Price for EACH item in A is calculated as follows:

-Item #1 Quantity x Item #1 Firm Unit Price = Item #1 Extended Price

Extended Price for item in B is calculated as follows:

- Item 2 Firm Unit Price

Extended Price for EACH item in C is calculated as follows:

*-Item #3 Quantity x **AVERAGE** Item #3 Firm Unit Price = Item #3 Extended Price*

-AVERAGE Item #3 Firm Unit Price is calculated as follows:

*“(Firm Unit Price for Contract Year 1 + Firm Unit Price for Contract Year 2 + Firm Unit Price for Contract Year 3 + Firm Unit Price for Contract Year 4 + Firm Unit Price for Contract Year 5) **DIVIDED** by 5 = AVERAGE Item #3 Firm Unit Price”*

-This is repeated for items 4 – 5 inclusive.

Extended Price for Hourly Rate in D is calculated as follows:

- 1000 hours x Hourly Rate

3. The quantities and factors used in the “Evaluated Price” equation are for bid evaluation purposes only. There is no guarantee that the factored quantities of the optional items used in the “Evaluated Price” equation will be procured.

4.2 Basis of Selection

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.

PART 5 – CERTIFICATIONS AND ADDITIONAL INFORMATION

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

The certifications provided by Bidders to Canada are subject to verification by Canada at all times. Unless specified otherwise, Canada will declare a bid non-responsive, or will declare a contractor in default 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 to verify the Bidder's certifications. Failure to comply and to cooperate with any request or requirement imposed by the Contracting Authority will 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 Integrity 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 specified 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 property 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" list available at the bottom of the page of the [Employment and Social Development Canada \(ESDC\) - 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 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"](#) 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, 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, for each member of the Joint Venture.

5.2.3 Certification of Compliance

The Bidder must provide the Contracting Authority with a signed and completed Certification of Compliance (Annex 2 to Part 4 of the Bid Solicitation) within the time frame identified by the Contracting Authority.

5.2.4 Insurance – Proof of Availability Prior to Contract Award

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 7.13.1 (Commercial General Liability Insurance)**.

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.

5.2.5 Status and Availability of Resources

The Bidder certifies that, should it be awarded a contract as a result of the bid solicitation, every individual proposed in its bid will be available to perform the Work as required by Canada's representatives and at the time specified in the bid solicitation or agreed to with Canada's representatives. If for reasons beyond its control, the Bidder is unable to provide the services of an individual named in its bid, the Bidder may propose a substitute with similar qualifications and experience. The Bidder must advise the Contracting Authority of the reason for the substitution and provide the name, qualifications and experience of the proposed replacement. For the purposes of this clause, only the following reasons will be considered as beyond the control of the Bidder: death, sickness, maternity and parental leave, retirement, resignation, dismissal for cause or termination of an agreement for default.

If the Bidder has proposed any individual who is not an employee of the Bidder, the Bidder certifies that it has the permission from that individual to propose his/her services in relation to the Work to be performed and to submit his/her résumé to Canada. The Bidder must, upon request from the Contracting Authority, provide a written confirmation, signed by the individual, of the permission given to the Bidder and of his/her availability. Failure to comply with the request may result in the bid being declared non-responsive.

5.2.6 Welding Certification

Before contract award and within 21 calendar days of the written request by the Contracting Authority, the successful Bidder must submit evidence demonstrating its or its subcontractor's certification as follow:

5.2.6.1 Steel – Weld Procedure and Welding Personnel Qualification Requirements

The contractor or subcontractors performing the welding of steel must meet one of the following requirements for qualification of welding procedures and welding personnel – welding supervisors, welders and tack welders:

1. Certification by the Canadian Welding Bureau (CWB) to CSA Standard W47.1-2019 Division 1, 2 or 3.
2. Certification by an International Institute of Welding (IIW) Authorized National Body for Company Certification (ANBCC) to ISO Standard 3834 – 1, 2 or 3.

3. Third party accredited organization administration of American Welding Society (AWS) D1.1: 2015– Structural Welding Code Steel

5.2.6.2 Aluminum – Weld Procedure and Welding Personnel Qualification Requirements

The contractor or subcontractors performing the welding of aluminum must meet one of the following requirements for qualification of welding procedures and welding personnel – welding supervisors, welders and tack welders:

1. Certification by the Canadian Welding Bureau (CWB) to CSA Standard W47.2-2011 (R2015) Division 1, 2 or 3.
2. Certification by an International Institute of Welding (IIW) Authorized National Body for Company Certification (ANBCC) to ISO Standard 3834 – 1, 2 or 3.
3. Third party accredited organization administration of American Welding Society (AWS) D1.2: 2014 – Structural Welding Code Aluminum

5.2.6.3 Welding Engineer – Steel and Aluminum

The contractor or subcontractors performing the welding of steel and/or aluminum must employ or retain the services of a Welding Engineer responsible for weld design, procedures, workmanship and technique. The individual must be accredited as a Welding Engineer by one of the following authorized third party administrative organizations:

1. Canadian Welding Bureau (CWB).
2. International Institute of Welding (IIW) Authorized National Body for Company Certification (ANBCC).

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirements

Not used

6.2 Insurance Requirements

G2001C (2018-06-21) Commercial General Liability Insurance

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

The Contractor must provide the goods, services or both prescribed in the Contract, including all the Annexes, Schedules, Appendices, and any other identified documents, to Canada in accordance with, and at the prices and/or rates stated in the Contract.

7.1.1 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described in the Contract, including all the Annexes, Schedules, Appendices and any other identified documents, under the same conditions and at the prices and/or rates stated in the Contract.

The options 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 options on multiple occasions and at any time before the expiry of the Contract by sending a written notice to the Contractor.

7.1.2 Work Arisings

Additional work that is not described in the Statement of Work but that is required to support the requirement and that would be considered to fall within the overall scope of the Work, may be incorporated into the Contract in accordance with Schedule A via a Task Authorization.

7.1.3 Task Authorization

The Work or a portion of the Work to be performed under the Contract will be on an "as and when requested basis" using a Task Authorization (TA). The Work described in the TA must be in accordance with the scope of the Contract.

7.1.3.1 Task Authorization Process

1. The Project Authority will provide the Contractor with a description of the task using the "Task Authorization" form specified in Annex C.
2. The Task Authorization (TA) will contain the details of the activities to be performed, a description of the deliverables, and a schedule indicating completion dates for the major activities or submission dates for the deliverables. The TA will also include the applicable basis (bases) and methods of payment as specified in the Contract.
3. At the time when the Task Authorization is provided to the Contractor, the Contracting Authority or Project Authority will discuss with the Contractor to determine if there is an opportunity to include an Indigenous Benefits Plan which generates socio-economic benefits (employment, training and subcontracting) for Indigenous people or businesses.
4. The Contractor must provide the Project, within 7 calendar days of its receipt, the proposed total estimated cost for performing the task and a breakdown of that cost, established in accordance with the Basis of Payment specified in the Contract.

5. The Contractor must not commence work until a TA authorized by the Project Authority has been received by the Contractor. The Contractor acknowledges that any work performed before a TA has been received will be done at the Contractor's own risk.

7.1.3.2 Task Authorization Limit

The Project Authority may authorize individual task authorizations up to a limit of \$ (to be announced at contract award) Applicable Taxes included, inclusive of any revisions.

Any task authorization to be issue in excess of that limit must be authorized by the Technical Authority and Contracting Authority before issuance.

7.1.3.3 Canada's Obligation - Portion of the Work - Task Authorizations

Canada's obligation with respect to the portion of the Work under the Contract that is performed through task authorizations is limited to the total amount of the actual tasks performed by the Contractor.

7.1.3.4 Periodic Usage Reports - Contracts with Task Authorizations

The Contractor must compile and maintain records on its provision of services to the federal government under authorized Task Authorizations issued under the Contract.

The Contractor must provide this data in accordance with the reporting requirements detailed below. If some data is not available, the reason must be indicated. If services are not provided during a given period, the Contractor must still provide a "nil" report.

The data must be submitted on a quarterly basis to the Contracting Authority.

The quarterly periods are defined as follows:

1st quarter: April 1 to June 30;

2nd quarter: July 1 to September 30;

3rd quarter: October 1 to December 31; and

4th quarter: January 1 to March 31.

The data must be submitted to the Contracting Authority no later than 21 calendar days after the end of the reporting period.

Reporting Requirement - Details

A detailed and current record of all authorized tasks must be kept for each contract with a task authorization process. This record must contain:

For each authorized task:

- i. the authorized task number or task revision number(s);
- ii. a title or a brief description of each authorized task;
- iii. the total estimated cost specified in the authorized Task Authorization (TA) of each task, exclusive of Applicable Taxes;
- iv. the total amount, exclusive of Applicable Taxes, expended to date against each authorized task;
- v. the start and completion date for each authorized task; and
- vi. the active status of each authorized task, as applicable.

For all authorized tasks:

- i. the amount (exclusive of Applicable Taxes) specified in the contract (as last amended, as applicable) as Canada's total liability to the contractor for all authorized TAs; and
- ii. the total amount, exclusive of Applicable Taxes, expended to date against all authorized TAs.

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](#) (2018-06-21), General Conditions - Higher Complexity - Goods, apply to and form part of the Contract.

[1031-2](#) (2012-07-16), Contract Cost Principles, apply to and form part of the Contract.

7.2.2 Supplemental General Conditions

[4010](#) (2012-07-16) Services – Higher Complexity, apply to and from part of the Contract.

7.3 Security Requirements

7.3.1 There is no security requirement applicable to the Contract.

7.4 Term of Contract

7.4.1 Period of the Contract

There period of the Contract is from Date of Contract to December 31, 2025 inclusive.

7.4.2 Delivery Date

The Contractor must make complete delivery by the Delivery Dates identified in Schedule B.

7.4.3 Comprehensive Land Claims Agreements (CLCAs)

This procurement may be subject to the Huron-Wendat Nation (2008). At the time when a Task Authorization is provided to the Contractor, any applicable Comprehensive Land Claims Agreements will be identified.

At the time when a Task Authorization is provided to the Contractor, the Contracting Authority or Project Authority will discuss with the Contractor to determine if there is an opportunity to include an Indigenous Benefits Plan which generates socio-economic benefits (employment, training and subcontracting) for Indigenous people or businesses.

The Contract with Task Authorizations is to establish the delivery of the requirement detailed under the Contract, to the Identified Users across Canada, including areas subject to Comprehensive Land Claims Agreements.

7.4.4 Delivery Points

Delivery of the requirement will be made to delivery point(s) specified at Schedule B of the Contract.

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Shaloo Sobti
Title: Supply Specialist
Public Works and Government Services Canada
Acquisitions Branch
Directorate: Marine Charter Services
Address: 270 Albert Street, Ottawa, ON K1P 6N7
E-mail address: Shaloo.Sobti@pwgsc-tpsgc.gc.ca

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 Project Authority

The Project Authority for the Contract is:

Name: _____
Title: _____
Organization: _____
Address: _____

Telephone: ____ - ____ - ____
Facsimile: ____ - ____ - ____
E-mail address: _____

The Project Authority 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 Project Authority; however, the Project 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 Contractor's Representative

Name: _____
Title: _____
Organization: _____
Address: _____
Telephone: ____ - ____ - ____
E-mail address: _____

7.6 Proactive Disclosure of Contracts with Former Public Servants

By providing information on its status, with respect to being a former public servant in receipt of a [Public Service Superannuation Act](#) (PSSA) pension, the Contractor has agreed that this information will be reported on departmental websites as part of the published proactive disclosure reports, in accordance with [Contracting Policy Notice: 2012-2](#) of the Treasury Board Secretariat of Canada.

7.7 Payment

7.7.1 Basis of Payment

7.7.1.1 Basis of Payment – Firm Unit Price

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid firm price as specified in Schedule A, Basis of Payment for a cost of \$(to be announced at contract award). Customs duties are included and Applicable Taxes are extra.

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.

7.7.1.2. Basis of Payment – (Firm Unit Price(s) – Task Authorizations OR Individual Task Authorizations)

7.7.1.2.1 Basis of Payment – Firm Unit Price(s) - Task Authorizations

In consideration of the Contractor satisfactorily completing all of its obligations under the authorized Task Authorization (TA), the Contractor will be paid the firm unit price(s) in accordance with the basis of payment, in Schedule A as specified in the authorized TA. Customs duties are included and Applicable Taxes are extra.

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

- OR -

7.7.1.2.1 Basis of Payment – Individual Task Authorizations

The Contractor will be paid for the Work specified in the authorized task authorization, in accordance with the Basis of payment at Schedule A.

Canada's liability to the Contractor under the authorized task authorization must not exceed the limitation of expenditure or ceiling price specified in the authorized task authorization. Custom duties are included and Applicable Taxes are extra.

No increase in the liability of Canada or in the price of the Work specified in the authorized task authorization resulting from any design changes, modifications or interpretations of the Work will be authorized or paid to the Contractor unless these design changes, modifications or interpretations have been authorized, in writing, by the Contracting Authority before their incorporation into the Work.

7.7.1.3 Basis of Payment: Cost Reimbursable – Limitation of Expenditure – Transport and Insurance Expenses

(Applicable to Schedule A - Items # 4, 5 & 6 inclusive)

The Contractor will be reimbursed its expenses reasonably and properly incurred in the performance of the transport and insurance of Optional Goods, at cost, without any allowance for profit and/or administrative overhead, to the limitation of expenditure identified in the Task Authorization.

With the exception of transport and insurance costs, all costs, including customs duties, are included in the Firm Unit Price of each Optional Good. Applicable Taxes are extra.

All payments are subject to government audit.

7.7.2 Limitation of Expenditure - Cumulative Total of all Task Authorizations

1. Canada's total liability to the Contractor under the Contract for all authorized Task Authorizations (TAs), inclusive of any revisions, must not exceed the sum of \$ (to be announced at contract award) . Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada will be authorized or paid to the Contractor unless an increase has been approved, in writing, by the Contracting Authority.
3. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - a. when it is 75 percent committed, or
 - b. four (4) months before the contract expiry date, or
 - c. as soon as the Contractor considers that the sum is inadequate for the completion of the Work required in all authorized TAs, inclusive of any revisions, whichever comes first.
4. If the notification is for inadequate contract funds, the Contractor must provide to the Contracting Authority, a written estimate for the additional funds required. Provision of such information by the Contractor does not increase Canada's liability.

7.7.3 Travel and Living Expenses – National Joint Council Travel Directive

The Contractor will be reimbursed its authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for profit and/or administrative overhead, in accordance with the meal, and private vehicle allowances specified in Appendices B, C and D of the [National Joint Council Travel Directive](#), and with the other provisions of the directive referring to "travellers", rather than those referring to "employees". Canada will not pay the Contractor any incidental expense allowance for authorized travel.

All travel must have the prior authorization of the Contracting Authority.

All payments are subject to government audit.

7.7.4 Electronic Payment of Invoices – Contract

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

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only)

7.7.5 Discretionary Audit

The Contractor must provide, on Canada's request, one of the following prior to Task Authorization if applicable:

7.7.5.1 Discretionary Audit – Commercial Goods and/or Services

The Contractor's certification that the price or rate is not in excess of the lowest price or rate charged anyone else, including the Contractor's most favoured customer, for the like quality and quantity of the goods, services or both, is subject to verification by government audit, at the discretion of Canada, before or after payment is made to the Contractor.

If the audit demonstrates that the certification is in error after payment is made to the Contractor, the Contractor must, at the discretion of Canada, make repayment to Canada in the amount found to be in excess of the lowest price or rate or authorize the retention by Canada of that amount by way of deduction from any sum of money that may be due or payable to the Contractor pursuant to the Contract.

If the audit demonstrates that the certification is in error before payment is made, the Contractor agrees that any pending invoice will be adjusted by Canada in accordance with the results of the audit. It is further agreed that if the Contract is still in effect at the time of the verification, the price or rate will be lowered in accordance with the results of the audit.

7.7.5.1.1 Price Certification

C0002T (2010-01-11) Price Certification – Canadian-based Supplier (other than agency and resale outlets)

OR

C0004T (2007-05-25) Price Certification – Canadian Agency and Resale Outlets

7.7.5.2 Discretionary Audit – Non-Commercial Goods and/or Services

The estimated amount of profit included in the Contractor's price or rate certification is subject to audit by Canada, before or after payment is made to the Contractor under the conditions of the Contract. The purpose of the audit would be to determine whether the actual profit earned on a single contract if only one exists, or the aggregate of actual profit earned by the Contractor on a series of negotiated firm price and fixed-time rate contracts performed during a particular period selected, is reasonable and justifiable based on the estimated amount of profit included in earlier price or rate certification(s).

If the audit demonstrates that the actual profit is not reasonable and justifiable, as defined above, the Contractor must repay Canada the amount found to be in excess.

7.7.5.2.1 Price Certification

The Bidder certifies that the price proposed is based on costs computed in accordance with *Contract Cost Principles 1031-2*, and includes an estimated amount of profit of \$_____ (*to be provided by the Contractor prior to Task Authorisation*) .

OR

C0001T (2007-05-25) Price Certification – Foreign Suppliers

7.7.6 Taxes – Foreign-Based Contractor (if applicable)

Unless specified otherwise in the Contract, the price includes no amount for any federal excise tax, state or local sales or use tax, or any other tax of a similar nature, or any Canadian tax whatsoever. The price, however, includes all other taxes. If the Work is normally subject to federal excise tax, Canada will, upon request, provide the Contractor a certificate of exemption from such federal excise tax in the form prescribed by the federal regulations.

Canada will provide the Contractor evidence of export that may be requested by the tax authorities. If, as a result of Canada's failure to do so, the Contractor has to pay federal excise tax, Canada will reimburse the Contractor if the Contractor takes such steps as Canada may require to recover any payment made by the Contractor. The Contractor must refund to Canada any amount so recovered.

7.8 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; and
- c. the description and value of the milestone claimed as detailed in the Contract.

Each claim must be supported by:

- d. a copy of time sheets to support the time claimed; and
 - e. a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses.
2. Applicable Taxes 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 the claim on form [PWGSC-TPSGC 1111](#), and forward it to the Contracting Authority for review.
The Contracting Authority will then forward the claim to the Project Authority for certification and onward submission to the Payment Office for the remaining certification and payment action.
 4. The Contractor must not submit claims until all work identified in the claim is completed. Claims must submit no more than one claim per 30- day period.

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.

7.10 Applicable Laws

The Contract must be interpreted and governed, and the relations between the parties determined, by the laws in force in _____.

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 including:
 - i. Schedule A, Basis of Payment,
 - ii. Schedule B, Deliveries and Milestones;
- (b) the supplemental general conditions 4010 (2012-07-16);
- (c) Contract Cost Principles 1031-2 (2012-07-16);
- (d) the general conditions 2030 (2018-06-21);
- (e) Annex A, Statement of Work;
- (f) Annex B, Statement of Requirement;
- (g) the signed Task Authorizations (including all of its annexes, if any); and
- (h) the Contractor's bid dated _____.

7.12 Foreign Nationals (Canadian Contractor OR Foreign Contractor)

The Contractor must comply with Canadian immigration requirements applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Service Canada regional office to enquire about Citizenship and Immigration Canada's requirements to issue a temporary work permit to a foreign national. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements.

- OR -

Foreign Nationals (Foreign Contractor)

The Contractor must comply with Canadian immigration legislation applicable to foreign nationals entering Canada to work temporarily in fulfillment of the Contract. If the Contractor wishes to hire a foreign national to work in Canada to fulfill the Contract, the Contractor should immediately contact the nearest Canadian Embassy, Consulate or High Commission in the Contractor's country to obtain instructions, information on Citizenship and Immigration Canada's requirements and any required documents. The Contractor is responsible to ensure that foreign nationals have the required information, documents and authorizations before performing any work under the Contract in Canada. The Contractor is responsible for all costs incurred as a result of non-compliance with immigration requirements.

7.13 Insurance

The Contractor is responsible for deciding if insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any insurance acquired or maintained by

the Contractor is at its own expense and for its own benefit and protection. It does not release the Contractor from or reduce its liability under the Contract.

7.13.1 Commercial General Liability 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 Contractor will provide the Contracting Authority thirty (30) days prior written notice of policy cancellation or any changes to the insurance policy.
 - 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) Sudden and Accidental Pollution Liability (minimum 120 hours): To protect the Contractor for liabilities arising from damages caused by accidental pollution incidents.

7.14 Access to Government Site, Facility, or Equipment

7.14.1 Government Site Regulations

The Contractor must comply with all regulations, instructions and directives in force on the site where the Work is performed.

7.14.2 Access to Facilities and Equipment

Canada's facilities, equipment, documentation and personnel are not automatically at the disposal of the

Contractor. If access to government premises, computer systems (micro computer network), working space, telephones, terminals, documentation and personnel for consultation is required by the Contractor to perform the Work, the Contractor must advise the Contracting Authority of the need for such access in a timely fashion. If the Contractor's request for access is approved by Canada and arrangements are made to provide access to the Contractor, the Contractor, its subcontractors, agents and employees must comply with all the conditions applicable at the Work site. The Contractor must further ensure that the facilities and equipment are used solely for the performance of the Contract.

7.14.3 Identification Badge

Any person assigned to the performance of any part of the Work that is performed on government premises must wear in a conspicuous place the identification badge issued to that person by Canada.

When a person is required to wear a safety helmet, the Contractor, if requested to do so by the Contracting Authority, must paint the number appearing on the badge on the front of the safety helmet.

