



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

**Bid Receiving - PWGSC / Réception des
soumissions - TPSGC**

By Epost Connect or by Fax

Bid Fax: (819) 997-9776

**REQUEST FOR PROPOSAL
DEMANDE DE PROPOSITION**

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

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

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

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

Comments - Commentaires

Vendor/Firm Name and Address

Raison sociale et adresse du

fournisseur/de l'entrepreneur

Issuing Office - Bureau de distribution

Clothing and Textiles Division / Division des vêtements et des textiles

L'Esplanade Laurier,

East Tower 7th Floor

Tour est 7^e étage

140 O'Connor, rue O'Connor,

Ottawa

Ontario

K1A 0R5

Title - Sujet Outerwear	
Solicitation No. - N° de l'invitation M7594-204766/A	Date 2021-02-03
Client Reference No. - N° de référence du client M7594-204766	
GETS Reference No. - N° de référence de SEAG PW-\$\$PR-772-79687	
File No. - N° de dossier pr772.M7594-204766	CCC No./N° CCC - FMS No./N° VME
Solicitation Closes - L'invitation prend fin at - à 02:00 PM Eastern Standard Time EST on - le 2021-03-09 Heure Normale du l'Est HNE	
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes Plant-Usine: <input type="checkbox"/> Destination: <input type="checkbox"/> Other-Autre: <input checked="" type="checkbox"/>	
Address Enquiries to: - Adresser toutes questions à: Roul, Antonia	Buyer Id - Id de l'acheteur pr772
Telephone No. - N° de téléphone (343) 572-1094 ()	FAX No. - N° de FAX () -
Destination - of Goods, Services, and Construction: Destination - des biens, services et construction: Specified Herein Précisé dans les présentes	

Instructions: See Herein

Instructions: Voir aux présentes

Delivery Required - Livraison exigée See Herein – Voir ci-inclus	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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*****Given that many people are currently working from home and in an effort to reduce the spread of the coronavirus disease (COVID-19) within communities, bidders must transmit their bid electronically using the epost Connect service or fax (819-997-9776)*****

PART 1 - GENERAL INFORMATION

1.1 Security Requirement

There is no security requirement associated with this bid solicitation.

1.2 Requirement

The "Requirement" is detailed under the 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 Canadian Free Trade Agreement (CFTA).

1.5 Canadian Content

The requirement is limited to Canadian goods.

1.6 Phased Bid Compliance Process

The Phased Bid Compliance Process applies to this requirement.

1.7 Epost Connect Service

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

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 (2020/05/28) Standard Instructions - Goods or Services - Competitive Requirements, are incorporated by reference into and form part of the bid solicitation.

Subsection 5.4 of 2003, Standard Instructions - Goods or Services – Competitive Requirements, is amended as follows:

Delete: 60 days

Insert: 180 days

2.2 Submission of Bids

Bids must be submitted electronically only to Public Works and Government Services Canada (PWGSC) Bid Receiving Unit by the date and time indicated on page 1 of the bid solicitation using the epost Connect Service or fax (819-997-9776).

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

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

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

2.3 Improvement of Requirement During Solicitation Period

Should bidders consider that the specifications or Statement of Work contained in the bid solicitation could be improved technically or technologically, bidders are invited to make suggestions, in writing, to the Contracting Authority named in the bid solicitation. Bidders must clearly outline the suggested improvement as well as the reason for the suggestion. Suggestions that do not restrict the level of competition nor favour a particular bidder will be given consideration provided they are submitted to the Contracting Authority at least seven (7) days before the bid closing date. Canada will have the right to accept or reject any or all suggestions.

2.4 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.

2.5 Applicable Laws

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

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

2.6 Specifications and Standards

2.6.1 Canadian General Standards Board (CGSB) – Standards

A copy of the CGSB Standards referred to in the bid solicitation is available and may be purchased from:

Canadian General Standards Board
L'Esplanade Laurier Building
140 O'Connor Street
Tower East, 6th floor
Ottawa, ON
K1A 0S5
Telephone: (1-800-665-CGSB (Canada only)
E-mail: ncr.cgsb-ongc@pwgsc-tpsgc.gc.ca
CGSB Website: <https://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/index-eng.html>

2.6.2 ASTM International – Standards

A copy of the ASTM Standards referred to in the bid solicitation is available and may be purchased from:

ASTM Headquarters
100 Barr Harbor Drive
PO Box C700
West Conshohocken, PA
19428-2959 USA
Telephone: 1-877-909-2786 (USA & Canada) or 610-832-9585 (International)
ATSM Website: <http://www.astm.org/Standard/>

2.6.3 International Standards Organization (ISO) – Standards

A copy of the ISO Standards referred to in the bid solicitation is available and may be purchased from:

International Organization for Standardization
ISO Central Secretariat
Chemin de Blandonnet 8
CP 401
1214 Vernier, Geneva
Switzerland
Telephone: +41 22 749 01 11
Fax: +41 22 733 34 30
E-mail: central@iso.org
ISO Website: <http://www.iso.org/iso/home.html>

2.6.4 American Association of Textile Chemists and Colorists (AATCC)

A copy of the AATCC referred to in the bid solicitation is available and may be purchased from:

American Association of Textile Chemists and Colorists
PO Box 12215
Research Triangle Park,
NC 27709-2215 USA
Telephone: (919) 549-8141
Fax: (919) 549-8933
AATCC Website: <http://www.aatcc.org/>

2.7 Bid Challenge and Recourse Mechanisms

- (a) Several mechanisms are available to potential suppliers to challenge aspects of the procurement process up to and including contract award.
- (b) Canada encourages suppliers to first bring their concerns to the attention of the Contracting Authority. Canada's Buy and Sell website, under the heading "Bid Challenge and Recourse Mechanisms" contains information on potential complaint bodies such as:
 - Office of the Procurement Ombudsman (OPO)
 - Canadian International Trade Tribunal (CITT)
- (c) Suppliers should note that there are **strict deadlines** for filing complaints, and the time periods vary depending on the complaint body in question. Suppliers should therefore act quickly when they want to challenge any aspect of the procurement process.

