

**RETURN BIDS TO:
RETOURNER LES SOUMISSIONS À:**
**Bid Receiving Public Works and Government
Services Canada/Réception des soumissions
Travaux publics et Services gouvernementaux
Canada**
Pacific Region
401 - 1230 Government Street
Victoria, B.C.
V8W 3X4
Bid Fax: (250) 363-3344

REQUEST FOR PROPOSAL DEMANDE DE PROPOSITION

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

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

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

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

Comments - Commentaires

| | |
|---|---|
| Title - Sujet SUPPLY & INSTALL PIPE | |
| Solicitation No. - N° de l'invitation F1782-13C721/B | Date 2013-10-25 |
| Client Reference No. - N° de référence du client F1782-13C721 | |
| GETS Reference No. - N° de référence de SEAG PW-\$VIC-210-6348 | |
| File No. - N° de dossier VIC-3-36081 (210) | CCC No./N° CCC - FMS No./N° VME |
| Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2013-11-18 | Time Zone Fuseau horaire Pacific Standard Time PST |
| 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: Buchan, Torrey | Buyer Id - Id de l'acheteur vic210 |
| Telephone No. - N° de téléphone (250) 363-3249 () | FAX No. - N° de FAX (250) 363-0395 |
| Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: DEPARTMENT OF FISHERIES AND OCEANS IOS VICTORIA 9860 WEST SAANICH RD. VICTORIA, BC V8L 4B2 | |

Instructions: See Herein

Instructions: Voir aux présentes

Vendor/Firm Name and Address

**Raison sociale et adresse du
fournisseur/de l'entrepreneur**

Issuing Office - Bureau de distribution

Public Works and Government Services Canada - Pacific
Region
401 - 1230 Government Street
Victoria, B. C.
V8W 3X4

| | |
|--|--|
| 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

1. Security Requirement
2. Statement of Work
3. Debriefings

PART 2 - BIDDER INSTRUCTIONS

1. Standard Instructions, Clauses and Conditions
2. Submission of Bids
3. Enquiries - Bid Solicitation
4. Applicable Laws
5. Optional Site Visit
6. Former Public Servant

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

1. Evaluation Procedures
2. Basis of Selection

PART 5 - CERTIFICATIONS

1. Mandatory Certifications Required Precedent to Contract Award

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement
2. Statement of Work
3. Standard Clauses and Conditions
4. Term of Contract
5. Authorities
6. Proactive Disclosure of Contracts with Former Public Servants
7. Payment
8. Invoicing Instructions
9. Certifications
10. Applicable Laws
11. Priority of Documents
12. Insurance Requirements

List of Annexes:

| | |
|---------|------------------------|
| Annex A | Requirement |
| Annex B | Basis of Payment |
| Annex C | Insurance Requirements |
| Annex D | Site Plan & Photos |

PART 1 - GENERAL INFORMATION

1. Security Requirement

There is no security requirement associated with this bid solicitation.

2. Statement of Work

The Work to be performed is detailed under Article 2 of the resulting contract clauses.

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 of receipt of the results of the bid solicitation process. The debriefing may be in writing, by telephone or in person.

PART 2 - BIDDER INSTRUCTIONS

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>) 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 (2013-06-01) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

2. Submission of Bids

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

3. Enquiries - Bid Solicitation

All enquiries must be submitted in writing to the Contracting Authority no later than seven (7) 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 questions or may request that the Bidder do so, so that the proprietary nature of the question is eliminated, and the enquiry can be answered with copies to all bidders. Enquiries not submitted in a form that can be distributed to all bidders may not be answered by Canada.

4. Applicable Laws

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

Bidders may, at their discretion, substitute the applicable laws of a Canadian province or territory of their choice without affecting the validity of their bid, by deleting the name of the Canadian province or

territory specified and inserting the name of the Canadian province or territory of their choice. If no change is made, it acknowledges that the applicable laws specified are acceptable to the bidders.