7.15 Shipping Instructions

7.15.1 Delivery Instructions

7.15.1.1 Delivery Instructions

(Applicable to Schedule A: Section 4 – Items 1, & 2 (inclusive) and Section 5 – Item 3)

1. Goods must be consigned to the destination specified in the Contract and delivered: Delivered Duty Paid (DDP) (specified destination) Incoterms 2010.
2. Unless otherwise directed, delivery must be made by the most economical means. Shipping charges must be shown as a separate item on the Contractor's invoice. The Contractor is responsible for all delivery charges, administration, costs and risks of transport and customs clearance, including the payment of customs duties and Applicable Taxes.
3. The Contractor must deliver the goods by appointment only. The Contractor or its carrier must arrange delivery appointments by contacting the designated contact person. The consignee may refuse shipments when prior arrangements have not been made.
4. Refer to Schedule B for additional instructions.

7.15.1.2 Delivery Instructions for Optional Goods

(Applicable to Schedule A – Section 5 items 4, 5 & 6)

1. The Task Authorization Process will be followed for the delivery of any Optional Goods.
2. The Contractor must provide a minimum of three quotations identifying the end-to-end transport costs, including insurance for replacement cost of the shipment, to support the price quoted in the Task Authorization.

The Contractor must also provide the following information concerning transport costs for the delivery of the units to destination:

- a. shipping weight by unit;
- b. number of items by unit;
- c. cubic measurement by unit;
- d. freight classification;
- e. name of shipping point;

f. name of rail carrier, if shipment is by rail; and

g. recommended method of shipment and its costs.

If other than the lowest or sole source is being recommended, the reason must be noted. The Contracting Authority must be permitted to correspond with any proposed transport service provider regarding the price in the presence of the Contractor's representative. The accepted quote will be used as the basis of the limitation of expenditure for transport and insurance costs.

3. Transport and insurance costs must be shown as a separate item on the claim of payment, supported by a certified copy of the bill of lading and invoice.

4. Goods must be consigned to the destination specified in the Task Authorization and delivered: Delivered Duty Paid (DDP) (specified destination) Incoterms 2010.

5. Unless otherwise directed, delivery must be made by the most economical means. The Contractor is responsible for all delivery charges, administration, costs and risks of transport and customs clearance, including the payment of customs duties and Applicable Taxes.

6. The Contractor must deliver the goods by appointment only. The Contractor or its carrier must arrange delivery appointments by contacting the designated contact person at least 2 business days in advance of the delivery time. The consignee may refuse deliveries when prior arrangements have not been made.

6. Refer to Schedule B for additional instructions.

7.15.2 Wood Packaging Materials

All wood packaging materials used in shipping must conform to the International Standards for Phytosanitary Measures No. 15: Regulation of Wood Packaging Material in International Trade (ISPM 15) (<https://www.ippc.int/en/core-activities/standards-setting/ispm15/>).

Pertinent additional information on Canada's import and export programs is provided in the following Canadian Food Inspection Agency policy directives:

D-98-08 - Entry Requirements for Wood Packaging Materials Produced in All Areas Other Than the Continental United States (<http://www.inspection.gc.ca/plants/plant-protection/directives/forestry/d-98-08/eng/1323963831423/1323964135993>)

D-13-01 – Canadian Heat Treated Wood Products Certification Program (HT Program) (<http://www.inspection.gc.ca/plants/forestry/exports/ht-program/eng/1319462565070/1319462677967>).

7.15.3 Dangerous Goods / Hazardous Products - Labelling and Packaging Compliance

1. The Contractor must ensure proper labelling and packaging in the supply and shipping of dangerous goods/hazardous products to the Government of Canada.

2. The Contractor will be held liable for any damages caused by improper packaging, labelling or carriage of dangerous goods/hazardous products.

3. The Contractor must clearly mark all merchandise labels with the percentage of volume that is a hazardous item. Failure to do so will result in the Contractor being held responsible for damages caused in the movement of goods/products by government vehicles or government personnel.

4. The Contractor must adhere to all applicable laws regarding dangerous goods/hazardous products.

7.15.4 Transportation of Dangerous Goods/Hazardous Products

The Contractor must obtain the authorization from the Department of Transport to transport dangerous goods/hazardous products before the carrier may accept a charter involving the transportation of dangerous goods/hazardous products.

7.15.5 Shipment of Dangerous Goods/Hazardous Products

The Contractor must label and ship dangerous goods/hazardous products falling within the Transportation of Dangerous Goods Act, 1992, c.34 (<http://laws-lois.justice.gc.ca/eng/acts/t-19.01/>) and the Hazardous Products Act, R.S.C. 1985, c. H-3 (<http://laws-lois.justice.gc.ca/eng/acts/H-3/>) and their regulation(s) in accordance with the said Acts and regulation(s) accompanied by the required safety data sheet(s) completed in both English and French.

7.15.6 Delivery of Dangerous Goods/Hazardous Products

1. The Contractor must mark dangerous goods/hazardous products which are classed as dangerous/hazardous as follows:
 - a. shipping container - in accordance with the [*Transportation of Dangerous Goods Act*](#), 1992, c. 34; and
 - b. immediate product container - in accordance with the [*Hazardous Products Act*](#), R.S., 1985, c. H-3.
2. The Contractor must provide bilingual Safety Data Sheets, indicating the NATO Stock Number as follows:
 - a. two hard copies:
 - i. one copy to be enclosed with the shipment, and
 - ii. one copy to be mailed to:
(to be provided at contract award)
 - b. one copy sent in any electronic format to the following address: (to be provided at contract award)
3. The Contractor will be responsible for any damages caused by improper packaging, labelling or carriage of dangerous goods/hazardous products.
4. The Contractor must ensure they adhere to all levels of regulations regarding dangerous goods/hazardous products as set forth by federal, provincial and municipal laws and by-laws.
5. The Contractor must contact the consignee (i.e. Supply Depot Traffic Section) at least 48 hours before shipping dangerous goods/hazardous products in order to schedule a receiving time.

SCHEDULE A

BASIS OF PAYMENT

Instructions to Bidders:

The Bidder must complete the fill-ins and tables in Sections 4, 5 and 6 of Schedule A as follows:

- a. All prices must be in Canadian currency;*
- b. All prices must include customs duties;*
- c. All prices must not include Applicable Taxes;*
- d. The Bidder must provide firm unit prices for each item in:*
 - i. Section 4 (Required Goods and Services);*
 - ii. Section 5 (Optional Goods and/or Services) to Contract Year 1, Contract Year 2, Contract Year 3, Contract Year 4, and Contract Year 5*
 - iii. Section 6 (Hourly Labour Rate for Additional Work Requirement).*
- e. The Bidder is requested to insert "\$0.00" for any cost of the cost elements for which it does not intend to charge - If any cost element is left blank, Canada will insert "\$0.00" for that element; and*
- f. The Bidder must take into account any notes associated with a particular Item and/or cost element.*

Note: These italicized Instructions to Bidders will not be included in any resulting contract.

1. General

- a. Prices include customs duties but Applicable Taxes are extra.
- b. The price takes into account any notes associated with the Item and/or cost element.
- c. Items must be invoiced based on the price established for the date of the order (via Contract or Contract Amendment) and not the delivery or acceptance date.

For example, if prices were based on the calendar year and a contract amendment was issued on December 31, 2019 to purchase a widget but the widget was not delivered until January 1, 2020, the contract amendment and invoice for the order must reflect the Year 2019 price and not the Year 2020 price.

2. Currency

All prices are in Canadian currency.

3. Item Descriptions

- a. The **Supply and Delivery** of a Boom Reel Trailer System (s) and other optional goods as described in Annex A, SOW and Annex B, TSOR and appendices.
- b. One unit of **Complete delivery** includes complete delivery of the identified Quantity as per the Shipping Instructions in Section 7.15 to Destination.
- c. One unit of **Documentation** includes the generation and supply of all documentation specified in the Contract including all Annexes and Appendices.
- d. One unit of **Training Session** includes: everything specified in accordance with the Contract including SOW, TSOR and all Annexes and Appendices.

4. Required Goods and Services

Item	Item Short Description ^{1,2}	Quantity	Delivery Location ^A	Firm Unit Price	Extended Price
1	Boom Reel Trailer System	2	Mount Pearl, NL		
1	Boom Reel Trailer System	1	Dartmouth, NS		
1	Boom Reel Trailer System	1	Charlottetown, PE		
1	Boom Reel Trailer System	1	Canso, NS		
1	Boom Reel Trailer System	1	Saint John, NB		
1	Boom Reel Trailer System	2	Parry Sound, ON		
1	Boom Reel Trailer System	1	Hay River, NT		
1	Boom Reel Trailer System	4	Saanichton, BC		
2	Documentation – Data Item Description (DID) Generate and supply all of the required documents in accordance with Annex A, Appendices 1 & 2 (DID-PM-01, DID-SE-01, DID-SE-02, DID-SE-03, DID-SE-04, DID-ETR-01, DID-ETR-02, DID-TM01, DID-TM,02, DID-TM-03, DID-TM-04, and DID-TM-05)	N/A	As per the Contract		

Notes:

¹: A short description of the Item that must be supplied in accordance with the Contract, SOW, TSOR including all Annexes, Appendices.

²: All travel and living expenses must **NOT** be included in the price of training and to be reimbursed as per Contract (7.7.3 Travel and Living Expenses – National Joint Council Travel Directive).

³: Item 2 includes the price of recurring DID's (DID-PM 01, DID-SE-04) and the printed copies of accepted DID's (DID-TM-01, & DID-TM-04).

^A: This price represents an amount in addition to the price for the above noted items for DDP delivery of such items to the noted destination.

4.1 Changes to the Delivery Destinations or Quantities

Should it be necessary to change delivery destinations or quantities, the parties will negotiate such terms in accordance with Article 7.7.1.3 of the Contract.

5. Optional Goods and/or Services

Item	Item Short Description ³	Max Qty ⁴	Delivery Location ^B	Contract Year 1	Contract Year 2	Contract Year 3	Contract Year 4	Contract Year 5
				From Date of Contract Award to 31 December 2021	From 01 January 2022 to 31 December 2022	From 01 January 2023 to 31 December 2023	From 01 January 2024 to 31 December 2024	From 01 January 2025 to 31 December 2025
				Firm Unit Price ^{5,6,7,8,9}	Firm Unit Price ^{5,6,7,8,9}	Firm Unit Price ^{5,6,7,8,9}	Firm Unit Price ^{5,6,7,8,9}	Firm Unit Price ^{5,6,7,8,9}
3	Boom Reel Trailer System	Up to 2	Mount Pearl, NL					
3	Boom Reel Trailer System	Up to 1	Charlottetown, PE					
3	Boom Reel Trailer System	Up to 1	Dartmouth, NS					
3	Boom Reel Trailer System	Up to 1	Canso, NS					
3	Boom Reel Trailer System	Up to 1	Saint John, NB					
3	Boom Reel Trailer System	Up to 6	Prescott, ON					
3	Boom Reel Trailer System	Up to 2	Parry Sound, ON					
3	Boom Reel Trailer System	Up to 1	Saanichton, BC					
4	Complete Boom Reel Skid	Up to 10	TBD					

5	Deliver Equipment Training and Familiarization Session	Up to 4 (2 English and 2 French)	TBD				
6	<p>Provision of Recommended Spare Parts and Tool Kits</p> <p>The provision of any or spares in support of all deliverables as detailed in the final Recommended Spare Parts and Tools List (CDRL item DID-TM-05), as accepted by Canada. (The contents of each Kit will be determined if and when options are exercised.)</p> <p>Note: 1kit = 1 unit Price to be determined. (not evaluating)</p>	<p># of kits</p> <p>TBD</p>	As per the Contract	TBD	TBD	TBD	TBD

Notes:

⁴: A brief description of the Optional Item that must be supplied in accordance with the Contract including all Annexes and Appendices.

⁵: Optional Items may be procured on as many occasions as necessary up to the identified maximum total quantity.

⁶: With the exceptions detailed in Note 7 and Note 8 below, the Firm Unit Price for the Optional Item includes all costs necessary to deliver the Optional item, including packaging, logistics planning, loading onto transport at the Contractor's facility, customs duties, import clearances, etc.

⁷: The Firm Unit Price for each Optional Item (except for Item 3) does not include transport and insurance costs associated with the delivery of the Optional Item. The Contractor will be reimbursed separately for these authorized expenses in accordance with Article 7.7.1.3 of the Contract.

⁸: The Firm Unit Price for the Item 3 includes transport and insurance costs for the delivery of the identified items Delivered Duty Paid (DDP) (specified destination) Incoterms 2010.

⁹: The Firm Unit Price for the Items 5 does not include travel and living expenses for any applicable commissioning and/or training. Travel and living expenses for any applicable commissioning and/or training associated with the item will be paid in accordance with Article 7.7.3 of the Contract.

TBD: To Be Determined

CDRL: Contract Data Requirements List (as per the Statement of Work, Annex A)

DID: Data Item Description (as per the Statement of Work, Annex A)

5.1 Changes to the Delivery Destinations or Quantities

Should it be necessary to change delivery destinations or quantities, the parties will negotiate such terms in accordance with Article 7.7.1.2 of the Contract.

6 Per Hourly Rate – Optional Services and Unscheduled Work (rate will be added *for contract award*)

Bidders requested to propose an hourly rate that will be used in the pricing of any Work Arisings (see article 7.1.2)

The hourly rate quoted for Work Arising must be firm, remain valid for the entire period of the Contract. The hourly rate proposed must be in accordance with the terms and conditions of this RFP (Contract Cost Principles 1031-2). Canada reserves the right to negotiate the hourly rate.

For Work Arising involving labour, the Contractor will be paid (tax and travel excluded):

An hourly rate of \$_____ (*price will be inserted at contract award*)

7. Method of Payment

7.1 Multiple Payments

Canada will pay the Contractor upon completion and delivery of units in accordance with the payment provisions of the Contract if:

- a. an accurate and complete invoice and any other documents required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
- b. all such documents have been verified by Canada;
- c. the Work delivered has been accepted by Canada.

-Or-

7.1 Milestone Payments subject to holdback

1. Canada will make milestone payments in accordance with the Schedule of Milestones detailed in Schedule B and the payment provisions of the Contract, up to 98% 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 100% 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 all final DID's required under the Contract (Schedule A – Item 3 – Documentation, DID) if the Work has been accepted by Canada and a final claim for the payment is submitted.
3. For clarity and notwithstanding paragraph 1 above, payments will not be subject to the Holdback once all final DIDs (Schedule A – Item 3 - Documentation - DID) have been delivered and accepted by Canada.

-Or-

7.1 Milestone Payments - Not subject to holdback

Canada will make milestone payments in accordance with the Schedule of Milestones detailed in the Contract and the payment provisions of the Contract if:

- a. an accurate and complete claim for payment using [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. all the certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives;
- c. all work associated with the milestone and as applicable any deliverable required has been completed and accepted by Canada.

7.2 Price Support

The Contractor must provide, on Canada's request, one or more of the following price support, prior to Task Authorization if applicable:

- a. a current published price list indicating the percentage discount available to Canada; or
- b. copies of paid invoices for the like quality and quantity of the goods, services or both sold to other customers; or
- c. a price breakdown showing the cost of direct labour, direct materials, purchased items, engineering
- d. and plant overheads, general and administrative overhead, transportation, etc., and profit; or
- e. price or rate certifications; or
- f. any other supporting documentation as requested by Canada.

SCHEDULE B

DELIVERIES AND MILESTONES

Instructions to Bidders:

- a. Delivery is required by December 31, 2021, (in Calendar Days ACA [# of days from Contract Award Date]), the Bidder must indicate their best Delivery Dates for each item identified (with the exception of Documentation, which is to be delivered in accordance with Annex A, Statement of Work). These dates will be utilized in any resulting contract.*
- b. Delivery destinations are listed in order of priority. The Bidder must provide dates according to the list of priorities (i.e., the first delivery destination location listed on the table should be associated with the Bidder's earliest available delivery date).*
- c. If any Delivery Date element is left blank, Canada will insert "31 December 2021" for that element.*

Note: These italicized Instructions to Bidders will not be included in any resulting contract.

1. Deliveries**1. Deliveries**

- a. Destination addresses will be provided after contract award.
- b. Additional Canadian delivery destinations may be included if and when any options are exercised.

2. Schedule of Deliveries and Milestone Payments**2.1 Required Goods and Services**

Milestone #	Item Short Description ⁹	Quantity	Required Delivery Date ¹⁰	Delivery Location	Delivery Date(s) (Calendar Days ACA)	Milestone Claim Value ¹¹	Holdback Value
1	Boom Reel Trailer System (Refer to item 1, Schedule A)	2	31 December 2021	Mount Pearl, NL		98%	2%
2	Boom Reel Trailer System (Refer to item 1, Schedule A)	1	31 December 2021	Charlottetown, PEI		98%	2%
3	Boom Reel Trailer System (Refer to item 1, Schedule A)	1	31 December 2021	Dartmouth, NS		98%	2%
4	Boom Reel Trailer System (Refer to item 1, Schedule A)	1	31 December 2021	Canso, NS		98%	2%
5	Boom Reel Trailer System (Refer to item 1, Schedule A)	1	31 December 2021	Saint John, NB		98%	2%

Milestone #	Item Short Description ⁹	Quantity	Required Delivery Date ¹⁰	Delivery Location	Delivery Date(s) (Calendar Days ACA)	Milestone Claim Value ¹¹	Holdback Value
6	Boom Reel Trailer System (Refer to item 1, Schedule A)	2	31 December 2021	Parry Sound, ON		98%	2%
7	Boom Reel Trailer System (Refer to item 1, Schedule A)	1	31 December 2021	Hay River, NT		98%	2%
8	Boom Reel Trailer System (Refer to item 1, Schedule A)	4	31 December 2021	Saanichton, BC		98%	2%
9	Documentation – DID (Refer to item 2, Schedule A)	As per the Contract	As per the Contract	As per the Contract	As per the Contract	NA	

NOTES:

- ⁹: The printed copies of the Operational Maintenance Manual (DID-TM-01), and the Equipment Operating Illustrations (DID-TM-04) must be provided with the Boom Reel Trailer System(s) (item 1 and 3 (if options are exercised)) unit in accordance with the Contract and all Annexes and Appendices.
- ¹⁰: All deliverables must be received by 31 December 2021 within the specified number of calendar days from the date of Contract and in accordance with the Contract including all Annexes and Appendices. Note: If vendor provides better dates, then it will be adjusted in resulting Contract.
- ¹¹ Claim Value is the maximum percentage of the Unit Price of items (except item 2) that the Contractor can submit a claim in accordance with the Contract upon achieving the Milestone.

ACA = After Contract Award Date

IAW = In Accordance With

CDRL = Contract Data Requirements List

DID = Data Item Descriptions

Annex A

Statement of Work (SOW)

Environmental Response Equipment Modernization/Mobile Incident Command Equipment Project

Trailer – Equipment – Boom Reel Trailer System

Table of Contents

SECTION 1	INTRODUCTION.....	3
1.1	BACKGROUND	3
1.2	PURPOSE	3
1.3	SCOPE.....	3
SECTION 2	PROJECT MANAGEMENT	4
2.1	GENERAL	4
2.2	PROJECT SCHEDULE	4
2.3	PROJECT REVIEW AND CONTROL.....	4
2.3.1	Meeting Structure and Recording.....	4
2.3.2	Contract Kick-off Meeting.....	4
2.3.3	Weekly Progress Report.....	5
2.3.4	Weekly Progress Meeting (Teleconference).....	5
2.3.5	Cancellation of Meetings	5
2.3.6	Unscheduled Meetings	6
2.3.7	Problem Reporting.....	6
SECTION 3	SYSTEM ENGINEERING MANAGEMENT	7
3.1	QUALITY ASSURANCE.....	7
3.2	DESIGN AND TEST & CERTIFICATION PLAN REVIEWS	7
3.2.1	Preliminary Design Review	7
3.2.2	Final Design Review	7
3.3	TESTING AND CERTIFICATION	8
3.3.1	Test and Certification Plan.....	8
3.3.2	First Article Testing	8
3.3.3	Factory Acceptance Testing.....	8
SECTION 4	EQUIPMENT TRAINING AND FAMILIARIZATION	9
4.1	GENERAL CONSIDERATIONS	9
4.1.1	Objective	9
4.1.2	Class Size and Participants	9
4.1.3	Scheduling and Duration.....	9
4.2	EQUIPMENT TRAINING INSTRUCTOR MANUAL	9
SECTION 5	TECHNICAL MANAGEMENT	10
APPENDIX 1	CONTRACT DATA REQUIREMENTS LIST	11
APPENDIX 2	DATA ITEM DESCRIPTIONS.....	15

SECTION 1 INTRODUCTION

1.1 BACKGROUND

The Canadian Coast Guard (CCG) is the lead federal agency responsible for ensuring the clean-up of all ship-source and mystery-source pollution spills into waters under Canadian jurisdiction. In fulfillment of this legislated mandate, the CCG maintains a level of operational preparedness capacity to monitor, investigate, and respond, when required, to all reports of marine pollution incidents. The objective of the Environmental Response Equipment Modernization/Mobile Incident Command Equipment (EREM/MICE) Project is to modernize CCG's initial response equipment inventory and its supporting infrastructure.

1.2 PURPOSE

The CCG requires a means of rapid transportation and deployment/recovery for fence boom and associated accessories. Fence Boom is a deployable containment boom design that uses rectangular floatation elements for buoyancy, an 18 to 24 inch fabric membrane that acts as a barrier to floating oil, and tension members to transfer longitudinal tensile loads. The Boom Reel Trailer System(s) must consist of a trailer equipped with an ISO twist locking mechanism to securely mount a boom reel skid. The boom reel skid will consist of a hydraulically driven boom reel designed to hold 1000 feet (up to 2200 lbs) of fence boom, mounted on a hydraulic swivel mechanism, powered by a hydraulic power unit. The Boom Reel Trailer System(s) will be used on highways, secondary roads, gravel and dirt roads, and on grass field terrain throughout Canada.

This Statement of Work (SOW) defines the requirements of the Work and stipulates the deliverables required for the provision of the Boom Reel Trailer System(s).

