



RETURN BIDS TO:

RETOURNER LES SOUMISSIONS À:

Réception des soumissions - TPSGC / Bid Receiving
- PWGSC

1550, Avenue d'Estimauville

1550, D'Estimauville Avenue

Québec

Québec

G1J 0C7

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

TPSGC/PWGSC

601-1550, Avenue d'Estimauville

Québec

Québec

G1J 0C7

Title - Sujet Evalua. injury risk behind shield	
Solicitation No. - N° de l'invitation W7701-186626/A	Date 2018-08-02
Client Reference No. - N° de référence du client W7701-186626	
GETS Reference No. - N° de référence de SEAG PW-\$QCL-025-17450	
File No. - N° de dossier QCL-7-40115 (025)	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM on - le 2018-08-30	Time Zone Fuseau horaire Heure Avancée de l'Est HAE
F.O.B. - F.A.B. Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Lemay, Hélène	Buyer Id - Id de l'acheteur qcl025
Telephone No. - N° de téléphone (418) 649-2974 ()	FAX No. - N° de FAX (418) 648-2209
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: RDDC-R ET D Défense Canada-Valcartier DRDC-Defence R&D Canada-Valcartier Bâtisse 53 2459, route de la Bravoure QUEBEC Québec G3J1X5 Canada	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée Voir doc	Delivery Offered - Livraison proposée
Vendor/Firm Name and Address Raison sociale et adresse du fournisseur/de l'entrepreneur	
Telephone No. - N° de téléphone Facsimile No. - N° de télécopieur	
Name and title of person authorized to sign on behalf of Vendor/Firm (type or print) Nom et titre de la personne autorisée à signer au nom du fournisseur/ de l'entrepreneur (taper ou écrire en caractères d'imprimerie)	
Signature	Date

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Buyer ID - Id de l'acheteur
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PART 1 - GENERAL INFORMATION

1.1 Introduction

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

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

The Annexes include the Statement of Work, the Basis of Payment, the Security Requirements Checklist, the Federal Contractors Program for Employment Equity - Certification and any other annexes.

1.2 Summary

Background:

Shields have been used by military and police units that specialize in anti-terrorist actions, hostage rescue, riot control and siege-breaking. As such, when approaching any potentially armed individual in a public area, ballistic shields are an important part of the 1st line of protection.

A shield is a piece of personal armour held in the hand, mounted on the forearm or mounted on a trolley for the bigger and heavier ones. They can defeat armed attack (shrapnel, thrown projectiles, splash from Molotov cocktail) in riots cases and stop or deflect ammunitions (low-velocity handgun, shotgun, and high-velocity rifle calibers at muzzle velocities) in terrorism attack. They can cover the entire surface of a soldier including many body areas that are not protected by body armour and simultaneously offer protection to the many other persons situated behind the person equipped with the shield that are also exposed to the threat.

Many ballistic shields are designed to be in compliance with the ballistic materials test protocol NIJ-Std-0108.01. That protocol is for material testing and do not take into consideration the potential impact on the hand and arm holding the shield from the transient deformation. The bones fractures that may be the consequences from the impact may result in loss of strength followed by a drop of the shield, exposing the user and the followers to direct firearms shooting.

For shield personal protective equipment to be effective, it is essential to understand the effect of a short duration, high energy impact loading on the lower arm resistance. Assessment of body impact limit (impact force, event duration, impulse, momentum, etc.) and injury risk typically involves cadaveric

specimens. However, these specimens are not suitable to certify protective equipment as their access is limited, the variability between samples is high and specimens are generally from elderly subjects showing a reduced mineral bone density. Therefore, cadaveric tests are essential but results need to be analysed with great care to establish body limit representative of the military user group that is young, healthy and highly trained.

Once body impact limit data and injury risk is known, with adequate transfer function, these data can be associated to a surrogate which is a reproducible tests method usable for certification. There are various surrogate uses by industries - such as crash test dummies for automotive and defence - but the materials are often too stiff, their geometry and joints are oversimplified and do not truly represent biofidelic segments. To better assess and design a protective equipment such as a ballistic shield, we need to establish i) how the force/pressure is spatially distributed with time over the impact zone, ii) what load and energy is transferred to the body, iii) what is the tolerance limit of the lower arm.

TASKS

In the first year, the contractor will conduct a literature review and will acquire post mortem human subject (PMHS) lower arm specimens and equipment to prepare the set up for the specimen evaluation.

The second year will focus on developing the tests protocol using a mechanical surrogate under conditions as close as possible to operational use for a ballistic shield followed by PMHS lower arm specimens testing. Influence of the relative dimensions of the specimens (5th centil, 50th centil, 95th centil) must be considered.

The final year will complete the testing and the analysis of results in order to provide recommendations as for the Behind Armour Blunt Trauma (BABT) injury criteria to use to qualify personal protection ballistic shield. Tasks specified in the Statement of Work are:

Task 5.1: Lower arm surrogate

Task 5.2 : Bones fracture limit evaluation

Additional information:

- 1.2.1 The organization for which the services are to be rendered is Defence Research and Development Canada – Valcartier (DRDC Valcartier)

The period of the Contract is from Contract award to March 31, 2021.

Ballistic tests are performed at DRDC- Valcartier Research Center. All other work must be performed on Contractor site.

- 1.2.2 There are security requirements associated with this requirement. For additional information, consult Part 6 - Security, Financial and Other Requirements, and Part 7 - Resulting Contract Clauses. For more information on personnel and organization security screening or security clauses, Bidders should refer to the Contract Security Program of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

- 1.2.3 The requirement is subject to the provisions of the Canadian Free Trade Agreement (CFTA).

- 1.2.4 The requirement is limited to Canadian goods and/or services.

- 1.2.5 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

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Instructions, and Part 3 entitled Bid Preparation Instructions, of the bid solicitation, for further information.

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](#) (2018-05-22) 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: 120 days

2.1.1 SACC Manual Clauses

A7035T (2007-05-25), List of Proposed Subcontractors

2.2 Submission of Bids

2.2.1 Mail

Offers can be submitted to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date, time and place indicated on page 1 of the Request for proposal. Bidders must submit their bid at:

Bid Receiving – PWGSC
1550, d'Estimauville Avenue
Quebec, Quebec
G1J 0C7

2.2.2 Epost Connect

The email address of PWGSC Qubec region Bid Receiving Unit is:

TPSGC.RQReceptionSoumissions-QRSupplyTendersReception.PWGSC@tpsgc-pwgsc.gc.ca.

The Solicitation number must be identified in the epost Connect message field of all electronic transfers.

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.

Définitions

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.

