



**RETURN BIDS TO:  
RETOURNER LES SOUMISSIONS À:**

**Bid Receiving - PWGSC / Réception des  
soumissions - TPSGC**  
11 Laurier St./ 11, rue Laurier  
Place du Portage, Phase III  
Core 0B2 / Noyau 0B2  
Gatineau, Québec K1A 0S5  
Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL  
DEMANDE DE PROPOSITION**

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

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

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

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

**Comments - Commentaires**

<b>Title - Sujet</b> Hard Body Armour Plates	
<b>Solicitation No. - N° de l'invitation</b> 5P051-180632/A	<b>Date</b> 2018-12-03
<b>Client Reference No. - N° de référence du client</b> 5P051-180632	
<b>GETS Reference No. - N° de référence de SEAG</b> PW-\$\$PR-765-75929	
<b>File No. - N° de dossier</b> pr765.5P051-180632	<b>CCC No./N° CCC - FMS No./N° VME</b>
<b>Solicitation Closes - L'invitation prend fin</b> <b>at - à 02:00 PM</b> <b>on - le 2019-01-14</b>	<b>Time Zone</b> <b>Fuseau horaire</b> Eastern Standard Time EST
<b>F.O.B. - F.A.B.</b> <b>Plant-Usine:</b> <input type="checkbox"/> <b>Destination:</b> <input type="checkbox"/> <b>Other-Autre:</b> <input type="checkbox"/>	
<b>Address Enquiries to: - Adresser toutes questions à:</b> Dubé, Jonah	<b>Buyer Id - Id de l'acheteur</b> pr765
<b>Telephone No. - N° de téléphone</b> (613) 859-0788 ( )	<b>FAX No. - N° de FAX</b> ( ) -
<b>Destination - of Goods, Services, and Construction:</b> <b>Destination - des biens, services et construction:</b> PARKS CANADA 3RD FLOOR, ROOM 103 (PC-03-F) 30 VICTORIA LAW ENFORCE-PROT A REAS ESTAB GATINEAU Quebec J8X0B3 Canada	

**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**

Clothing and Textiles Division / Division des vêtements et des textiles  
L'Esplanade Laurier,  
East Tower 7th Floor  
Tour est 7e étage  
140 O'Connor, rue O'Connor,  
Ottawa  
Ontario  
K1A 0R5

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

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## **PART 1 - GENERAL INFORMATION**

### **1.1 Security Requirement**

There is no security requirement associated with this bid solicitation.

### **1.2 Statement of Work**

The "Requirement" is detailed under Annex A of the resulting contract clauses.

### **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.

### **1.4 Trade Agreements**

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

## **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>) 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

### **2.2 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.

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

### **2.3 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 question(s) or may request that the Bidder do so, so that the proprietary nature of the question(s) is eliminated, and the enquiry can be answered to all Bidders. Enquiries not submitted in a form that can be distributed to all Bidders may not be answered by Canada.

### **2.4 Applicable Laws**

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

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

### **2.5 Transportation Costs Information**

The Bidder is requested to provide the following information concerning transportation costs for the delivery of the units to destination:

- (a) shipping weight by unit; \_\_\_\_\_
- (b) number of items by unit; \_\_\_\_\_
- (c) cubic measurement by unit; \_\_\_\_\_
- (d) number of units per shipment: \_\_\_\_\_
- (e) name of shipping point; \_\_\_\_\_
- (f) recommended method of shipment and carrier \_\_\_\_\_
- (g) Unit cost per Destination (Gatineau, Quebec) \$ \_\_\_\_\_
- (h) Total cost \$ \_\_\_\_\_

## **PART 3 - BID PREPARATION INSTRUCTIONS**

### **3.1 Bid Preparation Instructions**

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

- Section I: Technical Bid (3 hard copies and 1 soft copy on CD, DVD or USB flash drive)
- Section II: Financial Bid (1 hard copy and 1 soft copy on CD, DVD or USB flash drive)
- Section III: Certifications (1 hard copies and 1 soft copy on CD, DVD or USB flash drive)

If there is a discrepancy between the wording of the soft copy and the hard copy, the wording of the hard copy will have priority over the wording of the soft 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) (<http://www.tpsgc-pwgsc.gc.ca/ecologisation-greening/achats-procurement/politique-policy-eng.html>). To assist Canada in reaching its objectives, Bidders should:

- 1) use 8.5 x 11 inch (216 mm x 279 mm) paper containing fibre certified as originating from a sustainably-managed forest and containing minimum 30% recycled content; and
- 2) use an environmentally-preferable format including black and white printing instead of colour printing, printing double sided/duplex, using staples or clips instead of cerlox, duotangs or binders.
- 3) Green Initiatives (for PWGSC information only)  
Bidders are requested to provide details of their policies and practices in relation to the following initiatives:
  - environmentally responsible manufacturing;
  - environmentally responsible waste disposal;
  - waste reduction;
  - packaging;
  - re-use strategies;
  - recycling.

#### **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 (reference pre-award sample, Part 4, Evaluation Procedures, 4.1.1.1 Mandatory Technical Criteria).

#### **Section II: Financial Bid**

Bidders must submit their financial bid in accordance with the Basis of Payment.

#### **3.1.1 Electronic Payment of Invoices – Bid**

If you are willing to accept payment of invoices by Electronic Payment Instruments, complete Attachment 1 Electronic Payment Instruments, to identify which ones are accepted.

If Attachment 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.

**3.1.2 Exchange Rate Fluctuation**

C3011T      2013/11/06      Exchange Rate Fluctuation

**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**

##### **4.1.1.1 Mandatory Technical Criteria**

###### **Pre-Award Samples and Supporting Documentation**

As part of the technical evaluation, to confirm a Bidder's capability of meeting the technical requirements, one (1) pre-award sample of the following item, test results and certificates of compliance must be included with the bid:

- a) Item 1, Hard Armour Rifle Plate, size Medium (M)

The Bidder must ensure that the required pre-award samples are manufactured in accordance with the technical requirement and are fully representative of the bid submitted. Rejection of the pre-award samples will result in the bid being declared non-responsive.

The Bidder must deliver the required pre-award samples, test results and certificates of compliance at no charge to Canada and must ensure that they are received with the bid at time and place of bid closing. If any supporting documentation (test report or CofC) is missing, the Contracting Authority will inform the Bidder in writing and provide the Bidder with two (2) working days from the request to submit the missing documentation. Failure to submit the required pre-award samples, test results and certificates of compliance within the specified time frame will result in the bid being declared non-responsive. The samples submitted by the Bidder will remain the property of Canada.

Laboratory analysis of the product offered showing ballistic test results demonstrating compliance in accordance with paragraphs 4.1.1 and 4.1.2, as detailed in the technical requirement, must be provided with the pre-award samples. Testing must be performed by an independent accredited laboratory establishment and must be in accordance with the test methods detailed in the technical requirement. The laboratory report and test results must be dated within 5 years of the Request for Proposal posting date, and all tests must be performed on the same material within a two-week period.

In addition, Certificates of Compliance are required for the following:

1. NIJ Standard 0101.06 Ballistic Resistance of Body Armour (2008) (para. 2.2 of Annex B)
2. U.S. MIL-STD-662F, Military Standard: V50 Ballistic Test for Armor (para. 2.3 of Annex B)

The pre-award samples will be evaluated for quality of workmanship and conformance to specified materials and measurements.