The Boom Reel Trailer System(s) will consist of the following **major** components, as described in the accompanying Technical Statement of Requirements (TSOR) – Annex B:

- Trailer fitted with ISO locks for the boom reel skid and storage box (if applicable);
- Removable boom reel skid complete with a hydraulic boom reel, hydraulic swivel mechanism, and hydraulic power unit;
- Bill of Sale and any additional documentation required for licensing and registration in Canada;
- One bilingual hard-copy of the Operation and Maintenance Manual in both of Canada's official languages i.e., English and French; and
- One bilingual hard-copy of the Equipment Operating Illustrations.

1.3 SCOPE

Any requirements, specifications, and other indications in this SOW regarding the Work required in the provision of the "Boom Reel Trailer System(s)" also pertain to each individual component of the Boom Reel Trailer System (Trailer, boom reel skid, hydraulic power unit, storage box and any other components/equipment/tools thereof), whether they are purchased together as a complete package, as individual items, or in any other combination.

Performance requirements and technical specifications are found in the accompanying TSOR - Annex B.

SECTION 2 PROJECT MANAGEMENT

2.1 GENERAL

The Contractor must identify a Project Manager to oversee all work needed to satisfy contractual requirements (i.e., tasks, deliverables, resources, schedules, and quality). The Project Manager must be the primary point of contact with Canada.

The Contractor must prepare, deliver, and maintain all project deliverables in accordance with:

- a. Appendix 1: Contract Data Requirement List (CDRL);
- b. Appendix 2: Data Item Descriptions (DIDs); and
- c. Annex B: Technical Statement of Requirements (TSOR).

2.2 PROJECT SCHEDULE

The Contractor must provide a Project Schedule and Risk Register, in accordance with **CDRL item DID-PM-01**, for review and acceptance by Canada. **Any manufacturing or manufacturing related activities conducted prior to formal acceptance of the Project Schedule and Risk Register are at the Contractor's own risk.**

2.3 PROJECT REVIEW AND CONTROL

The Contractor must convene and co-chair all meetings required by this SOW at the Contractor's own facilities, unless otherwise agreed to by Canada or noted herein. All facilities used to convene scheduled meetings must, at a minimum, be suitable for private discussion and comfortably accommodate all meeting attendees. Teleconference and videoconference may be acceptable at the discretion of Canada.

2.3.1 Meeting Structure and Recording

The Contractor must provide Canada with a Meeting Agenda for each scheduled meeting at least three business days before it is set to occur and a comprehensive Record of Decisions no later than three business days after each meeting (scheduled and unscheduled) has occurred. All Meeting Agendas and Records of Decisions must be reviewed and accepted by Canada.

2.3.2 Contract Kick-off Meeting

The Contractor must convene and co-chair a two-day Contract Kick-off Meeting within 14 calendar days of Contract Award. At a minimum, the following documents will be reviewed:

- a. Contract (including Annex A and Annex B);
- b. Project Schedule and Risk Register (as per **CDRL item DID-PM-01**);
- c. Concept design drawing package;
- d. Welding specifications and weld procedure data sheets;

- e. Quality Management Systems (as per Section 3.1) of the entity or entities performing the design, manufacturing, assembly of manufactured components and testing of the Boom Reel Trailer System(s);
- f. Change control processes; and
- g. Organization chart showing roles and responsibilities.

To facilitate the review of the documentation and foster discussion, the Contractor must provide one soft copy of the documents identified above (only b-d) in Portable Document Format (PDF), at least three business days prior to the scheduled Contract Kick-off Meeting.

The Contractor must provide representatives of Canada with a tour of the facilities that will be used in the manufacturing and assembly of the Boom Reel Trailer System(s) (including the facilities of all major subcontractors), to provide insight into manufacturing processes and procedures. Unless otherwise specified by Canada, the tour will take place as part of the Contract Kick-off Meeting and involve, at a minimum, three representatives of Canada.

2.3.3 Weekly Progress Report

The Contractor must provide weekly progress reports to Canada via electronic-mail (e-mail) detailing, at a minimum:

- a. Executive summary of weekly events;
- b. Updates to the Project Schedule, including:
 - i. Percent completion for all identified tasks and subtasks;
 - ii. Schedule forecast to date against the baseline with any slippage identified; and
 - iii. Native MS Project or MS Excel file(s) provided as an attachment to the email;
- c. Updates to the Project risks and associated mitigation measures; and
- d. Potential technical adjustments that may be required.

Unless otherwise specified by Canada, the Contractor must submit each weekly progress report by 9a.m. Monday, Eastern Standard Time (EST).

2.3.4 Weekly Progress Meeting (Teleconference)

The Contractor must attend regular meetings to review Contract progress. Subcontractors may be required to attend. Unless otherwise specified by Canada, Contract Progress Meetings will occur on a weekly basis via teleconference.

2.3.5 Cancellation of Meetings

Canada may cancel meetings at its discretion. Rescheduling of meetings must be done only with the explicit agreement of Canada.

2.3.6 Unscheduled Meetings

The Contractor must provide representation at meetings (teleconference or in person) should there be a need for ad hoc or unscheduled meetings.

2.3.7 Problem Reporting

The Contractor must notify Canada immediately by telephone upon discovering or identifying an issue that may impact the Work. The Contractor must document the issue in writing, within two calendar days of identification, and provide it to Canada via email. Canada will advise whether an unscheduled meeting or any other action is required.

SECTION 3 SYSTEM ENGINEERING MANAGEMENT

3.1 QUALITY ASSURANCE

The entity or entities performing the design, manufacturing, assembly of manufactured components and testing of the Boom Reel Trailer System(s) must have a Quality Management System (QMS) in place for:

- a. Design and development;
- b. Equipment calibration;
- c. Material certification;
- d. Testing and inspection;
- e. Nonconformity and corrective action; and
- f. Risk mitigation.

The QMS for these categories must include sufficient detail to describe the process. The project must be managed in accordance with these QMS, unless otherwise specified by Canada.

3.2 DESIGN AND TEST & CERTIFICATION PLAN REVIEWS

3.2.1 Preliminary Design Review

In preparation for the preliminary design review meeting, the Contractor must provide first submissions of the Detailed Design Package as per **CDRL item DID-SE-01** and the Test and Certification Plan as per **CDRL item DID-SE-02** for review and comment by Canada. Unless otherwise specified by Canada, the Contractor must convene and co-chair a preliminary design review meeting to be held at CCG facilities in Ottawa, Ontario, Canada. The preliminary design review meeting must take place no later than 20 business days after providing the first submission of the Detailed Design Package and the Test and Certification Plan, unless otherwise specified by Canada.

3.2.2 Final Design Review

In preparation for the final design review meeting, the Contractor must provide second submissions of the Detailed Design Package as per **CDRL item DID-SE-01** and the Test and Certification Plan as per **CDRL item DID-SE-02** for review and comment by Canada. Unless otherwise specified by Canada, the Contractor must convene and co-chair the final design review meeting via teleconference / videoconference. The final design review meeting must take place no later than 10 business days after the second submissions of the Detailed Design Package and the Test and Certification Plan. If subsequent review meetings are required, they must be held by teleconference / videoconference no later than 5 business days after submitting the most recent revisions of the documents to Canada. **Any manufacturing or manufacturing related activities conducted prior to formal acceptance of the final version of the Detailed Design Package are at the Contractor's own risk.**

3.3 TESTING AND CERTIFICATION

Unless otherwise specified by Canada, all testing activities must be conducted at the Contractor's designated facility in the presence of a representative of Canada. The Contractor must notify Canada no less than three weeks prior to conducting any testing.

3.3.1 Test and Certification Plan

The Contractor must develop an overall Test and Certification Plan, as per **CDRL item DID-SE-02**, for review and acceptance by Canada. **The final version of the Test and Certification Plan must be formally accepted by Canada prior to First Article Testing.**

3.3.2 First Article Testing

Prior to the manufacturing of the second and all subsequent Boom Reel Trailer Systems, the Contractor must:

- a. Perform all required First Article Testing identified in the Test and Certification Plan (**CDRL item DID-SE-02**) on the first complete Boom Reel Trailer System (including all components of the trailer), demonstrating to Canada that the first Boom Reel Trailer System meets all of the technical requirements as defined in the TSOR - Annex B;
- b. Submit a First Article Test Report for the Boom Reel Trailer System, as per **CDRL item DID-SE-03**; and
- c. Obtain Canada's formal approval of the first complete Boom Reel Trailer System and First Article Test Report.

3.3.3 Factory Acceptance Testing

Factory Acceptance Testing includes the tests and inspections conducted after the complete manufacture of each Boom Reel Trailer System and prior to delivery (with the exception of the first System which was tested as per section 3.3.2).

Prior to shipping a Boom Reel Trailer System, the Contractor must:

- a. Perform all required Factory Acceptance Testing identified in the Test and Certification Plan (**CDRL item DID-SE-02**), demonstrating to Canada that the Boom Reel Trailer System is fully operational;
- b. Submit a Factory Acceptance Test Report for the Boom Reel Trailer System, as per **CDRL item DID-SE-04**; and
- c. Obtain Canada's formal approval of the Boom Reel Trailer System and Factory Acceptance Test Report.

SECTION 4 EQUIPMENT TRAINING AND FAMILIARIZATION

4.1 GENERAL CONSIDERATIONS

Unless otherwise specified by Canada, the Contractor must provide equipment training and familiarization sessions to ensure CCG personnel are appropriately trained on the safe operation and maintenance practices of the Boom Reel Trailer System.

The Contractor must provide an Equipment Training and Familiarization Plan, as per **CDRL item DID-ETR-01**, for review and acceptance by Canada. The final version of the Equipment Training and Familiarization Plan must be formally accepted by Canada before the first training session can be scheduled. All training materials must be bilingual.

Unless otherwise specified by Canada, all equipment training and familiarization sessions must be conducted at CCG facilities in locations identified in Schedule B - Deliveries and Milestones. Unless otherwise specified by Canada, a minimum of one training session will be delivered in English and French. Canada will confirm the required language of each session prior to delivery.

4.1.1 Objective

The objective of the equipment training and familiarization session is to provide participants with an understanding of all components of the Boom Reel Trailer System, the safe manner of operation, appropriate maintenance practices, and associated limitations of all the equipment. Unless otherwise specified by Canada, the Contractor must deliver the equipment training and familiarization session using a combination of classroom (theoretical) and in-field (practical) training.

4.1.2 Class Size and Participants

Each equipment training and familiarization session will be attended by certified CCG ER trainers, with the potential of additional personnel of varying experience and knowledge of ER equipment. It is anticipated that 6-10 participants will attend each equipment and familiarization training session. Training materials must be supplied by the Contractor to all participants.

4.1.3 Scheduling and Duration

Unless otherwise specified by Canada, the equipment training and familiarization session will be scheduled following delivery at a time that is agreed upon by Canada and the Contractor. Unless otherwise specified by Canada, the equipment training and familiarization session is expected to be delivered in one workday (i.e., 7.5 hrs).

4.2 EQUIPMENT TRAINING INSTRUCTOR MANUAL

The Contractor must provide an Equipment Training Instructor Manual, as per **CDRL item DID-ETR-02**, for review and approval by Canada.

The Equipment Training Instructor Manual must be written such that it enables certified CCG Trainers, participants of the equipment training and familiarization sessions, to administer the same type of equipment training in the future to CCG personnel without additional Contractor support. The final version of the Equipment Training Instructor Manual must be formally accepted by Canada before the first training session can be scheduled. All training materials must be bilingual.

SECTION 5 TECHNICAL MANAGEMENT

The Contractor must provide the following:

- a. **Operation and Maintenance Manual** for the Boom Reel Trailer System, as per **CDRL item DID-TM-01**, for review and acceptance by Canada. The final version of the Operation and Maintenance Manual must be provided in both English and French and include portions of or reference to OEM manuals that adhere to the bilingual requirements. The final version of the Manual must be formally accepted by Canada prior to shipping each Boom Reel Trailer System.
- b. **As-Built Drawing Package** for the Boom Reel Trailer System, as per **CDRL item DID-TM-02**, for review and acceptance by Canada. The final version of the As-Built Drawing Package must be provided in both English and French and be formally accepted by Canada prior to shipping each Boom Reel Trailer System.
- c. **Master Equipment List (MEL)** for the Boom Reel Trailer System, as per **CDRL item DID-TM-03**, for review and acceptance by Canada. The final version of the MEL must adhere to the bilingual requirements and be formally accepted by Canada prior to shipping each Boom Reel Trailer System.
- d. **Equipment Operating Illustrations** for the Boom Reel Trailer System, as per **CDRL item DID-TM-04**, for review and acceptance by Canada. The final version of the Equipment Operating Illustrations must adhere to the bilingual requirements and be formally accepted by Canada prior to shipping each Boom Reel Trailer System. The Equipment Operating Illustrations must be secured to the inside of the storage box and be waterproof to withstand a marine environment (for example, laminated pages or any other specialized paper). The Contractor may propose various waterproofing solutions for consideration by Canada.
- e. **Recommended Spare Parts and Tools List (RSPTL)** for the Boom Reel Trailer System, as per **CDRL item DID-TM-05**, for review and acceptance by Canada. The final version of the RSPTL must adhere to the bilingual requirements and be formally accepted by Canada prior to shipping each Boom Reel Trailer System. Canada may, at its discretion, exercise the option(s) for the provision of some or all of the spare parts and special tools identified in the accepted RSPTL.
- f. **Original Equipment Manufacturer (OEM) Manuals;**

Canada requires a complete set of OEM manuals for any parts manufactured by another company and used within the Boom Reel Trailer System (to be determined following First Article Testing).

All OEM manuals must be provided in native file digital format without password protection using Microsoft Office or Adobe Acrobat searchable Portable Document Format (PDF). OEM manuals existing in hardcopy only must be scanned into digital format using Adobe Acrobat XI, or later, incorporating a full search capability with bookmarking. All OEM manuals must be provided in both Canadian English and French. Where English or French are not readily available commercially, unilingual versions in either of Canada's official languages will be accepted.

Notwithstanding the above, OEM manuals are to be considered a supplement to **CDRL item DID-TM-01**, not a replacement.

APPENDIX 1 CONTRACT DATA REQUIREMENTS LIST

The following table defines the various columns of information found in the Contract Data Requirements List (CDRL). The CDRL is an all-encompassing table illustrating the submission details associated with every defined Data Item Deliverable (DID). Each DID details the content required for each defined deliverable of the Contract.

IDENTIFICATION NUMBER (ID No.)

The Identification number is an alphanumeric designation to uniquely identify each individual DID. Note that the DIDs are categorized using the following designation:

- Project Management is defined with ‘PM’;
- System Engineering Management is defined with ‘SE’;
- Equipment Training and Familiarization is defined with ‘ETR’
- Technical Management is defined with ‘TM’; and

TITLE OF DATA

Identifies the title of the DID referred to in the CDRL.

CONTRACT REFERENCE (REFERENCE)

Identifies the specific paragraph number of the Contract Requirement, Statement of Work, Request for Proposal, Specification, or other applicable document to assist in identifying the work effort associated with the DID.

LANGUAGE

Identifies the language of the delivered data. All draft documents will be provided in English. ‘Bilingual’ indicates the data item must be delivered in both the official Canadian English and French languages. Following acceptance of the Final English document by Canada, the Contractor must provide the Final French document.

DATE OF FIRST SUBMISSION

Indicates the initial submission date or associated constraint for the first submission of the data item.

SUBSEQUENT SUBMISSION DETAILS

Indicates the date(s) of subsequent submission(s) or associated constraint(s) of the data item. If no subsequent submission or associated constraint are required, this column is marked ‘N/A’.

FINAL FORMAT

Indicates the format in which the final copy of the DID must be provided. Hard copies must be printed using at least 600 DPI on double sided 8.5"x11" sheets and must be collated and bound, unless otherwise specified by Canada.

STATEMENT OF WORK

ID No.	Title of Data	Reference	Language	Date of First Submission	Subsequent Submission Details	Final Format	Comments
Project Management							
DID-PM-01	Project Schedule and Risk Register	SOW 2.2	English	3 business days prior to contract kick-off meeting	5 business days after receiving CCG comments; Updated each Friday once accepted	PDF	Any manufacturing or manufacturing related activities conducted prior to formal acceptance of the Project Schedule and Risk Register are at the Contractor's own risk.
System Engineering Management							
DID-SE-01	Detailed Design Package	SOW 3.2	English	20 business days after contract kick-off meeting	5 business days after receiving CCG comments	PDF	Any manufacturing or manufacturing related activities conducted prior to formal acceptance of the Detailed Design Package are at the Contractor's own risk.
DID-SE-02	Test and Certification Plan	SOW 3.2 & 3.3	English	20 business days after contract kick-off meeting	5 business days after receiving CCG comments	PDF	Must be formally accepted by Canada prior to First Article Testing.
DID-SE-03	First Article Test Report	SOW 3.3.2	English	3 business days after First Article Testing	2 business days after receiving CCG comments	PDF	Any manufacturing or manufacturing related activities conducted prior to formal acceptance of First Article Test Report are at the Contractor's own risk.
DID-SE-04	Factory Acceptance Test Report	SOW 3.3.3	English	3 business days after each Factory Acceptance Test	2 business days after receiving CCG comments	PDF	Must be formally accepted by Canada prior to shipping each Boom Reel Trailer System.
Equipment Training and Familiarization							
DID-ETR-01	Equipment Training and Familiarization Plan	SOW 4.1	Bilingual	40 business days prior to first delivery	5 business days after receiving CCG comments	PDF	Must be formally accepted by Canada before the first training session can be scheduled.
DID-ETR-02	Equipment Training Instructor Manual	SOW 4.2	Bilingual	40 business days prior to first delivery	5 business days after receiving CCG comments	PDF	Must be formally accepted by Canada before the first training session can be scheduled.
Technical Management							

December, 2019

STATEMENT OF WORK

DID-TM-01	Operation and Maintenance Manual	SOW 5	Bilingual	40 business days prior to first delivery	5 business days after receiving CCG comments	PDF, Hard Copies	Must be formally accepted by Canada prior to shipping each Boom Reel Trailer System. Unless otherwise specified by Canada, the Contractor must provide 1 bilingual hard copy with each Boom Reel Trailer System.
DID-TM-02	As-Built Drawing Package	SOW 5	Bilingual	20 business days prior to first delivery	5 business days after receiving CCG comments	PDF	Must be formally accepted by Canada prior to shipping each Boom Reel Trailer System.
DID-TM-03	Master Equipment List	SOW 5	Bilingual	20 business days prior to first delivery	5 business days after receiving CCG comments	PDF	Must be formally accepted by Canada prior to shipping each Boom Reel Trailer System.
DID-TM-04	Equipment Operating Illustrations	SOW 5	Bilingual	20 business days prior to first delivery	5 business days after receiving CCG comments	PDF, Hard Copies	Must be formally accepted by Canada prior to shipping each Boom Reel Trailer System. Unless otherwise specified by Canada, the Contractor must provide 1 bilingual hard copy with each Boom Reel Trailer System.
DID-TM-05	Recommended Spare Parts and Tools List	SOW 5	Bilingual	40 business days prior to first delivery	5 business days after receiving CCG comments	PDF	Must be formally accepted by Canada prior to shipping each Boom Reel Trailer System.

December, 2019

APPENDIX 2 DATA ITEM DESCRIPTIONS

Project Management

Title: Project Schedule and Risk Register	Identification Number: DID-PM-01
Description: The Project Schedule defines the timeline on which the Contractor will execute the project. The Risk register identifies project risks and associated mitigation measures. The Contractor must submit an updated Project Schedule and Risk Register each week with the weekly progress report.	
Content: The Project Schedule must identify and quantify (level of effort) the Work to be done by the Contractor in order to successfully deliver on all requirements of the Contract and must detail, at a minimum: <ul style="list-style-type: none">a. Contract milestones (e.g., Contract Kick-off Meeting, design review meetings, testing, acceptance, shipment, training, etc.);b. All tasks and all sub-tasks required for the comprehensive delivery of the Boom Reel Trailer System(s) and all associated components (e.g., design, material acquisition, manufacturing, assembly, etc.), as per the Contract;c. All tasks and all sub-tasks required for the comprehensive delivery of all documentation deliverables, as per the Contract; andd. Percentage complete, and target start and end dates for all tasks and sub-tasks, as applicable. The Risk Register must identify potential risks to the project (schedule, financial, technical, supplier, human resources etc.). Risk management responsibilities and a detailed risk mitigation plan must be included for each risk identified.	

STATEMENT OF WORK
Data Item Descriptions

System Engineering Management

Title: Detailed Design Package

Identification Number: DID-SE-01

Description:

The Detailed Design Package details the Contractor's technical solution for the Boom Reel Trailer System. The Detailed Design Package will serve as a basis for the As-Built Drawing Package (DID-TM-02).

Content:

The Detailed Design Package must include the final and complete detailed engineering design drawings based on the conceptual design package provided with the bid submission. The drawings must:

- a. Meet all requirements detailed in the TSOR (where requirements cannot be demonstrated visually, drawing notes must be used);
- b. Show the location of, assembly of, and interconnection between all components;
- c. Include a comprehensive Bill of Materials;
- d. Incorporate changes and rectify any issues identified during the Contract Kick-off Meeting;
- e. Include all required design calculations; and
- f. Include the design of welded connections.

At a minimum, the following drawings must be provided for both towing arrangements (goose-neck and bumper pull):

- i. General assembly drawings for the Boom Reel Trailer and all associated components;
- ii. Reel and swivel mechanism;
- iii. Hydraulic Power Unit;
- iv. Storage box;
- v. Electrical and hydraulic diagram; and
- vi. Trailer with ISO twist locks.