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, preferably via email, at Helene.Lemay@tpsgc-pwgsc.gc.ca, 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 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 Quebec.

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

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

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

Section I: Technical Bid
Section II: Financial Bid
Section III: Certifications
Section IV: Additional Information

- 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 (5 hard copies)
Section II: Financial Bid (1 hard copy)
Section III: Certifications (1 hard copy)
Section IV: Additional Information (1 hard 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.

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.

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 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.

The technical bid consists of the following:

- (i) All the information required to demonstrate its conformity with the Mandatory and point rated Technical criteria described in sections 1.1.1 and 1.1.2, Part 4 of the Request for proposal.

Section II: Financial Bid

3.1.1 Bidders must submit their financial bid in accordance with the Basis of Payment in Annex "B".

3.1.2 Electronic Payment of Invoices – Bid

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

If Annex "1" Electronic Payment Instruments is not completed, it will be considered as if Electronic Payment Instruments are not being accepted for payment of invoices.

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

3.1.3 Exchange Rate Fluctuation

C3011T (2013-11-06), Exchange Rate Fluctuation

3.1.4 SACC Manual Clauses

Section III: Certifications

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

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

- (a) Bids will be assessed in accordance with the entire requirement of the bid solicitation including the technical and financial evaluation criteria.
- (b) An evaluation team composed of representatives of Canada will evaluate the bids.

4.1.1 Technical Evaluation

Mandatory and point rated technical evaluation criteria are included in Attachment 1..

4.1.2 Financial Evaluation

4.1.2.1 Mandatory Financial Criteria

- 1) Bidders must submit their Financial Bid in accordance with Basis of Payment, Annex B.
- 2) The maximum funding available for the Contract resulting from the bid solicitation is **\$180,000.00** (Applicable Taxes extra). Bids valued in excess of this amount will be considered non-responsive. This disclosure does not commit Canada to pay the maximum funding available.

4.1.2.2 Evaluation of Price

SACC Manual Clause A0220T _____ (*insert date*), Evaluation of Price (*if applicable*)

Financial evaluation will be conducted by calculating the "Bid Price" using Basis of Payment, in Annex B completed by bidders.

4.2 Basis of Selection

Basis of Selection – Highest Rated Within Budget

- 1. To be declared responsive, a bid must:
 - a. comply with all the requirements of the bid solicitation;
 - b. meet all mandatory technical evaluation criteria; and
 - c. obtain the required minimum of 31 points overall for the technical evaluation criteria which are subject to point rating. The rating is performed on a scale of 100 points.
- 2. Bids not meeting (a) or (b) or (c) will be declared non responsive. The responsive bid with the highest number of points will be recommended for award of a contract, provided that the total evaluated price does not exceed the budget available for this requirement.

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 procurement agreement of the [Ineligibility and Suspension Policy](http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html) (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), the Bidder must provide the required documentation, as applicable, to be given further consideration in the procurement process.

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

By submitting a bid, the Bidder certifies that the Bidder, and any of the Bidder's members if the Bidder is a Joint Venture, is not named on the Federal Contractors Program (FCP) for employment equity "FCP Limited Eligibility to Bid" 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.

5.2.3 Additional Certifications Precedent to Contract Award

5.2.3.1 Canadian Content Certification

This procurement is limited to Canadian services.

The Bidder certifies that:

() the service offered is a Canadian service as defined in paragraph 2 of clause A3050T.

5.2.3.1.1 SACC Manual clause A3050T _____ (*insert date*) Canadian Content Definition.

5.2.3.2 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.

5.2.3.4 Education and Experience

SACC Manual clause A3010T (2010-08-16) Education and Experience

PART 6 - SECURITY, FINANCIAL AND OTHER REQUIREMENTS

6.1 Security Requirements

1. Before award of a contract Amendment for Optional Task 2, the following conditions must be met:
 - (a) the Bidder must hold a valid organization security clearance as indicated in Part 7 - Resulting Contract Clauses;
 - (b) the Bidder's proposed individuals requiring access to classified or protected information, assets or sensitive work sites must meet the security requirements as indicated in Part 7 - Resulting Contract Clauses;
 - (c) the Bidder must provide the name of all individuals who will require access to classified or protected information, assets or sensitive work sites;
2. Bidders are reminded to obtain the required security clearance promptly. Any delay in the award of a contract to allow the successful Bidder to obtain the required clearance will be at the entire discretion of the Contracting Authority.
3. For additional information on security requirements, Bidders should refer to the [Contract Security Program](http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html) of Public Works and Government Services Canada (<http://www.tpsgc-pwgsc.gc.ca/esc-src/introduction-eng.html>) website.

6.2 Financial Capability

SACC *Manual* clause [A9033T](#) (2012-07-16) Financial Capability

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 Statement of Work

The Contractor must perform the Work in accordance with the Statement of Work at Annex A and the Contractor's technical bid entitled _____, dated _____, on a as and when requested basis by the Canada during the contract period. **(to be completed at contract award)**

7.1.1 Optional Goods and/or Services

The Contractor grants to Canada the irrevocable option to acquire the goods, services or both described at Task 5.2 in Annex A, Statement of Work, of the Contract under the same conditions and at the prices and/or rates stated in the Contract. The option may only be exercised by the Contracting Authority and will be evidenced, for administrative purposes only, through a contract amendment.

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

7.2 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

[2040](#) (2018-06-01), General Conditions - Research & Development, apply to and form part of the Contract.

7.2.2. Disclosure Certification

On Completion of the Work, the Contractor must submit to the Technical Authority and to the Contracting Authority a copy of the Contractor Disclosure of Foreground Information attached as Annex D stating that all applicable disclosures were submitted.

7.3 Security Requirements

7.3.1 The following security requirements (SRCL and related clauses provided by the Contract Security Program) apply and form part of the Contract.

1. The Contractor/Offeror must, at all times during the performance of the Contract/Standing Offer, hold a valid Designated Organization Screening (DOS), issued by the Canadian Industrial Security Directorate (CISD), Public Works and Government Services Canada (PWGSC).
2. The Contractor/Offeror personnel requiring access to sensitive work site(s) must EACH hold a valid RELIABILITY STATUS, granted or approved by CISD/PWGSC.
3. Subcontracts which contain security requirements are NOT to be awarded without the prior written permission of CISD/PWGSC.

4. The Contractor/Offeror must comply with the provisions of the:

- a. Security Requirements Check List and security guide (if applicable), attached at Annex C;
- b. Industrial Security Manual (Latest Edition).

7.3.2 Visit Clearance Requests for Employees

As soon as the contract is awarded, the supplier will be required to obtain, without delay, visit clearance from ISS for each of its employees assigned to the contract.