PART 3 - BID PREPARATION INSTRUCTIONS

3.1 Bid Preparation Instructions

Given that many people are currently working from home and in an effort to reduce the spread of the coronavirus disease (COVID-19) within communities, bidders must transmit their bid electronically using the epost Connect service or fax (819-997-9776).

- 3.1.1** Canada requests that the Bidder submits its bid in accordance with section 08 of the 2003 standard instructions. The epost Connect system has a limit of 1GB per single message posted and a limit of 20GB per conversation.

The bid, submitted by epost Connect or by fax, should 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 is simultaneously providing copies of its bid using multiple acceptable delivery methods, and if there is a discrepancy between the wording of the facsimile copy 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 facsimile copy.

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

- 3.1.3** Canada requests that Bidders follow the format instructions described below in the preparation of their bid:

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

- 3.1.4** 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>). To assist Canada in reaching its objectives, Bidders should:

- (a) 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;
- (b) 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; and
- (c) provide details of their policies and practices in relation to the following initiatives, for information purposes only:
 - environmentally responsible manufacturing;
 - environmentally responsible waste disposal;
 - waste reduction;
 - packaging;
 - re-use strategies;

- recycling.

3.2 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 Part 4, Evaluation Procedures, 4.1.2.1 Mandatory Technical Criteria).

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

3.3 Section II: Financial Bid

Bidders must submit their financial bid in accordance with the Basis of Payment (reference Part 4, Evaluation Procedures, 4.1.3 Financial Evaluation).

3.3.1 Electronic Payment of Invoices – Bid

RCMP will issue payment via direct deposit or payment by cheque only.

If you accept payment of invoices by direct deposit, complete the following:

The Bidder accepts the following Electronic Payment Instrument:

() Direct Deposit (Domestic and International);

If the above is not completed, it will be considered as if Direct Deposit is not being accepted for payment of invoices.

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

3.3.2 Exchange Rate Fluctuation

[C3011T](#) (2013-11-06) Exchange Rate Fluctuation

3.4 Section III: Certifications

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

3.5 Section IV: Additional Information

The information required in this Section should be submitted with the bid, but may be submitted afterwards. If information is missing from the bid, the Contracting Authority will inform the Bidder of a time frame within which to provide the information. Failure to provide the information within the time frame provided will render the bid non-responsive.

3.5.1 Origin of work

Bidders must provide the name, address and country of manufacturers of the item(s), including subcontractors, to be utilized in the performance of the contract. This includes manufacturers and subcontractors that will be doing a portion of the work on the items (e.g. cutting or sewing), but

not manufacturers and suppliers of fabric, trim and accessories (e.g. zippers, hook and loop tape).

The following manufacturer(s)/subcontractor(s) will be utilized in the performance of the contract:

- a. Name and complete address of manufacturer/subcontractor: _____
- b. Location where work will be performed: _____ (please indicate the complete address if different from the address provided in a.)
- c. Nature of manufacturing/subcontracting work performed: _____

(Enter the information for each manufacturer/subcontractor)

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

The Bidder agrees that Canada may publicly disclose the information provided with respect to the countries of origin.

Bidders must immediately inform Canada in writing of any and all changes affecting the information provided under this clause during the entire bid validity period.

3.5.2 Resulting Contract Information

Bidder input is required to complete several sections under Part 6, Resulting Contract Clauses.

PART 4 - EVALUATION PROCEDURES AND BASIS OF SELECTION

4.1 Evaluation Procedures

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

4.1.1 Phased Bid Compliance Process

4.1.1.1 (2018-07-19) General

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

THE BIDDER ACKNOWLEDGES THAT THE REVIEWS IN PHASE I AND II OF THIS PBCP ARE PRELIMINARY AND DO NOT PRECLUDE A FINDING IN PHASE III THAT THE BID IS NON-RESPONSIVE, EVEN FOR MANDATORY REQUIREMENTS WHICH WERE SUBJECT TO REVIEW IN PHASE I OR II AND NOTWITHSTANDING THAT THE BID HAD BEEN FOUND RESPONSIVE IN SUCH EARLIER PHASE. CANADA MAY DEEM A BID TO BE NON-RESPONSIVE TO A MANDATORY REQUIREMENT AT ANY PHASE.