Each drawing must include a drawing title, drawing number, revision number, drawing scale, units of measure, dimensioned features, legend (as applicable), assembly notes, and the initials of the author of the drawing.

At a minimum, the following calculations must be included for both towing arrangements (goose-neck/bumper pull):

- i. Trailer tongue weight (for loaded and unloaded scenarios);
- ii. Gross trailer weight; and
- iii. The load capacity of the Boom Reel; and
- iv. Outrigger load calculations

STATEMENT OF WORK
Data Item Descriptions

Title: Test and Certification Plan	Identification Number: DID-SE-02
<p>Description:</p> <p>The Test and Certification Plan defines all of the specific testing activities and certifications required, prior to shipment, to demonstrate compliance with the TSOR, Annex B and with Transport Canada requirements. The Test and Certification Plan must demonstrate traceability between each TSOR requirement and its verification method (i.e. analysis, inspection, testing, or demonstration). The Test and Certification Plan must incorporate the Quality Management Systems, as per Section 3.1, of all entities involved with the Work.</p>	
<p>Content:</p> <p>The test and certification plan must identify all testing and certification that will take place prior to first article testing, at first article testing, and at factory acceptance testing, including at a minimum:</p> <p>Test Items</p> <p>Must include a comprehensive list of items to be tested. At a minimum, the following tests must be included:</p> <ul style="list-style-type: none">a. Hydraulic Hose proof testb. HPU pressure testc. Hoisting point proof testd. Road Teste. Weight Testf. Third Party welding inspectiong. Boom reel lift test <p>Test Procedures</p> <p>Must detail the methods, safety precautions, measurement parameters, pass/fail criteria, and procedure in case of test interruption.</p> <p>Mitigation and Re-testing Strategies</p> <p>Must include mitigation and re-testing strategies that will be used if any issues arise during testing.</p> <p>Test Schedule</p> <p>Must specify the proposed test date, time, and location for each test identified and must reference the Project Schedule.</p> <p>Certifications and Material Data Sheets</p> <p>Must list all certification, specifications and material data sheets required to demonstrate that the materials and processes used in the construction of the Boom Reel Trailer System meet the quality requirements as defined in the TSOR, Annex B. At a minimum, certification, specifications or material data sheets must be provided for:</p> <ul style="list-style-type: none">a. Trailer axlesb. Trailer wheels and tiresc. Trailer jacksd. Trailer hitch	

STATEMENT OF WORK
Data Item Descriptions

Title: Test and Certification Plan	Identification Number: DID-SE-02
<ul style="list-style-type: none">e. Trailer suspension systemf. Trailer brake systemg. Hydraulic hosesh. Diesel enginei. Hydraulic pump & motor <p>Test Report Template</p> <p>Must outline the format to be used for the First Article Test Report and Factory Acceptance Test Report in accordance with DID-SE-03 and DID-SE-04, respectively. A draft First Article Test Report and Factory Acceptance Test Report template must be included. Canada may, at its discretion, provide a Test Report Template.</p>	

Title: First Article Test Report	Identification Number: DID-SE-03
<p>Description:</p> <p>The First Article Test Report details the results of the first article testing and demonstrates compliance of the Boom Reel Trailer System with the standards outlined in the Test and Certification Plan (DID-SE-02). The First Article Test Report must be certified by the Contractor as an accurate record of the test results.</p>	
<p>Content:</p> <p>At a minimum, the following information must be included:</p> <ul style="list-style-type: none">• Test personnel and witnesses (if applicable)• Test location• Test date• Item under test• Test procedures• Document references (drawings, material data sheets, etc.)• Problems encountered• Test results <p>All certifications and material data sheets must be appended to the First Article Test Report. If a single certification or material data sheet applies to several Boom Reel Trailer Systems, copies must be appended to each associated Test report.</p> <p>Canada may, at its discretion, provide a Test Report Template.</p>	

Title: Factory Acceptance Test Report	Identification Number: DID-SE-04
<p>Description:</p> <p>The Factory Acceptance Test Report details the results of the factory acceptance testing outlined in the Test and Certification Plan (DID-SE-02) and demonstrates to Canada that each Boom Reel Trailer</p>	

STATEMENT OF WORK
Data Item Descriptions

Title: Factory Acceptance Test Report	Identification Number: DID-SE-04
System is fully operational. The Factory Acceptance Test Report must be certified by the Contractor as an accurate record of the test results.	
<p>Content:</p> <p>At a minimum, the following information must be included:</p> <ul style="list-style-type: none">• Test personnel and witnesses (if applicable)• Test location• Test date• Item under test• Test procedures• Document references (drawings, material data sheets, etc.)• Problems encountered• Test results <p>All certifications and material data sheets must be appended to the associated Factory Acceptance Test Report. If a single certification or material data sheet applies to several Boom Reel Trailer Systems, copies must be appended to each associated Factory Acceptance Test report.</p> <p>Canada may, at its discretion, provide a Test Report Template.</p>	

STATEMENT OF WORK
Data Item Descriptions

Equipment Training and Familiarization

Title: **Equipment Training and Familiarization Plan**

Identification Number: **DID-ETR-01**

Description:

The Equipment Training and Familiarization Plan must describe in detail, the topics that will be delivered as part of the equipment training session(s) as well as the associated schedule and training materials required.

Content:

At a minimum, the following information must be included:

Objectives

Identify the equipment training session and performance objectives for participants.

Training Materials

Identify all training materials and equipment required to deliver the equipment training session.

Training Schedule & Session Duration

Provide an itinerary for the equipment training session, identifying all key training topics and the time allotted to each topic, including breaks for the participants.

Training Topics

At a minimum, the following topics must be addressed:

- a. The purpose and function(s) of each component of the Boom Reel Trailer System;
- b. Any attendant safety hazards and the required personal protective equipment (PPE);
- c. Demonstration of how to operate, clean and store all components of the Boom Reel Trailer System;
- d. Safe operational limitations of each Boom Reel Trailer System component;
- e. Pre and post-operational checks;
- f. Fault location and diagnostic techniques; and
- g. Preventive and corrective maintenance procedures.

Title: **Equipment Training Instructor Manual**

Identification Number: **DID-ETR-02**

Description:

The Equipment Training Instructor Manual must provide specific guidance and materials required for CCG personnel to effectively deliver future equipment training sessions. This document must capture relevant topics and techniques for the safe equipment training of the Boom Reel Trailer System.

STATEMENT OF WORK
Data Item Descriptions

Title: Equipment Training Instructor Manual	Identification Number: DID-ETR-02
Content: At a minimum, the following information must be included: <ul style="list-style-type: none">a. Training session objectives and performance objectives for participants;b. A list and description of required training materials and equipment;c. Proposed training session schedule;d. A list of topics to be covered;e. Directions on how material is to be delivered;f. Suggested training techniques to enhance participant understanding of the equipment; andg. Suggested self-evaluation techniques to improve the Trainer's ability to instruct users.	

STATEMENT OF WORK
Data Item Descriptions

Technical Management

Title: Operation and Maintenance Manual

Identification Number: DID-TM-01

Description:

The Operation and Maintenance Manual must define all necessary information required to safely operate and maintain the Boom Reel Trailer System. The Manual must be clearly delineated into two sections, one for Operation, and one for Maintenance. The document must include colour labelled diagrams, pictograms, and illustrations, as well as sequential instructions where applicable.

Content:

At a minimum, the Operation Section of the Manual must include:

- a. How to operate the complete system including all known hazards and safety measures to mitigate risk;
- b. All steps required to render the system fully operational following delivery;
- c. How to install and remove components of the system;
- d. How to troubleshoot the equipment;
- e. How to safely clean, store and transport the Boom Reel Trailer System, including the identification of cautions and warnings to prevent crew and equipment from damage.

The Operation Section must also include a pre- and post-operational checklists for all supplied and furnished equipment. The Pre-Operational Checklist must define all indicators needed to ensure that the equipment is operationally ready prior to operation. The Post-Operational Checklist must supplement its counterpart with cleaning procedures and recommended storage practices, as well as return-to-service instructions.

At a minimum, the Maintenance Section of the Manual must include the following for all supplied and furnished equipment:

- a. Recommended preventative maintenance and preventative maintenance intervals. While not an exhaustive list, each maintenance procedure must:
- b. List the number of personnel and the estimated time to perform the activity;
- c. Identify the potential hazards and personal protective equipment (PPE) to use when performing the activity;
- d. Identify all parts, consumables, tools or equipment required to perform the maintenance activity;
- e. Define the sequential steps to safely perform the activity (including pictograms);
- f. Identify any subsequent effort required to verify that the activity was properly executed;
- g. Identify maintenance dictated by regulatory or warranty requirements (e.g., safety equipment);
- h. Recommended corrective maintenance procedures; and
- i. Any specialized maintenance activity that should be conducted by a qualified third party.

STATEMENT OF WORK
Data Item Descriptions

Title: As-Built Drawing Package	Identification Number: DID-TM-02
Description: The As-Built Drawing Package must include all engineering drawings for the Boom Reel Trailer System that reflect any revisions or changes that occurred during the manufacturing/assembly process. All drawings must detail the key components of each assembly, and the respective interconnection(s) with other assembly components.	
Content: At a minimum, the following information must be included: The As-Built Drawing Package for the Boom Reel Trailer System must reflect any and all changes made during fabrication that deviate from the approved Detailed Design Package and reflect the exact dimensions, geometry, and location of all components of the Boom Reel Trailer System. The As-Built drawing package must include all Boom Reel Trailer System components. The As-Built Drawing Package must also include a comprehensive Bill of Materials that lists all parts and sub-assemblies and their quantities and material of construction. Each drawing must include the drawing title, drawing number, revision number, drawing scale, units of measure, all measurements and configurations of components, dimensioned features, legend (as applicable), assembly notes, and author of drawing. Unless otherwise specified by Canada, all Final As-Built Drawings must be certified by a licensed Professional Engineer.	

Title: Master Equipment List	Identification Number: DID-TM-03
Description: The Master Equipment List (MEL) identifies and summarizes key administrative and operational information for key components of the Boom Reel Trailer System. This list is integral to planning and tracking of asset and maintenance data.	
Content: At a minimum, the following information must be included for each major component of the Boom Reel Trailer System (to be specified by the Technical Authority): <ul style="list-style-type: none">a. Item nameb. Item description (i.e. performance characteristics such as product specification, attributes, form, function, etc.);c. Manufacturer name and address;d. Manufacturer model name or number;e. Manufacturer part number;f. Supplier name, address, and telephone number;	

STATEMENT OF WORK
Data Item Descriptions

Title: Master Equipment List	Identification Number: DID-TM-03
<ul style="list-style-type: none">g. Mass;h. Capacity and/or rating;i. Quantity;j. Supply type (Commercially available or custom fabricated)k. Product website (if available); andl. Warranty information <p>(For each item in the List, the Contractor must indicate the warranty period of the item if its period is above and beyond the warranty period stipulated by Canada as per the Articles of Agreement).</p>	

Title: Equipment Operating Illustrations	Identification Number: DID-TM-04
Description: <p>The Equipment Operating Illustrations must show, through a combination of text and illustration/pictograms, the appropriate operation of the hydraulic power unit, boom reel, and swivel mechanism. The Equipment Operating Illustrations must be secured to the inside of the storage box and be waterproof to withstand a marine environment (for example, laminated pages or specialized paper). The Contractor may propose various waterproofing solutions for consideration by Canada. One hard copy must be provided for each Trailer.</p>	
Content: <p>At a minimum, the following information must be included:</p> <ul style="list-style-type: none">a. Labelled diagrams of all hydraulic power unit and boom reel operating controlsb. Step-by-step instructions displayed with a combined use of text and pictograms for the operation of the hydraulic power unit and the boom reel; andc. Any other relevant information, as approved by Canada.	

Title: Recommended Spare Parts and Tools List	Identification Number: DID-TM-05
Description: <p>The Recommended Spare Parts and Tools List (RSPTL) identifies all items that the Contractor recommends to support ongoing maintenance activities (i.e., preventive and corrective) for each Boom Reel Trailer System. Canada will use these recommendations to support the decision to procure spare parts and tools and to facilitate the lifecycle management process of the Boom Reel Trailer System.</p>	
Content: <p>At a minimum, the following information must be included for each recommended spare part or tool:</p> <ul style="list-style-type: none">a. Item name;b. Item description (i.e. performance characteristics such as product specification, attributes, form, function, etc.);c. Manufacturer name and address;d. Manufacturer model number;e. Manufacturer part number;	

STATEMENT OF WORK
Data Item Descriptions

Title: Recommended Spare Parts and Tools List	Identification Number: DID-TM-05
<ul style="list-style-type: none">f. Quantity recommended to support a single Boom Reel Trailer System over two years of operation;g. Quantity recommended for warehousing;h. Expiry (if applicable);i. Price per unit;j. Lead time when ordering;k. NATO Stock Number (if applicable)l. Warranty;m. Recommended storage requirements and conditions (special conditions included);n. Recommended maintenance (if applicable); ando. Identification as a critical spare (as/if applicable). <p>Pricing indicated in the List is subject to price verification as per the Articles of Agreement. For each item in the List, the Contractor must indicate the warranty period of the item if its period is above and beyond the warranty period stipulated by Canada as per the Articles of Agreement.</p>	

Annex B

Technical Statement of Requirements (TSOR)

Environmental Response Equipment Modernization/Mobile Incident Command Equipment Project

Trailer – Equipment – Boom Reel Trailer System

Table of Contents

LIST OF ACRONYMS AND ABBREVIATIONS	V
1 INTRODUCTION.....	6
1.1. PURPOSE	6
1.2. SCOPE	6
1.3. DOCUMENT CONVENTION	6
1.4. DEFINITIONS	7
2 REFERENCE DOCUMENTATION	8
2.1. ORDER OF PRECEDENCE	8
2.2. APPLICABLE CANADIAN STANDARDS AND SPECIFICATIONS	8
2.3. SUPERSEDEANCE.....	9
3 TRAILER REQUIREMENTS	10
3.1. DESIGN OVERVIEW.....	10
3.1.1. General Considerations.....	10
3.1.2. Environmental Conditions	10
3.1.3. Road Conditions	10
3.1.4. Safety	10
3.1.5. Maintainability	11
3.2. PERFORMANCE REQUIREMENTS.....	11
3.2.1. Life Expectancy	11
3.2.2. Diesel Engines	11
3.2.3. Hydraulic Pump	12
3.2.4. Hydraulic Drive System.....	12
3.2.5. Hydraulic Motors.....	12
3.2.6. Towing.....	12
3.3. TRAILER CONSTRUCTION	13
3.3.1. General Considerations.....	13
3.3.2. Physical Constraints.....	13
3.3.3. Frame Members	13
3.3.4. Suspension and Axles	14
3.3.5. Wheels, Rims, and Tires	14
3.3.6. 12 Volt Electrical System	14
3.3.7. Lighting.....	14
3.3.8. Brakes	15
3.3.9. Tongue and Levelling Jacks.....	15
3.3.10. Tow Vehicle Connections.....	16

TECHNICAL STATEMENT OF REQUIREMENTS (TSOR)
Table of Content

3.3.11. ISO Twist Locking System.....	16
3.3.12. License Plate Holder.....	17
3.3.13. Identification.....	17
3.3.14. Trailer Body Floor.....	17
3.5. BOOM REEL SKID.....	19
3.5.1. General Considerations.....	19
3.5.2. Forklift Pockets.....	20
3.6. BOOM REEL.....	20
3.6.1. General Considerations.....	20
3.6.2. Physical Constraints.....	20
3.6.3. Support Frame Construction.....	21
3.6.4. Boom Reel Construction.....	21
3.6.5. Hydraulic Drivetrain.....	22
3.6.6. Swivel Mechanism.....	23
3.6.7. Weather Cover.....	24
3.7. HYDRAULIC POWER UNIT.....	24
3.7.1. General Considerations.....	24
3.7.2. Support Frame Construction.....	25
3.7.3. Hydraulic Reservoir and Supporting Systems.....	25
3.7.4. Control Panel.....	26
3.7.5. Remote Control.....	27
3.7.6. Weather Cover.....	27
3.8. HYDRAULIC PUMPS AND MOTORS.....	28
3.8.1. General Considerations.....	28
3.8.2. Hydraulic Drive System.....	29
3.9. HYDRAULIC HOSE ASSEMBLIES.....	29
3.9.1. General Considerations.....	29
3.9.2. Hydraulic power unit to Boom Reel and Swivel Mechanism Connections.....	30
3.10. DIESEL ENGINE.....	31
3.10.1. General Considerations.....	31
3.10.2. Diesel Engine Accessories.....	31
3.10.3. Drive Coupling.....	32
3.11. RIGGING AND HOISTING.....	32
3.11.1. General Considerations.....	32
3.11.2. Hoisting Points.....	32
3.12. FABRICATION.....	33
3.12.1. Workmanship.....	33
3.12.2. Metal Welding.....	33
3.12.3. Equipment Care and Protection.....	33
3.13. MATERIALS.....	33
3.13.1. General Considerations.....	33

TECHNICAL STATEMENT OF REQUIREMENTS (TSOR)
Table of Content

3.13.2. Metal Alloys	34
3.13.3. Elastomers.....	34
3.13.4. Dissimilar Metals.....	34
3.13.5. Hazardous Materials	34
3.14. FASTENERS, HARDWARE, AND LUBRICANTS	34
3.14.1. General Considerations.....	34
3.14.2. Lubricants	35
3.15. LABEL PLATES.....	35
3.15.1. General Considerations.....	35
3.15.2. Product Identifiers.....	36
3.16. PAINTINGS AND COATINGS.....	36
3.16.1. General Considerations.....	36
3.17. SHIPPING AND DELIVERY	36
3.17.1. General Considerations.....	36
3.17.2. Major Equipment.....	37
3.17.3. Hose Assemblies and Fittings.....	37
3.18. DOCUMENTATION.....	37
3.18.1. General Considerations.....	37

LIST OF ACRONYMS AND ABBREVIATIONS

ASME	American Society of Mechanical Engineers
ASTM	Formerly known as the American Society for Testing and Materials
CCG	Canadian Coast Guard
CMVSS	Canadian Motor Vehicle Safety Standards
CCSA	Canadian Standards Association
CWB	Canadian Welding Bureau
DD	Two-digit day
DID	Data Item Deliverable
ER	Environmental Response
GTW	Gross Trailer Weight
GVWR	Gross Vehicle Weight Rating
ISO	International Organization for Standardization
MM	Two-digit month
OEM	Original Equipment Manufacturer
SAE	Society of Automotive Engineers
SOR	Statutory Orders and Regulations
TSOR	Technical Statement of Requirements
UV	Ultraviolet
YYYY	Four-digit year

1 INTRODUCTION

1.1. PURPOSE

The Canadian Coast Guard (CCG) is the lead federal agency responsible for ensuring the clean-up of all ship-source and mystery-source pollution spills into waters under Canadian jurisdiction. In fulfillment of this legislated mandate, the CCG maintains a level of operational preparedness capacity to monitor, investigate, and respond, when required, to all reports of marine pollution incidents. The objective of the Environmental Response Equipment Modernization/ Mobile Incident Command Equipment (EREM/MICE) Project is to modernize CCG's initial response equipment inventory and its supporting infrastructure.

1.2. SCOPE

The CCG requires a means of rapid transportation and deployment/recovery for fence boom and associated accessories. Fence Boom is a deployable containment boom design that uses rectangular floatation elements for buoyancy, an 18 to 24 inch fabric membrane that acts as a barrier to floating oil, and tension members to transfer longitudinal tensile loads. The Boom Reel Trailer System(s) must consist of a trailer equipped with an ISO twist locking mechanism to securely mount a boom reel skid. The boom reel skid will consist of a hydraulically driven boom reel designed to hold 1000 feet (up to 2200 lbs) of fence boom, mounted on a hydraulic swivel mechanism, and powered by a hydraulic power unit. The Boom Reel Trailer System(s) will be used on highways, secondary roads, gravel and dirt roads, and on grass field terrain throughout Canada.

This Technical Statement of Requirements (TSOR) defines the functional and performance-based requirements for the Boom Reel Trailer System.

The Boom Reel Trailer System(s) will consist of the following **major** components:

- Trailer fitted with ISO locks for boom reel skid and storage box (if applicable);
- Removable boom reel skid complete with a hydraulic boom reel, hydraulic swivel mechanism and hydraulic power unit;
- Bill of Sale and any additional documentation required for licensing and registration in Canada;
- One bilingual hard-copy of the Operation and Maintenance Manual in both of Canada's official languages i.e., English and French; and
- One bilingual hard-copy of the Equipment Operating Illustrations.

1.3. DOCUMENT CONVENTION

The following conventions apply to this TSOR:

- a) Dimensions stated as nominal are treated as approximate dimensions. Nominal dimensions reflect a standard whereby materials or products are generally identified for commercial sale, but differ from the actual dimensions.

- b) Both the Metric system and the Imperial system of measurements may be indicated in this TSOR.

1.4. DEFINITIONS

The following definitions apply to this TSOR:

Canada Motor Vehicle Safety Standards (CMVSS): Transport Canada standards which all vehicles made for sale in Canada and all vehicles imported into Canada must meet.

Curb Weight: The weight of the fully equipped Trailer. The Curb Weight includes the Trailer, all attached, components, accessories, equipment, and lubricants. The Curb Weight does not include the Payload.

Dissimilar Metals: Two metal specimens electrically connected to each other in a conductive solution, and capable of generating an electric current.

Gross Vehicle Weight Rating (GVWR): The maximum operating weight of the Trailer required by the Contract and confirmed by the manufacturer.

Gross Vehicle Weight (GVW): The sum of the Curb Weight and the Payload. The GVW cannot exceed the Gross Vehicle Weight Rating.

$$\text{Gross Vehicle Weight} = \text{Curb Weight} + \text{Payload}$$

Loaded Boom Reel Skid: The Boom Reel Skid loaded with 3000 lbs of boom on the boom reel and 700 lbs of accessories in the storage container on top of all the other skid fitments described in this TSOR.