5. Optional Site Visit

It is recommended that the Bidder or a representative of the Bidder visit the work site. Arrangements have been made for a tour of the work site. The site visit will be held on Thursday, November 7th at 11AM. Bidders are requested to communicate with the Contracting Authority one (1) day before the scheduled visit to confirm attendance and provide the names of the persons who will attend. Bidders may be requested to sign an attendance form. Bidders who do not attend or send a representative will not be given an alternative appointment but they will not be precluded from submitting a bid. Any clarifications or changes to the bid solicitation resulting from the site visit will be included as an amendment to the bid solicitation.

6. 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 with FPS, bidders must provide the information required below before contract award.

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 FPS 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.

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.

PART 3 - BID PREPARATION INSTRUCTIONS

1. Bid Preparation Instructions

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

Section I: Technical Bid - Two hard copies
 Section II: Financial Bid - One hard copy
 Section III: Certifications - One hard copy

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

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

- (a) use 8.5 x 11 inch (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

(<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, bidders should:

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

Section I: Technical Bid

In their technical bid, bidders should explain and demonstrate how they propose to meet the requirements and how they will carry out the Work.

Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment. The total amount of Applicable Taxes must be shown separately.

1.1 Exchange Rate Fluctuation

C3011T (2010-01-11), Exchange Rate Fluctuation

Section III: Certifications

Bidders must submit the certifications required under Part 5.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

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.

1.1 Financial Evaluation

SACC Manual Clause A0220T (2013-04-25), Evaluation of Price

2. Basis of Selection

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

PART 5 - CERTIFICATIONS

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

The certifications provided by bidders to Canada are subject to verification by Canada at all times. Canada will declare a bid non-responsive, or will declare a contractor in default, if any certification made by the Bidder is found to be untrue whether 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 with this request will also render the bid non-responsive or will constitute a default under the Contract.

1. Mandatory Certifications Required Precedent to Contract Award

1.1 Code of Conduct and Certifications - Related documentation

By submitting a bid, the Bidder certifies that the Bidder and its affiliates are in compliance with the provisions as stated in Section 01 Code of Conduct and Certifications - Bid of Standard Instructions 2003. The related documentation therein required will assist Canada in confirming that the certifications are true.

1.2 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 (<http://www.hrsdc.gc.ca/eng/labour/index.shtml>) available from Human Resources and Skills Development Canada (HRSDC) - Labour's website.

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.

PART 6 - RESULTING CONTRACT CLAUSES

1. Security Requirement

There is no security requirement applicable to this Contract.

2. Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A.

3. 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>) issued by Public Works and Government Services Canada.

3.1 General Conditions

2010C (2013-06-27), General Conditions - Services (Medium Complexity), apply to and form part of the Contract.

4. Term of Contract

4.1 Period of the Contract

The period of the Contract is from date of award to _____ inclusive.

4.2 Shipping Instructions - Delivered Duty Paid

Goods must be consigned and delivered to the destination specified in the contract:
Incoterms 2000 "DDP Delivered Duty Paid" the Institute of Ocean Sciences - Victoria, BC, Canada.

5. Authorities

5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Torrey Buchan
 Title: Supply Officer
 Public Works and Government Services Canada
 Acquisitions Branch

Telephone: 250-363-3249
 Facsimile: 250-363-0395
 E-mail address: torrey.buchan2@pwgsc.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.

5.2 Project Authority

The Project Authority for the Contract is provided upon contract award.

Name: _____
 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.

5.3 Contractor's Representative

Supplier is to complete table below and submit with their bid.

| Contact for: | Name | Telephone | Email |
|--------------------|------|-----------|-------|
| Contracting issues | | | |
| Technical issues | | | |
| Invoicing issues | | | |

6. Proactive Disclosure of Contracts with Former Public Servants *(if applicable)*

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. Payment

7.1 Basis of Payment

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid a firm price as specified in Annex B for a cost of \$ _____. 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.