###### **CERTIFICATE OF COMPLIANCE-DEFINITION**

A Certificate of Compliance is a written statement from the Bidder guaranteeing the full compliance of the item offered to the specification. This document must be on official company stationery; it must be dated within 60 months of the RFP posting date; it must make reference to the applicable specification and have the original signature of the company's designated representative. Canada reserves the right to verify the statements made in the Certificate of Compliance. Full test results, demonstrating the product's compliance, will be accepted in lieu of a Certificate of Compliance.

The requirement for pre-award samples will not relieve the successful bidder from submitting test results and certificates of compliance as required by the contract terms or from strictly adhering to the technical requirement of this Request For Proposal and any resulting contract.

#### **4.1.2 Financial Evaluation**

##### **4.1.2.1 Mandatory Financial Criteria**

- a) The Bidder must submit firm unit prices in Canadian dollars, applicable taxes are excluded, DDP (Gatineau, Quebec) Incoterms 2000, transportation costs included, all applicable Customs Duties and Excise taxes included.
- b) The Bidder must submit firm unit pricing for all items including option quantities.

##### **4.1.2.2 SACC MANUAL CLAUSE**

A9033T 2012/07/16 Financial Capability

#### **4.2 Basis of Selection**

A bid must comply with all requirements of the bid solicitation and meet all mandatory technical and financial evaluation criteria to be declared responsive.

The responsive bid with the lowest evaluated aggregate price will be recommended for award of a contract (1 contract only). Evaluation will be established using the firm quantities for all items, and 100% of the option quantities.

#### **4.3 Contract Financial Security**

1. If this bid is accepted, the Bidder may be required to provide contract financial security, after the bid closing date and within 10 calendar days from receipt of a written request from the Contracting Authority.
  - i. a security deposit as defined in clause "Security Deposit Definition" in the amount of up to ten percent (10%) of the contract price.
2. Security deposits in the form of government guaranteed bonds with coupons attached will be accepted only if all coupons that are unmaturing, at the time the security deposit is provided, are attached to the bonds. The Contractor must provide written instructions concerning the action to be taken with respect to coupons that will mature while the bonds are pledged as security, when such coupons are in excess of the security deposit requirement.
3. If Canada does not receive the required financial security within the specified period, Canada may, as its discretion, accept another offer, issue a new bid solicitation, award a contract or reject all the bids.

#### **4.4 Security Deposit Definition**

1. "security deposit" means
  - (a) a bill of exchange that is payable to the Receiver General for Canada, and certified by an approved financial institution or drawn by an approved financial institution on itself; or
  - (b) a Government guaranteed bond; or
  - (c) an irrevocable standby letter of credit, or
  - (d) such other security as may be considered appropriate by the Contracting Authority and approved by Treasury Board;
2. "approved financial institution" means
  - (a) any corporation or institution that is a member of the Canadian Payments Association;
  - (b) a corporation that accepts deposits that are insured by the Canada Deposit Insurance Corporation or the "Régie de l'assurance-dépôts du Québec" to the maximum permitted by law;

- (c) a credit union as defined in paragraph 137(6) the *Income Tax Act*;
  - (d) a corporation that accepts deposits from the public, if repayment of the deposits is guaranteed by Canadian province or territory; or
  - (e) the Canada Post Corporation.
3. "government guaranteed bond" means a bond of the Government of Canada or a bond unconditionally guaranteed as to principal and interest by the Government of Canada that is:
- (a) payable to bearer;
  - (b) accompanied by a duly executed instrument of transfer of the bond to the Receiver General for Canada in accordance with the *Domestic Bonds of Canada Regulations*;
  - (c) registered in the name of the Receiver General for Canada.
4. "irrevocable standby letter of credit"
- (a) means any arrangement, however named or described, whereby a financial institution (the "Issuer"), acting at the request and on the instructions of a customer (the "Applicant"), or on its behalf,
    - (i) will make a payment to or to the order of Canada, as the beneficiary;
    - (ii) will accept and pay bills of exchange drawn by Canada;
    - (iii) authorizes another financial institution to effect such payment, or accept and pay such bills of exchange; or
    - (iv) authorizes another financial institution to negotiate, against written demand(s) for payment, provided that the conditions of the letter of credit are complied with.
  - (b) must state the face amount which may be drawn against it;
  - (c) must state its expiry date;
  - (d) must provide for sight payment to the Receiver General for Canada by way of the financial institution's draft against presentation of a written demand for payment signed by the authorized departmental representative identified in the letter of credit by his/her office;
  - (e) must provide that more than one written demand for payment may be presented subject to the sum of those demands not exceeding the face amount of the letter of credit;
  - (f) must provide that it is subject to the International Chamber of Commerce (ICC) Uniform Customs and Practice (UCP) for Documentary Credits, 2007 Revision, ICC Publication No. 600. Pursuant to the ICC UCP, a credit is irrevocable even if there is no indication to that effect; and
  - (g) must be issued (Issuer) or confirmed (Confirmer), in either official language, by a financial institution that is a member of the Canadian Payments Association and is on the letterhead of the Issuer or Confirmer. The format is left to the discretion of the Issuer or Confirmer.

## **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 declaration form available on the Forms for the Integrity Regime website (<http://www.tpsgc-pwgsc.gc.ca/ci-if/declaration-eng.html>), to be given further consideration in the procurement process.

### **5.2 Certifications Precedent to Contract Award and Additional Information**

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

#### **5.2.1 Integrity Provisions – Required Documentation**

In accordance with the section titled Information to be provided when bidding, contracting or entering into a real procurement agreement of the Ineligibility and Suspension Policy (<http://www.tpsgc-pwgsc.gc.ca/ci-if/politique-policy-eng.html>), 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 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 Samples and Production Certification**

The Bidder certifies that:

( ) the manufacturer that produced the pre-award samples will remain unchanged for the full production of the contract quantity.

## **PART 6 - RESULTING CONTRACT CLAUSES**

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

### **6.1 Security Requirements**

There is no security requirement applicable to the Contract.

### **6.2 Statement of Work**

The Contractor must provide the items detailed at Annex A.

### **6.3 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.

#### **6.3.1 General Conditions**

2030 (2018/06/21), General Conditions - Goods (Higher Complexity), apply to and form part of the Contract.

### **6.4 Term of Contract**

#### **6.4.1 Delivery Required (Desirable) - Firm Quantity**

All firm deliverables are requested complete by March 31, 2019.

##### **Delivery - Firm Quantity - Phased**

The first delivery must be made within \_\_\_\_\_ calendar days from the effective date of the Contract. The quantity delivered must be \_\_\_\_\_ units. The balance must be delivered at the rate of \_\_\_\_\_ units weekly after the first delivery until completion of the Contract.

##### **Delivery - Option Quantity**

The delivery of the option quantity must commence within \_\_\_\_\_ calendar days from receipt of the contract amendment and after final delivery of the contract quantity. The quantity delivered must be \_\_\_\_\_ units. The balance must be shipped at a rate of \_\_\_\_\_ units weekly after the first delivery until completion of the option quantity.

#### **6.4.1.1 Shipping Instructions - Delivery at Destination**

1. Goods must be consigned to the destination specified in the Contract and delivered:

(a) Delivered Duty Paid (DDP) Gatineau, Quebec, Incoterms 2000 for shipments from commercial contractor.

#### **6.4.1.2 Packaging - Commercial**

Packing must be in accordance with standard commercial practice to ensure safe delivery at destination.

#### **6.4.1.3 Rejected Goods**

If any goods are rejected and are sold to any resale, all markings and insignia must be removed before being turned over to the purchaser.