Suppliers must submit a request for visit to ISS.

A minimum lead time of 25 working days is required to obtain a visit clearance from ISS.

Without visit clearance, the supplier's employees will not have access to DRDC- Valcartier Research Centre facilities, leaving the supplier liable for delays in delivery.

Suppliers can consult the ISS Web site on visit clearances at: <http://iss-ssi.pwgsc-tpsgc.gc.ca/msi-ism/index-eng.html> , chapter 6.

7.4 Term of Contract

7.4.1 Period of the Contract

The period of the Contract is from the date of Contract to March 31, 2021

7.5 Authorities

7.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Name: Hélène Lemay
Title: Procurement team Leader
Public Works and Government Services Canada
Acquisitions Branch
Address: 601-1550, avenue d'Estimauville
Quebec, Quebec G1J 0C7

Telephone: 418-649-2974
Facsimile: 418-648-2209
E-mail address: Helene.lemay@tpsgc-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.

7.5.2 Technical Authority (to be completed at Contract award)

Solicitation No. - N° de l'invitation
W7701-186626/A
Client Ref. No. - N° de réf. du client
W7701-18-6626

Amd. No. - N° de la modif.
File No. - N° du dossier
QCL-7-40115

Buyer ID - Id de l'acheteur
QCL025
CCC No./N° CCC - FMS No./N° VME

The Technical Authority for the Contract is:

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

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

The Technical 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 Technical Authority; however, the Technical Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of the Work can only be made through a contract amendment issued by the Contracting Authority.

7.5.3 Contractor's Representative

Name : _____ Telephone : _____
Title : _____ Facsimile : _____
Address : _____ Email : _____

7.5.4 DND Procurement Authority *(to be completed at contract award)*

The Procurement Authority for the Contract is:

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

Telephone: _____
Facsimile: _____
E-mail: _____.

The DND Procurement Authority is the representative of the department or agency for whom the Work is being carried out under the Contract. The DND Procurement Authority is responsible for the implementation of tools and processes required for the administration of the Contract. The Contractor may discuss administrative matters identified in the Contract with the DND Procurement Authority however the DND Procurement Authority has no authority to authorize changes to the scope of the Work. Changes to the scope of Work can only be made through a contract amendment issued by the Contracting Authority.

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 price

For the Work described in Task 5.1 of the *Statement of Work* in Annex A:

In consideration of the Contractor satisfactorily completing its obligations under the Contract, the Contractor will be paid a *firm price* for a cost of \$_____ (*insert the amount at contract award*). Customs duties are *included* and Applicable Taxes are extra.

For the firm price portion of the Work only, 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 – Fixed time rate – Limitation of Expenditure

For the Work described in Task 5.2 of the *Statement of Work* at annex A:

The Contractor will be paid for the Work performed in accordance with the Basis of payment at annex B, to a limitation of expenditure of \$_____ (*insert the amount at contract award*). Customs duties are included and Applicable Taxes are extra.

7.7.1.2 Limitation of Price

For the Work described in Task 5.1 of *Statement of Work* at Annex A:

SACC *Manual* clause [C6000C](#) (2017-08-17) Limitation of Price

7.7.1.3 Limitation of Expenditure

For the Work described in Task 5.1 of *Statement of Work* at Annex A:

1. Canada's total liability to the Contractor under the Contract must not exceed \$ _____. Customs duties are included and Applicable Taxes are extra.
2. No increase in the total liability of Canada or in the price of the Work 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 approved, in writing, by the Contracting Authority before their incorporation into the Work. The Contractor must not perform any work or provide any service that would result in Canada's total liability being exceeded before obtaining the written approval of the Contracting Authority. The Contractor must notify the Contracting Authority in writing as to the adequacy of this sum:
 - a. when it is 75% committed, or
 - b. four months before the contract expiry date, or
 - c. as soon as the Contractor considers that the contract funds provided are inadequate for the completion of the Work,

whichever comes first.

3. 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 Progress Payment

1. Canada will make progress payments in accordance with the payment provisions of the Contract, no more than once a month, for cost incurred in the performance of the Work, up to 90 percent of the amount claimed and approved by Canada if:
 - a. an accurate and complete claim for payment using form [PWGSC-TPSGC 1111](#), Claim for Progress Payment, and any other document required by the Contract have been submitted in accordance with the invoicing instructions provided in the Contract;
 - b. the amount claimed is in accordance with the basis of payment;
 - c. the total amount for all progress payments paid by Canada does not exceed 90 percent of the total amount to be paid under the Contract;
 - d. all certificates appearing on form [PWGSC-TPSGC 1111](#) have been signed by the respective authorized representatives.
1. The balance of the amount payable will be paid in accordance with the payment provisions of the Contract upon completion and delivery of all work required under the Contract if the Work has been accepted by Canada and a final claim for the payment is submitted.
2. Progress payments are interim payments only. Canada may conduct a government audit and interim time and cost verifications and reserves the rights to make adjustments to the Contract from time to time during the performance of the Work. Any overpayment resulting from progress payments or otherwise must be refunded promptly to Canada.

7.7.4 SACC Manual Clauses

A9117C (2007-11-30), T1204 – Direct Request by Customer Department
C0305C (2014-06-26), Cost Submission

7.7.5 Electronic Payment of Invoices – Contract

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

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

7.7.6 Discretionary Audit

C0705C (2010-01-11), Discretionary Audit

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;
- c. a list of all expenses;

Each claim must be supported by:

- a. a copy of time sheets to support the time claimed;
 - b. a copy of the invoices, receipts, vouchers for all direct expenses, travel and living expenses;
 - c. a copy of the monthly progress report.
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 one original and two (2) copies of the claim on form [PWGSC-TPSGC 1111](#), and forward it to the Technical Authority identified under the section entitled "Authorities" of the Contract for appropriate certification after inspection and acceptance of the Work takes place.
The Technical Authority will then forward the original and two (2) copies of the claim to the Contracting 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.

7.9 Certifications and Additional Information

7.9.1 Compliance

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

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

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

7.9.3 SACC Manual Clauses

A3060C (2008-05-12), Canadian Content Certification
B6800C (2007-11-30), List of Non-consumable Equipment and Material

7.10 Applicable Laws

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

7.11 Priority of Documents

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

- (a) the Articles of Agreement;
- (b) the general conditions 2040 (2018-06-21) General Conditions – Research and Development;
- (d) Annex A, Statement of Work;
- (e) Annex B, Basis of Payment;
- (f) Annex C, Security Requirement Check List;
- (i) the Contractor's bid dated _____, (*insert date of bid*) (*If the bid was clarified or amended, insert at the time of contract award:* ", as clarified on _____ " **or** ", as amended on _____ " *and insert date(s) of clarification(s) or amendment(s)*).