7.2 Single Payment

SACC *Manual* clause H1000C (2008-05-12), Single Payment

8. Invoicing Instructions

The Contractor must submit invoices in accordance with the section entitled "Invoice Submission" of the general conditions. Invoices cannot be submitted until all work identified in the invoice is completed.

Each invoice must be supported by:

- a copy of time sheets to support the time claimed;
- a copy of the invoices, receipts, vouchers for all material expenses, and all travel and living expenses;

Invoices must be distributed as follows:

The original and one (1) copy must be forwarded to the address shown on page 1 of the Contract for certification and payment.

9. Certifications

9.1 Compliance

Compliance with the certifications and related documentation provided by the Contractor in its bid is a condition of the Contract and subject to verification by Canada during the term of the Contract. If the Contractor does not comply with any certification, provide the related documentation or if it is determined that any certification made by the Contractor in its bid is untrue, whether made knowingly or unknowingly, Canada has the right, pursuant to the default provision of the Contract, to terminate the Contract for default.

10. Applicable Laws

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

11. Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the general conditions 2010C (2013-06-27), General Conditions - Services (Medium Complexity);
- (c) Annex A, Requirement;
- (d) Annex B, Basis of Payment;
- (e) Annex C, Insurance Requirements;
- (e) the Contractor's bid dated _____

11. Insurance Requirements

The Contractor must comply with the insurance requirements specified in Annex C. The Contractor must maintain the required insurance coverage for the duration of the Contract. Compliance with the insurance requirements does not release the Contractor from or reduce its liability under the Contract.

Solicitation No. - N° de l'invitation

F1782-13C721/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

vic210

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

F1782-13C721

File No. - N° du dossier

VIC-3-36081

CCC No./N° CCC - FMS No/ N° VME

The Contractor is responsible for deciding if additional insurance coverage is necessary to fulfill its obligation under the Contract and to ensure compliance with any applicable law. Any additional insurance coverage is at the Contractor's expense, and for its own benefit and protection.

The Contractor must forward to the Contracting Authority within ten (10) days after the date of award of the Contract, a Certificate of Insurance evidencing the insurance coverage and confirming that the insurance policy complying with the requirements is in force. Coverage must be placed with an Insurer licensed to carry out business in Canada. The Contractor must, if requested by the Contracting Authority, forward to Canada a certified true copy of all applicable insurance policies.

ANNEX A STATEMENT OF WORK

1.0 GENERAL NOTES

1.1 Identification

- 1.1.1 These General Notes describe the CCG requirements applicable to all accompanying Technical Specifications.

1.2 Occupational Health and Safety

- 1.2.1 The Contractor and all sub-contractors shall follow Occupational Health and Safety (OHS) procedures in accordance with applicable federal and provincial OHS regulations ensuring that Contractor activities are carried out in a safe manner and do not endanger the safety of any personnel.

1.3 Smoking in the Work Space

- 1.3.1 The Contractor must ensure compliance with the Non- Smokers' Health Act. The Contractor shall ensure that every employer, and any person acting on behalf of an employer, shall ensure that persons refrain from smoking in any work space under the control of the employer.

1.4 Test Results and Data Book

- 1.4.1 All tests, measurements, calibrations and readings must be recorded, must include the name of the person taking the measurements, the date taken and be provided to the TA.

1.5 Contractor Supplied Materials and Tools

- 1.5.1 The Contractor must ensure all materials are new and unused.
- 1.5.2 The Contractor must ensure replacement material such as jointing, packing, insulation, small hardware, oils, lubricants, cleaning solvents, preservatives, paints, coatings etc. are in accordance with the equipment manufacturer's drawings, manuals and/or instructions.
- 1.5.3 Where no particular item is specified or where substitution must be made, the TA must approve the substituted item in writing. The Contractor must provide information about materials used, certificate of grade and quality of various materials to the TA and TI prior to use.
- 1.5.4 The Contractor shall provide all equipment, devices, tools and machinery such as crane, staging, scaffolding and rigging necessary for the completion of the work in this specification.
- 1.5.5 The Contractor shall provide waste disposal services for any oil, oily waste or other hazardous or controlled waste generated by the work of this specification. The Contractor shall provide waste disposal certificates for all of the above generated waste and the disposal certificates shall indicate that the disposal was in accordance with Federal, Provincial and Municipal regulations in effect.