### **6.5 Authorities**

#### **6.5.1 Contracting Authority**

The Contracting Authority for the Contract is:

Jonah Dubé  
Public Works and Government Services Canada  
Acquisitions Branch  
Commercial and Consumer Products Directorate (CCPD)  
Clothing & Textiles Division  
L'Esplanade Laurier, East Tower 7th Floor  
140 O'Connor, Street, Ottawa, Ontario  
K1A 0R5 Canada  
Telephone : 613-859-0788  
E-mail address: [Jonah.dube@pwgsc-tpsgc.gc.ca](mailto:Jonah.dube@pwgsc-tpsgc.gc.ca)

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

### 6.5.2 Project Authority

The Project Authority for the Contract is:

Name: \_\_\_\_\_ (to be advised at contract)  
Title: \_\_\_\_\_  
Organization: \_\_\_\_\_  
Address: \_\_\_\_\_  
Telephone : \_\_\_\_\_  
Facsimile: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

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

### 6.5.3 Contractor's Representative

The person responsible for :

#### General enquiries

Name: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Facsimile No.: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

#### Delivery follow-up

Name: \_\_\_\_\_  
Telephone No.: \_\_\_\_\_  
Facsimile No.: \_\_\_\_\_  
E-mail address: \_\_\_\_\_

## 6.6 Payment

### 6.6.1 Basis of Payment – Firm Unit Prices

In consideration of the Contractor satisfactorily completing all of its obligations under the Contract, the Contractor will be paid firm unit prices, as specified in Annex A 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.

#### **6.6.2 SACC Manual Clauses**

H1001C      2008/05/12      Multiple Payments

#### **6.6.3 Electronic Payment of Invoices – Contract**

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

- a. Visa Acquisition Card;
- b. MasterCard Acquisition Card;
- c. Direct Deposit (Domestic and International);
- d. Electronic Data Interchange (EDI);
- e. Wire Transfer (International Only);
- f. Large Value Transfer System (LVTS) (Over \$25M)

#### **6.7 Invoicing Instructions**

1. 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.
2. Invoices must be distributed as follows:
  - (a) The original and one (1) copy must be forwarded to the following address for certification and payment

Parks Canada Agency  
Law Enforcement Branch  
30 Victoria Street (PC-03-F)  
Gatineau, QC J8X0B3  
Att: Olivier Carrier-Leclerc

- (b) One (1) copy must be forwarded to the Contracting Authority identified under the section entitled "Authorities" of the Contract.
- (c) One (1) copy must be forwarded to the consignee.

#### **6.8 Insurance - No Specific Requirement**

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

#### **6.9 Certifications and Additional Information**

##### **6.10.1 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.

##### **6.10 Applicable Laws**

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

**6.11 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 2030 (2018/06/21), General Conditions - Goods (Higher Complexity);
- c) Annex A, Statement of Work;
- d) Annex B, Specifications; and
- e) the Contractor's bid dated \_\_\_\_\_.

**6.12 Materials: Contractor Total Supply**

The Contractor will be responsible for obtaining all materials required in the manufacture of the items specified. The delivery stated for the items allows the necessary time to obtain such materials.

**6.13 Plant Closing**

The Contractor's plant closing for Christmas and Summer holidays are as follows. During this time there will be no shipments.

Summer 2019 Holiday	FROM _____	TO _____
Christmas 2019 Holiday	FROM _____	TO _____
Summer 2020 Holiday	FROM _____	TO _____
Christmas 2020 Holiday	FROM _____	TO _____
Summer 2021 Holiday	FROM _____	TO _____
Christmas 2021 Holiday	FROM _____	TO _____

**6.14 Plant Location**

Items will be manufactured at: \_\_\_\_\_

**6.15 Subcontractor(s)**

The following subcontractor(s) will be utilized in the performance of the contract.

Name of Company: \_\_\_\_\_

Location: \_\_\_\_\_

Value of subcontract: \$ \_\_\_\_\_

Nature of subcontracting work performed: \_\_\_\_\_

Subcontractors, other than those listed above, may not be utilized without the written permission of Canada.

**6.16 Overshipment**

Overshipment will not be accepted unless prior approval is obtained from the Contracting Authority.

**6.17 Financial Security**

1. Canada may convert the security deposit to the use of Canada if any circumstance exists which would entitle Canada to terminate the Contract for default, but any such conversion will not constitute termination of the Contract.
2. Where Canada so converts the security deposit:

- (a) the proceeds will be used by Canada to complete the Work according to the conditions of the Contract, to the nearest extent that it is feasible to do so and any balance left will be returned to the Contractor on completion of the warranty period; and
- (b) if Canada enters into a Contract to have the Work completed, the Contractor will:
  - (i) be considered to have irrevocably abandoned the Work; and
  - (ii) remain liable for the excess cost of completing the Work if the amount of the security deposit is not sufficient for such purpose. "Excess cost" means any amount over and above the amount of the Contract Price remaining unpaid together with the amount of the security deposit.
3. If Canada does not convert the security deposit to the use of Canada before completion of the contract period, Canada will return the security deposit to the Contractor within a reasonable time after such date.
4. If Canada converts the security deposit for reasons other than bankruptcy, the financial security must be reestablished to the level of the amount stated above so that this amount is continued and available until completion of the contract period.

**ANNEX A  
STATEMENT OF WORK**

**A.1. TECHNICAL REQUIREMENT**

The Contractor is required to provide Canada for the Parks Canada Agency (PCA) with Hard Armour Rifle Plates in accordance with the specifications at Annex B.

**A.2. ADDRESSES**

Destination and Invoicing Address
Parks Canada Agency Law Enforcement Branch 30 Victoria Street (PC-03-F) Gatineau, QC J8X0B3 Att: Olivier Carrier-Leclerc

**A.3. DELIVERABLES**

**CONTRACT QUANTITY**

Firm Quantity (size roll to be provided after Contract Award, in accordance with Annex B, Section 4.2.3)

Item	Description	Firm Quantity	Unit of Issue	Firm Unit Price, DDP, Transportation costs included, Applicable taxes extra
1	Hard Armour Rifle Plate	200	Each	\$ _____

**OPTION QUANTITY**

Item	Description	Estimated Quantity	Unit of Issue	Firm Unit Price, DDP, Transportation costs included, Applicable taxes extra*				
				YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5
2	Hard Armour Rifle Plate	120	Each	\$ _____	\$ _____	\$ _____	\$ _____	\$ _____

\*Year 1: unit price if ordered within 12 months from contract award date.

Year 2: unit price if ordered within 13 to 24 months from contract award date.

Year 3: unit price if ordered within 25 to 36 months from contract award date.

Year 4: unit price if ordered within 37 to 48 months from contract award date.

Year 5: unit price if ordered within 49 to 60 months from contract award date.

**A.4 OPTION QUANTITY - IDENTIFIED AS ITEM 2**

The Contractor grants to Canada the irrevocable option to acquire the goods described under item 2, under the same terms and conditions and at the prices stated in the Contract. The option may only be exercised by the Contracting Authority for a minimum of 5 per Item and per amendment, up to the specified estimated quantity for all amendments in total, and will be evidenced through a contract amendment.

The Contracting Authority may exercise the option within 60 months after contract award date by sending a written notice to the Contractor.

Multiple amendments may result. A size roll will be provided if and when the option is exercised.