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

- (c) Canada may, in its discretion, request and accept at any time from a Bidder and consider as part of the Bid, any information to correct errors or deficiencies in the Bid that are clerical or administrative, such as, without limitation, failure to sign the Bid or any part or to checkmark a box in a form, or other failure of format or form or failure to acknowledge; failure to provide a procurement business number or contact information such as names, addresses and telephone numbers; inadvertent errors in numbers or calculations that do not change the amount the Bidder has specified as the price or of any component thereof that is subject to evaluation. This shall not limit Canada's right to request or accept any information after the bid solicitation closing in circumstances where the bid solicitation expressly provides for this right. The Bidder will have the time period specified in writing by Canada to provide the necessary documentation. Failure to meet this deadline will result in the Bid being declared non-responsive.
- (d) The PBCP does not limit Canada's rights under Standard Acquisition Clauses and Conditions (SACC) 2003 (2019-03-04) Standard Instructions – Goods or Services – Competitive Requirements nor Canada's right to request or accept any information during the solicitation period or after bid solicitation closing in circumstances where the bid solicitation expressly provides for this right, or in the circumstances described in subsection (c).
- (e) Canada will send any Notice or CAR by any method Canada chooses, in its absolute discretion. The Bidder must submit its response by the method stipulated in the Notice or CAR. Responses are deemed to be received by Canada at the date and time they are delivered to Canada by the method and at the address specified in the Notice or CAR. An email response permitted by the Notice or CAR is deemed received by Canada on the date and time it is received in Canada's email inbox at Canada's email address specified in the Notice or CAR. A Notice or CAR sent by Canada to the Bidder at any address provided by the Bidder in or pursuant to the Bid is deemed received by the Bidder on the date it is sent by Canada. Canada is not responsible for late receipt by Canada of a response, however caused.

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

- (a) After the closing date and time of this bid solicitation, Canada will examine the Bid to determine whether it includes a Financial Bid and whether any Financial Bid includes all information required by the solicitation. Canada's review in Phase I will be limited to identifying whether any information that is required under the bid solicitation to be included in the Financial Bid is missing from the Financial Bid. This review will not assess whether the Financial Bid meets any standard or is responsive to all solicitation requirements.
- (b) Canada's review in Phase I will be performed by officials of the Department of Public Works and Government Services.
- (c) If Canada determines, in its absolute discretion that there is no Financial Bid or that the Financial Bid is missing all of the information required by the bid solicitation to be included in the Financial Bid, then the Bid will be considered non-responsive and will be given no further consideration.
- (d) For Bids other than those described in c), Canada will send a written notice to the Bidder ("Notice") identifying where the Financial Bid is missing information. A Bidder, whose Financial Bid has been found responsive to the requirements that are reviewed at Phase I, will

not receive a Notice. Such Bidders shall not be entitled to submit any additional information in respect of their Financial Bid.

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

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

- (a) Canada's review at Phase II will be limited to a review of the Technical Bid to identify any instances where the Bidder has failed to meet any Eligible Mandatory Criterion. This review will not assess whether the Technical Bid meets any standard or is responsive to all solicitation requirements. Eligible Mandatory Criteria are all mandatory technical criteria that are identified in this solicitation as being subject to the PBCP. Mandatory technical criteria that are not identified in the solicitation as being subject to the PBCP, will not be evaluated until Phase III.
- (b) Canada will send a written notice to the Bidder (Compliance Assessment Report or "CAR") identifying any Eligible Mandatory Criteria that the Bid has failed to meet. A Bidder whose Bid has been found responsive to the requirements that are reviewed at Phase II will receive a CAR that states that its Bid has been found responsive to the requirements reviewed at Phase II. Such Bidder shall not be entitled to submit any response to the CAR.
- (c) A Bidder shall have the period specified in the CAR (the "Remedy Period") to remedy the failure to meet any Eligible Mandatory Criterion identified in the CAR by providing to Canada in writing additional or different information or clarification in response to the CAR. Responses received after the end of the Remedy Period will not be considered by Canada, except in

circumstances and on terms expressly provided for in the CAR.

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

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

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

4.1.2 Technical Evaluation**4.1.2.1 Mandatory Technical Criteria**

The Mandatory Technical Criteria that will be subject to the Phase II of the Phased Bid Compliance Process (PBCP), i.e. the Eligible Mandatory Criterion, as outlined in section 4.1.1.3 are:

a) The Submission and Completeness of the Certificates of Compliance and Test Reports

Canada will examine the bid to determine if the above-mentioned supporting documentation has been submitted. If the documentation have been submitted, Canada will review each document to determine whether or not it includes all the information required in its definition, if applicable. The submission and completeness of each supporting documentation will be subject to the Phase II of the Phased Bid Compliance Process. However, the evaluation of each supporting document to determine if the said supporting document meet the technical requirements will be done at Phase III of the PBCP.

b) The Submission of the Pre-Award Samples and Component Samples:

Canada will examine the bid to determine if the samples have been submitted. However, the evaluation of the samples to determine if the samples meet the technical requirements will be done at Phase III of the PBCP.

4.1.2.1.1 Pre-Award Samples and Supporting Documentation

As part of the technical evaluation, to confirm a Bidder's capability of meeting the technical requirements, pre-award samples, component samples, along with supporting documentation (Certificates of Compliance, test reports) will be required from low Bidders after the bid closing date and upon a written request from the Contracting Authority.