7.12 Defence Contract

SACC Manual clause A9006C (2012-07-16) Defence Contract

7.13 Foreign Nationals (Canadian Contractor)

SACC Manual clause A2000C (2006-06-16) Foreign Nationals (Canadian Contractor)

7.14 Insurance

SACC Manual clause G1005C (2016-01-28) Insurance

7.15 Canadian Forces site regulations

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

7.16 Identification Badge

SACC Manual clause A9065C (2006-06-16), Identification Badge

ANNEX "A"

STATEMENT OF WORK

1. Title

Evaluation of injury risk behind a shield

2. BACKGROUND

Shields have been used by military and police units that specialize in anti-terrorist actions, hostage rescue, riot control and siege-breaking. As such, when approaching any potentially armed individual in a public area, ballistic shields are an important part of the 1st line of protection.

A shield is a piece of personal armour held in the hand, mounted on the forearm or mounted on a trolley for the bigger and heavier ones. They can defeat armed attack (shrapnel, thrown projectiles, splash from Molotov cocktail) in riots cases and stop or deflect ammunitions (low-velocity handgun, shotgun, and high-velocity rifle calibers at muzzle velocities) in terrorism attack. They can cover the entire surface of a soldier including many body areas that are not protected by body armour and simultaneously offer protection to the many other persons situated behind the person equipped with the shield that are also exposed to the threat.

Many ballistic shields are designed to be in compliance with the ballistic materials test protocol NIJ-Std-0108.01. That protocol is for material testing and do not take into consideration the potential impact on the hand and arm holding the shield from the transient deformation. The bones fractures that may be the consequences from the impact may result in loss of strength followed by a drop of the shield, exposing the user and the followers to direct firearms shooting.

For shield personal protective equipment to be effective, it is essential to understand the effect of a short duration, high energy impact loading on the lower arm resistance. Assessment of body impact limit (impact force, event duration, impulse, momentum, etc.) and injury risk typically involves cadaveric specimens. However, these specimens are not suitable to certify protective equipment as their access is limited, the variability between samples is high and specimens are generally from elderly subjects showing a reduced mineral bone density. Therefore, cadaveric tests are essentials but results need to be analysed with great care to establish body limit representative of the military user group that is young, healthy and highly trained.

Once body impact limit data and injury risk is known, with adequate transfer function, these data can be associated to a surrogate which is a reproducible tests method usable for certification. There are various surrogate uses by industries - such as crash test dummies for automotive and defence - but the materials are often too stiff, their geometry and joints are oversimplified and do not truly represent biofidelic segments. To better assess and design a protective equipment such as a ballistic shield, we need to establish i) how the force/pressure is spatially distributed with time over the impact zone, ii) what load and energy is transferred to the body, iii) what is the tolerance limit of the lower arm.

3. ACRONYMS

DRDC	Defence Research and Development Canada
BABT	Behind Armour Blunt Trauma
PMHS	Post mortem human subject
TA	Technical Authority
DXA	Dual-energy X-ray absorptiometry
NIJ	National Institute of Justice

4. APPLICABLE DOCUMENTS & REFERENCES

None

5. TASKS

The contractor will conduct a literature review and will acquire post mortem human subject (PMHS) lower arm specimens and equipment to prepare the set up for the specimen evaluation.

The second year will focus on developing the tests protocol using a mechanical surrogate under conditions as close as possible to operational use for a ballistic shield followed by PMHS lower arm specimens testing. Influence of the relative dimensions of the specimens (5th centil, 50th centil, 95th centil) must be considered.

The final year will complete the testing and the analysis of results in order to provide recommendations as for the Behind Armour Blunt Trauma (BABT) injury criteria to use to qualify personal protection ballistic shield.

5.1 Lower arm surrogate

5.1.1 The contractor must perform a literature review on the following subjects

Surrogate used to assess the effects of direct, short duration, high energy impact conditions on hand, wrist, lower arm and elbow

Impact injury mechanisms and injury criteria for direct, short duration, high energy impact conditions of the hand, wrist, lower arm and elbow.

5.1.2 Using the literature review (task 5.1.1), the contractor must develop or select and modify a human lower arm surrogate for assessing the risk of impact injury behind the protection

The surrogate design must assess the effects of ballistic impacts behind a shield on the different body areas (hand, wrist, forearm and elbow).

Instrumentation includes the recording of impact force versus time, event duration, impulse and momentum. If any other pertinent instrumentation for data collection is to be integrated in the surrogate, this option will be discussed beforehand with TA.

5.1.3 The Contractor provides guidelines for using the surrogate developed in Task 5.1.2 to conduct ballistic tests. Ballistic test are conducted at DRDC Valcartier Research Centre under the TA supervision and data transferred to Contractor for analysis.

Ballistic impacts are conducted on the different body areas (hand, wrist, forearm and elbow) using operational conditions with a shield positioned in front of the surrogate intended impact locations at 30 mm and 40 mm distance between the backface of the shield and the surrogate. On every location, 5 repetitions are done.

Recorded data are: velocities behind the shield at point of impact on surrogate, impact force versus time, event duration, impulse and momentum. If any other pertinent data could be collected during test, this will be discussed prior to tests with TA.

5.2 Bones fracture limit evaluation

5.2.1 The contractor must develop or adapt a test set-up to reproduce conditions observed during tests with the surrogate (task 5.1.3) for using PMHS arm on the 4 impact locations (hand, wrist, forearm and elbow). The PMHS arm specimens must include the full hand, the full forearm, including the elbow joint structure and the distal end of the humeral shaft. The test set-up must reproduce as much as possible the load amplitude, load duration, load impact area, transferred momentum and loading rate.

5.2.2 The contractor must execute tests that reproduce conditions observed during tests with the surrogate (task 5.1.3) using the set-up developed in Task 5.2.1 for PMHS lower arm on the 4 impact locations (hand, wrist, forearm and elbow). The following information must be measured:

- Before tests, general data collection of each specimen (measured using C-Scan):
 - Mass and stature of the PMHS
 - Mass of the forearm (with hand)
 - Cause of death of the PMHS
 - Elbow to wrist length
 - Hand length
 - Maximum diameter of the forearm
 - Minimum diameter of the forearm
 - Diameter at impact point
- Before tests, measure bone dimensions of each specimen using CT-Scan:
 - Ulna and radius lengths
 - Metacarpals lengths
- Before tests, measure bone mineral density of each specimen using dual-energy X-ray absorptiometry (DXA)
 - ulna, radius, carpals, metacarpals, olecranon and humerus head

After tests, measure bone dimensions near fracture point of each specimen:

- Transversal bone surface area
- Transversal bone area moment of inertia
- Photos of the fractured bones
- Impact tests using male PMHS arm specimen representative of 5th, 50th and 95th percentile on hand and forearm, 8 repetitions on each positions. Estimate bone fracture limit for the hand and forearm using the 5th, 50th and 95th percentile.
- Impact tests using male PMHS arm specimen representative of 50th percentile on wrist and elbow, 8 repetitions on each position. Estimate bone fracture limit for the wrist and elbow using the 50th percentile and extrapolate bone fracture for the 5th and 95th percentile.