**ANNEX B  
SPECIFICATIONS**

*(Attached hereto)*

**ATTACHMENT 1 OF THE BID SOLICITATION  
ELECTRONIC PAYMENT INSTRUMENTS**

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

- VISA Acquisition Card;
- MasterCard Acquisition Card;
- Direct Deposit (Domestic and International);
- Electronic Data Interchange (EDI);
- Wire Transfer (International Only);
- Large Value Transfer System (LVTS) (Over \$25M)



## **Specification**

Parks Canada Agency

Law Enforcement Branch

Personal Protective Equipment Vest and Panels

Date: 01 October 2018

Version: 1.0



## **1. Definition**

- 1.1 This specification must govern the manufacture and inspection of the Personal Protective Equipment Vest (PPEV).
- 1.2 This specification, drawing or other information issued in connection therewith, may only be used for specific enquiries, tenders, or orders placed on behalf of the Parks Canada Agency.

## **2. Applicable Specifications**

- 2.1 The following publications are applicable to this specification and to the issues in effect on the publication date of the Request for Proposal, unless otherwise specified.
- 2.2 NIJ Standard 0101.06 Ballistic Resistance of Body Armour (2008).
- 2.3 AS Test Methods – 1441.9, 2001.2.3.1, 2001.2.4, 2001.2.10, 2001.2.13, 2001.2.16, 2001.2.17, 2001.2.18, 2001.2.25, 2001.4.E01, 2001.4.3, 2001.4.17, 2001.4.15, 2001.4.16, 2001.4.21, 2001.4.21,.
- 2.4 ASTM Test Method – D22261.
- 2.5 CNS Test Method – 12649-3.6, 12649-3.5, 1493, 1494, 1495, 1496, 1499.
- 2.6 EN Test Method - EN 1021.1
- 2.7 DEF (AUST) 5037 or equivalent
- 2.8 ISO Test Method – 7211-1, 9865, 105- E01, 105-B02, 3801, 5084, 811

## **3. General Requirements**

- 3.1 The article or material covered by this specification must be free from imperfections or blemishes such as may affect its appearance or serviceability.
- 3.2 **Design** – The Personal Protective Equipment Vest (PPEV) must be a front-opening vest consisting of:
  - a. A two-piece front garment.
  - b. A removable front anti-ballistic panel carrier.
  - c. A removable front anti-ballistic panel.
  - d. A one-piece back garment.
  - e. A removable back anti-ballistic panel carrier.
  - f. A removable back anti-ballistic panel.

An open ended slide fastener at the centre front must provide the primary means of donning and doffing the vest. The front and back garments must be attached together at the waist and shoulders by means of double overlap hook & loop closures.



The PPEV must be worn externally over duty clothing. Male- and female-specific versions and left- and right-hand specific versions of the vest must be available.

The front and back anti-ballistic panel carriers must accept front and back anti-ballistic panels and must attach within the corresponding front and back PPEV garments.

Anti-ballistic panels to this specification must consist of a set of front and back ballistic material panels each enclosed in a waterproof pouch, to be integrated and used with the PPEV. Anti-ballistic panels must protect the user from handgun ammunition as specified under the NIJ Standard 0101.06 for Level II body armour.

The PPEV must have the ability to accept front and back hard-armour rifle plates fitted without doffing the vest. These plates are being purchased separately.

#### 4. Detail Requirements

##### 4.1 **General Requirements**

4.1.1 **Front PPEV Garment** - The two pieces (left and right side) constituting the front PPEV garment must consist of inner and outer layers constructed from the material specified in Section 4.2.1 and must be secured at the centre by means of a #10 moulded plastic open-ended slide fastener.

A security flap constructed from the material specified in Section 4.2.7 must cover the slide fastener. The security flap must be attached on the dominant side front PPEV garment (i.e. the right side for a right handed vest) and be secured to the support side front PPEV garment (i.e. the left side for a right handed vest) by three press stud fasteners.

The support side edge of the security flap must incorporate a #5 coil close ended slide fastener running its full length to create a utility pocket between the inner and outer layers. This pocket must be accessible with the security flap press stud fasteners engaged.

A horizontal strip of 50mm elastic must be incorporated inside the security flap for securing pens and similar slender accoutrements within the utility pocket.

An additional utility pocket accessed by means of a #5 coil close ended slide fastener must be incorporated in the support side front PPEV garment between the inner and outer layers.

A phone pouch (dimensions: Height 6 inches, Width 3 inches, and Depth 0.5 inches) with a lid secured by hook & loop fastener must be incorporated in to the top of the security flap.

The inside of the right front PPEV garment must include a #5 coil open ended slide fastener and a press stud fastener at the shoulder for attaching the front anti-ballistic panel carrier.



The inside of the left front PPEV garment must include a press stud each at the shoulder and waist for securing the front anti-ballistic panel carrier in the correct location after donning the PPEV.

- 4.1.2 **Front Anti-Ballistic Panel Carrier** - The front anti-ballistic panel carrier must consist of an inner and an outer layer. The inner layer, which is facing the body, must be primarily constructed with 4.2.6, and to a lesser degree with 4.2.2. The outer layer, which is facing out, is completely constructed with fabric as per 4.2.2. It must attach to the front PPEV garment by means of the fasteners described in Section 4.1.1.

Female-specific front anti-ballistic panel carriers must be of appropriate 3D construction to correctly fit the female-specific front anti-ballistic panel.

The front anti-ballistic panel must be installable within the front anti-ballistic panel carrier by means of an opening at the hem line created by a #3 coil close ended slide fastener between the inner and outer layers and secured by means of hook fastener positioned on the inner layer in a location that corresponds to the loop fastener on the front anti-ballistic panel.

The outside of the front anti-ballistic panel carrier must have a pocket sized to accommodate a 10x12" (male) or 8x10" (female) hard armour rifle plate (which is purchased separately). The pocket must have a lid secured with hook & loop fastener.

- 4.1.3 **Back PPEV Garment** – The Back PPEV Garment must consist of an inner and an outer layer. The inner layer, which is facing the body, must be primarily constructed with 4.2.6, and to a lesser degree with 4.2.1. The outer layer, which is facing out, is completely constructed with fabric as per 4.2.1. The shoulders must be lined with 4mm Neoprene rubber padding.

The back anti-ballistic panel carrier must be installable within the back PPEV garment by means of an opening at the hem line created by a #5 coil close ended slide fastener between the inner and outer layers. The back anti-ballistic panel carrier must be secured by means of loop fastener positioned on the inner layer at the shoulders and two press stud fasteners facing the outside layer of the back anti-ballistic panel carrier.

- 4.1.4 **Back Anti-Ballistic Panel Carrier** - The back anti-ballistic panel carrier must consist of inner and outer layers constructed from the material specified in Section 4.2.2. It must attach to the back PPEV garment by means of hook fastener positioned on the inner layer in a location that corresponds to the loop fastener on the back PPEV garment and press stud fasteners positioned on the outer layer in a location that corresponds to that described in Section 4.1.3.



The back anti-ballistic panel must be installable within the back anti-ballistic panel carrier by means of an opening at the hem line created by a #3 coil close ended slide fastener between the inner and outer layers and secured by means of hook fastener positioned on the inner layer in a location that corresponds to the loop fastener on the back anti-ballistic panel.

The outside of the back anti-ballistic panel carrier must have a pocket sized to accommodate a 10x12" (male) or 8x10" (female) hard armour rifle plate (which is purchased separately). The pocket must have a lid secured with hook & loop fastener.