A) Pre-Award Samples

The following pre-award samples are required upon request:

Item	Size	Stock#
a. Jacket, Patrol, Unisex	Large/Regular	4010-358
b. Trousers, Inclement	Large/Regular	5260-300
c. Stripe, Trouser Inclement, Fluorescent	Large-XXL/Regular	5275-455
d. Parka, Inclement	Large/Regular	5030-351
e. Hood, Cold Weather, Parka, Inclement	Large/X Large	3900-300
f. Jacket, High Visibility	Large/Regular	3985-300
g. Jacket, Patrol, Unisex, Auxiliary	Large/Regular	4012-363

i) The sample must be properly identified with the size and the RCMP stock-item number.

ii) The following government available materials must be purchased from the RCMP. Refer to Annex A for more information

- a. 8653-100 Police Patch, Reflective, Large (for use on contract items 4010, 4011-100, 5030 and 5131-000) @ \$3.46/ea
- b. 8654-100 Police Patch, Reflective, Small (for use on contract items 4010, 4011-100, 5030 and 5131-000) @ \$1.63/ea
- c. 2135-108 Badge, Shoulder, Police (for use on contract items 4010, 4011-100, 3985, 3986-000, 5030 and 5031-000) @ \$0.55/ea
- d. 8750-100 Coyote Strips (for use on contract items 3900 and 3901-000) @ \$68.84/ea
- e. 4950-100 Volunteer Patch (for use on contract items 4012 and 4013-100) @ \$3.00/ea
- f. 5265-600 Stripe, Trousers, Inclement, Yellow (for use on contract item 5260) @ \$10.85/pair - TO BE CUT TO SIZE FOR THE PRE-AWARD SAMPLE (See Appendix B to Annex 1)

iii) The Bidder must ensure that the required pre-award samples are manufactured in accordance with the specifications and are fully representative of the bid submitted.

iv) The pre-award samples will be evaluated for quality of workmanship and conformance to specified materials and measurements. Minor observations will not be a reason to reject the sample unless, in the opinion of the technical evaluator, they are considered to render the item unserviceable. However, only one deviation will result in the bid being declared non-responsive.

SPECIFICATION WAIVER/SUBSTITUTION(S):

Component Waiver(s)/Substitution(s):

- a. Para. 4.1.1 of all specifications may be different colour navy than the RCMP standard.
- b. Para. 4.1.2 of specifications 1045-301 and 1045-310 may be a different colour fluorescent yellow than the RCMP standard.

A.1 Viewing Samples

1. RCMP viewing samples will be provided to Bidders who are requested to provide pre-award samples and are to be used for guidance for all factors not covered by the RCMP Specifications. The RCMP Specifications must govern. The viewing samples are the property of the RCMP.

2. The viewing samples are not to be damaged or cut, but returned in the same condition as sent to the Bidder. The viewing samples should be returned to PWGSC with the pre-award samples. If the viewing samples are not returned with the pre-award samples, the Bidder will have fourteen (14) calendar days upon written notice from the Contracting Authority to return the viewing samples.

Failure to return the viewing samples within that timeframe will result in the bid being declared non-responsive. If the Bidder elects not to submit pre-award samples, the viewing samples must be returned to the RCMP within fourteen (14) calendar days of the written request from the Contracting Authority. Lost or damaged viewing samples must be reimbursed to the RCMP for the cost of an acceptable replacement.

A2 Patterns

Paper patterns and electronic patterns of the items and sizes will be provided to a Bidder who is requested to supply pre-award samples. The patterns are the property of the RCMP. The paper patterns should be returned with the pre-award samples and the electronic patterns must be destroyed and/or deleted. If the paper patterns are not returned with the pre-award samples, the Bidder will have fourteen (14) calendar days upon written notice from the Contracting Authority to return the paper patterns. Failure to return the paper patterns within that timeframe will result in the bid being declared non-responsive. If a Bidder fails to submit pre-award samples within the prescribed amount of time or chooses not to submit pre-award samples, the paper patterns must be returned to the RCMP within fourteen (14) calendar days of written notification from the Contracting Authority and the electronic patterns must be destroyed.

Electronic patterns provided to a Bidder must be destroyed and/or deleted should a contract not be awarded to the Bidder.

The RCMP may request a confirmation from the Bidder that the electronic patterns have been destroyed and/or deleted.

The bidder should specify their preference for paper or electronic patterns.

- () Paper Pattern
- () Electronic Pattern

B) Certificates of Compliance

The Certificates of Compliance below and as defined hereunder are required. The Certificates of compliance must be dated **within 18 months** of the solicitation posting date.

Where the components are applicable to all specifications, reference is made to respective paragraph in G.S 1045-298 only.

- a. Paragraph 4.1.5 of specification G.S 1045-298, Mesh pocketing
- b. Paragraph 4.1.8 of specification G.S 1045-298, Thread
- c. Paragraph 4.1.9.1 of specification G.S 1045-298, Slide Fastener (Front)
- d. Paragraph 4.1.9.2 & 4.1.9.3 of specification G.S 1045-298, Slide Fastener (Inside Front)
- e. Paragraph 4.1.9.4 of specification G.S 1045-298, Slide Fastener (Pockets)
- f. Paragraph 4.1.9.5 of specification G.S 1045-298, Slide Fastener (Sleeve Pockets)
- g. Paragraph 4.1.9.6 of specification G.S 1045-298, Slide Fastener (Side Seam)
- h. Paragraph 4.1.9.7 of specification G.S 1045-298, Slide Fastener (Inside Pockets)
- i. Paragraph 4.1.10 of specification G.S 1045-298, Hook and Loop tape
- j. Paragraph 4.1.11 of specification G.S 1045-298, Elastic Drawcord
- k. Paragraph 4.1.12 of specification G.S 1045-298, Cord Locks
- l. Paragraph 4.1.14 of specification G.S 1045-298, Dome Fasteners
- m. Paragraph 4.1.17 of specification G.S 1045-298, Webbing
- n. Paragraph 4.1.14.8 of specification G.S. 1045-307, Slide Fastener (Hood Snorkel)
- o. Paragraph 4.1.4 of specification G.S. 1045-307, Fleece Lining
- p. Paragraph 4.1.7 of specification G.S. 1045-307, Insulation
- q. Paragraph 4.1.10.1 of specification G.S. 1045-301, Slide Fastener (Fly Front)
- r. Paragraph 4.1.10.2 of specification G.S. 1045-301, Slide Fastener (Side Seam)
- s. Paragraph 4.1.7 of specification G.S. 1045-310, Retroreflective stripes and lettering

Certificate of Compliance – Definition

1. A Certificate of Compliance is defined, for this document, as a signed and dated certification to confirm that a specified component or requirement adheres to the specification.