1.6 Government Supplied Materials & Tools

- 1.6.1 All tools are Contractor supplied unless otherwise stated in the technical specifications.
- 1.6.2 Where tools are supplied by the TA they shall be returned by the Contractor in the same condition as when they were borrowed. Borrowed tools must be inventoried and signed for by the Contractor on receipt and return to the TA.

1.7 Contractor Inspections and Protection of Equipment and the Worksite

- 1.7.1 Any damage incurred as a result of the Contractor's work and that is attributable to the Contractor's work performance shall be repaired by the Contractor at his expense. Materials used in any replacement or repairs must meet the criteria for Contractor supplied material noted above in section Contractor Supplied Materials and Tools.

1.8 Recording of Work in Progress

- 1.8.1 The TA and TI may record any work in progress using various means including, but not limited to photography and video, digital or film.

1.9 Removed Materials and Equipment

- 1.9.1 All removed equipment as a result of this specification shall remain the property of the Coast Guard unless otherwise instructed in the specification sections.

1.10 Electric Power

- 1.10.1 CCG shall allow the use of a limited number of 115 VAC, 1 phase, 15 amp receptacle(s) for the use of the Contractor for the contracted period.

2.0 LIST OF ACRONYMS

| | |
|-------|--|
| CA | Contract Authority (PWGSC) |
| CCG | Canadian Coast Guard |
| CLC | Canada Labour Code |
| CSM | Contractor Supplied Material |
| CSA | Canadian Standards Association |
| CWB | Canadian Welding Bureau |
| DFO | Department of Fisheries and Oceans |
| FSR | Field Service Representative |
| GSM | Government Supplied Materials |
| HC | Health Canada |
| IEEE | Institute of Electrical and Electronic Engineers |
| LOA | Length Over All |
| MSDS | Material Safety Data Sheet |
| NPT | National Pipe Thread |
| OHS | Occupational Health and Safety |
| PWGSC | Public Works and Government Services Canada |
| SSMS | Safety & Security Management System |
| TBS | Treasury Board of Canada Secretariat |
| TCMS | Transport Canada Marine Safety |
| TI | Inspection Authority - Technical Inspector (CCG) |
| TA | Technical Authority - Owner's Representative (CCG) |
| WHMIS | Workplace Hazardous Material Information System |

3.0 DYNAMOMETER WATER PIPING SPECIFICATION

3.1 Identification

- 3.1.1 The following individual items have been installed outside hangar at the Institute of Ocean Sciences, Victoria in way of the Evaporator Tower: Evaporator Cooling Device, Cold Water Tank (Western), Hot Water Tank (Eastern). Note that a water supply is available on site however the dynamometer room will have to be transited twice due to the water supply location.
- 3.1.2 The following individual items have been installed in the Dynamometer Room: Dynamometer with Dynamometer tank and test bed (DYNE), Cold Pump, Hot Pump, and Transfer Pump. The cold water tank and hot water tank are already connected together

at one connection. Cold Water Tank has a 2 inch NPT out let fitting installed. The Hot Water Tank has a 2 inch NPT outlet fitting installed. The dynamometer has a 2 inch NPT inlet. The Cold Pump has a 4 inch NPT inlet and a 3 inch NPT outlet. The Hot Pump has a 3 inch NPT inlet and a 2-1/4 ID outlet with a four bolt 5-1/2 inch PCD. The Transfer Pump has a 4 inch NPT inlet and a 3 inch NPT 4 bolt 6 inch PCD outlet.