- 4.1.5 **Ballistic Protection Level** - The anti-ballistic panels must meet the NIJ Standard 0101.06 Level II.
- 4.1.6 **Test Methods, Anti-Ballistic Panels** – National Institute of Justice certification is not required however the anti-ballistic performance of the front and back anti-ballistic panels must be tested in accordance with the United States Department of Justice, Office of Justice Programs, National Institute of Justice (NIJ) Standard 0101.06.
- 4.1.7 **Vest Size Adjustment** - The double overlap hook & loop closures at the waist between the front and back PPEV garments must provide a total adjustment of not less than 100mm. The loop fastener must be located on the front PPEV garment and maintain at least 50mm of engagement at the largest adjusted waist size.

The double overlap hook & loop closures at the shoulders between the front and back PPEV garments must provide a total adjustment of not less than 70mm. The loop fastener must be located on the front PPEV garment and maintain at least 50mm of engagement at the largest adjusted over-shoulder length.

- 4.1.8 **Identification Signage** - The security flap on the front PPEV garment must have loop fastener suitable for the fitment of 50mm wide and 220mm high identification signage. The identification signage must be made from the fabric specified in Section 4.2.7 fitted with corresponding hook fastener and have the wording "Park Warden" and "Garde de parc" in vertically oriented reflective silver text.

The back PPEV garment must have loop fastener suitable for the fitment of 250mm wide and 75mm high identification signage. The identification signage must be made from the fabric specified in Section 4.2.7 fitted with corresponding hook fastener and have the wording "Park Warden" and "Garde de parc" in horizontally oriented reflective silver text.

The upper right front of the PPEV garment must include a strip of 38mm loop fastener for the fitment of a name badge.



- 4.1.9 **Accoutrement Pouch Attachment** - The left and right sides of the front PPEV garment must each incorporate five rows of horizontal Modular Lightweight Load-carrying Equipment (MOLLE) webbing and each must have four columns formed by 25mm vertical bar tacks.
- 4.1.10 **Man Down Drag Strap** - The back PPEV garment must incorporate an internally concealed man down drag strap constructed from 20mm wide tubular webbing reinforced with High-density polyethylene (HDPE) plastic and securely attached with a minimum of four bar tacks sufficient to drag 100kg over a distance of 50 meters.
- 4.1.11 **Duty Belt Integration** - The PPEV must incorporate four elastic straps terminated with quick release buckles to engage with matching belt loops. The quick release buckles must be operable single handed.

The elastic straps must be constructed from heavy duty 19mm elastic webbing. The elastic straps must attach to the inside front and back of the PPEV garment and be adjustable for length and lateral position on the PPEV or entirely removable.

The belt loops must be constructed from 19mm Nylon webbing and must have openings to suit 1.5", 2" and 2.25" duty belts. The 2" opening must have a patch of loop fastener to engage with the hook fastener on suitable duty belts and a plastic fitting tool must be supplied to aid the installation of the belt loops on such belts.

## 4.2 Materials

- 4.2.1 **Main Mesh Fabric, PPEV** – The PPEV garment main fabric must:
- Be constructed from warp knitted Polyester yarn.
  - Be fire retardant treated.
  - Have the following physical properties:

Property		Value	Test Method
<b>Mass</b>		$\geq 360\text{g/m}^2$	AS 2001.2.13
<b>Breaking Force</b>	Length	$\geq 950\text{N}$	AS 2001.2.3.1
	Width	$\geq 950\text{N}$	
<b>Tearing Force</b>	Length	$\geq 75\text{N}$	AS 2001.2.10
	Width	$\geq 85\text{N}$	
<b>Colour Fastness to Light</b>		$\geq 6$	AS 2001.4.21
<b>Colour Fastness to Water</b>		$\geq 4$	AS 2001.4.E01
<b>Colour Fastness to Perspiration</b>		$\geq 4$	AS 2001.4.17
<b>Colour Fastness to Rubbing</b>	Dry	$\geq 3$	AS 2001.4.3
	Wet	$\geq 3$	
<b>Colour Fastness to Washing</b>		$\geq 4$	AS 2001.4.15
<b>Abrasion Resistance</b>		$\geq 30,000$	AS 2001.2.25



<b>Bursting</b>		>= 2100kPa	AS 2001.2.4
<b>Stretch</b>	Warp	<= 15%	AS 1441.9
	Weft	<= 25%	
<b>Set</b>	Warp	<= 5%	AS 1441.9
	Weft	<= 7%	

4.2.2 **Main Fabric, Anti-Ballistic Panel Carrier** – The anti-ballistic panel carrier main fabric must:

- a. Be constructed from Nylon yarn.
- b. Be fire retardant treated.
- c. Be waterproof treated.
- d. Have the following physical properties:

Property		Value	Test Method
<b>Mass</b>		>= 200g/m <sup>2</sup>	AS 2001.2.13
<b>Spray Rating</b>		>= 100	AS 2001.2.16
<b>Waterproofness</b>		>= 500mm	ISO 811
<b>Breaking Force</b>	Length	>= 2100N	AS 2001.2.3.1
	Width	>= 1500N	
<b>Tearing Force</b>	Length	>= 95N	AS 2001.2.10
	Width	>= 80N	
<b>Colour Fastness to Washing</b>		>= 4	ISO 105 E01
<b>Colour Fastness to Light</b>		>= 4	ISO 105-B02

4.2.3 **Cloth, Ballistic Aramid** – The ballistic cloth must be constructed of woven Ballistic Aramid Yarn with a maximum size of 930 Decitex (840 Denier). Yarn produced under the trade names Kevlar or Twaron are known to meet the requirement. The cloth must have the additional characteristics:

- a. Be plain weave as defined by ISO 7211-1.
- b. Have a mass per unit area of 200±5g/m<sup>2</sup> when tested in accordance with ISO 3801.
- c. Have a thickness of 0.30mm when tested in accordance with ISO 5084.
- d. Be scoured with not more than 0.1% residuals.
- e. Be water repellent treated.
- f. Have water absorption less than 5%/10min when tested in accordance with ISO 9865.

4.2.4 **Waterproof Panel Cover** – The waterproof panel cover material must have the following characteristics:

- a. Be comprised of a homogenous Thermoplastic Polyurethane (TPU) film.
- b. Have a thickness of 200±10 microns.
- c. Be ultrasonically weldable on both the inner and outer faces.



- d. Be of matte beige colour RGB (197, 174, 142).
- e. Have a mass per unit area of  $220 \pm 15 \text{g/m}^2$ .

4.2.5 **Thread, Anti-Ballistic Panel** – The layers of anti-ballistic fabric comprising the anti-ballistic panel must be assembled with Aramid yarn with a size of 550 decitex.