Marine-grade: A quality of a product specially formulated or treated to withstand use at sea.

Off-the-shelf: Standard articles and materials that are ordinarily produced by manufacturers in the normal course of business.

Payload: The maximum cargo load carrying capacity of the Trailer. The Payload is the calculated difference between the Curb weight and the Gross Vehicle Weight.

$$\text{Payload} = \text{Gross Vehicle Weight} - \text{Curb Weight}$$

Technical Authority: The individual responsible for providing information, guidance and advice on the technical aspect of a product.

2 REFERENCE DOCUMENTATION

2.1. ORDER OF PRECEDENCE

In the event of a discrepancy between this TSOR and the standards and specifications referenced herein, the content of this TSOR must take precedence; however, nothing in this TSOR supersedes any applicable laws and regulations.

2.2. APPLICABLE CANADIAN STANDARDS AND SPECIFICATIONS

The Boom Reel Trailer System must conform to all applicable laws, regulations, and industrial standards governing manufacture, safety, noise levels, and pollution in effect in Canada at the time of manufacture. International equivalent laws, regulations, and industrial standards will be accepted only if certified for equivalency by a Professional Engineer.

To the extent specified herein, the following standards and specifications apply to the Boom Reel Trailer System:

- a) ASTM A123M-15, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products;
- b) ASTM A413/A413M-07, Standard Specification for Carbon Steel Chain;
- c) ASTM F1166-07 (2013), Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities;
- d) C.R.C., c.1038, Motor Vehicle Safety Regulations;
- e) ISO 1161:1984, Series 1 Freight Containers — Corner fittings — Specification;
- f) ISO 1496-1:2013, Series 1 Freight Containers – Specification and Testing Standards;
- g) ISO 2230:2002, Rubber Products – Guidelines for Storage;
- h) ISO 3874:2017 Series 1 Freight Containers – Handling and securing;
- i) ISO 668 Series 1 Freight Containers - Classification, Dimensions, and Ratings;
- j) ISO 7241:2014, Hydraulic Fluid Power – Dimensions and Requirements of Quick-Action Couplings;
- k) R.S.C., 1985, c.H-3, Hazardous Products Act;
- l) SAE J1527, Marine Fuel Hoses;
- m) SAE J1942, Hose and Hose Assemblies for Marine Applications;
- n) SAE J534 – Lubrication Fittings;
- o) S.C. 1993, c.16, Motor Vehicle Safety Act;
- p) Statutory Orders and Regulations (SOR)/86-304, Canada Occupational Health and Safety Regulations;
- q) SOR/2005-32, Off-Road Compression Ignition Engine Emission Regulations; and
- r) TP 14117, Trailers: Federal Lighting Equipment Location Requirements.

2.3. SUPERSEDEENCE

Unless otherwise specified by Canada, any amendment issued to the documents specified in 2.1 must reflect the version in effect on the date of Contract award.

3 TRAILER REQUIREMENTS

3.1. DESIGN OVERVIEW

3.1.1. GENERAL CONSIDERATIONS

3.1.1.1. The Trailer must:

- a) Have engineering certification and technical documentation supplied for all associated equipment from the original equipment manufacturers (OEM) of all major components for the Trailer, as requested;
- b) Conform to all applicable laws, regulations, and industry standards governing manufacture, safety, noise levels, and pollution in effect in Canada at time of manufacture;
- c) Include all OEM standard equipment package, components, and accessories normally supplied for the intended equipment application, although they may not be specifically described in this TSOR; and
- d) Must be able to be registered and pass a Motor Vehicle Safety (MVS) inspection in any Province or Territory in Canada.

3.1.2. ENVIRONMENTAL CONDITIONS

3.1.2.1. The Trailer must be designed:

- a) For operational use in air temperatures ranging from -20°C to +35°C;
- b) To withstand storage in air temperatures ranging from -40°C to +40°C; and
- c) To be subject to rain, sleet, snow, high winds, and ocean spray during transportation, operation, and storage.

3.1.3. ROAD CONDITIONS

3.1.3.1. The Trailer must be designed to operate:

- a) On highways, secondary roads, gravel and dirt roads; and
- b) Year-round in conditions including rain, snow, mud, sand, and ice.

3.1.4. SAFETY

3.1.4.1. The Trailer must be designed to eliminate or mitigate hazardous conditions using, at a minimum, the following best practices:

- a) Safe configuration and arrangement of equipment;
- b) Identification of hazardous conditions with bilingual labels and placards in;

- c) Appropriate guarding of mechanical, electrical, and thermal hazards; and
- d) Prevention of controls from accidental or inadvertent activation.

3.1.4.2. The Trailer power and electrical systems must be installed in accordance with CSA C22.1, Canadian Electrical Code and UL458 Standard for Power Converters/Inverters and Power Converter/Inverter Systems for Land Vehicles and Marine Crafts.

3.1.4.3. The Trailer floor and all surfaces designed for personnel to stand on must be non-skid.

3.1.4.4. The Trailer must not have system, assembly, or component capacities designed to operate above their published ratings.

3.1.4.5. The Trailer must carry the National Safety Mark (NSM).

3.1.5. MAINTAINABILITY

3.1.5.1. The Contractor must standardize the selection of equipment, fittings, fasteners, hardware, attachments, and fabrication methods used in the Trailer to minimize the number of unique spares.

3.1.5.2. Internal parts that are subject to malfunction or failure due to reverse installation must have mechanical provisions that preclude improper installation.

3.1.5.3. Following Canada's acceptance of the First Article Test results, the Contractor must use identical components in all subsequent Trailer deliveries (unless otherwise specified by Canada).

3.1.5.4. The use of specialized tools and equipment must be restricted to infrequent and complex service work, such as generator maintenance or electrical work.

3.2. PERFORMANCE REQUIREMENTS

3.2.1. LIFE EXPECTANCY

3.2.1.1. The minimum useful life of the System must be 20 years when maintained and stored per manufacturer's recommendations.

3.2.2. DIESEL ENGINES

3.2.2.1. The brake horsepower (BHP) rating of each diesel engine must correspond to the minimum power input recommended by the paired equipment manufacturer under the conditions specified herein.

3.2.2.2. Each diesel engine must:

- a) Develop its maximum torque at a speed less than the rated operating speed of the paired equipment;
- b) Operate continuously at an angle of inclination up to $\pm 15^\circ$ without damage; and
- c) Operate continuously at the rated load for a minimum of 2 hours without refueling.

3.2.3. HYDRAULIC PUMP

- 3.2.3.1.** The hydraulic pump must operate under continuous, intermittent, and stalled conditions without inflicting damage upon itself or the adjoining hydraulic circuit.

3.2.4. HYDRAULIC DRIVE SYSTEM

- 3.2.4.1.** The Contractor must size the complete hydraulic drive system to optimize performance. At a minimum:
- a) The rated output parameters of the hydraulic pump (e.g., pressure and flowrate) must match the equivalent rated input parameters of the hydraulic motor; and
 - b) The rated input parameters of the hydraulic pump (e.g., power, rotational speed, and direction of rotation) must match the equivalent rated output parameters of the diesel engine.

3.2.5. HYDRAULIC MOTORS

- 3.2.5.1.** The minimum pull force of any hydraulic motor fitted to the Boom Reel must be at least equal to the full mass of the supplied designation of Fence Boom, which is approximately 3000 lbs.
- 3.2.5.2.** The braking capacity of any hydraulic motor fitted to the Boom Reel must exceed the design pull force of the Boom Reel.
- 3.2.5.3.** The maximum rotational speed of the Boom Reel in each direction must be less than 10 rotations per minute (RPM) at the maximum rated hydraulic flow and include a hydraulic brake designed to halt reel rotation.
- 3.2.5.4.** The rotation speed of any hydraulic motor fitted to the Boom Reel and Swivel Mechanism must be continuously variable (while under power) up to its maximum rotational speed.
- 3.2.5.5.** The hydraulic motor(s) must be capable of operating forward and reverse with speed control.

3.2.6. TOWING

- 3.2.6.1.** The Trailer must:
- a) Be designed to be towed primarily behind a Ford F350;
 - b) Operate with a full payload on highways and secondary roads at speeds of at least 100 kilometres per hour (km/h), and on gravel roads at speeds of at least 40 km/h;
 - c) Follow the towing vehicle without weaving or side sway;
 - d) Provide horizontal articulation up to 60° without interference with the towing vehicle; and
 - e) Have external 12 volt lights and reflectors installed in accordance with CMVSS.

- 3.2.6.2.** All aspects of in-transit power requirements (lights, brakes, etc.) must operate on a separate circuit to the main trailer, must meet CMVSS and be supplied by the towing vehicle using the connector defined in 3.3.6.1.c.

3.3. TRAILER CONSTRUCTION

3.3.1. GENERAL CONSIDERATIONS

- 3.3.1.1.** The Contractor must design and provide the Trailer as both a standard bumper pull trailer and gooseneck trailer. While the Trailer designations specify two different tow vehicle connection types, each designation must comply to the same Trailer requirements described herein.
- 3.3.1.2.** All electrical and electronic systems installations must be marine grade or equivalent, with all electrical components sealed to prevent water intrusion.

3.3.2. PHYSICAL CONSTRAINTS

- 3.3.2.1.** The Trailer must have a minimum payload capacity equal to the entire weight of the loaded boom reel skid.
- 3.3.2.2.** The overall system height must not exceed 4.1 m.
- 3.3.2.3.** The overall system width must not exceed 2.55 m.
- 3.3.2.4.** The overall system length must not exceed 10 m.
- 3.3.2.5.** Removed
- 3.3.2.6.** The Trailer must be designed to produce a tongue weight on the tow vehicle that:
- a) Is limited to a minimum of 10% and maximum of 15% of the Trailer GTW for the bumper pull trailer; and
 - b) Is limited to a minimum of 20% and maximum of 25% of the Trailer GTW for the gooseneck trailer.
- 3.3.2.7.** To determine the tongue weight placed on the tow vehicle, calculations must use a loaded boom reel skid, on top of all other trailer fitments described in this TSOR.
- 3.3.2.8.** The dimensions of the system must be such that it will be towable anywhere in Canada by a CCG operator with a Class 5/Class G driver's licence without the need for any oversize or overweight permits.

3.3.3. FRAME MEMBERS

- 3.3.3.1.** The Trailer frame must be sufficiently rigid to support the full GVWR of the Trailer as well as any live loads that could apply during storage, deployment, or when operating at highway speeds in Canada (e.g. snow, wind, and personnel). The Contractor must brace (or reinforce) all stress points.

3.3.3.2. An aluminum diamond plate filler deck must be fitted over the Trailer tongue where any void spaces remain.

3.3.3.3. There must not be open ends of any of the frame members used in the construction of the Trailer.

3.3.4. SUSPENSION AND AXLES

3.3.4.1. The Trailer must have a tandem axle configuration.

3.3.5. WHEELS, RIMS, AND TIRES

3.3.5.1. The Trailer must be equipped with:

- a) Wheels, rims, and tires that must be appropriately chosen for the environmental and road conditions listed in 3.1.2. and 3.1.3. respectively. The combined capacity of all wheels, rims and tires, must meet or exceed the GVWR of the trailer. Canada must approve the tire selection and markings;
- b) All-season on-/off-road all-terrain type tires or equivalent;
- c) The same model of tires on all wheels;
- d) A spare tire assembly mounted on the Trailer curbside and ready for service, of same size and ply rating as tires furnished with the Trailer. Canada must approve the spare tire mounting location;
- e) Heavy-duty flexible and replaceable front and rear rubber mud flaps; and
- f) Two wheel chocks that are carried in transport and can be installed following deployment or during storage. The chocks must prevent accidental movement of the Trailer.

3.3.5.2. A wheel lug nut wrench must be provided with the spare tire and mounted in a location approved by Canada.

3.3.6. 12 VOLT ELECTRICAL SYSTEM

3.3.6.1. The Trailer must:

- a) Be provided with a 12 volt DC negative ground electrical system in accordance with CMVSS;
- b) Function with a tow vehicle operating with 12 volt electrical systems; and
- c) Be equipped with a 7-way blade electrical connector.

3.3.7. LIGHTING

3.3.7.1. The Trailer must have lights and reflectors installed in accordance with CMVSS.

3.3.7.2. All trailer lights must be LED.

3.3.7.3. All lights must be recessed or otherwise protected from damage by impact, with all components easily accessible for maintenance.

3.3.8. BRAKES

3.3.8.1. The Trailer must be equipped with the manufacturer's standard electric brake system with capacity to handle the GVWR of the Trailer.

3.3.8.2. The EOH brake system must be compatible with any tow vehicle.

3.3.8.3. The Trailer must be equipped with the manufacturer's standard breakaway kit with the capacity to handle the GVWR of the Trailer and interact with the installed brake system as per the manufacturer's instructions.

3.3.9. TONGUE AND LEVELLING JACKS

3.3.9.1. All jacks must be installed per the OEM installation recommendations.

3.3.9.2. A portable bottle jack with a minimum capacity equal to the GVWR of the trailer that fits the bottom of the Trailer frame must be provided.

3.3.9.3. The bumper pull trailer must be fitted a tongue jack that must:

- i. Lift and support the Trailer with a full payload.
- ii. Be fitted with a crank that lifts and lowers the Trailer drawbar so the hitch coupler can rise a minimum of 4 inches above its level height. The jack must be installed in a manner where the crank's movement is not impeded by any part of the trailer.
- iii. Provide at least 8 inches of clearance to the level ground when fully collapsed.
- iv. Be fitted with a footplate.
- v. Have a capacity that is at least 20% of the GVWR of the Trailer.

3.3.9.4. The gooseneck trailer must be fitted landing gear jacks on either side of the front of the trailer. The landing gear must:

- i. Lift and support the Trailer with a full payload.
- ii. Be fitted with a side-wind crank near the front of the Trailer that controls both of the landing gear jacks at the same time and ensure the coupler can rise a minimum of 4 inches above its level height.
- iii. Provide at least 8 inches of clearance to the level ground when fully collapsed.
- iv. Be fitted with a footplate.
- v. Have a combined capacity that is at least 30% of the GVWR of the Trailer.

- 3.3.9.5.** Both Trailers must be fitted with independently controlled levelling jacks at each corner of the Trailer that stabilize and level the Trailer when it is unhitched with a full payload on an uneven surface. The levelling jacks must be fitted with adjustable droplegs.
- 3.3.9.6.** The droplegs must have a means to be locked in place at various distances from the base of the jack.
- 3.3.9.7.** The rear levelling jacks must have at least 14 inches of clearance to the level ground when fully collapsed.

3.3.10. TOW VEHICLE CONNECTIONS

- 3.3.10.1.** The tow vehicle connection must have a capacity at least equal to the GVWR of the Trailer.
- 3.3.10.2.** The Trailer must be provided with:
 - a) A standard hitch coupler designed to attach to a 2 5/16 inch Trailer ball for the standard bumper pull trailer; and
 - b) A gooseneck hitch coupler designed to attach to a 2 5/16 inch Trailer ball for the gooseneck trailer.
- 3.3.10.3.** The Trailer tongue must be fitted with at least two galvanized steel safety chains to attach to the tow vehicle hitch.
- 3.3.10.4.** There must be one Grade 70 safety chain on each side of the tow vehicle connection.
- 3.3.10.5.** Each safety chain must:
 - a) Be fitted with clevis hook and latch connectors on their free ends; and
 - b) Have a minimum length of 27 inches.
- 3.3.10.6.** Each safety chain and connector must be sized and rated to the GVWR of the Trailer.

3.3.11. ISO TWIST LOCKING SYSTEM

- 3.3.11.1.** The Trailer must be fitted with an ISO twist locking system that satisfies the requirements defined in Annex A of ISO 3874:2017 Series 1 freight containers – Handling and securing. It must be designed to secure the boom reel skid to the bed of the trailer.
- 3.3.11.2.** The ISO twist locking system should be designed to also accept standard 10 and 20 ft ISO containers (1D and 1C respectively) as defined in ISO 668 Series 1 Freight Containers - Classification, Dimensions, and Ratings.
- 3.3.11.3.** The ISO twist locking system must be designed to lock the boom reel skid and containers without the use of tools.

- 3.3.11.4.** The ISO twist locking system must have a redundant locking measure to ensure each lock doesn't come loose or detach during travel at the speeds and in the terrain identified in 3.2.6.1 b) and 3.1.3, respectively.

3.3.12. LICENSE PLATE HOLDER

- 3.3.12.1.** The Trailer must be provided with a rear-mounted license plate holder.
- 3.3.12.2.** The rear-mounted license plate holder must be recessed or otherwise protected from damage.

3.3.13. IDENTIFICATION

- 3.3.13.1.** The following information must be permanently marked in a conspicuous and protected location:
- a) Manufacturer's name, model, and serial number;
 - b) Manufacturer's Vehicle Identification Number (VIN); and
 - c) Trailer Capacity rating must be marked on the drawbar.

3.3.14. TRAILER BODY FLOOR

- 3.3.14.1.** The Trailer body floor must:
- a) Be at the lowest level permitted by the chassis/body;
 - b) Be level throughout the Trailer, not including wheel well protrusions (if applicable).

3.4. TRAILER STORAGE BOX

3.4.1. GENERAL CONSIDERATIONS

- 3.4.1.1.** The Trailer Storage Box must be fabricated from aluminum and designed to be water tight when closed.
- 3.4.1.2.** The Trailer Storage Box must be designed to withstand shifting of the typical equipment stored in the box (described in 3.4.2.2.), as well as dropping of the equipment into the box and normal wear and tear.
- 3.4.1.3.** The Trailer Storage Box must be securely attached to the main Trailer frame or boom reel skid and designed to withstand the live loads (i.e. wind) that will be present when towing the Boom Reel Trailer at highway speeds in Canada.
- 3.4.1.4.** The Trailer Storage Box must be designed to drain any free standing water that accumulates inside, while not allowing any water to enter the box through the drain.

- 3.4.1.5.** To ensure the longevity of the documents that will reside within the storage box (for example, the technical maintenance manual and operations manual as per Section 3.18.1.2.), the interior of the storage box must be fitted with a dedicated aluminum provision to securely and neatly contain documents. The Contractor may propose alternative construction materials for consideration by Canada.

3.4.2. PHYSICAL CONSTRAINTS

- 3.4.2.1.** The Trailer Storage Box must have a minimum volume of 70 cubic feet (ft³).
- 3.4.2.2.** The Trailer Storage Box must be designed to store at a minimum the following components, where design is subject to review and acceptance by Canada:
- a) Four, 100 ft long, 0.75 in diameter towlines;
 - b) Four, 24 in tow paravanes;
 - c) Four, 24 in tow bridles;
 - d) Five, 25 lbs fluke-style anchors;
 - e) Five, 120 ft long rope-chain anchor rodes;
 - f) Five, 100 ft long anchor trip lines;
 - g) Five, inflatable, low-drag buoys; and
 - h) Five, LED anchor lights.

3.4.3. ACCESS

- 3.4.3.1.** The Trailer Storage Box must be constructed with hinged, double-wing doors at the front.
- 3.4.3.2.** The doors must open outwardly approximately 180 degrees to facilitate loading and unloading.
- 3.4.3.3.** The doors must be designed to lock in place when in a closed position, and be opened by the use of a fitted latch or handle.
- 3.4.3.4.** The doors must be capable of being secured in the fully open position in a manner that prevents accidental closure.
- 3.4.3.5.** The doors must be designed to be permanently locked in place with the use of a padlock with a 7/16 in shackle diameter.
- 3.4.3.6.** Each door must be designed to provide a weather tight seal when closed.
- 3.4.3.7.** Each hinge must be designed and fabricated to be maintenance free and resist binding.

3.4.4. LASHING AND MOUNTING POINTS

- 3.4.4.1.** The Storage Box must be fitted with dedicated mounts, hooks, shelves, or lashing points to secure every item listed in 3.4.2.2. Canada reserves the right to review, and accept the Storage Box configuration proposed by the Contractor.
- 3.4.4.2.** The mounts, hooks, shelves, or lashing points must be fitted with harnesses or another means to completely arrest movement of the stored equipment during transportation and storage.
- 3.4.4.3.** The Trailer Box hooks/lashing points must be designed to withstand all live loads during transportation over the terrain conditions defined in 3.1.3.

3.4.5. VENTILATION

- 3.4.5.1.** The Storage Box must be fitted with a minimum of two, off-the-shelf passive vents. Canada reserves the right to review, and accept or reject the vent sizing proposed by the Contractor.
- 3.4.5.2.** The passive vents must be located in the upper diagonal corners on opposite, fixed walls, such that they provide maximum diagonal cross airflow and exhaust.
- 3.4.5.3.** The passive vents must be designed to deflect rain or spray, and prevent water ingress.
- 3.4.5.4.** The passive vents must be fitted with mesh screens to inhibit ingress of any flying insects.

3.5. BOOM REEL SKID

3.5.1. GENERAL CONSIDERATIONS

- 3.5.1.1.** The Contractor must:
 - a) Supply and furnish a skid to house the boom reel, swivel mechanism, hydraulic power unit, storage box (if applicable), and their associated components specified herein;
 - b) Minimize the weight of the skid, while keeping its centre of mass as low as possible to the ground.
- 3.5.1.2.** The skid must be designed so the center of mass is as close to the center of the skid as possible.
- 3.5.1.3.** The skid must be designed to be locked and detached from the Trailer via the ISO twist locking mechanism defined in 3.3.11.
- 3.5.1.4.** The skid must be fitted with ISO corner fittings that satisfy the requirements defined in ISO 1161:1984, Series 1 freight containers — Corner fittings — Specification. The corner fittings must be designed to be secured to the trailer bed via the ISO twist locking system defined in 3.3.11.