3.1.3 GSM loose items to be installed in are: a (red) 1-1/2 inch NPT Flow Regulator, a (brown) 1-1/2 inch NPT electronically controlled Water Control Valve, and a (brass) 3/4 inch NPT Pressure Setting Valve, five 3 inch NPT plastic tank bungs with 2-1/2 reducers, and a 3/4 inch tank bung.

3.1.4 GSM items installed by others: Dynamometer return to sump tank, make up water level controller float, Engine cooling water return, fuel cooling water return, and two water tank suction strainers. Electrical wiring will be installed by others.

3.1.5 The majority of the work will be installing contractor supplied (CSM) piping to complete cooling water loops in accordance to the piping schematic while coping with the existing structural openings and location of installed equipment. The contractor must provide adequate support, bracing, and protection for the piping and loose valves. The contractor must perform the work to Canadian industry standards.

3.1.6 All fittings not identified as GSM are CSM.

3.2 References

3.2.1 ASME-B31.3-2012 - Process piping

3.2.2 CCG MARKUP JULY 2013 CC Drawing # 710DCGD010.001

3.2.3 Site photos (4 of)

3.2.4 Floor Plan for Orientation Only.pdf

3.3 Technical

3.3.1 The Contractor must install CSM galvanized schedule 40 pipe. Where piping is not available in galvanized or must be built up using welding it must be equivalent steel pipe and then hot-dip galvanized. The Contractor must provide for the removal of pumps and valves for service without cutting and brazing by using Victaulic, or alternate flanged connections as preferred by the Contractor. Canada will accept threaded pipe connections for all other connections not identified.

3.3.2 The Contractor must cope with the existing location of fixed GSM and existing available pipe connections. The Evaporator Cooling Device is fitted with a 6" NPT inlet in the bottom and a 6 inch NPT outlet on the side. Short lengths of flexible hoses are required to and from the evaporator connections, but not to and from the pump.

3.3.3 The Contractor must cope with prescribed piping routing. The Contractor must only route piping through two sequential existing openings when routing between inside the Dynamometer Room and outside in way of the Evaporator Tower. Mechanical openings must have transiting pipes grouped closely. Each transiting pipe must be fitted with Victaulic couplings inside the dynamiter room and outside of the building to allow for future modifications and maintenance of all transiting pipes. The mechanical openings Western most side (left when looking North is reserved for an exhaust pipe that must be positioned a minimum of one inch from the perimeter of the opening. The lower Eastern corner is reserved for a 3 inch nominal pipe for electrical wiring transits. The openings are located several meters above grade and are as follows: 910mm vertical by 725mm horizontal opening in the building

envelop in series with the 30 inch by 11 inch vertical opening in openings are in the Wall and closely spaced East-West. The South edge only. The exhaust pipe external diameter will be 10 inch.

the dynamometer room. These openings are aligned on the

3.3.4 There is a requirement for one additional building transit for water supply that must enter the Dynamometer room from the hangar this will require a transit through the hangar joiner wall and then through the wooden stud wall that makes up the sound attenuating dynamometer room and finally out the mechanical opening.

3.3.5 Canada will accept closely grouped piping transits to the east side of the existing approximately 725mm horizontal by approximately 910 mm vertical mechanical opening. The connections for liquid carrying pipes on each side of the building must be Victaulic's. The West side is reserved for exhaust piping with an outside diameter of ten inches to be installed by others and 3 inch NPT pipe for electrical transits.

3.3.6 The Contractor must supply galvanized schedule 40 piping and connections for the pumping loops per the schematic layout of CCG MARKUP July 2013 CC drawing #710DCGD010.001. Due to the relatively short runs involved the nominal sizes have already been reduced to minimums marked as "Pipe DIA (IN)" followed by the nominal size on the marked up drawing. Note some pipe is 3 inch NPT minimum, this piping may require special order.