4.2.6 **Fabric, Spacer Mesh** – The spacer mesh fabric must:

- a. Be constructed from warp knitted Polyester yarn.
- b. Be fire retardant treated.
- c. Have the following physical properties:

Property		Value	Test Method
Mass		$\geq 450 \text{g/m}^2$	AS 2001.2.13
Breaking Force	Length	$\geq 1000 \text{N}$	AS 2001.2.3.1
	Width	$\geq 300 \text{N}$	
Tearing Force	Length	$\geq 100 \text{N}$	AS 2001.2.10
	Width	$\geq 70 \text{N}$	
Colour Fastness to Water		$\geq 4$	AS 2001.4.E01
Colour Fastness to Perspiration		$\geq 4$	AS 2001.4.17
Colour Fastness to Rubbing	Dry	$\geq 4$	AS 2001.4.3
	Wet	$\geq 4$	
Colour Fastness to Washing		$\geq 4$	AS 2001.4.15
Colour Fastness to Dry Cleaning		$\geq 4$	AS 2001.4.16
Flame Resistance		No Flame	EN 1021.1

4.2.7 **Fabric, Front Security Flap** – The front security flap fabric must:

- a. Be constructed from air textured Nylon yarn.
- b. Be fire retardant treated.
- c. Be waterproof treated.
- d. Have the following physical properties:

Property		Value	Test Method
Mass		$360 \text{g/m}^2 \pm 10\%$	AS 2001.2.13
Breaking Force	Length	$\geq 3000 \text{N}$	AS 2001.2.3.1
	Width	$\geq 2500 \text{N}$	
Breaking Force After 672 Hours UV Exposure	Length	$\geq 1800 \text{N}$	AS 2001.4.21
	Width	$\geq 1500 \text{N}$	
Tearing Force	Length	$\geq 140 \text{N}$	AS 2001.2.10
	Width	$\geq 140 \text{N}$	AS 2001.2.10
Water Resistance		$\geq 10 \text{kPa}$	AS 2001.2.17
Cone Test		No Leakage	AS 2001.2.18
Spray Rating		$\geq 90$	AS 2001.2.16
Colour Fastness to Light		$\geq 4$	AS 2001.4.21
Colour Fastness to Rubbing	Dry	$\geq 4$	AS 2001.4.3



	Wet	>= 4	
<b>Flex Abrasion Resistance</b>		No Absorption	DEF (AUST) 5037 or equivalent
<b>Heat Resistance</b>		No Damage	DEF (AUST) 5037 or equivalent

4.2.8 **Loop Fastener** – The loop fastener must be woven 100% Nylon filament with a high life cycle. The loop fastener must have a heat transfer adhesive backing suitable for adhesion to the panel cover material specified in Section 4.2.4. The loop fastener must have the following additional physical properties:

Property	Value	Test Method
<b>Peel strength</b>	200g/cm	CNS 12649-3.6
<b>Shear strength</b>	850g/cm <sup>2</sup>	CNS 12649-3.5
<b>Tear strength</b>	2kg	ASTM D2261
<b>Fastness to light</b>	3+	CNS 1493
<b>Fastness to washing</b>	3+	CNS 1494
<b>Fastness to hot water</b>	3+	CNS 1495
<b>Fastness to perspiration</b>	3+	CNS 1496
<b>Fastness to abrasion</b>	3+	CNS 1499

#### 4.3 Physical Dimensions

4.3.1 The PPEV must:

- a. Be available in the sizes specified in Table 1 and Table 2.
- b. Be available in 50mm size increments (female) and 100mm size increments (male).
- c. Be available in 25mm length increments (female) and 50mm length increments (male).
- d. Be available in made to measure sizes where the standard sizes are unsuitable.
- e. Be constructed as specified in Section 4.

Male ELBV		
Size	Suits Chest	Suits Waist
<b>S</b>	80-90cm 31-35"	75-85cm 29-33"
<b>M</b>	90-100cm 35-39"	85-95cm 33-37"
<b>L</b>	100-110cm 39-43"	95-105cm 37-41"



<b>XL</b>	110-120cm 43-47"	105-115cm 41-45"
<b>2XL</b>	120-130cm 47-51"	115-125cm 45-49"
<b>3XL</b>	130-140cm 51-55"	125-135cm 49-53"
<b>4XL</b>	140-150cm 55-59"	135-145cm 53-57"
<b>5XL</b>	150-160cm 59-63"	145-155cm 57-61"

Table 1: Female ELBV Size Range

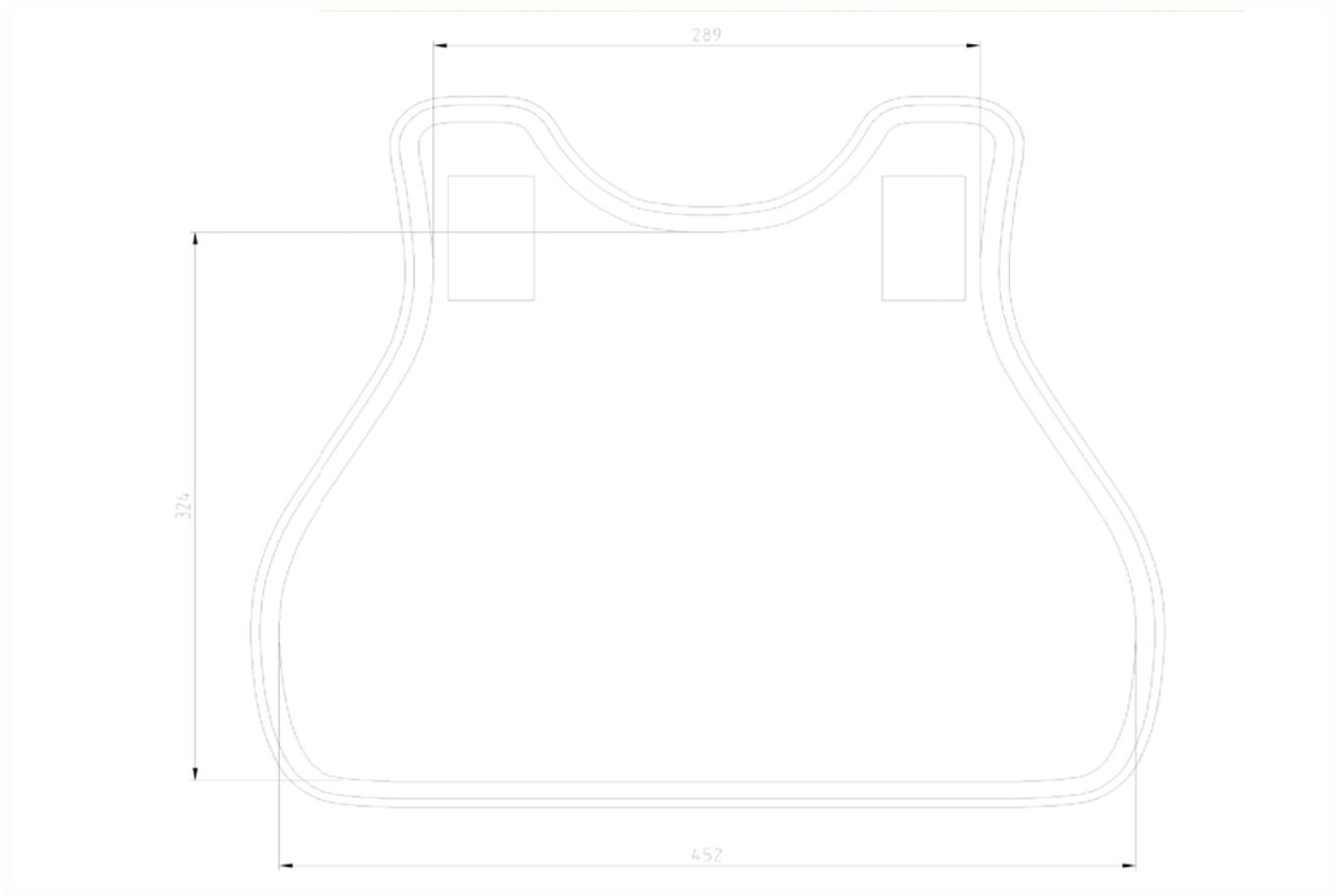
<b>Female ELBV</b>		
<b>Size</b>	<b>Suits Bust</b>	<b>Suits Waist</b>
<b>XS</b>	79-84 cm 31-33"	68-73cm 27-29"
<b>S</b>	84-89 cm 33-35"	73-78cm 29-31"
<b>M</b>	89-94 cm 35-37"	78-83cm 31-33"
<b>L</b>	94-99 cm 37-39"	83-88cm 33-35"
<b>XL</b>	99-104cm 39-41"	88-93cm 35-37"
<b>2XL</b>	104-109cm 41-43"	93-98cm 37-39"
<b>3XL</b>	109-114cm 43-45"	98-103cm 39-41"
<b>4XL</b>	114-119cm 45-47"	103-108cm 41-43"
<b>5XL</b>	119-124cm 47-49"	108-113cm 43-45"
<b>6XL</b>	124-129cm 49-51"	113-118cm 45-47"

4.3.2 The front and back anti-ballistic panel carriers must:

- a. Be shaped and dimensioned to accept corresponding nominated sizes of anti-ballistic panels.