- During tests, data to be recorded are: velocities at point of impact, impact force, event duration, impulse and momentum. If any other pertinent data could be collected during test, this will be discussed prior to tests with TA.

5.2.3 The contractor must analysis results (task 5.2.2) on PMHS impact limit and built and adequate transfer function from surrogate with PMHS, provide recommendations as for the Behind Armour Blunt Trauma (BABT) injury criteria to use to qualify personal protection shield.

6. Deliverables

6.1 Deliverables for task 5.1

6.1.1 Report from literature review with conclusion for a propose surrogate and injury criteria.

6.1.2 Report on tests set-up describing the surrogate selected or modifications from an existing one, test protocol, guidelines for data collection.

6.1.3 Report on test results and data analysis.

Surrogate is delivered to DRDC Valcartier Research Centre at the end of the project

6.2 Deliverables for task 5.2

Report on tests set-up and test results using the PMHS specimen including: the test protocol, the data collection and analyse. The analysis includes a transfer function between the PMHS data with the surrogate and establishes the tolerance level and the injury risk that should be used for ballistic shield qualification tests done using the surrogate.

7. DATE OF DELIVERY

Deliverable 6.1.1: Within 6 months after contract award.

Deliverable 6.1.2 & 6.1.3: Progress report every 6 months and annual report before end of March 2020

Deliverable 6.2: Progress report every 6 months and final report including all tasks deliverable before end of March 2021.

8. Language of Work

English and French.

9. Location of Work

Ballistic tests are performed at DRDC- Valcartier Research Center. All other work must be performed on Contractor site.

10. Travel

The Contractor may be required to travel to DRDC Valcartier Research Center under the following tasks:

Task: 5.1.3 Ballistic tests

Location: DRDC Valcartier

Address: 2459 de la Bravoure Road
Québec, Qc
G3J 1X5

Duration: 5 days
Frequency: 1 or 2

The Treasury Board Travel Directive will apply for any travel, accommodation and living expenses.

11.MEETINGS

Telephone and Video conference when require and at least once before end of every fiscal year.

11.1 Kick-off meeting during the month following the contract award

- Review of the contract objectives
- Presentation of the project plan
- Methodology used to execute the work and monitor the project plan
- Financial management

11.2 Progress review meeting every 6 months or as required

- Review work accomplish
- Discuss problems encounter
- Show and discuss results

11.3 Final meeting during the last month of the contract period

- Summarize work,
- Show results and explain injury criteria
- Transfer surrogate

12.GOVERNMENT SUPPLIED MATERIAL (GSM)

After completion of ballistic tests at DRDC Valcartier Research Center, data is given to contractor.

13.GOVERNMENT FURNISHED EQUIPMENT (GFE)

None

14.SPECIAL CONSIDERATIONS

The contract is divided in 2 phases. At the end of each phase and based on conclusion, the estimated risk and the complexity associated to the continuation of the contract will be discussed between the TA and the contractor. The TA will make a decision on the relevance of the continuation of the contract.

Phase 1: literature review (task 5.1.1), lower arm surrogate development (task 5.1.2), ballistic tests and results analysis (task 5.1.3). Question – considering surrogate results during ballistic tests, does it make sense to reproduce these tests using PMHS?

Phase 2: PMHS arm specimen tests and injuries criteria development (task 5.2).

15.SECURITY

All work is unclassified and the Contractor will not have access to any classified information. When on site, the Contractor will be escorted at all times.

ANNEX "B"

BASIS OF PAYMENT

Task 5.1 of Statement of Work presented at Annex A :

For Work of Task 5.1 of Statement of Work, Contractor must submit an all-inclusive firm price.

Task 5.1	All-inclusive Firm price
Work described at Task 5.1 of Statement of Work, in Annex A	\$ _____
All-Inclusive Firm Price for Work of Task 5.1	\$ _____

Task 5.2 Optional Work of Statement of Work, as described in Annex A :

1. Labour :

For Task 5.2 of Statement of Work, The Contractor must submit a firm all-inclusive hourly rate:

Proposed Resources	Firm all-Inclusive hourly rate					
	From Contract award to March 31, 2019	Total estimated number of hours	From April 1st, 2019 to March 31, 2020	Total estimated number of hours	From April 1st 2020, to March 31, 2021	Total estimated number of hours
Radiodiagnostic technologist 1. _____	\$ _____		\$ _____		\$ _____	
Electronics technician 1. _____	\$ _____		\$ _____		\$ _____	
Machinist technician 1. _____	\$ _____		\$ _____		\$ _____	

Estimated total Labour Cost : _____ \$

2. EQUIPMENT: At laid down cost without markup

Description	Price
a) _____	_____
b) _____	_____

TOTAL ESTIMATED: _____ \$

3. RENTALS: at actual cost without markup

Description	Price
a) _____	_____
b) _____	_____

TOTAL ESTIMATED: _____ \$

4. MATERIALS AND SUPPLIES: At laid down cost without markup

Description	Price
a) _____	_____
b) _____	_____

TOTAL ESTIMATED : _____ \$

5. TRAVEL AND LIVING EXPENSES:

The Contractor will be reimbursed for the authorized travel and living expenses reasonably and properly incurred in the performance of the Work, at cost, without any allowance for overhead or profit, 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 Technical Authority.

All payments are subject to government audit

Total estimated Cost : _____ \$.

6. SUB-CONTRACTORS: at actual cost without markup

Total estimated cost : _____ \$.

Solicitation No. - N° de l'invitation
W7701-186626/A
Client Ref. No. - N° de réf. du client
W7701-18-6626

Amd. No. - N° de la modif.
File No. - N° du dossier
QCL-7-40115

Buyer ID - Id de l'acheteur
QCL025
CCC No./N° CCC - FMS No./N° VME

7. OTHER DIRECT CHARGES: at actual cost without markup

Total estimated : _____ \$.