3.3.7 All 2-1/2 inch NPT and larger isolation valves located in the dynamometer room must be co-located as a manifold or resembling a manifold North-East of the DYNE. Valve handles must be accessible from ground level without the use of ladder and lifts. Valves must be labeled with sequential numbers and descriptive labels punched on brass plates. Piping must be confined to the perimeter of the dynamometer room stacked vertically. Piping runs to the DYNE must minimize the distance traveled between the DYNE and the dynamometer room perimeter. No piping runs may contact the cement directly and should be elevated at least three inches. Piping runs to the DYNE from the dynamometer room perimeter must be elevated no more than six inches above grade until reaching the destination. Piping runs to and from the DYNE must only cross the dynamometer floor on the North side of the DYNE.

3.3.8 All piping 2-1/2 inch NPT and larger must be secured to the concrete floor using suitable CSM bracing. All exterior piping must be secured to the concrete with bracing and protected with 32" tall 4" bolt down bollards (such as "Post Guard 4BDB") at each bracing point. Pipes secured to the steel evaporative tower structure must only use half inch through holes with no threads and must be located on the neutral access of the member being attached to so as not to significantly weaken the structure. The tower has some sway. A flexible support or pipe connection must be used when transiting from cement mounting to the evaporator tower mounting.

3.3.9 The Contractor must supply and install branch connection(s) before the dynamometer for the CSM two foot long hydraulic hose to the dynamometer supply and 1-1/4 inch NPT supply to the engine cooling. This hydraulic hose must be allowed some slack to allow for East-West movement of the dynamometer during operation. The hose barb for the engine cooling water and fuel cooling water must be located at the South-West corner of the DYNE tank approximately four feet above grade.

3.3.10 The contractor must supply and install CSM 3/4 inch nominal piping to supply make up water to the cold water tank from a supply available inside the North-West corner of the hangar (but outside the dynamometer room). This piping must include a back flow preventer suitable for potable

water. This piping must include bronze or brass CSM isolation valve at the supply, at the discharge, and also in the dynamometer room co-located with other valves in the dynamometer room. This pipe must transit most of the inside perimeter of the dynamometer room and must be secured to the wooden studs at regular intervals using suitable CSM bracing. This pipe must not obstruct doors and must not obstruct windows.

3.3.11 The contractor must hold when ready to tie into the available water supply and only proceed with TA authorization.

3.3.12 All isolation valves indicated on the marked up drawing are CSM and must be bronze or brass.

3.3.13 The Contractor must supply and install a strainer for the hot pump and provide for isolation and ease of end user strainer cleaning.

3.3.14 The Contractor must supply and install a 20 Mesh sieve .014 inch wire width strainer and provide for isolation and ease of end user strainer cleaning. This fine strainer serves to protect the precision valves and dynamometer.

3.3.15 The Contractor must only use brass threads for connection to the threaded dynamometer aluminum water inlet.

3.4 Proof of Performance

3.4.1 The contractor must demonstrate to Technical Authority that the piping system matches the schematic drawings and can maintain a one and one half time the maximum working pressure.

3.4.2 The contractor must demonstrate that each and every part of the system installed by the contractor holds 60 PSI water pressure without leaking when filled with water and pressure tested by the contractor.

ANNEX B
BASIS OF PAYMENT

The Bidder must provide a breakdown of their costs as per the schedule below, for all sections required to complete the work requested.

| Item | Description | Base Cost | Mark-up (%) | Extended Total (CAD\$) |
|--|---|-------------------|-------------|------------------------|
| Supply & Installation of Piping in accordance with Annex A, Statement of Work. | | | | |
| 1 | Cost of Materials (including consumables and equipment rentals) | | | |
| 2 | Cost of Delivery & Storage On-site | | | |
| 3 | Labour | Base Rate (/hour) | # of Hours | |
| 3.1 | Pipefitter - Work | | | |
| 3.2 | Pipefitter - Travel | | | |
| 3.3 | Apprentice / Labourer - Work | | | |
| 3.4 | Apprentice / Labourer - Travel | | | |
| 4 | Other | | | |
| 4.1 | Supervision / Management / Overhead | | | |
| Firm Total Price (CAD\$) | | | | |

GST (as applicable), is extra.