- 4.3.3 The anti-ballistic panels must have the following characteristics:
- a. Be shaped and dimensioned to suit installation within nominated sizes of the PPEV.
  - b. Be of male and female specific designs as specified in Sections 4.3.4 through 4.3.7.
  - c. Be available in 50mm size increments (female) and 100mm size increments (male).
  - d. Be available in 25mm length increments (female) and 50mm length increments (male).
  - e. Be available in made to measure sizes where the standard sizes are unsuitable.
  - f. Be constructed as specified in Section 5.
  - g. Have a total mass per unit area not exceeding 4.4kg/m<sup>2</sup> excluding the waterproof panel cover.
  - h. Have a total thickness not exceeding 5.8mm including the waterproof panel cover.
- 4.3.4 **Male Front Panel** – The male-specific front anti-ballistic panels must have the following characteristics:
- a. Be of planar construction.
  - b. Be shaped and dimensioned in accordance with Figure 1 for size Large Regular (dimension in mm).
  - c. Have an anti-ballistic overlap over the back panel of at least 50mm width at each side.



**Figure 1: Front Male Panel**

- 4.3.5 **Male Rear Panel** – The male-specific back anti-ballistic panels must have the following characteristics:
- Be of planar construction.
  - Be shaped and dimensioned in accordance with Figure 2 for size Large Regular (dimension in mm).

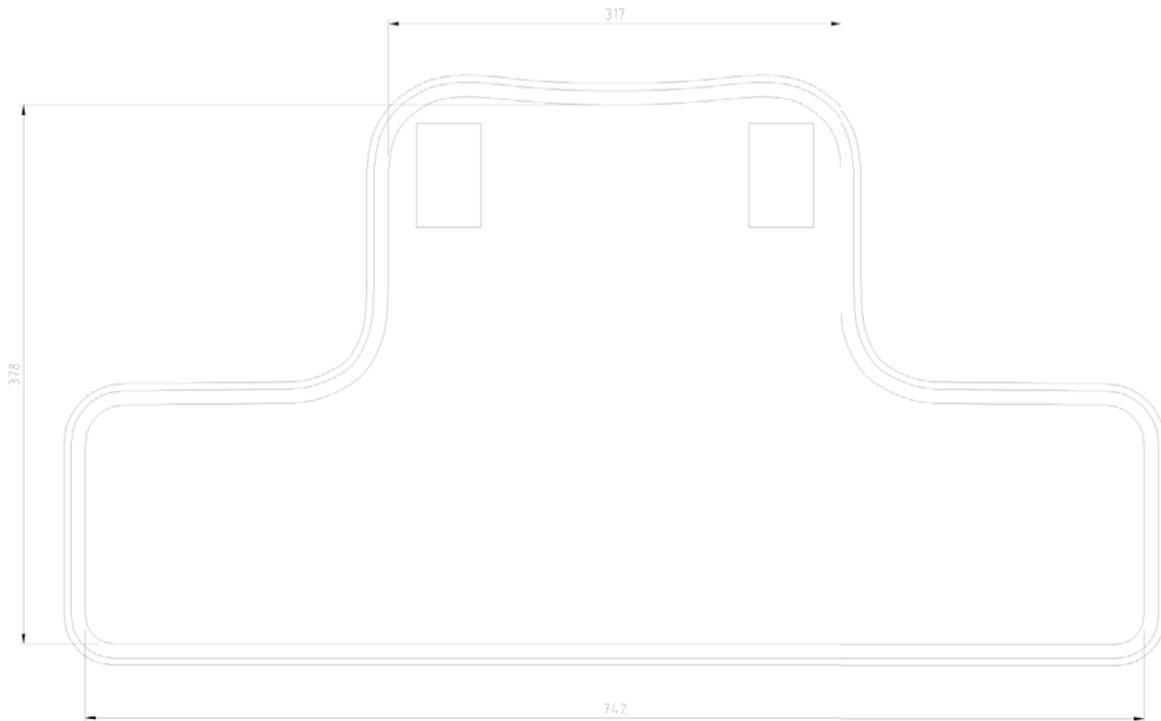
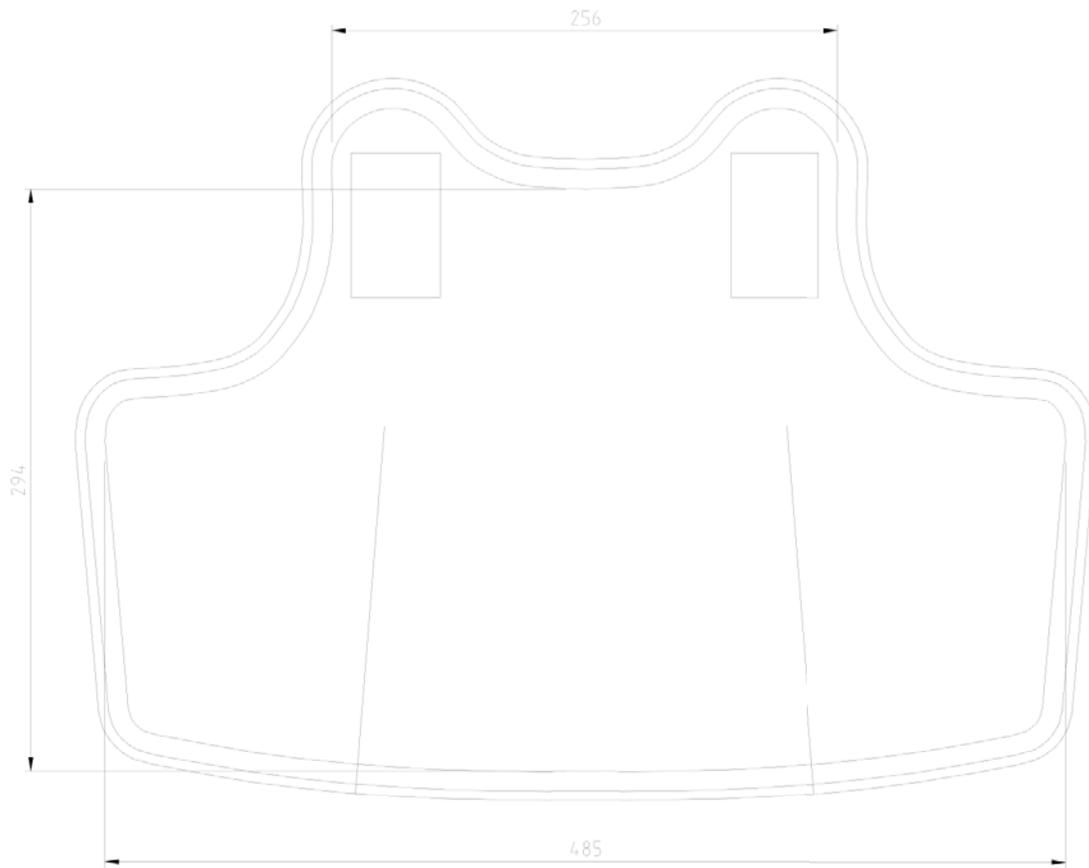


Figure 2: Male Rear Panel

- 4.3.6 **Female Front Panel** – The female-specific front anti-ballistic panels must have the following characteristics:
- Be of 3D construction to provide anti-ballistic coverage over and around the side of the bust without creating an unnecessary gap at the neck.
  - Be shaped and dimensioned in accordance with Figure 3 for size Medium Regular (dimension in mm).
  - Have an anti-ballistic overlap over the back panel of at least 50mm width at each side.