The certification must be prepared, signed and dated by an official representative of the component manufacturer using company letterhead making reference to the specification number and paragraph number. It must specifically address the component or requirement and compliance can be shown by referring to a part number, by providing the component values, by providing a manufacturing data sheet to show technical compliance or by a description stating compliance to the requirement. In-house testing is acceptable to show compliance. Copying the specification word for word is not acceptable.

2. A separate certificate of compliance is required for each individual component or requirement. Multiple components supplied by the same component manufacturer may be submitted on one certificate of compliance as long as the paragraph numbers and components are clearly identified. With this document, the Bidder certifies that the product for which the certificate of compliance is issued is the same product used in the bid submission, or in the pre-award samples or in the pre-production samples, or in the production units as applicable.

3. The Bidder is to note that copies of invoices, purchase orders, packing slips and certificates of compliance for products or components that are not manufactured by the certifier are not suitable for use as a certificate of compliance.

4. Original Version: The RCMP reserves the right to request the original version of any Certificate of Compliance provided by the Bidder. The Bidder will have three (3) calendar days upon written notice from the Contracting Authority to provide the original Certificate(s) of Compliance. Failure to provide the original Certificate(s) of Compliance within that timeframe may result in the bid being declared non-responsive.

C) Test Reports:

The test reports must be dated within 12 months of the solicitation posting date. All tests must be performed on the same material within a two-week period.

Where the components are applicable to all specifications, reference is made to the respective section in G.S 1045-298 only.

- Test report as per Table I for Shell Material I as per specification G.S 1045-298
- Test report as per Table I for Shell Material II as per specification G.S 1045-310.
- Test reports as per Table II for Shell Material I - requirement 1 and 5 through 10 as per specification G.S 1045-298
- Test reports as per Table IV for Shell Material II of specifications G.S 1045-310.
- Test reports for Table II for requirement 2 through 4 may be submitted if using the approved colour as per specification G.S 1045-298.

Test Report – Definition

Test report documents signed and dated by an independent, third-party accredited laboratory acceptable to the RCMP must include the test method, test conditions and test results performed to verify requirements as specified in the specifications. Testing for each table must be performed in its entirety on the same garment and/or piece of material to adhere to all specified test methods and conditions.

D) Component Samples

Where the components are applicable to all specifications, reference is made to the respective paragraph in G.S 1045-298 only.

- a. Paragraph 4.1.5 of specification G.S. 1045-298, Mesh pocketing, ¼ metre full width
- b. Paragraph 4.1.4 of specification G.S. 1045-307, Fleece Lining, ¼ metre full width
- c. Paragraph 4.1.7 of specification G.S. 1045-307, Insulation, ¼ metre full width

Component Sample – Definition

A component sample is a piece or part used in the overall construction of the item. The component requirement is indicated in the specification and the sample submitted must adhere to the specification requirements.

E) Submission of Pre-Award Samples, Component Samples, and Supporting Documentation (Certificates of Compliance)

1. After the bid closing date, the Bidder will be advised when the pre-award samples, component samples and supporting documentation (certificates of compliance and test reports) are required.
2. The bidder must deliver the required pre-award samples, component samples and supporting documentation at no charge to Canada and must ensure that they are received **within 90 calendar days** from PWGSC's written request. Failure to submit the required pre-award samples, component sample and supporting documentation within the specified time frame will result in the bid being declared non-responsive. The samples and supporting documentation submitted by the Bidder will remain the property of Canada.
3. The Bidder must ensure that the required pre-award and component samples are manufactured in accordance with the technical requirement and are fully representative of the bid submitted. The pre-award and component samples will be evaluated for quality of workmanship and conformance to specified materials and measurements. Minor observations will not be a reason to reject the samples unless, in the opinion of the technical evaluators, they are considered to render the item unserviceable. However, only one deviation will result in the bid being declared non-responsive.
4. Rejection of the pre-award samples, component sample and/or supporting documentation will result in the bid being declared non-responsive.
5. The requirement for pre-award samples, component sample and supporting documentation will not relieve the successful Bidder from submitting samples and supporting documentation as required by the contract terms or from strictly adhering to the technical requirement of this Request for Proposal and any resultant contract.

F) WAIVER

The requirement for a pre-award sample of the item, certificates of compliance and test reports may be waived if the Bidder has:

- a) Supplied the item(s) to the Royal Canadian Mounted Police (RCMP) in accordance with Specifications G.S.1045-298, G.S.1045-301, G.S.1045-307 and G.S.1045-310 within the last three (3) years from the closing date of this document.

Please specify:

Item supplied: _____

Your previous Contract/Standing Offer number: _____

b) Submitted a pre-award sample, certificate(s) of compliance and test reports of the item on a previous requirement to specifications G.S.1045-298, G.S.1045-301, G.S.1045-307, G.S.1045-310 and G.S. 1045-381 and where the pre-award sample, certificate(s) of compliance and test reports were found to be compliant. It is mandatory that a copy of the evaluation report be provided upon request from the Contracting Authority.