- 3.5.1.5.** The skid must be designed to have a dedicated operating position, where an operator can operate the boom reel and swivel mechanism safely as well as view the areas where the boom is being deployed to/retrieved from.

3.5.2. FORKLIFT POCKETS

- 3.5.2.1.** The skid must be fitted with two enclosed forklift pockets.
- 3.5.2.2.** Each forklift pocket must pass completely through the base structure of the skid.
- 3.5.2.3.** The forklift pockets must be perpendicular to the trailers direction of travel.
- 3.5.2.4.** The size and spacing of the forklift pockets must satisfy the dimensional requirements defined in ISO 1496-1:2013, Series 1 Freight Containers – Specification and Testing Standards.
- 3.5.2.5.** The forklift pockets must be spaced so the center of mass of the loaded skid falls right in the middle of the pockets (i.e. equidistant from each pocket).

3.6. BOOM REEL

3.6.1. GENERAL CONSIDERATIONS

- 3.6.1.1.** The Contractor must:
- a) Supply and furnish a support frame for each Boom Reel and its associated components specified herein; and
 - b) Minimize the total volume of the support frame, while keeping its centre of mass as low as possible to the ground.
 - c) Supply and furnish a swivel mechanism for each Boom Reel that enables it to rotate 20 degrees in each direction about its base.
- 3.6.1.2.** The Boom Reel Trailer System must be fitted with outriggers that stabilize the trailer when the boom reel, and swivel mechanism are operating on the trailer bed.

3.6.2. PHYSICAL CONSTRAINTS

- 3.6.2.1.** The Boom Reel must be able to store at least 1000 ft. of 24 in Fence Boom within the confines of its end flanges.
- 3.6.2.2.** The Boom Reel must have a minimum storage volume of 360 ft³. This volume equates to the total volume of the reel minus the volume occupied by the spool.
- 3.6.2.3.** The Boom Reel spool must have a minimum diameter of 19 in.
- 3.6.2.4.** The Boom Reel spool must have a minimum length of 7 ft.
- 3.6.2.5.** The length of the boom reel spool must be parallel to the length of the trailer when in the neutral position.

- 3.6.2.6. There must be a horizontal axis of rotation for the Boom Reel to deploy and retrieve the Fence Boom.
- 3.6.2.7. The swivel mechanism must not extend outside of the footprint of the Boom Reel Skid.
- 3.6.2.8. If the boom reel extends outside the footprint of the skid when rotating on the swivel mechanism the trailer must be designed with a transit and operating configuration where it can not be transported in the operating configuration.

3.6.3. SUPPORT FRAME CONSTRUCTION

- 3.6.3.1. Each support frame must be fabricated from welded aluminum extruded (or rolled) tubular frame members.
- 3.6.3.2. Each support frame must be permanently mounted to the swivel mechanism.
- 3.6.3.3. Each support frame must be sufficiently rigid to withstand the loading conditions when operating and transporting the furnished equipment of each delivery. The Contractor must brace (or reinforce) all stress points.
- 3.6.3.4. There must be a square or rectangular footprint for the base structure of each support frame.
- 3.6.3.5. Any open ends of the tubular frame members must be capped with plate to ensure a fully closed construction.
- 3.6.3.6. The support frame must be fitted with tie-down points to securely hold the weather cover specified in 3.6.7.
- 3.6.3.7. Each plate cap must be:
 - a) Cut to an appropriate size to ensure that it does not protrude from the exterior surfaces of the adjoining frame member; and
 - b) Of similar thickness to the wall thickness of the adjoining frame member.

3.6.4. BOOM REEL CONSTRUCTION

- 3.6.4.1. The Boom Reel must comprise the following construction:
 - a) A central, cylindrical hub;
 - b) Two, opposing solid circular end flanges;
 - c) Marine-grade aluminum;
- 3.6.4.2. There must be a smooth, closed construction to eliminate any catch or snag points for the cylindrical central hub and each inner face of the end flanges.
- 3.6.4.3. The cylindrical central hub and both end flanges must be designed to at least bear the full wet mass of 1000 ft. of 24-inch Fence Boom while under power. This equates to approximately 3000 lbs.

3.6.4.4. The Boom Reel spool must be fitted with recessed flush mounted lugs on each end of the spool for attaching and securing boom to avoid slippage. The lug must be sized to accept 3/8" shackle.

3.6.4.5. There must be rolled circumferential edges to eliminate sharp points on the end flanges.

3.6.5. HYDRAULIC DRIVETRAIN

3.6.5.1. The Contractor must supply and fit one hydraulic motor (as per Section 3.7 3.8) at the Boom Reel and swivel mechanism's axis of rotation.

3.6.5.2. The hydraulic motors must be installed in a manner that facilitates their possible future removal.

3.6.5.3. The Boom Reel must only rotate if the lever for the reel on the remote control has been pushed in either direction, or the manual bypass valve has been activated. Otherwise it must remain in a locked static state, so as not to unknowingly rotate during transit or storage.

3.6.5.4. The Boom Reel must be:

- a) Equipped with a braking mechanism to halt rotation and hold it in a static position;
- b) Equipped with an emergency bypass valve to allow for manual rotation;
- c) Coaxially located between two bearing assemblies to facilitate rotation; and
- d) Properly balanced to preclude unnecessary shaft vibration and wear.

3.6.5.5. Any reduction gearbox must be paired directly to the hydraulic motor to ensure a compact drivetrain.

3.6.5.6. The output shaft of the drivetrain must:

- a) Be coaxial with the Boom Reel;
- b) Connect directly to the Boom Reel. The use of chains, belts, or other non-gear mechanical devices to transmit rotation to the boom reel is prohibited.

3.6.5.7. The connection between the output shaft of the drivetrain and the Boom Reel must preclude slippage and facilitate possible future disconnection (e.g., a splined shaft or bolted flange).

3.6.5.8. There must be a single female end fitting for the Boom Reel that connects to the inlet port of the hydraulic motor. This female end fitting must be equivalently-sized to accept the supply hydraulic hose assembly from the hydraulic power unit.

3.6.5.9. There must be a single male end fitting for the Boom Reel that connects to the outlet port of the hydraulic motor. This male end fitting must be equivalently-sized to accept the return hydraulic hose assembly to the hydraulic power unit.

3.6.5.10. If applicable, there must be a dedicated male end fitting for the Boom Reel for the hydraulic motor case drain port. The male end fitting must be equivalently-sized to accept a case drain hydraulic hose assembly to the hydraulic power unit.

- 3.6.5.11. A coaxial shaft must be rigidly attached to the Boom Reel (on the end flange not connected to the drivetrain) to support rotation.
- 3.6.5.12. One bearing assembly must resist loading in the axial direction.
- 3.6.5.13. Each bearing assembly must be:
 - a) Lubricated; and
 - b) Sealed to limit the ingress of contaminants.

3.6.6. SWIVEL MECHANISM

- 3.6.6.1. The Swivel Mechanism must be designed to bear the full weight of the reel fully loaded with 1000 ft of fence boom which is approximately 2200 lbs.
- 3.6.6.2. The Swivel Mechanism must enable boom deployment and retrieval from the trailer curb and roadsides.
- 3.6.6.3. The Swivel Mechanism must not rotate faster than 2 RPM.
- 3.6.6.4. The Swivel Mechanism must have provisions to ensure it doesn't rotate past 20 degrees in each direction from the reel's neutral position.
- 3.6.6.5. The Swivel Mechanism must only rotate if the lever for the swivel on the remote control has been pushed in either direction, or the manual bypass valve has been activated. Otherwise it must remain in a locked static state, so as not to unknowingly rotate during transit or storage.
- 3.6.6.6. The Swivel Mechanism must be fitted with a pin that locks the swivel mechanism in its transit orientation. The swivel mechanism lever on the remote control must only function once the pin has been removed.
- 3.6.6.7. The Swivel Mechanism must be:
 - a) Equipped with a braking mechanism to hold the swivel mechanism in a static position;
 - b) Equipped with an emergency bypass valve to enable manual rotation;
 - c) Fitted with at least two handles on either side of the swivel mechanism to use for manual rotation
- 3.6.6.8. For trailers where the boom reel extends outside the footprint of the trailer during operation the following features must be added:
 - a) Physical provision to cordon off the area where the boom reel extends outside the footprint of the trailer to ensure no operators stand in the way of the rotating boom reel;

- b) Audible alarm to alert operators that the reel hasn't been changed back to its transit state when the tow vehicle has been connected to the trailer via the electrical connector.

3.6.7. WEATHER COVER

- 3.6.7.1. The Contractor must supply a weather cover for each Boom Reel provided to completely protect the Boom Reel from environmental conditions defined in 3.1.2. during transportation and storage.
- 3.6.7.2. The Weather Cover must be made from synthetic fabrics providing resistance to ultraviolet (UV) degradation and embrittlement.
- 3.6.7.3. The Weather Cover must be lightweight and compact to store.
- 3.6.7.4. The Weather Cover must fully enclose the Boom Reel.
- 3.6.7.5. The Weather Cover must tightly attach to the Boom Reel in a manner that ensures the cover doesn't loosen or cause excessive drag on the trailer at the highway speed identified in 3.2.6.1.a.
- 3.6.7.6. The Weather Cover must attach and completely detach from the Boom Reel without the use of tools.
- 3.6.7.7. The weather cover must be reinforced at all points (e.g., grommets) where it attaches to the support frame.
- 3.6.7.8. The attachment points must be evenly spaced around the perimeter of the weather cover.
- 3.6.7.9. The attachment points must be situated to align with the tie down points specified in Section 3.6.3.6.

3.7. HYDRAULIC POWER UNIT

3.7.1. GENERAL CONSIDERATIONS

- 3.7.1.1. The Contractor must supply and furnish one hydraulic power unit with each Boom Reel Trailer System.
- 3.7.1.2. The hydraulic power unit must be designed to rotate the reel in a clockwise and counter clockwise direction as well as rotate the swivel mechanism 20 degrees in each direction from its neutral position.
- 3.7.1.3. The operating pressure necessary to operate any and all hydraulic systems on the trailer (simultaneously if possible) must be no greater than 75% of the max operating pressure of the hydraulic power unit.
- 3.7.1.4. The hydraulic power unit must be provided with a stand alone support frame designed to protect the HPU from any damage from falls up to 5 feet.
- 3.7.1.5. The support frame must be permanently secured to the Boom Reel Skid.

3.7.1.6. The hydraulic power unit must be fitted with the opposing, equivalent-sized fitting to accept each hydraulic hose assembly. The Contractor must group these fittings in a single location on the HPU that is easily accessible to the operator.

3.7.1.7. At a minimum, the hydraulic power unit must comprise the following components or systems:

- a) A diesel engine to serve as the prime mover;
- b) A positive displacement, hydraulic pump to pair with the diesel engine;
- c) A planetary gear drive for maximum torque;
- d) A hydraulic oil reservoir, complete with suction and return filtration;

All flexible hoses, valves, and fittings required to form closed circuits and protect against undue damage (e.g., over-pressurization); and

- e) All instrumentation needed to monitor the diesel engine, and control and monitor the output of the hydraulic pump.

3.7.2. SUPPORT FRAME CONSTRUCTION

3.7.2.1. Each support frame must be fabricated from welded aluminum extruded (or rolled) tubular frame members.

3.7.2.2. There must be a square or rectangular footprint for the base structure of each support frame.

3.7.2.3. Any open ends of the tubular frame members must be capped with plate to ensure a fully closed construction.

3.7.2.4. The support frame must be fitted with tie-down points to securely hold the weather cover specified in 3.7.6.

3.7.2.5. Each plate cap must be:

- a) Cut to an appropriate size to ensure that it does not protrude from the exterior surfaces of the adjoining frame member; and
- b) Of similar thickness to the wall thickness of the adjoining frame member.

3.7.3. HYDRAULIC RESERVOIR AND SUPPORTING SYSTEMS

3.7.3.1. The hydraulic oil reservoir must be fitted to the hydraulic power unit in a readily accessible location for the operator.

3.7.3.2. The volume of the hydraulic oil reservoir must be sized such to meet the rated flow demands of the hydraulic pump and sufficiently dissipate heat from the hydraulic oil.

3.7.3.3. The hydraulic oil reservoir must be fabricated from aluminium or stainless steel.

- 3.7.3.4. The hydraulic oil reservoir must be fitted with a replenishment port (complete with cap) to facilitate filling.
- 3.7.3.5. The hydraulic oil reservoir must be fitted with a dedicated female end fitting (as per 3.9.1.2.) to accept each case drain hydraulic hose assembly from the Boom Reel.
- 3.7.3.6. The hydraulic oil reservoir must be fitted with a sight glass to monitor the hydraulic oil level and temperature.
- 3.7.3.7. The supply line of the hydraulic oil reservoir must be fitted with a suction strainer to remove sediment.
- 3.7.3.8. The return line of the hydraulic oil reservoir must be fitted with a replaceable filter.

3.7.4. CONTROL PANEL

- 3.7.4.1. The Contractor must fit the hydraulic power unit with a dedicated control panel, in a location that is readily accessible to an operator standing at the operating position on the skid.
- 3.7.4.2. The control panel must be configured in accordance with the relevant best practices identified in ASTM F1166-07 (2013), Standard Practice for Human Engineering Design for Marine Systems, Equipment, and Facilities.
- 3.7.4.3. The control panel must be properly isolated from vibration.
- 3.7.4.4. The control panel must have a means to be illuminated to ensure legibility of instrumentation and controls when operating in complete darkness.
- 3.7.4.5. At a minimum, the Contractor must supply and furnish the control panel with the following instrumentation and controls:
 - a) An analog gauge to monitor the pressure of the hydraulic oil;
 - b) A throttling valve (or equivalent) to regulate the flow of hydraulic oil to the hydraulic motor; and
 - c) A three-position start switch (i.e., OFF-RUN-START) to activate the diesel engine.
 - d) An analog, running hour meter for the diesel engine;
 - e) An analog gauge to monitor the pressure of the diesel engine lubricating oil;
- 3.7.4.6. Unless otherwise specified, each valve must be marked with an arrow which indicates the direction of movement that will result in a change of rotational direction or an increased response.
- 3.7.4.7. The dial size of each gauge must be at least 2 in.
- 3.7.4.8. Each gauge must be designed with a contrasting background and marking(s) to ensure legibility.

3.7.5. REMOTE CONTROL

- 3.7.5.1.** The Contractor must provide a wired remote control to control reel speed and direction of rotation for the Boom Reel, as well as swivel speed and direction of rotation for the swivel mechanism.
- 3.7.5.2.** The Remote Control must extend to the operating area on the skid
- 3.7.5.3.** There must be a housing at the operating area of the skid to secure the remote control while it is not in use.
- 3.7.5.4.** At a minimum, the Contractor must supply and furnish the remote control with the following instrumentation and controls:
 - a) A lever that controls the clockwise and counter clockwise rotation of the reel. The reel rotational speed must be continuously variable until the lever is in its furthest position from neutral causing the reel to rotate at its maximum speed;
 - b) A lever that controls the clockwise and counter clockwise rotation of the swivel mechanism. The swivel mechanism's rotational speed must be continuously variable until the lever is in its furthest position from neutral causing the swivel mechanism to rotate at its maximum speed;
 - c) A mechanical stop system that immediately shuts down the hydraulic power unit.;
 - d) A control for the Boom Reel hydraulic break defined in 3.6.5.4a; and
- 3.7.5.5.** A control for the Swivel Mechanism hydraulic break defined in 3.6.6.7a. Both levers for the remote control must be designed so that when they are in the neutral position rotational movement for the reel and swivel mechanism is suspended, and can only be turned if the manual bypass valves have been opened.
- 3.7.5.6.** The Remote Control must have a means to be illuminated to ensure the legibility of the levers when operating in complete darkness.
- 3.7.5.7.** The lines that connect the hydraulic power unit to the remote control must:
 - a) Allow its operation at a safe distance away from the reel.
 - b) Be bundled together to facilitate handling and minimize hose contamination (if applicable).
 - c) Be tied down to the trailer along their length as to not pose a tripping hazard. There must be no more than 3 feet of hydraulic hose untied in any given section.

3.7.6. WEATHER COVER

- 3.7.6.1.** The Contractor must supply a weather cover for each HPU provided to completely protect the HPU from environmental conditions defined in 3.1.2.
- 3.7.6.2.** The Weather Cover must be made from synthetic fabrics providing resistance to ultraviolet (UV) degradation and embrittlement.

- 3.7.6.3. The Weather Cover must be lightweight and compact to store.
- 3.7.6.4. The Weather Cover must fully enclose the HPU.
- 3.7.6.5. The Weather Cover must tightly attach to the HPU in a manner that ensures the cover doesn't loosen or cause excessive drag on the trailer at the highway speed identified in 3.2.6.1.b.
- 3.7.6.6. The Weather Cover must attach and completely detach from the HPU without the use of tools.
- 3.7.6.7. The weather cover must be reinforced at all points (e.g., grommets) where it attaches to the support frame.
- 3.7.6.8. The attachment points must be evenly spaced around the perimeter of the weather cover.
- 3.7.6.9. The attachment points must be situated to align with the tie down points specified in Section 3.7.2.4.

3.8. HYDRAULIC PUMPS AND MOTORS

3.8.1. GENERAL CONSIDERATIONS

- 3.8.1.1. Any fitted hydraulic pump and hydraulic motor must be an off-the-shelf product.
- 3.8.1.2. Any fitted hydraulic pump and hydraulic motor must be a fixed-displacement type. The Contractor may propose a variable-displacement hydraulic pump for consideration by Canada. **The use of a back-driven hydraulic motor to serve as a pump (and the converse) is prohibited.**
- 3.8.1.3. The hydraulic motors must support clockwise and counter-clockwise rotation.
- 3.8.1.4. Any fitted hydraulic pump and hydraulic motor must be as compact as possible.
- 3.8.1.5. The hydraulic pump must operate under continuous, intermittent, and stalled conditions without inflicting damage upon itself or the adjoining hydraulic circuit.
- 3.8.1.6. The hydraulic motor must operate under continuous, intermittent, reversing, and stalled conditions without inflicting damage upon itself or the adjoining hydraulic circuit.
- 3.8.1.7. Any fitted hydraulic pump and hydraulic motor must be self-lubricating, with no provision other than the circulating hydraulic oil.
- 3.8.1.8. Any fitted hydraulic pump must be equipped with an integral means to protect against over-pressurization, if a separate pressure relief device is not fitted to the adjoining hydraulic circuit.
- 3.8.1.9. The rotating components of any fitted hydraulic pump and hydraulic motor must be inherently balanced such to minimize vibratory forces.

- 3.8.1.10.** Any fitted hydraulic pump and hydraulic motor must be equipped with integral flanges or mounts to facilitate attachment to a support structure.
- 3.8.1.11.** The inlet, outlet, and case drain (if applicable) ports of any fitted hydraulic pump and hydraulic motor must terminate in bosses integral to its casing.
- 3.8.1.12.** The inlet, outlet, and case drain (if applicable) ports must be identified with clear and permanent markings.

3.8.2. HYDRAULIC DRIVE SYSTEM

- 3.8.2.1.** The Contractor must size the complete hydraulic drive system to optimize performance. At a minimum:
 - a) The rated output parameters of the hydraulic pump (e.g., pressure and flowrate) must match the equivalent rated input parameters of the hydraulic motor; and
 - b) The rated input parameters of the hydraulic pump (e.g., power, rotational speed, and direction of rotation) must match the equivalent rated output parameters of the prime mover.

3.9. HYDRAULIC HOSE ASSEMBLIES

3.9.1. GENERAL CONSIDERATIONS

- 3.9.1.1.** All hydraulic hose assemblies must conform to the applicable requirements defined in SAE J1942, Hose and Hose Assemblies for Marine Applications.
- 3.9.1.2.** Hydraulic hose assemblies that require frequent removal and reattachment must use end fittings that conform to the requirements defined in ISO 7241:2014, Hydraulic Fluid Power – Dimensions and Requirements of Quick-Action Couplings.
- 3.9.1.3.** All hydraulic end fittings must conform to those requirements defined in SAE J1475, Hydraulic Hose Fitting for Marine Applications.
- 3.9.1.4.** All hydraulic end fittings must be fabricated from stainless steel.
- 3.9.1.5.** The length of all fitted, flexible hose assemblies must be sized to minimize response lag and pressure losses while still allowing for hose contraction.
- 3.9.1.6.** The bend radius of all fitted, flexible hose assemblies must be greater than the minimum value recommended by the OEM.
- 3.9.1.7.** The minimum rated pressure of all fitted, flexible hose assemblies must exceed the working pressure that it may be subjected to while in service. All hydraulic hose assemblies must be static pressure tested at 1.5 times their rated working pressure for a minimum of 30 minutes to confirm no leakage.
- 3.9.1.8.** Additional mechanical protection must be provided for all fitted, flexible hose assemblies susceptible to chafing.

- 3.9.1.9.** A reusable dust cap or plug must be attached to any free ends of those hydraulic hose assemblies with the fittings.

3.9.2. HYDRAULIC POWER UNIT TO BOOM REEL AND SWIVEL MECHANISM CONNECTIONS

- 3.9.2.1.** The Contractor must supply all hydraulic hose assemblies needed to connect the hydraulic power unit to the Boom Reel, Swivel Mechanism, and remote control (if applicable).
- 3.9.2.2.** To preclude misconnections, the hydraulic hose assemblies that connect the hydraulic power unit to the Boom Reel, Swivel Mechanism and remote control (if applicable) must conform to the following requirements:
- a) The nominal diameter of the supply and return hydraulic hose assemblies must be the same.
 - b) The nominal diameter of the case drain hydraulic hose assembly (if applicable) must be smaller than the supply and return hydraulic assemblies.