**Figure 3: Female Front Panel**

4.3.7 **Female Rear Panel** – The female-specific back anti-ballistic panels must have the following characteristics:

- a. Be of planar construction.
- b. Be shaped and dimensioned in accordance with Figure 4 for size Medium Regular (dimension in mm).

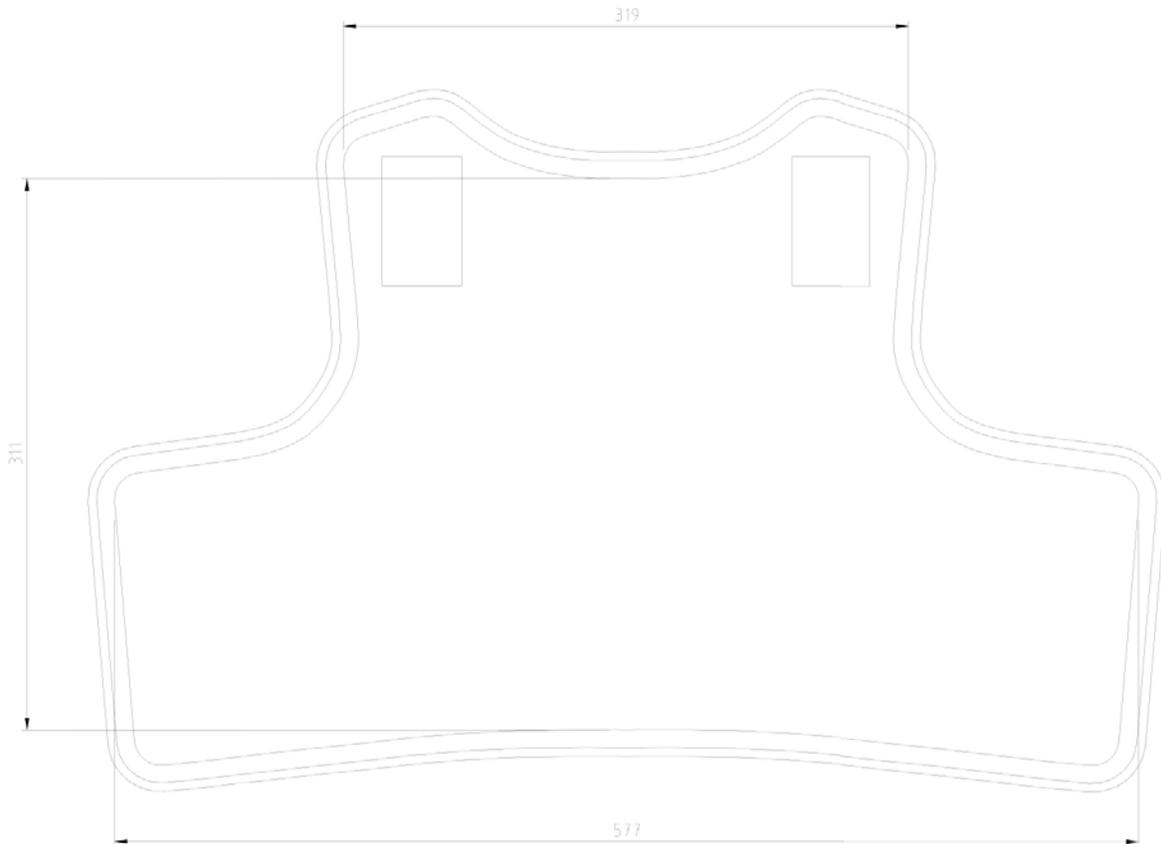


Figure 4: Female Rear Panel

## 5. Construction, Anti-Ballistic Panels

- 5.1 **Anti-Ballistic Panels** – The anti-ballistic panels must:
- Be constructed from a multiplicity of anti-ballistic fabric layers as specified in Section 4.2.3.
  - Have stitching through the entire multiplicity of layers of anti-ballistic fabric at the shoulders and sides using the thread specified in Section 4.2.5.
- 5.2 **Female Front Anti-Ballistic Panels** – in addition to the requirements specified in Section 5.1, female front anti-ballistic panels must be 3D formed to suit the female anatomy by



means that do not degrade the anti-ballistic performance of the panel nor increase its stiffness.

- 5.3 **Ballistic Protection** – The anti-ballistic panels must be of homogenous construction such that they have equal anti-ballistic performance when shot on either side of the panel.
- 5.4 **Waterproof Panel Cover** – The anti-ballistic fabric assembly of each anti-ballistic panel must be permanently sealed within an inner and outer layer of the waterproof panel cover material specified in Section 4.2.4 by means of ultrasonic welding. The inner layer of waterproof panel cover material must have 73x45mm pieces of loop attached at the shoulders by means of heat transfer welding. The loop fastener must be positioned to engage the matching hook fastener within the body armour carrier to securely locate the panels. To prevent the anti-ballistic panel from moving within the waterproof panel cover, 70x38mm pieces of waterproof panel cover material as specified in Section 4.2.4 must be welded into the seam of the waterproof panel cover at the shoulders and sewn to the anti-ballistic assembly using thread as specified in Section 4.2.5. The female front waterproof panel cover must be 3D formed to match the shape of the anti-ballistic panel without stretching or buckling.
- 5.5 **Care & Instruction Labels** – The anti-ballistic panel labels must be in accordance with the NIJ Standard 0101.06.

## **6. Quality Assurance Provisions**

- 6.1 **Test Facilities** – All testing at any stage of the Contract must be performed by a test facility which operates independently, is unaffiliated with any of the potential proponents and is capable of performing ballistic testing on an ongoing basis to the satisfaction of the Parks Canada Agency.
- 6.2 **Responsibility for Inspection** – Unless otherwise stipulated in the Contract, it is the Contractor's responsibility to satisfy the Parks Canada Agency that the material and services supplied conform to this specification.
- 6.3 The Parks Canada Agency reserves the right to perform any inspection considered necessary to ensure the material and services conform to the specified requirements. For the purpose of inspection, a portion of each delivery not exceeding two percent or two out of any number delivered under 100 may be put to tests that could destroy the articles. If found to be inferior or not in accordance with this specification, all articles so destroyed must be replaced by others of proper quality and pattern at the expense of the Contractor. The entire delivery may also be rejected if it is found that articles previously rejected due to non-repairable defects are redelivered for inspection.
- 6.4 The Contractor will be promptly notified when any articles are not accepted and such articles will be returned at the Contractor's risk and expense.