If a) or b) above has been met, the Bidder represents and warrants that no significant changes have occurred in their manufacturing processes, their organization or their sub-contractors' organization since the last award or pre-award qualification that could affect the manufacturing of the referenced item.

The Bidder must submit the pre-award sample, certificates of compliance and test reports if a waiver is not given.

4.1.3 Financial Evaluation

4.1.3.1 Mandatory Financial Criteria

- a) The Bidder must submit firm unit prices in Canadian dollars, applicable taxes are excluded, DDP (destination as identified in Annex A) 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 "as and when requested" and option quantities and for all years.

4.1.3.2 SACC MANUAL CLAUSE

[A9033T](#) 2012/07/16 Financial Capability

4.2 Basis of Selection

To be declared responsive, a bid must:

- a) comply with all the requirements of the Request for Proposal; and
- b) meet all mandatory technical and financial evaluation criteria.

Bids not meeting (a) or (b) will be declared non-responsive.

The responsive bid with the lowest evaluated aggregate prices will be recommended for award of a contract (1 contract only). Evaluation will be established using the firm quantities, 100% of the option quantities and 100% of the "as and when requested" quantities.

For the "as and when requested" quantities, firm unit prices for each item will be averaged and multiplied by the estimated quantity.

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](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.

5.1.2 Ethical Procurement Certification

The ethical considerations for procurement of apparel certification document attached to this solicitation at Annex "2" to part 5 of the Bid Solicitation is incorporated by reference into, and forms a binding part of the bid solicitation. The Bidder must comply with the certification.

By submitting a bid in response to this bid solicitation, the Bidder certifies that:

- a. it has read and understands the certification attached to this solicitation;
- b. it understands that the eight fundamental human and labour rights laid out in the certification document must be complied with or the bid may be declared non-responsive, or Canada may terminate any resulting contract for default.

5.2 Certifications Precedent to Contract Award and Additional Information

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

5.2.1 Integrity Provisions – Required Documentation

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

5.2.2 Federal Contractors Program for Employment Equity - Bid Certification

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

Canada will have the right to declare a bid non-responsive if the Bidder, or any member of the Bidder if the Bidder is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list at the time of contract award.

Canada will also have the right to terminate the Contract for default if a Contractor, or any member of the Contractor if the Contractor is a Joint Venture, appears on the "FCP Limited Eligibility to Bid" list during the period of the Contract.

The Bidder must provide the Contracting Authority with a completed annex titled Federal Contractors Program for Employment Equity - Certification, before contract award. If the Bidder is a Joint Venture, the Bidder must provide the Contracting Authority with a completed annex Federal Contractors Program for Employment Equity - Certification, for each member of the Joint Venture.

5.2.3 Additional Certifications Precedent to Contract Award

5.2.3.1 Canadian Content Certification

This procurement is limited to Canadian goods.

The Bidder certifies that:

() the goods offered are Canadian goods as defined in paragraph 1 of clause [A3050T](#)

5.2.3.1.1 SACC Manual clause [A3050T](#) (2020-07-01) Canadian Content Definition

Plant Location

Items will be manufactured at: _____

5.2.3.2 Samples and Production Certification

The Bidder certifies that:

() the manufacturer that produced the pre-award sample(s) will remain unchanged for the pre-production samples and full production of the contract quantity, including option quantities and "as and when requested" quantities.

- () The components that are used in the pre-production samples will remain unchanged for full production of the contract quantity, including option quantities and “as and when requested” quantities. If a waiver is granted for the pre-production samples, the components that are used in the pre-award samples, with the exception of any applicable waivers and substitutions and/or any observations noted in the evaluation of the pre-award samples, will remain unchanged for the production of the contract quantity, including option quantities and “as and when requested” quantities unless otherwise approved by the Technical Authority during the production process.

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 Requirement

The Contractor must provide the items detailed under “Requirement” 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 (2020-05-28), General Conditions - Goods (Higher Complexity), apply to and form part of the Contract.

6.4 Term of Contract

6.4.1 Delivery Requested (desirable) – Firm Quantity – Items 1 to 7

The RCMP is requesting that the first shipment of the firm quantity be made within 45 calendar days from the date of the written notice of approval of the pre-production requirements described at Article 6.17 and, as applicable, the production requirements described at Article 6.18.

Delivery – Firm Quantity – Phased – Items 1 to 7

The first delivery must be made within _____ calendar days from the date of the written notice of approval of the pre-production requirements described at Article 6.17 and, as applicable, the production requirements described at Article 6.18. 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.

6.4.2 Delivery Requested (desirable) – Option 1, 2, and 3

The RCMP is requesting that the first shipment of the option quantity be made within 45 calendar days from the date of the written notice of approval of the option quantities technical requirements as described at Article 6.19 and, as applicable, the production requirements described at Article 6.18 as well as after receipt of the contract amendment exercising the option and after final delivery of the contract quantity.

Delivery – Phased – Option 1, 2, and 3

The first delivery of the option quantity must be made within _____ calendar days from the date of the written notice of approval of the option quantities technical requirements as described at Article 6.19, and as applicable, the production requirements described at Article 6.18 as well as after receipt of the contract amendment exercising the option and after final delivery of the contract quantity. 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 option quantity.

6.4.2.1 Shipping Instructions – Delivery at Destination

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

Delivered Duty Paid (DDP) (destination identified in Annex “A”) Incoterms 2000 for shipments from commercial contractor.

6.4.2.2 Packaging, Marking, Rejected Goods, Overrun and Underrun

Packaging

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

Items 3985/4010/4012/5030:

Fifteen (15) units to be placed in a plain shipping container, approximately 21"L X 17"W X 20"D.