BEST WORK PERIOD OFFERED: _____

ANNEX C**INSURANCE REQUIREMENTS**

1. The Contractor must obtain Commercial General Liability Insurance, and maintain it in force throughout the duration of the Contract, in an amount usual for a contract of this nature, but for not less than \$2,000,000 per accident or occurrence and in the annual aggregate.
2. The Commercial General Liability policy must include the following:
 - a. Additional Insured: Canada is added as an additional insured, but only with respect to liability arising out of the Contractor's performance of the Contract. The interest of Canada should read as follows: Canada, as represented by Public Works and Government Services Canada.
 - b. Bodily Injury and Property Damage to third parties arising out of the operations of the Contractor.
 - c. Products and Completed Operations: Coverage for bodily injury or property damage arising out of goods or products manufactured, sold, handled, or distributed by the Contractor and/or arising out of operations that have been completed by the Contractor.
 - d. Personal Injury: While not limited to, the coverage must include Violation of Privacy, Libel and Slander, False Arrest, Detention or Imprisonment and Defamation of Character.
 - e. Cross Liability/Separation of Insureds: Without increasing the limit of liability, the policy must protect all insured parties to the full extent of coverage provided. Further, the policy must apply to each Insured in the same manner and to the same extent as if a separate policy had been issued to each.
 - f. Blanket Contractual Liability: The policy must, on a blanket basis or by specific reference to the Contract, extend to assumed liabilities with respect to contractual provisions.
 - g. Employees and, if applicable, Volunteers must be included as Additional Insured.
 - h. Employers' Liability (or confirmation that all employees are covered by Worker's compensation (WSIB) or similar program)
 - i. Broad Form Property Damage including Completed Operations: Expands the Property Damage coverage to include certain losses that would otherwise be excluded by the standard care, custody or control exclusion found in a standard policy.
 - j. Notice of Cancellation: The Insurer will endeavour to provide the Contracting Authority thirty (30) days written notice of policy cancellation.
 - k. If the policy is written on a claims-made basis, coverage must be in place for a period of at least 12 months after the completion or termination of the Contract.
 - l. Owners' or Contractors' Protective Liability: Covers the damages that the Contractor becomes legally obligated to pay arising out of the operations of a subcontractor.

- m. Litigation Rights: Pursuant to subsection 5(d) of the Department of Justice Act, S.C. 1993, c. J-2, s.1, if a suit is instituted for or against Canada which the Insurer would, but for this clause, have the right to pursue or defend on behalf of Canada as an Additional Named Insured under the insurance policy, the Insurer must promptly contact the Attorney General of Canada to agree on the legal strategies by sending a letter, by registered mail or by courier, with an acknowledgement of receipt.

For the province of Quebec, send to:

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

For other provinces and territories, send to:

Senior General Counsel,
Civil Litigation Section,
Department of Justice
234 Wellington Street, East Tower
Ottawa, Ontario K1A 0H8

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

Solicitation No. - N° de l'invitation

F1782-13C721/B

Amd. No. - N° de la modif.

Buyer ID - Id de l'acheteur

vic210

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

File No. - N° du dossier

CCC No./N° CCC - FMS No/ N° VME

F1782-13C721

VIC-3-36081

ANNEX D

SITE PLAN & PHOTOGRAPHS

See the following pages.