TOTAL ESTIMATED COST – Limitation of expenditure for task 5.2 : \$ _____ (TPS /TVH extra)

Solicitation No. - N° de l'invitation
W7701-186626/A
Client Ref. No. - N° de réf. du client
W7701-18-6626

Amd. No. - N° de la modif.
File No. - N° du dossier
QCL-7-40115

Buyer ID - Id de l'acheteur
QCL025
CCC No./N° CCC - FMS No./N° VME

ANNEX “C”

SECURITY REQUIREMENTS CHECK LIST



Government
of Canada

Gouvernement
du Canada

RECEIVED

DEC 29 2017

Contract Number / Numéro du contrat

2017-14594

Security Classification / Classification de sécurité

SECURITY REQUIREMENTS CHECK LIST (SRCL)
LISTE DE VÉRIFICATION DES EXIGENCES RELATIVES À LA SÉCURITÉ (LVERS)

PART A - CONTRACT INFORMATION / PARTIE A - INFORMATION CONTRACTUELLE		
1. Originating Government Department or Organization / Ministère ou organisme gouvernemental d'origine		2. Branch or Directorate / Direction générale ou Direction
DND		RDDC VALCARTIER
3. a) Subcontract Number / Numéro du contrat de sous-traitance	3. b) Name and Address of Subcontractor / Nom et adresse du sous-traitant	
4. Brief Description of Work / Brève description du travail		
DEVELOPMENT OF A METHOD TO EVALUATE THE INJURY RISK ON THE LOWER ARM WHEN USING A SHIELD SUBJECT TO BALLISTIC IMPACT		
5. a) Will the supplier require access to Controlled Goods? Le fournisseur aura-t-il accès à des marchandises contrôlées?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
5. b) Will the supplier require access to unclassified military technical data subject to the provisions of the Technical Data Control Regulations? Le fournisseur aura-t-il accès à des données techniques militaires non classifiées qui sont assujetties aux dispositions du Règlement sur le contrôle des données techniques?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
6. Indicate the type of access required / Indiquer le type d'accès requis		
6. a) Will the supplier and its employees require access to PROTECTED and/or CLASSIFIED information or assets? Le fournisseur ainsi que les employés auront-ils accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS? (Specify the level of access using the chart in Question 7. c) (Préciser le niveau d'accès en utilisant le tableau qui se trouve à la question 7. c)		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
6. b) Will the supplier and its employees (e.g. cleaners, maintenance personnel) require access to restricted access areas? No access to PROTECTED and/or CLASSIFIED information or assets is permitted. Le fournisseur et ses employés (p. ex. nettoyeurs, personnel d'entretien) auront-ils accès à des zones d'accès restreintes? L'accès à des renseignements ou à des biens PROTÉGÉS et/ou CLASSIFIÉS n'est pas autorisé.		<input type="checkbox"/> No Non <input checked="" type="checkbox"/> Yes Oui
6. c) Is this a commercial courier or delivery requirement with no overnight storage? S'agit-il d'un contrat de messagerie ou de livraison commerciale sans entreposage de nuit?		<input checked="" type="checkbox"/> No Non <input type="checkbox"/> Yes Oui
7. a) Indicate the type of information that the supplier will be required to access / Indiquer le type d'information auquel le fournisseur devra avoir accès		
Canada	NATO / OTAN	Foreign / Étranger
7. b) Release restrictions / Restrictions relatives à la diffusion		
No release restrictions Aucune restriction relative à la diffusion	All NATO countries Tous les pays de l'OTAN	No release restrictions Aucune restriction relative à la diffusion
Not releasable À ne pas diffuser		
Restricted to: / Limité à:	Restricted to: / Limité à:	Restricted to: / Limité à:
Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:	Specify country(ies): / Préciser le(s) pays:
7. c) Level of information / Niveau d'information		
PROTECTED A PROTÉGÉ A	NATO UNCLASSIFIED NATO NON CLASSIFIÉ	PROTECTED A PROTÉGÉ A
PROTECTED B PROTÉGÉ B	NATO RESTRICTED NATO DIFFUSION RESTREINTE	PROTECTED B PROTÉGÉ B
PROTECTED C PROTÉGÉ C	NATO CONFIDENTIAL NATO CONFIDENTIEL	PROTECTED C PROTÉGÉ C
CONFIDENTIAL CONFIDENTIEL	NATO SECRET NATO SECRET	CONFIDENTIAL CONFIDENTIEL
SECRET SECRET	COSMIC TOP SECRET COSMIC TRÈS SECRET	SECRET SECRET
TOP SECRET TRÈS SECRET		TOP SECRET TRÈS SECRET
TOP SECRET (SIGINT) TRÈS SECRET (SIGINT)		TOP SECRET (SIGINT) TRÈS SECRET (SIGINT)



PART A (continued) / PARTIE A (suite)

8. Will the supplier require access to PROTECTED and/or CLASSIFIED COMSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens COMSEC désignés PROTÉGÉS et/ou CLASSIFIÉS?

If Yes, indicate the level of sensitivity:
Dans l'affirmative, indiquer le niveau de sensibilité :

☒ No ☐ Yes
Non Oui

9. Will the supplier require access to extremely sensitive INFOSEC information or assets?
Le fournisseur aura-t-il accès à des renseignements ou à des biens INFOSEC de nature extrêmement délicate?

☒ No ☐ Yes
Non Oui

Short Title(s) of material / Titre(s) abrégé(s) du matériel :

Document Number / Numéro du document :

PART B - PERSONNEL (SUPPLIER) / PARTIE B - PERSONNEL (FOURNISSEUR)

10. a) Personnel security screening level required / Niveau de contrôle de la sécurité du personnel requis

☒ RELIABILITY STATUS
COTE DE FIABILITÉ

☐ CONFIDENTIAL
CONFIDENTIEL

☐ SECRET
SECRET

☐ TOP SECRET
TRÈS SECRET

☐ TOP SECRET - SIGINT
TRÈS SECRET - SIGINT

☐ NATO CONFIDENTIAL
NATO CONFIDENTIEL

☐ NATO SECRET
NATO SECRET

☐ COSMIC TOP SECRET
COSMIC TRÈS SECRET

☐ SITE ACCESS
ACCÈS AUX EMPLACEMENTS

Special comments:

Commentaires spéciaux :

NOTE: If multiple levels of screening are identified, a Security Classification Guide must be provided.
REMARQUE : Si plusieurs niveaux de contrôle de sécurité sont requis, un guide de classification de la sécurité doit être fourni.

10. b) May unscreened personnel be used for portions of the work?
Du personnel sans autorisation sécuritaire peut-il se voir confier des parties du travail?

☒ No ☐ Yes
Non Oui

If Yes, will unscreened personnel be escorted?
Dans l'affirmative, le personnel en question sera-t-il escorté?