Item 3900:

Twenty-five (25) units to be placed in a plain shipping container, approximately 23"L X 17"W X 10"D.

Item 5260:

Twenty (20) units to be placed in a plain shipping container, approximately 23"L X 14.5"W X 14.5"D.

Items 5265/5270/5275:

Thirty-five (35) units to be placed in a plain shipping container, approximately 21.5"L X 14.5"W X 4"D.

Special Packaging

The hood, cold weather (item 3900 & 3901-000) must not be packaged in plastic bags.

Marking

- a) Marking and labelling to be in accordance with the Specifications.
- b) Size, quantity and RCMP Stock Item Number to be indicated on single unit package, when specified.
- c) Sizes, quantities and RCMP Stock Item Numbers to be indicated on carton.
- d) Proper shipping documents must accompany each shipment. Packing slips must include the contract number, item description, size, RCMP stock item number and quantity per size being shipped.

- e) Manufacturer's markings/advertisements will not appear on this item except on the inside label as per the specification/purchase description. Failure to comply with this article may result in rejection of goods upon inspection.

Rejected Goods

If any goods are rejected and are sold to commercial outlets, all RCMP markings and insignia, if applicable, must be removed before being turned over to the purchaser.

Overrun/Underrun

The quantities stated herein represent the quantities to be delivered in satisfaction of this requirement/contract. No overruns or underruns will be permitted. However, should the Contractor experience an overrun, they must provide the details in writing to the Contracting Authority only after contracted quantities have been accepted by the RCMP. At their discretion, the Government may consider all or part of the overruns at a discount from the firm price on the original Contract. Any unauthorized overruns will be returned to the contractor at their expense.

6.5 Authorities

6.5.1 Contracting Authority

The Contracting Authority for the Contract is:

Antonia Roul
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 : 343-572-1094 Facsimile: 613-943-7970
E-mail address: antonia.roul@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.

6.5.2 Technical Authority

The Technical Authority for this Contract is:

Royal Canadian Mounted Police - Uniform & Equipment Program
Design and Technical Authority Section
440 Coventry Road (Warehouse Bldg.)
Ottawa, Ontario K1A 0R2

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.

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 (a) firm unit price(s), as specified in Annex A for a cost of \$ _____ (amount to be inserted at contract award). Customs duties are included and Applicable Taxes are extra.

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

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:
(To be inserted at contract award)

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. One (1) copy marked original must be forwarded to the following address for certification and payment :

Royal Canadian Mounted Police
Uniform & Equipment Program

Email: _____ (to be inserted at contract award)

- b. One (1) copy must be forwarded to the Contracting Authority:

Email: antonia.roul@tpsgc-pwgsc.gc.ca

6.8 Insurance

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

6.9 Certifications and Additional Information

6.9.1 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.

6.9.2 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.

6.9.3 SACC Manual Clauses

A3060C (2008-05-12) Canadian Content Certification

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 (2020-05-28), General Conditions - Goods (Higher Complexity);
- c) Annex "A", Requirement;
- d) Annex "B" – Specification G.S.1045-298, dated 2019-11-25, Specification G.S.1045-301 dated 2019-11-25, Specification G.S.1045-307 dated 2019-11-25, Specification G.S.1045-310 dated 2019-11-25, Specification G.S. 1045-381, dated 2019-11-25
- e) Patterns;
- f) Viewings Samples;
- g) the Contractor's bid dated _____

6.12 Materials: Contractor's Total Supply and Government Available Material

The Contractor will be responsible for obtaining all materials required in the manufacture of the items specified, including those materials specified as being Government available and which must be purchased from the Government. The delivery stated herein 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.

Year 1	Summer Holiday FROM _____ TO _____
	Christmas Holiday FROM _____ TO _____
Year 2	Summer Holiday FROM _____ TO _____
	Christmas Holiday FROM _____ TO _____
Year 3	Summer Holiday FROM _____ TO _____
	Christmas Holiday FROM _____ TO _____
Year 4	Summer Holiday FROM _____ TO _____
	Christmas 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 Ethical Apparel

The ethical procurement certification incorporated into the bid solicitation on its closing date is incorporated into, and forms a binding part of the Contract. The Contractor must ensure continuous compliance with the provisions of the ethical procurement certification that was signed during the bidding process throughout the duration of the contract.

The origin of work clause incorporated into the bid solicitation on its closing date is incorporated into, and forms a binding part of the Contract. It is the Contractor's responsibility to ensure continuous accuracy with the origin of work information provided with their bid and must immediately inform Canada in writing of any and all changes affecting the information provided under the origin of work clause during the entire contract period. The certification is subject to verification by Canada at any given time during the period of the contract. If the certification is found to be untrue Canada may declare a bid non-responsive or may declare a contractor in default, whether made knowingly or unknowingly during the bid evaluation period or during the contract period. The continuing obligation to maintaining this certification is a material obligation of the Contract.

6.17 Pre-Production Technical Requirements

Unless a waiver is granted by the RCMP Technical Authority, the following pre-production requirements are required for evaluation prior to full production. Requests for a waiver by the Contractor must be submitted in writing to the Contracting Authority. The waiving of the preproduction requirements will be at the sole discretion of the Technical Authority. The Technical

Authority will provide notification of the waiver in writing to the Contractor and Contracting Authority.