SYMBOL LEGEND

FIRE EXTINGUISHER

FIRE BELLS

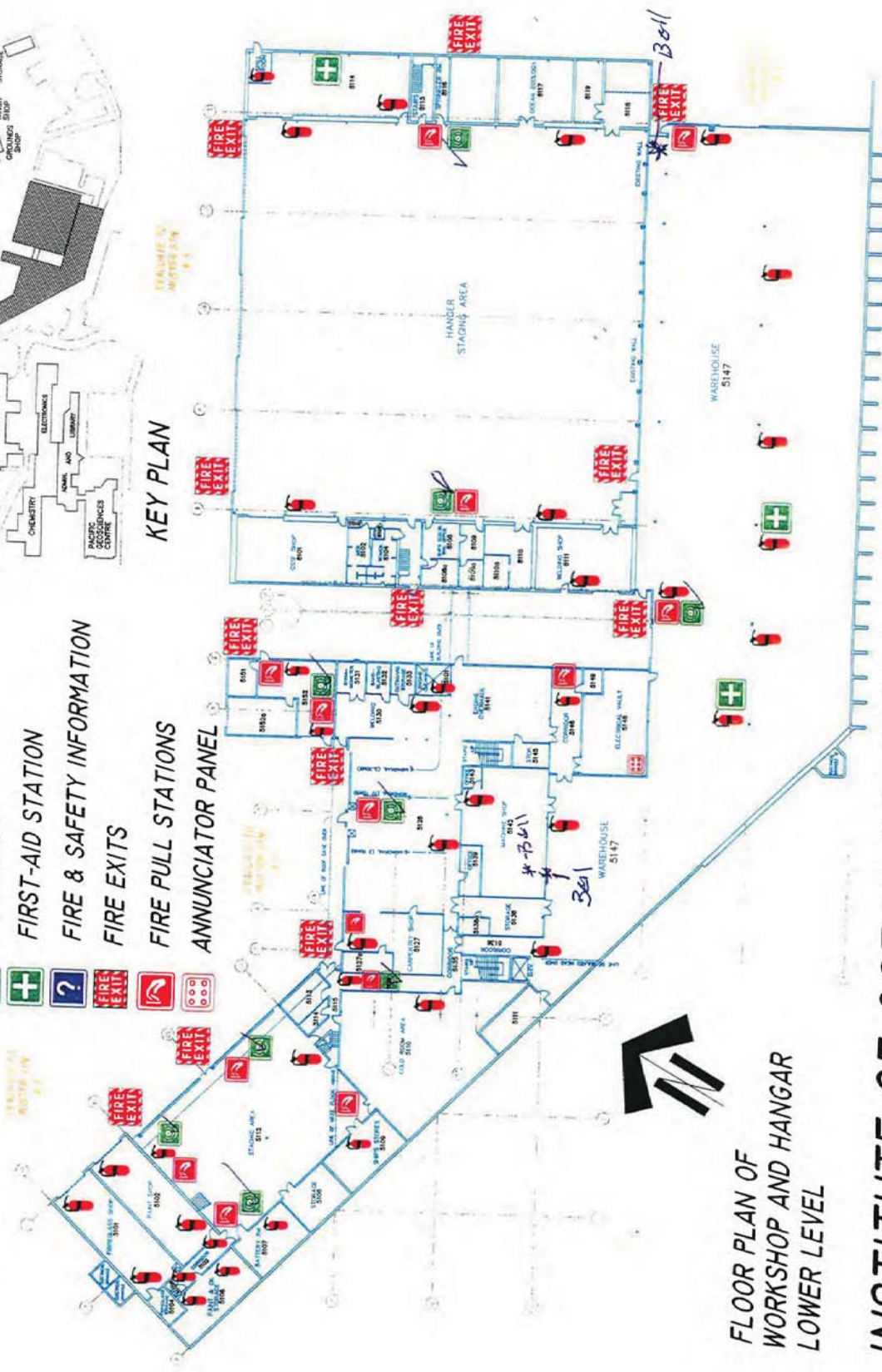
FIRST-AID STATION

FIRE & SAFETY INFORMATION

FIRE EXITS

FIRE PULL STATIONS

ANNUNCIATOR PANEL



INSTITUTE OF OCEAN SCIENCES