☐ No ☐ Yes
Non Oui

PART C - SAFEGUARDS (SUPPLIER) / PARTIE C - MESURES DE PROTECTION (FOURNISSEUR)

INFORMATION / ASSETS / RENSEIGNEMENTS / BIENS

11. a) Will the supplier be required to receive and store PROTECTED and/or CLASSIFIED information or assets on its site or premises?
Le fournisseur sera-t-il tenu de recevoir et d'entreposer sur place des renseignements ou des biens PROTÉGÉS et/ou CLASSIFIÉS?

☒ No ☐ Yes
Non Oui

11. b) Will the supplier be required to safeguard COMSEC information or assets?
Le fournisseur sera-t-il tenu de protéger des renseignements ou des biens COMSEC?

☒ No ☐ Yes
Non Oui

PRODUCTION

11. c) Will the production (manufacture, and/or repair and/or modification) of PROTECTED and/or CLASSIFIED material or equipment occur at the supplier's site or premises?
Les installations du fournisseur serviront-elles à la production (fabrication et/ou réparation et/ou modification) de matériel PROTÉGÉ et/ou CLASSIFIÉ?

☒ No ☐ Yes
Non Oui

INFORMATION TECHNOLOGY (IT) MEDIA / SUPPORT RELATIF À LA TECHNOLOGIE DE L'INFORMATION (TI)

11. d) Will the supplier be required to use its IT systems to electronically process, produce or store PROTECTED and/or CLASSIFIED information or data?
Le fournisseur sera-t-il tenu d'utiliser ses propres systèmes informatiques pour traiter, produire ou stocker électroniquement des renseignements ou des données PROTÉGÉS et/ou CLASSIFIÉS?

☒ No ☐ Yes
Non Oui

11. e) Will there be an electronic link between the supplier's IT systems and the government department or agency?
Disposera-t-on d'un lien électronique entre le système informatique du fournisseur et celui du ministère ou de l'agence gouvernementale?

☒ No ☐ Yes
Non Oui



PART C - (continued) / PARTIE C - (suite)

For users completing the form manually use the summary chart below to indicate the category(ies) and level(s) of safeguarding required at the supplier's site(s) or premises.

Les utilisateurs qui remplissent le formulaire manuellement doivent utiliser le tableau récapitulatif ci-dessous pour indiquer, pour chaque catégorie, les niveaux de sauvegarde requis aux installations du fournisseur.

For users completing the form online (via the Internet), the summary chart is automatically populated by your responses to previous questions.

Dans le cas des utilisateurs qui remplissent le formulaire en ligne (par Internet), les réponses aux questions précédentes sont automatiquement saisies dans le tableau récapitulatif.

SUMMARY CHART / TABLEAU RÉCAPITULATIF

Category Catégorie	PROTECTED PROTÉGÉ			CLASSIFIED CLASSIFIÉ			NATO				COMSEC					
	A	B	C	CONFIDENTIAL CONFIDENTIEL	SECRET	TOP SECRET TRÈS SECRET	NATO RESTRICTED NATO DIFFUSION RESTREINTE	NATO CONFIDENTIAL NATO CONFIDENTIEL	NATO SECRET	COSMIC TOP SECRET COSMIC TRÈS SECRET	PROTECTED PROTÉGÉ			CONFIDENTIAL CONFIDENTIEL	SECRET	TOP SECRET TRÈS SECRET
											A	B	C			
Information / Assets Renseignements / Biens Production																
IT Media / Support TI																
IT Link / Lien électronique																

12. a) Is the description of the work contained within this SRCL PROTECTED and/or CLASSIFIED?
La description du travail visé par la présente LVERS est-elle de nature PROTÉGÉE et/ou CLASSIFIÉE?

☒ No
Non ☐ Yes
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification".
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée
« Classification de sécurité » au haut et au bas du formulaire.

12. b) Will the documentation attached to this SRCL be PROTECTED and/or CLASSIFIED?
La documentation associée à la présente LVERS sera-t-elle PROTÉGÉE et/ou CLASSIFIÉE?

☒ No
Non ☐ Yes
Oui

If Yes, classify this form by annotating the top and bottom in the area entitled "Security Classification" and indicate with attachments (e.g. SECRET with Attachments).
Dans l'affirmative, classifiez le présent formulaire en indiquant le niveau de sécurité dans la case intitulée
« Classification de sécurité » au haut et au bas du formulaire et indiquer qu'il y a des pièces jointes (p. ex. SECRET avec des pièces jointes).

Solicitation No. - N° de l'invitation
W7701-186626/A
Client Ref. No. - N° de réf. du client
W7701-18-6626

Amd. No. - N° de la modif.
File No. - N° du dossier
QCL-7-40115

Buyer ID - Id de l'acheteur
QCL025
CCC No./N° CCC - FMS No./N° VME

ANNEX “1” to PART 3 OF THE BID SOLICITATIO

ELECTRONIC PAYMENT INSTRUMENTS

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

- ☐ Direct Deposit (Domestic and International);
- ☐ Electronic Data Interchange (EDI);

Attachment 1

Mandatory and Point Rated criteria

1. MANDATORY EVALUATION CRITERIA

In their proposals, bidders must demonstrate they meet the following mandatory criteria. Failure to meet any of the mandatory criteria will render the bid non-compliant and it will be given no further consideration.

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.

	CRITERIA	MET	NOT MET
M1	Contractor must show he has experience in developing or adapting surrogate for various loading conditions		
M2	Contractor must show he has experience at developing injury criteria base on surrogate various loading conditions and correlate to PMHS		
M3	Contractor must show he has access to a C-scan, DXA scanner and machine shop		

2. POINT-RATED EVALUATION CRITERIA

Evaluation scale for Point rated criteria is as per the following grid:

INADEQUATE	WEAK	ACCEPTABLE	GOOD	VERY GOOD	EXCELLENT
Did not submit information which could be evaluated Or Information submitted is inadequate	Below the desirable minimum, can hardly meet the requirements	Meet the minimum desirable, should achieve results meeting the minimum requirements	Exceeds slightly the desirable minimum, sufficient to achieve satisfactory results	Well over desirable minimum, should achieve results exceeding expectations	Exceptionally strong proposal, should achieve results well beyond expectations
No explanation, description or Very poor explanation, description,	Poor or unclear explanation, description	Limited but clear explanation, description	Good explanation, description	Very good explanation, description	Exceptional explanation, description
No evidence Or Very poor evidences, do not support requirements	Minimum evidences that barely support requirements	Acceptable evidences to support requirements	Good evidences to support requirements	Very good evidences to support requirements	Exceptional evidences to support requirements
No vision, no understanding or Very poor vision, impossible to evaluate understanding	Poor vision and understanding barely demonstrate	vision and understanding are acceptable	Good vision and good understanding	Very good vision and very good understanding	Exceptional vision and Exceptional understanding