Following Canada's acceptance of the First Article Test results (as per the SOW, Annex A, DID-SE-03 - First Article Test Report), the Contractor must use identical hydraulic hose assemblies in all subsequent Boom Reel Trailer System deliveries (unless otherwise specified by Canada).

- 3.9.2.3.** Each hydraulic hose assembly that connects the hydraulic power unit to the Boom Reel, Swivel Mechanism and remote control (if applicable) must be equipped with a male end fitting (as per 3.9.1.2) on one free end, and a female end fitting (as per 3.9.1.2) on the opposing free end.
- 3.9.2.4.** All hydraulic end fittings (as per 3.9.1.23.9.1.2) must be consistent with the hose sizes determined by the Contractor to safely connect the hydraulic power unit to the Boom Reel.

- 3.9.2.5.** The hydraulic hose assemblies that connect the hydraulic power unit to the Boom Reel, Swivel Mechanism, and remote control (if applicable) must be bundled together to facilitate handling and minimize hose contamination.
- 3.9.2.6.** The Contractor must supply an off-the-shelf tool to relieve built-up pressure in the disconnected hydraulic hose assemblies and facilitate their re-connection to the hydraulic power unit and boom reel.

3.10. DIESEL ENGINE

3.10.1. GENERAL CONSIDERATIONS

- 3.10.1.1.** The Contractor must supply an off-the-shelf, 4-stroke, diesel engine to serve as the prime mover where specified herein. For example, a Yanmar L-series engine is acceptable.
- 3.10.1.2.** All diesel engines supplied by the Contractor must be of the same make and model to simplify maintenance and minimize the number of unique spares.
- 3.10.1.3.** Each diesel engine must be furnished with fuel hoses that conform to the requirements prescribed in SAE J1527, Marine Fuel Hoses.
- 3.10.1.4.** The Contractor must adhere to the diesel engine break-in procedure prescribed by the engine manufacturer.

3.10.2. DIESEL ENGINE ACCESSORIES

- 3.10.2.1.** All diesel engine accessories must be furnished (or approved) by the engine manufacturer or an authorized representative.
- 3.10.2.2.** At a minimum, each diesel engine must be furnished with the following accessories:
 - a) A dry-type air cleaner to remove dust and abrasives from the combustion air;
 - b) A direct current, electric starting motor, complete with storage battery, charging dynamo or alternator, and voltage regulator;
 - c) A back-up, recoil starting system, complete with a decompression valve to facilitate engine cranking;
 - d) One or more aids to facilitate engine starting at low temperatures;
 - e) A fuel tank of sufficient capacity to satisfy the endurance requirements specified herein;
 - f) A replaceable fuel filter and fuel strainer;
 - g) A manual fuel shut-off valve;
 - h) A mechanical governing system to regulate engine speed; and
 - i) A spark arrestor.
- 3.10.2.3.** The Contractor may supplement the furnished fuel tank with a larger sized tank, subject to the approval of Canada.

- 3.10.2.4.** The fuel tank must be fitted with a means to manually monitor the diesel fuel level.

3.10.3. DRIVE COUPLING

- 3.10.3.1.** The driveshaft of each diesel engine must be directly coupled to the driveshaft of any piece of equipment requiring a rotational, mechanical input.
- 3.10.3.2.** The drive coupling must be sized in accordance with the rated power output of the diesel engine.
- 3.10.3.3.** The drive coupling must minimize any misalignment between the driveshafts in running operation to ensure an efficient transmission of power.
- 3.10.3.4.** A shear section should be interposed between the driveshafts to protect the driven equipment from overload and possible damage.

3.11. RIGGING AND HOISTING

3.11.1. GENERAL CONSIDERATIONS

- 3.11.1.1.** The Boom Reel Skid must be designed to be lifted off the trailer bed and used independently of the rest of the system.
- 3.11.1.2.** The minimum safety factor of all hoisting points and the adjacent support structure must be at least 6-to-1; i.e., the ratio of the minimum breaking strength (MBS) to the working load limit (WLL). Design calculations supporting the safety factor of all rigging attachments must be stamped by a licensed Canadian engineer in good standing.

3.11.2. HOISTING POINTS

- 3.11.2.1.** The Boom Reel Skid must be fitted with a minimum of two, integral hoisting points to facilitate overhead lifting or use the ISO corner fittings on the Boom Reel Skid as hoisting points.
- 3.11.2.2.** For a given piece of an equipment, the Contractor must position each hoisting point:
- a) To uniformly distribute loading amongst all hoisting points; and
 - b) To give an unobstructed pathway to a single, overhead lifting point.
- 3.11.2.3.** All hoisting points on a given piece of equipment must be of equivalent size.
- 3.11.2.4.** All hoisting points must be tested and certified with a hard copy of the certifications provided with the operations and maintenance manual.

3.12. FABRICATION

3.12.1. WORKMANSHIP

- 3.12.1.1.** Each Boom Reel Trailer System must be constructed and finished with a high degree of workmanship:
- a) Surfaces must be free from blemishes, burrs, defects, irregularities, sharp edges, and other conditions that would be deleterious to the finished component;
 - b) Parts must be properly aligned to preclude any binding and deformation as a result of assembly or operation; and
 - c) All welds and coatings must be uniform, complete, and free of cracks, porosity, and scratches.

3.12.2. METAL WELDING

- 3.12.2.1.** All welds performed as part of this contract, and all entities performing welding, must meet all the requirements in Appendix A.

3.12.3. EQUIPMENT CARE AND PROTECTION

- 3.12.3.1.** All parts and equipment must be kept clean and protected against dust, moisture, rapid temperature changes, and foreign matter during manufacture, storage, pre-installation staging, assembly, installation, and post-installation.
- 3.12.3.2.** The Contractor must store, use and install all items as per manufacturer's requirements and recommendations.

3.13. MATERIALS

3.13.1. GENERAL CONSIDERATIONS

- 3.13.1.1.** All materials used in the System must:
- a) Be of marine-grade quality, unless otherwise specified, and inherently resist corrosion under the environmental conditions specified herein;
 - b) Limit the absorption of water and recovered oil products to facilitate cleaning after use;
 - c) Be chemically compatible with recovered oil products;
 - d) Be resistant to ultraviolet (UV) degradation;
 - e) Be selected to comply with the performance requirements specified herein;
 - f) Conform to the requirements defined in an internationally recognized standard, such as ASTM, ISO, or SAE Standards. Canada may request samples of any proposed material;

- g) Be sized to withstand the loading conditions that will be experienced during transportation, operation, and storage; and
- h) Not adversely affect the health of personnel when used for its intended purpose.

3.13.2. METAL ALLOYS

- 3.13.2.1.** Any chain supplied with the System must meet Grade 70 designation as per ASTM A413/A413M-07, Standard Specification for Carbon Steel Chain or an equivalent NACM standard.
- 3.13.2.2.** All carbon steel used in the System must be hot-dip galvanized as per ASTM A123M-15, Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products.
- 3.13.2.3.** Prior to hot-dip galvanizing any carbon steel, the material to be galvanized must be thoroughly cleaned of any foreign matter, debris, or slag from welding to ensure a clean galvanized finish. Unless otherwise specified, the Contractor must eliminate welding of parts to carbon steel that has already been galvanized.

3.13.3. ELASTOMERS

- 3.13.3.1.** All elastomeric materials in unassembled components and assemblies (including, but not limited to, gaskets and O-rings) must contain at least 90% of the authorized shelf-life as listed in ISO 2230:2002, Rubber Products – Guidelines for Storage, at the date of delivery to Canada, unless otherwise specified by Canada.

3.13.4. DISSIMILAR METALS

- 3.13.4.1.** Direct contact between dissimilar metals expected to cause galvanic corrosion must be avoided. If such contact cannot be avoided, an insulating material must be installed between the dissimilar metals to minimize the corrosive effect. The Contractor may propose alternative methods to minimize galvanic corrosion for consideration by Canada.

3.13.5. HAZARDOUS MATERIALS

- 3.13.5.1.** The Contractor must comply with the current version of the Hazardous Products Act of Canada concerning the use of hazardous materials, ozone depleting substances, polychlorinated biphenyls, asbestos, and heavy metals used in the manufacture and assembly of the product supplied.

3.14. FASTENERS, HARDWARE, AND LUBRICANTS

3.14.1. GENERAL CONSIDERATIONS

- 3.14.1.1.** Unless otherwise specified by Canada:
 - a) All fasteners, nuts, and similar hardware used by the Contractor must be galvanized carbon grade steel. The Contractor may propose high alloy or stainless steel(s) for consideration by Canada; and

- b) All threaded fasteners must be paired with a corresponding nylon-insert, lock nut to resist loosening due to shock and vibration loading.

3.14.1.2. Fasteners must be easily removable if the adjoining component requires removal or permits access for maintenance.

3.14.1.3. All threaded fasteners and associated hardware must conform to the dimensions and tolerances defined in an internationally recognized Standards, such as, but not limited to ASME, ASTM, ISO, or SAE Standards.

3.14.1.4. Threaded connections by tapping aluminum structural components are not permitted. Similarly, threaded connections by tapping steel structural components whose thickness is less than one bolt diameter, are not permitted. Where direct threading is required in these circumstances, helical coil, galvanically-compatible, threaded inserts must be used.

3.14.1.5. All nuts that will become inaccessible after fabrication must be captured (or anchored) to prevent them from backing off if the threaded fastener is later removed.

3.14.1.6. All threaded connections must be correctly torqued.

3.14.2. LUBRICANTS

3.14.2.1. The Trailer must be serviced with manufacturer's standard synthetic non-proprietary lubricants and fluids.

3.14.2.2. Lubrication fittings must conform to SAE J534 – Lubrication Fittings, or an equivalent North American Standard.

3.15. LABEL PLATES

3.15.1. GENERAL CONSIDERATIONS

3.15.1.1. The Contractor must supply and fit label plates to identify each control, switch, gauge, and display. Label plates must also be used to indicate safe working limits, maximum capacities, and masses, as applicable, of equipment.

3.15.1.2. Unless otherwise specified by Canada, all label plates must be made from aluminum. Label plates must be secured with reusable fasteners.

3.15.1.3. All label plates must:

- a) Be engraved to a suitable depth or using a suitable technique that will last a minimum of 15 years under typical use; and
- b) Be bilingual.

3.15.1.4. The content and arrangement of all label plates must be approved by the Technical Authority prior to installation.

3.15.2. PRODUCT IDENTIFIERS

3.15.2.1. The Contractor must supply and fit the following components of the System with a product identifier:

- a) Boom Reel Skid
- b) Trailer frame, near the Trailer capacity marked on the drawbar.

3.15.2.2. Each product identifier must:

- a) Use alphanumeric characters to indicate the name of the manufacturer, date of manufacture, and manufacturer serial number;
- b) Contain no spaces between the individual elements that compose the identifier; and
- c) Adhere to the following convention:
 - i. Use four uppercase letters that best represent the name of the manufacturer as the first element of the product identifier. Canada reserves the right to review, and accept or reject the first element proposed by the Contractor for self-identification.
 - ii. Use eight numeric digits that correspond to the following format for the second element of the product identifier: DDMMYYYY (where DD represents the two-digit day, MM represents the two-digit month, and YYYY represents the four-digit year.
 - iii. Use the full, alphanumeric serial number assigned by the manufacturer for the last element of the product identifier.

3.16. PAINTINGS AND COATINGS

3.16.1. GENERAL CONSIDERATIONS

3.16.1.1. The Trailer must be finished in a manner that is designed to protect the exterior surfaces from the environmental conditions specified in 3.1.2.

3.16.1.2. Unless otherwise specified by Canada:

- a) All metallic surfaces of the System must be cleaned and left unpainted (i.e., raw aluminum, stainless steel); and
- b) Any coating(s) on off-the-shelf products must be applied by the OEM.

3.17. SHIPPING AND DELIVERY

3.17.1. GENERAL CONSIDERATIONS

3.17.1.1. Prior to shipping, the Contractor must:

- a) Thoroughly clean all items to remove foreign matter;

- b) Thoroughly dry all items to remove residual cleaning solution(s) or moisture;
- c) Clean, dry, and preserve items in a manner that does not damage the item, impair its function, or void the implied or expressed manufacturer warranty; and
- d) Cushion, brace, and block (as required) all items within the System to prevent possible damage during shipment, with the use of loose fill materials (e.g., shredded paper) for cushioning, fill, stuffing, and dunnage prohibited.

3.17.1.2. The System must only be delivered under tow if the total distance doesn't exceed 800 kilometres (km). If the distance exceeds 800 km the Contractor must find other means of transportation.

3.17.2. MAJOR EQUIPMENT

3.17.2.1. Each diesel engine, hydraulic pump, and hydraulic motor must be preserved (in accordance with OEM recommendations) for storage up to one year in an environment that will be subjected to temperatures below 0°C. For each Boom Reel Trailer System, this one year period commences upon delivery.

3.17.2.2. Each fuel tank must be full and treated with an off-the-shelf fuel stabilizer.

3.17.2.3. Battery cables must be disconnected from their terminals and secured to prevent accidental re-contact with the battery terminals during shipping. All battery terminals must be coated in di-electric grease.

3.17.2.4. Each inlet and outlet opening of all major equipment defined in 3.17.2.1 must be appropriately sealed to protect against the ingress of foreign matter.

3.17.3. HOSE ASSEMBLIES AND FITTINGS

3.17.3.1. All hose assemblies must be neatly coiled.

3.17.3.2. Each coil must be uniform, compact, and of a diameter that prevents deformation or kinking of the hose.

3.17.3.3. Each coil must be secured approximately equidistance in a minimum of three places.

3.17.3.4. The free ends of each hose assembly must be sealed with the appropriate plug or cap to protect against the ingress of foreign matter.

3.18. DOCUMENTATION

3.18.1. GENERAL CONSIDERATIONS

3.18.1.1. The Equipment Operating Illustrations as per DID-TM-04 supplied with the Boom Reel Trailer System must be secured to the inside of the storage box and be waterproof to withstand a marine environment (for example, laminated pages or specialized paper). The Contractor may propose various waterproofing solutions for consideration by Canada.

- 3.18.1.2.** At a minimum, the Operation and Maintenance Manual as per DID-TM-01 must be stored in the dedicated aluminum provision (as per Section 3.4.1.5) within the storage box following acceptance by Canada.

Appendix A - Welding and Weld Examination

Steel – Weld Procedure and Welding Personnel Qualification Requirements

The contractor or subcontractors performing the welding of steel must meet one of the following requirements for qualification of welding procedures and welding personnel – welding supervisors, welders and tack welders:

1. Certification by the Canadian Welding Bureau (CWB) to CSA Standard W47.1-2019 Division 1, 2 or 3.
2. Certification by an International Institute of Welding (IIW) Authorized National Body for Company Certification (ANBCC) to ISO Standard 3834 – 1, 2 or 3.
3. Third party accredited organization administration of American Welding Society (AWS) D1.1: 2015– Structural Welding Code Steel

Aluminum – Weld Procedure and Welding Personnel Qualification Requirements

The contractor or subcontractors performing the welding of aluminum must meet one of the following requirements for qualification of welding procedures and welding personnel – welding supervisors, welders and tack welders:

1. Certification by the Canadian Welding Bureau (CWB) to CSA Standard W47.2-2011 (R2015) Division 1, 2 or 3.
2. Certification by an International Institute of Welding (IIW) Authorized National Body for Company Certification (ANBCC) to ISO Standard 3834 – 1, 2 or 3.
3. Third party accredited organization administration of American Welding Society (AWS) D1.2: 2014 – Structural Welding Code Aluminum

Welding Engineer – Steel and Aluminum

The contractor or subcontractors performing the welding of steel and/or aluminum must employ or retain the services of a Welding Engineer responsible for weld design, procedures, workmanship and technique. The individual must be accredited as a Welding Engineer by one of the following authorized third party administrative organizations:

1. Canadian Welding Bureau (CWB).
2. International Institute of Welding (IIW) Authorized National Body for Company Certification (ANBCC).

Weld Design – Steel and Aluminum

The design of welded connections must be included in the fabrication drawings and display the Contractor's accredited Welding Engineer's stamp of acceptance.

Unless otherwise agreed to by the Canadian Coast Guard Technical Authority (CCG TA), all welds in butt joints must be complete joint penetration and all fillet welds must be double continuous.

Weld design, effective throat for butt joints and throat and leg length for fillet welds, will be as indicated on the stamped fabrication drawing (s).

Welding must only be carried out following the Welding Engineer's approved design of welded connections.

Welding Procedures – Steel and Aluminum

Welding must only be carried out following welding specifications and supporting weld procedure data sheets displaying the acceptance stamp of the Contractor's accredited Welding Engineer. In addition the weld procedure data sheets must display the stamp of the CWB's procedures department where required by the CSA Standards for company certification by the CWB.

The welding specifications and weld procedure data sheets planned to be used in production must be given to the CCG TA at the kick-off meeting. Welding specifications and weld procedure data sheets developed after the kick-off meeting must be submitted to the CCG TA a minimum of one (1) week prior to their use for welding operations.

Welding specifications and weld procedure data sheets only containing the stamp of the Contractor's Welding Engineer and not containing the stamp of the CWB's procedures department must be supported by Procedure Qualification Records (PQRs).

Welding Personnel – Steel and Aluminum

Welding must only be conducted by currently qualified individuals.

Welder performance qualification cards and government issued photo ID must be filed with the CCG TA prior to performing any welding work.

Workmanship – Steel and Aluminum

Fitted tolerances, preheat and other related workmanship and technique items must meet the requirements of Clause 5 of CSA Standards W59-2018 for steel and W59.2-2018 for aluminum.

Weld Inspection Requirements – Steel and Aluminum

All welds must be visually examined their entire length by an independent 3rd party supplied by the CCG. CCG supplied 3rd party inspectors will be certified Level 2 or 3 to CSA Standard W178.2:18 or AWS QC1.

Safe access must be given to the CCG TA and third party inspector (s) by the Contractor. Visual examination of welds must follow procedures that are generally compliant with the established requirements of ASME BPVC-V-2019, Article 9. Where the lighting, viewing distance and viewing angle requirements for direct visual examination can't be met, then remote or translucent visual examination following the requirements of ASME BPVC-V-2019, Article 9 must be used by the third party inspector with the express consent of the CCG TA.

Visual examination of welds must occur in the as-welded condition after removing slag, spatter, magnesium oxide smut and wire brushing. Weld profiles must not be altered by any means prior to visual examination and fairing compounds, fillers, primers and/or paints must not be applied to the visible surfaces of welds prior to visual examination.

The acceptance standards for visual examination is as follows:

- Weld toes must blend smoothly into the base metal at each side of the weld.
- There must be no overlap, no undercut, no visible porosity, no cracks, no visible fusion faults.
- Welds must not have undersized leg lengths or throat sizes
- Fillet welds must not have leg lengths or throat sizes greater than 2 mm of the required amount.
- Convexity for fillet welds must not exceed 2 mm.
- Excess weld metal for groove welds in butt joints must not exceed 3 mm.

- Craters must be filled with weld metal.

A copy of the visual inspector's qualification card as well as the written visual examination procedure to be followed must be filed with the CCG TA prior to any examinations taking place.

A formal report must be provided by the third party inspector to the CCG TA indicating acceptance or rejection of the welds to the acceptance criterion herein prior to scheduling CCG TA acceptance examinations.

Welds not meeting the acceptance standards for visual examination specified herein must not be repaired without the express consent of the CCG TA.

The contractor is solely responsible for the repair of welds not meeting the acceptance standards for visual examination specified herein.

A weld that is found to be unacceptable in accordance with the acceptance criterion herein, must not be repaired more than twice.

If the second repair attempt fails, the affected material and welds must be removed and new material fitted and welded to the original requirements of this Specification.

The CCG TA will at its discretion engage the CWB to perform welding audits of the Contractor at the place where welding work takes place at a frequency deemed necessary by the CCG TA. As a minimum, welding audits will take place prior to the start of welding, during welding and on the completion of welding.