POINT-RATED EVALUATION CRITERIA		Evaluation scale	Min	Max
P1	<p>Understanding of the 'Statement of Work'</p> <p>The bidder must demonstrate its understanding of the Statement of Work by providing in its own words a convincing demonstration of its understanding of the context, scope and objectives of this contract. The demonstrated understanding of the context, scope and objectives must be detail and must not be limited to the description of the statement of work.</p> <p>The three elements (context, scope and objectives) are evaluated independently. Each element must obtain a minimum of 5 pts. The score given is the average of the individual scores for the three elements.</p> <p>Example of calculation : The score of the bidder is as follows : <ul style="list-style-type: none"> - 15 points for context - 12 points for scope - 6 points for objectives The total score of the bidder for criterion P1 is $(15+12+6)/3 = 11$ points.</p>	<p>EXCELLENT – 20 pts</p> <p>VERY GOOD – 15 pts</p> <p>GOOD – 10 pts</p> <p>ACCEPTABLE – 5 pts</p> <p>WEAK – 3 pts</p> <p>INADEQUATE – 0 pt</p>	5	20
P2	<p>Tests Methodology</p> <p>The bidder should clearly present its proposed technical approach and methodology. The technical approach and methodology should be coherent, relevant, complete and realistic and should demonstrate the following:</p> <p>P2.1 The capacity to develop or adapt a surrogate to short duration, high impact energy loading</p> <p>P2.2 The capacity to build injury criteria using results from surrogate and correlate to PMHS</p> <p>The bidder should support his methodological approach by examples from projects and anterior experiments.</p> <p>The two elements (surrogate and injury criteria) are evaluated independently. Each element must obtain a minimum of 5 pts. The score given is the average of the individual scores for the two elements.</p>	<p>EXCELLENT – 30 pts</p> <p>VERY GOOD – 20 pts</p> <p>GOOD – 15 pts</p> <p>ACCEPTABLE – 10 pts</p> <p>WEAK – 5 pts</p> <p>INADEQUATE – 0 pt</p>	10	30
P3	<p>Experience of the bidder's resources</p> <p>To enable the evaluation team to properly score the following criteria, the bidder should provide the CV of each resource proposed for each criterion of this section. The CVs must clearly, explicitly and indisputably demonstrate that the proposed resources meet the minimum requirement with regard to the education and experience of the labour category.</p> <p>The bidder should also support each working experience by presenting projects in which the proposed resources gained</p>	<p>15 pts: the bidder demonstrates that the resource has more than 5 years of experience in this labour category.</p> <p>10 pts: the bidder demonstrates that the resource has between 3 to 5 years of</p>	5	15

	<p>their experience. For each project described, the bidder must at least include the following information:</p> <ul style="list-style-type: none"> a. title, context, objectives and the scope of project, b. project periods (exact month and year of the beginning and exact month and year of the end of the project), c. exact dates of the involvement and the role of the proposed resource in the project, d. the tasks performed by the proposed resources.), e. any other relevant information. <p>A resource may be proposed in more than one labour category and will thus be evaluated for each of those categories.</p> <p>If the bidder cannot propose resources for each category, subcontractors should be identified. The same information must be provided for the subcontractors' resources, and the same evaluation method will apply.</p> <p>Each resource is evaluated independently and must obtain a minimum of 5 pts. The score given is the average of the individual scores.</p> <p>P3.1 Radiodiagnostic technologist The bidder should demonstrate that he has resources available for this contract that has experience collecting data using a CT-scan and in DXA scan</p> <p>P3.2 Electronics technician The bidder should demonstrate that he has resources available for this contract that has experience with electronics instrumentation</p> <p>P3.3 Machinist technicians The bidder should demonstrate that he has the resources available for this contract that has experience working in a machine shop to make pieces for surrogate or test fixture</p>	<p>experience in this labour category.</p> <p>5 pts: the bidder demonstrates that the resource has less than 3 years of experience in this labour category.</p> <p>0 pt: The bidder cannot demonstrate any experience from the resource</p>		
P4	<p>Bidder's Experience</p> <p>For each criterion of this section, the bidder should demonstrate its experience by describing passed projects related to the evaluation criteria, which pertains mostly to the following information:</p> <ul style="list-style-type: none"> f. topic, context, objectives and the scope of project, g. project periods (exact month and year of the beginning and exact month and year of the end of the project), h. exact dates of bidder involvement in the project, i. role(s) of bidder in the project (prime contractor, subcontractor, etc.), j. budget, k. name of the client , 	<p>20 pts: The bidder has completed 4 or more projects in this area.</p> <p>15 pts: The bidder has completed 3 projects in this area</p> <p>10 pts: The bidder has completed 2 projects in this area</p> <p>5 pts: The bidder has completed 1 project in this area</p>	5	20

	<p>l. number of resource (equivalent of full-time employee) involved in the project for each year of the project,</p> <p>m. any other relevant information.</p> <p>Each criterion is evaluated independently. The score given is the average of the individual scores.</p> <p>P4.1 Bidder's experience in performing projects in a field related to Task 5.1.2: develop or select and modify a surrogate</p> <p>P4.2 Bidder's experience in performing projects in a field related to Task 5.2: tests using PMHS and development of injury criteria</p>	0 pt: Any other situation.		
P5	<p>Management proposal</p> <p>Each element is evaluated independently and must obtain a minimum of 6 pts. The score given is the average of the individual scores.</p> <p>P5.1 Personnel The bidder must describe the method and tools used to manage its personnel, contingency, availability of resources, and work overload.</p> <p>P5.2 Work plan The bidder must describe its proposed work plan and the effectiveness of his method. The bidder must describe how its work plan takes into account the risk elements of the project. The bidder must clearly demonstrate that the work plan was tested and successfully applied in previous projects.</p> <p>P5.3 Quality control and workflow management method The bidder must describe its workflow management method for overseeing the progress of the work and for complying with the deadlines. It must also describe its quality control method and the tools to be used to ensure that deliverables meet requirements. Furthermore, it must demonstrate clearly and beyond a reasonable doubt that this method was tested and was successfully applied in previous projects.</p>	<p>EXCELLENT – 15 pts</p> <p>VERY GOOD – 12 pts</p> <p>GOOD – 9 pts</p> <p>ACCEPTABLE – 6 pts</p> <p>WEAK – 3 pts</p> <p>INADEQUATE – 0 pt</p>	6	15
TOTAL			31	100