ANNEX “C”

TASK AUTHORIZATION FORM PWGSC-TPSGC 572

Task Authorization Autorisation de tâche

Instruction for completing the form PWGSC - TPSGC 572 - Task Authorization <i>(Use form DND 626 for contracts for the Department of National Defence)</i>	Instruction pour compléter le formulaire PWGSC - TPSGC 572 - Autorisation de tâche <i>(Utiliser le formulaire DND 626 pour les contrats pour le ministère de la Défense)</i>
Contract Number Enter the PWGSC contract number.	Numéro du contrat Inscrire le numéro du contrat de TPSGC.
Contractor's Name and Address Enter the applicable information	Nom et adresse de l'entrepreneur Inscrire les informations pertinentes
Security Requirements Enter the applicable requirements	Exigences relatives à la sécurité Inscrire les exigences pertinentes
Total estimated cost of Task (Applicable taxes extra) Enter the amount	Coût total estimatif de la tâche (Taxes applicables en sus) Inscrire le montant
For revision only	Aux fins de révision seulement
TA Revision Number Enter the revision number to the task, if applicable.	Numéro de la révision de l'AT Inscrire le numéro de révision de la tâche, s'il y a lieu.
Total Estimated Cost of Task (Applicable taxes extra) before the revision Enter the amount of the task indicated in the authorized TA or, if the task was previously revised, in the last TA revision.	Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision Inscrire le montant de la tâche indiquée dans l'AT autorisée ou, si la tâche a été révisée précédemment, dans la dernière révision de l'AT.
Increase or Decrease (Applicable taxes extra), as applicable As applicable, enter the amount of the increase or decrease to the Total Estimated Cost of Task (Applicable taxes extra) before the revision.	Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu S'il y a lieu, inscrire le montant de l'augmentation ou de la réduction du Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision.
1. Required Work: Complete sections A, B, C, and D, as required.	1. Travaux requis : Remplir les sections A, B, C et D, au besoin.
A. Task Description of the Work required: Complete the following paragraphs, if applicable. Paragraph (a) applies only if there is a revision to an authorized task.	A. Description de tâche des travaux requis : Remplir les alinéas suivants, s'il y a lieu : L'alinéa (a) s'applique seulement s'il y a une révision à une tâche autorisée.
<p>(a) Reason for revision of TA, if applicable: Include the reason for the revision; i.e. revised activities; delivery/completion dates; revised costs. Revisions to TAs must be in accordance with the conditions of the contract. See Supply Manual 3.35.1.50 or paragraph 6 of the Guide to Preparing and Administering Task Authorizations.</p>	<p>(a) Motif de la révision de l'AT, s'il y a lieu : Inclure le motif de la révision c.-à.-d., les activités révisées, les dates de livraison ou d'achèvement, les coûts révisés. Les révisions apportées aux AT doivent respecter les conditions du contrat. Voir l'article 3.35.1.50 du Guide des approvisionnements ou l'alinéa 6 du Guide sur la préparation et l'administration des autorisations de tâches.</p>
<p>(b) Details of the activities to be performed (include as an attachment, if applicable)</p>	<p>(b) Détails des activités à exécuter (joindre comme annexe, s'il y a lieu).</p>
<p>(c) Description of the deliverables to be submitted (include as an attachment, if applicable).</p>	<p>(c) Description des produits à livrer (joindre comme annexe, s'il y a lieu).</p>
<p>(d) Completion dates for the major activities and/or submission dates for the deliverables (include as an attachment, if applicable).</p>	<p>(d) Les dates d'achèvement des activités principales et (ou) les dates de livraison des produits (joindre comme annexe, s'il y a lieu).</p>

B. Basis of Payment:

Insert the basis of payment or bases of payment that form part of the contract that are applicable to the task description of the work; e.g. firm lot price, limitation of expenditure, firm unit price

C. Cost of Task:

Insert Option 1 or 2:

Option 1:

Total estimated cost of Task (Applicable taxes extra): Insert the applicable cost elements for the task determined in accordance with the contract basis of payment; e.g. Labour categories and rates, level of effort, Travel and living expenses, and other direct costs.

Option 2:

Total cost of Task (Applicable taxes extra): Insert the firm unit price in accordance with the contract basis of payment and the total estimated cost of the task.

D. Method of Payment

Insert the method(s) of payment determined in accordance with the contract that are applicable to the task; i.e. single payment, multiple payments, progress payments or milestone payments. For milestone payments, include a schedule of milestones.

B. Base de paiement :

Insérer la base ou les bases de paiement qui font partie du contrat qui sont applicables à la description du travail à exécuter : p. ex., prix de lot ferme, limitation des dépenses et prix unitaire ferme.

C. Coût de la tâche :

Insérer l'option 1 ou 2

Option 1 :

Coût total estimatif de la tâche (Taxes applicables en sus) Insérer les éléments applicables du coût de la tâche établies conformément à la base de paiement du contrat. p. ex., les catégories de main d'œuvre, le niveau d'effort, les frais de déplacement et de séjour et autres coûts directs.

Option 2 :

Coût total de la tâche (Taxes applicables en sus) : Insérer le prix unitaire ferme conformément à la base de paiement du contrat et le coût estimatif de la tâche.

D. Méthode de paiement

Insérer la ou les méthode(s) de paiement établit conformément au contrat et qui sont applicable(s) à la tâche; c.-à.-d., paiement unique, paiements multiples, paiements progressifs ou paiements d'étape. Pour ces derniers, joindre un calendrier des étapes.

2. Authorization(s):

The client and/or PWGSC must authorize the task by signing the Task Authorization in accordance with the conditions of the contract. The applicable signatures and the date of the signatures is subject to the TA limits set in the contract. When the estimate of cost exceeds the client Task Authorization's limits, the task must be referred to PWGSC.

3. Contractor's Signature

The individual authorized to sign on behalf of the Contractor must sign and date the TA authorized by the client and/or PWGSC and provide the signed original and a copy as detailed in the contract.

2. Autorisation(s) :

Le client et (ou) TPSGC doivent autoriser la tâche en signant l'autorisation de tâche conformément aux conditions du contrat. Les signatures et la date des signatures appropriées sont assujetties aux limites d'autorisation de tâche établies dans le contrat. Lorsque l'estimation du coût dépasse les limites d'autorisation de tâches du client, la tâche doit être renvoyée à TPSGC.

3. Signature de l'entrepreneur

La personne autorisée à signer au nom de l'entrepreneur doit signer et dater l'AT, autorisée par le client et (ou) TPSGC et soumettre l'original signé de l'autorisation et une copie tel que décrit au contrat.



Task Authorization Autorisation de tâche

Contract Number - Numéro du contrat

Contractor's Name and Address - Nom et l'adresse de l'entrepreneur	Task Authorization (TA) No. - N° de l'autorisation de tâche (AT)
	Title of the task, if applicable - Titre de la tâche, s'il y a lieu
	Total Estimated Cost of Task (Applicable taxes extra) Coût total estimatif de la tâche (Taxes applicables en sus) \$

Security Requirements: This task includes security requirements
Exigences relatives à la sécurité : Cette tâche comprend des exigences relatives à la sécurité

☐ No - Non ☐ Yes - Oui If YES, refer to the Security Requirements Checklist (SRCL) included in the Contract
Si OUI, voir la Liste de vérification des exigences relative à la sécurité (LVERS) dans le contrat

For Revision only - Aux fins de révision seulement

TA Revision Number, if applicable Numéro de révision de l'AT, s'il y a lieu	Total Estimated Cost of Task (Applicable taxes extra) before the revision Coût total estimatif de la tâche (Taxes applicables en sus) avant la révision \$	Increase or Decrease (Applicable taxes extra), as applicable Augmentation ou réduction (Taxes applicables en sus), s'il y a lieu \$
--	--	---

Start of the Work for a TA : Work cannot commence until a TA has been authorized in accordance with the conditions of the contract.

Début des travaux pour l'AT : Les travaux ne peuvent pas commencer avant que l'AT soit autorisée conformément au contrat.

1. Required Work: - Travaux requis :

A. Task Description of the Work required - Description de tâche des travaux requis	See Attached - Ci-joint <input type="checkbox"/>
--	--

B. Basis of Payment - Base de paiement	See Attached - Ci-joint <input type="checkbox"/>
--	--

C. Cost of Task - Coût de la tâche	See Attached - Ci-joint <input type="checkbox"/>
------------------------------------	--

D. Method of Payment - Méthode de paiement	See Attached - Ci-joint <input type="checkbox"/>
--	--

Contract Number - Numéro du contrat

2. Authorization(s) - Autorisation(s)

By signing this TA, the authorized client and (or) the PWGSC Contracting Authority certify(ies) that the content of this TA is in accordance with the conditions of the contract.

The client's authorization limit is identified in the contract. When the value of a TA and its revisions is in excess of this limit, the TA must be forwarded to the PWGSC Contracting Authority for authorization.

En apposant sa signature sur l'AT, le client autorisé et (ou) l'autorité contractante de TPSGC atteste(nt) que le contenu de cette AT respecte les conditions du contrat.

La limite d'autorisation du client est précisée dans le contrat. Lorsque la valeur de l'AT et ses révisions dépasse cette limite, l'AT doit être transmise à l'autorité contractante de TPSGC pour autorisation.

Name and title of authorized client - Nom et titre du client autorisé à signer

Signature

Date

PWGSC Contracting Authority - Autorité contractante de TPSGC

Signature

Date

3. Contractor's Signature - Signature de l'entrepreneur

Name and title of individual authorized - to sign for the Contractor
Nom et titre de la personne autorisée à signer au nom de l'entrepreneur

Signature

Date

ANNEX 1 to PART 3 OF THE BID SOLICITATION

ELECTRONIC PAYMENT INSTRUMENTS

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

- ☐ VISA Acquisition Card;
- ☐ MasterCard Acquisition Card;
- ☐ Direct Deposit (Domestic and International);
- ☐ Electronic Data Interchange (EDI);
- ☐ Wire Transfer (International Only).

ANNEX 2 to PART 3 OF THE BID SOLICITATION

BIDDER'S CHECKLIST

This checklist is included in the bid solicitation to assist Bidders in the preparation of their bid. Before submitting their bid, Bidders should use this checklist to help ensure all mandatory documentation and/or information are provided prior to bid closing.

Bidders must note that the checklist is a tool and does not remove any obligation on the Bidder to complete the requirements of the bid solicitation, including those which may not be listed in this checklist. The onus is on the Bidder to provide any of the mandatory documentation and/or information indicated in the bid solicitation as failure to do so will render the bid non-responsive without any further consideration.

Bidders are not required to provide this checklist with their bid.

	Bid Solicitation Reference	Documentation / Information to be provided with the Bid	Comments	Included with the Bid
1.	2003 Standard Instructions - Goods or Services - Competitive Requirements	Cover Page of the Request For Proposals and all Amendments are signed and included with the Bid.	Best practice	
2.	Article 2.3 Former Public Servant	Certification with requested information, if applicable.	Best practice	
3.	Article 2.5 Applicable Laws	Certification with requested information, if applicable.	Best practice	
4.	Article 3.1.1 Bid Structure	Canada requests that Bidders provide their bid in separately bound sections; Technical Bid, Financial Bid, Certifications	Best practice	
5.	Article 3.1.3.1 Substantial Information	Bidders should provide with their technical bid, a document indicating clearly where the substantial information can be found for each of the mandatory criterion identified in the Technical Bid Evaluation Plan (Annex 1 to Part 4 of the Bid Solicitation).	Best practice	
6.	Article 3.1.4.1 Pricing Submission	Bidders must submit their financial bid in accordance with Schedule A and address each of the cost elements in Schedule A	Mandatory with the bid.	
7.	Article 3.1.4.4 Delivery Dates	Bidders must submit their delivery dates in accordance with Schedule A.	Mandatory with the bid	
8.	Article 4.1.1.2 Phase I: Financial Bid	Bid must include all information required by the solicitation.	Mandatory with the bid	
9.	Article 4.1.1.3 Phase II: Technical Bid	Bid must include all information required by the solicitation.	Mandatory with the bid	
10.	Article 5.1.1 Integrity Provisions - Declaration of Convicted Offences	Bidder must provide with its bid, if applicable, the Integrity declaration form.	Mandatory with the bid, if applicable.	

11.	Article 5.2.1 Integrity Provisions - Required Documentation	Bidder must provide required information, as applicable.	Not mandatory by bid closing. Must be provided prior to contract award.	
12.	Article 5.2.2 Federal Contractors Program for Employment Equity	Submit a completed Annex 1 to Part 5 of the Bid Solicitation.	Not mandatory by bid closing. Must be provided prior to contract award.	
13.	Article 5.2.3 Certification of Compliance	Bidder must submit a signed and completed Certification of Compliance (Annex 2 to Part 4 of the Bid Solicitation)	Requested with the bid but not mandatory. Must be provided prior to contract award.	
14.	Article 5.2.4 Insurance	Bidder must submit required information as applicable	Requested with the bid but not mandatory. Must be provided prior to contract award.	
15.	Article 5.2.6 Welding Certification	Bidder must submit required information as applicable	Requested with the bid but not mandatory. Must be provided prior to contract award.	
16.	Article 7.5.3 Contractor's Representative	Bidders should include Contractor Representative contact information`.	Best practice.	

Annex 1 to Part 4 of the Bid Solicitation
Technical Bid Evaluation Plan

**Environmental Response Equipment Modernization/
Mobile Incident Command Equipment Project**

Trailer – Equipment – Boom Reel Trailer System

Table of Contents

SECTION 1	INTRODUCTION	3
1.1.	PURPOSE.....	3
SECTION 2	TECHNICAL BID SUBMISSION GUIDELINES.....	4
2.1	GENERAL CONSIDERATIONS	4
2.2	GUIDELINES FOR APPENDIX A – MANDATORY CRITERIA – PART 1 OF 2	4
2.3	GUIDELINES FOR APPENDIX A – MANDATORY CRITERIA – PART 2 OF 2	5
APPENDIX A	MANDATORY CRITERIA – PART 1 OF 2	6
APPENDIX A	MANDATORY CRITERIA – PART 2 OF 2	7

SECTION 1 INTRODUCTION

1.1. PURPOSE

This document defines the methodology that will be used to evaluate the technical portion of each Bid submitted in response to the Solicitation for the procurement of the Boom Reel Trailer System(s).

SECTION 2 TECHNICAL BID SUBMISSION GUIDELINES

2.1 GENERAL CONSIDERATIONS

- 2.1.1 By submitting a Bid, the Bidder certifies that it meets all of the requirements of the Solicitation, including those identified in the Statement of Work (SOW) and Technical Statement of Requirements (TSOR).
- 2.1.2 The technical portion of the Bid will be evaluated against the following mandatory criteria (M) specified in:
- a) Appendix A – Mandatory Criteria – **Part 1 of 2, M1 to M2**, inclusive; and
 - b) Appendix A – Mandatory Criteria – **Part 2 of 2, M3 to M5**, inclusive.
- 2.1.3 Mandatory criteria will only be evaluated on a Compliant or Non-Compliant basis.
- 2.1.4 Any Bid that fails to meet **ALL** mandatory criteria will be deemed unresponsive and given no further consideration. Bids that do satisfy all mandatory criteria will undergo financial evaluation by the Contracting Authority.
- 2.1.5 Canada will not make any assumptions regarding unclear or incomplete responses. Canada will only evaluate documentation provided as part of the Bid submission. Canada will not evaluate information such as references to Web site addresses where additional information can be found, or technical manuals or brochures not submitted with the Bid.

2.2 GUIDELINES FOR APPENDIX A – MANDATORY CRITERIA – PART 1 OF 2

- 2.2.1 The method of compliance for all mandatory criteria found in Appendix A – Mandatory Criteria – Part 1 of 2 is a **Certificate of Compliance (Annex 2 to Part 4 of the Bid Solicitation)**. The Certificate of Compliance is an attestation from the Bidder that the goods and services being proposed satisfy the requirements and, subsequently, that the goods and services to be delivered against the Contract will comply with these same requirements. The Bidder must provide the signed **Certificate of Compliance (Annex 2 to Part 4 of the Bid Solicitation)** as part of the Bid submission.
- 2.2.2 The Bidder's authorized representative must initial in the 'Initials' column for each mandatory requirement found in Appendix A – Mandatory Criteria – Part 1 of 2.
- 2.2.3 The Bidder must respond with a 'Yes' or 'No' in the 'Compliant (Y/N)?' column for each mandatory requirement found in Appendix A – Mandatory Criteria – Part 1 of 2.
- 2.2.4 Failure to provide a Certificate of Compliance and initial any given criterion will render that criterion Non-Compliant.
- 2.2.5 The following line item example is provided to demonstrate how to populate Appendix A – Mandatory Criteria – Part 1 of 2.

TECHNICAL BID EVALUATION PLAN
Technical Bid Submission Guidelines

Item No.	Mandatory Requirement	Contract Reference	Method of Compliance	Compliant (Yes/No)?	Initials	Bid Cross-Reference
M1	All requirements stipulated in Annex A (Statement of Work) will be met.	Annex A (SOW)	The Bid must include a Certificate of Compliance (Annex 2 of Part 4 of the Bid Solicitation) signed by an authorized representative.	<i>Yes</i>	<i>JD</i>	<i>P.5 of the Bid</i>

2.3 GUIDELINES FOR APPENDIX A – MANDATORY CRITERIA – PART 2 OF 2

- 2.3.1** Various methods of compliance are listed in Appendix A – Mandatory Criteria –Part 2 of 2. The Bidder must carefully read the requested method(s) of compliance, as each method of compliance may differ between the mandatory criteria.
- 2.3.2** For a given criterion, the Bidder must provide ALL information requested to sufficiently demonstrate compliance, and cross-reference the appropriate location(s) within the Bid where such information can be found.
- 2.3.3** The Bidder’s authorized representative must initial in the ‘Initials’ column for each mandatory requirement found in Appendix A – Mandatory Criteria – Part 2 of 2
- 2.3.4** The Bidder must respond with a ‘Yes’ or ‘No’ in the ‘Compliant (Y/N)?’ column for each mandatory requirement found in Appendix A – Mandatory Criteria – Part 2 of 2.
- 2.3.5** Failure to provide the requested information as per the defined method(s) of compliance and initial any given criterion will render that criterion Non-Compliant.
- 2.3.6** The following fictitious line item example is provided to demonstrate how to populate Appendix A – Mandatory Criteria – Part 2 of 2.

Item No.	Mandatory Requirement	Contract Reference	Method of Compliance	Compliant (Y/N)?	Initials	Bid Cross-Reference
M7	The proposed Boom Reel Trailer System must satisfy the defined design and construction requirements.	Annex B (TSOR)	The Bid must include a conceptual design drawing package for the proposed Boom Reel Trailer System that demonstrates compliance with the requirements detailed in Annex B.	<i>Yes</i>	<i>JD</i>	<i>Section 4 – p.88-90 of the Bid</i>

TECHNICAL BID EVALUATION PLAN
Mandatory Criteria – Part 1 of 2

APPENDIX A MANDATORY CRITERIA – PART 1 OF 2

Item No.	Mandatory Requirement	Contract Reference	Method of Compliance	Compliant (Y/N)	Initials	Bid Cross-Reference
M1	All requirement stipulated in Annex A (Statement of Work) will be met.	Annex A (SOW)	The Bid must include a Certificate of Compliance (Annex 2 of Part 4 of the Bid Solicitation) signed by an authorized representative.			
M2	All requirements stipulated in Annex B (Technical Statement of Requirements) will be met.	Annex B (TSOR)	The Bid must include a Certificate of Compliance (Annex 2 of Part 4 of the Bid Solicitation) signed by an authorized representative.			

October,
2019

TECHNICAL BID EVALUATION PLAN
Mandatory Criteria – Part 2 of 2

APPENDIX A MANDATORY CRITERIA – PART 2 OF 2

Item No.	Mandatory Requirement	Contract Reference	Item No.	Method of Compliance	Compliant (Y/N)?	Initials	Bid Cross-Reference
M3	<p>Within the same one (1) year (i.e. consecutive 12 month) period since January 2010, the entity or entities performing the manufacturing and integration* of the trailer portion of the Boom Reel Trailer Systems (Section 3.3. of the TSOR) must have delivered at least 5 tandem axle trailers with a Gross Vehicle Weight Rating (GVWR) of a minimum of 3000 kg.</p> <p><i>* Assembly of manufactured components in order to create the complete system.</i></p>	Proven Experience and Capacity	M3 (i)	The Bid must include copies of invoices that clearly indicates the quantity and the date of sale/delivery of the trailers.			
			M3 (ii)	The date stated on each invoice supplied as per M3 (i) must be within the same one (1) year (i.e. consecutive 12 month) period since January 2010.			
M4	<p>Within the same one (1) year (i.e. consecutive 12 month) period since January 2010, the entity or entities performing the manufacturing and integration* of the boom reel skid portion (Section 3.5-3.6 of the TSOR) of the Boom Reel Trailer Systems must have delivered at least 3 hydraulic boom reels with a minimum capacity of 500 lbs.</p> <p><i>* Assembly of manufactured components in order to create the complete system.</i></p>	Proven Experience and Capacity	M4 (i)	The Bid must include copies of invoices that clearly indicates the quantity and the date of sale/delivery of the hydraulic boom reels.			
			M4 (ii)	The date stated on each invoice supplied as per M4 (i) must be within the same one (1) year (i.e. consecutive 12 month) period since January 2010.			
			M4 (iii)	For at least one of the boom reels indicated as per M4 (i), the Bid must include drawings of the hydraulic boom reel system.			

TECHNICAL BID EVALUATION PLAN
Mandatory Criteria – Part 2 of 2

Item No.	Mandatory Requirement	Contract Reference	Item No.	Method of Compliance	Compliant (Y/N)?	Initials	Bid Cross-Reference
				Drawings must show the reel and power unit. Each drawing must: a) Be submitted as a high-resolution PDF b) Include dimensions; c) Include units of measure.			
M5	Since January 2010, the entity or entities performing the manufacturing and integration* of the Boom Reel Trailer Systems must have delivered at least 1 tandem axle trailer with a Gross Vehicle Weight Rating (GVWR) of a minimum of 3000 kg, equipped with a hydraulically powered system such as a crane or reel. * <i>Assembly of manufactured components in r to create the complete system.</i>	Proven Experience	M5 (i)	The Bid must include copies of invoices that clearly indicates the quantity and the date of sale/delivery of the trailers.			
			M5 (ii)	The date stated on each invoice supplied as per M5 (i) must be on or after January 2010.			
			M5 (iii)	For at least one of the trailers indicated as per M5 (i), the Bid must include pictures or drawings of the tandem axle trailer with a hydraulically powered system. Each picture must: a) Be submitted as a high-resolution PDF b) Include a statement regarding dimensions and units of measure. Each drawing must: a) Be submitted as a high-resolution PDF b) Include dimensions; c) Include units of measure.			

**ANNEX “2” TO PART 4 OF THE BID SOLICITATION
CERTIFICATION OF COMPLIANCE**

As a Bidder, we have been given the opportunity to provide feedback on the content of the technical requirements for the Boom Reel Trailer System(s) procurement (Solicitation F7047-190090/A).

We have also thoroughly reviewed and understood the requirements of the complete Solicitation.

By signing this “Certification of Compliance”, we certify that we will satisfy the requirements for which this certificate was required as proof of compliance during the Request for Proposals stage, and that our products and services to be delivered against the resulting contract will comply with these same requirements.

Company Name of the Bidder: _____

Name of Bidder’s Authorized Representative: _____

Signature of Bidder’s Designated Authority: _____

Date: _____

ANNEX “1” to PART 5 OF THE BID SOLICITATION

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)