A) Pre-Production Samples

ITEM	SIZE	STOCK#
1. Jacket, Patrol, Unisex	Large/Regular	4010-358
2. Trousers, Inclement	Large/Regular	5260-300
3. Stripe, Trousers Inclement, Fluorescent	Large-XXL/Regular	5275-455
4. Parka, Inclement	Large/Regular	5030-351
5. Hood, Cold Weather, Parka, Inclement	Large/X Large	3900-300
6. Jacket, High Visibility	Large/Regular	3985-300
7. Jacket, Patrol, Unisex, Auxiliary	Large/Regular	4012-363

B) Certificate of Compliance

The Certificates of Compliance (as defined hereunder) are required with the pre-production samples. The certificates of compliance must be dated within 12 months of contract award.

Where the components are applicable to all specifications, reference is made to respective paragraph in G.S 1045-298 only.

- a. Paragraph 4.1.5 of specification G.S. 1045-298, Mesh pocketing
- b. Paragraph 4.1.8 of specification G.S. 1045-298, Thread
- c. Paragraph 4.1.9.1 of specification G.S. 1045-298, Slide Fastener (Front)
- d. Paragraph 4.1.9.2 & 4.1.9.3 of specification G.S. 1045-298, Slide Fastener (Inside Front)
- e. Paragraph 4.1.9.4 of specification G.S. 1045-298, Slide Fastener (Pockets)
- f. Paragraph 4.1.9.5 of specification G.S. 1045-298, Slide Fastener (Sleeve Pockets)
- g. Paragraph 4.1.9.6 of specification G.S. 1045-298, Slide Fastener (Side Seam)
- h. Paragraph 4.1.9.7 of specification G.S. 1045-298, Slide Fastener (Inside Pockets)
- i. Paragraph 4.1.10 of specification G.S. 1045-298, Hook and Loop tape
- j. Paragraph 4.1.11 of specification G.S. 1045-298, Elastic Drawcord
- k. Paragraph 4.1.12 of specification G.S. 1045-298, Cord Locks
- l. Paragraph 4.1.14 of specification G.S. 1045-298, Dome Fasteners
- m. Paragraph 4.1.17 of specification G.S. 1045-298, Webbing
- n. Paragraph 4.1.14.8 of specification G.S. 1045-307, Slide Fastener (Hood Snorkel)
- o. Paragraph 4.1.4 of specification G.S. 1045-307, Fleece Lining
- p. Paragraph 4.1.7 of specification G.S. 1045-307, Insulation
- q. Paragraph 4.1.10.1 of specification G.S. 1045-301, Slide Fastener (Fly Front)
- r. Paragraph 4.1.10.2 of specification G.S. 1045-301, Slide Fastener (Side Seam)

C) Test Reports

The Test Reports (as defined hereunder) are required with the pre-production samples. The test reports must be dated after the contract award.

The test reports must be performed on production materials and must be submitted to the Technical Authority for approval prior to beginning production.

Where the components are applicable to all specifications, reference is made to the respective section in G.S 1045-298 only.

- a. Test reports as per Table I for Shell Material I as per specification G.S. 1045-298.
- b. Test reports as per Table I for Shell Material II as per specifications G.S. 1045-310.
- c. Test reports as per Table II for Shell Material I as per specification G.S. 1045-298.
- d. Test reports as per Table IV for Shell Material II of specifications G.S. 1045-310.

e. Test reports for Retroreflective stripes and lettering as per Para. 4.1.7 of specification G.S. 1045-310..

Test reports based on production yardage are required within 120 calendar days for evaluation prior to full production. Failure to submit the required test reports or any failures within the test reports will result in cancellation of contract.

D) Submission of Pre-Production Samples and Supporting Documents

1. The pre-production samples are required within 90 calendar days for evaluation prior to full production and supporting documents are due within 120 calendar days from date of contract award and must be submitted at no charge to Canada.
2. If the pre-production samples and supporting documents are rejected, the Contractor must submit a second sample and/or Certificate of Compliance and/or test report within 21 calendar days of notification of rejection from the Technical Authority.
3. If the samples and supporting documents are accepted by either full acceptance or conditional acceptance, the Contractor must proceed with production as per the Contract requirements.
4. Rejection by the Technical Authority of the second pre-production samples or supporting documents by the Contractor for failing to meet the contract requirements will be grounds for termination of the Contract for default.
5. The Contractor must carry out all required inspection and tests to verify conformance to the technical requirements of the Contract.
6. The samples submitted by the Contractor will remain the property of Canada.
7. The Technical Authority will notify the Contractor, in writing, of the full acceptance, conditional acceptance, or rejection of the samples and supporting documents. A copy of this notification will also be provided by the Technical Authority to the Contracting Authority. The notice of the full acceptance or conditional acceptance does not relieve the Contractor from complying with all requirements and conditions of the Contract.
8. The Contractor must not commence or continue with production of the items until the Contractor has received a written notification from the Technical Authority that the samples and supporting documents are fully acceptable or conditionally acceptable. Any production of items before acceptance will be at the sole risk of the Contractor.

6.18 Technical Requirements during Production

The RCMP has the right to request one or more Production Sample(s), Certificate(s) of Compliance, Component Sample(s), Test Report(s), Stripe Sample(s) at its discretion at any time during the contracting and production stage in order to ensure technical compliance with the requirements of the Contract. This request will be done in writing by the Contracting Authority. Rejection by the Technical Authority of one or more Production Sample(s), Certificate(s) of Compliance, or Test Report(s) for failing to meet the Contract requirements will be grounds for termination of the Contract for default. The samples submitted by the Contractor will remain the property of Canada.

6.19 Options Quantities Technical Requirements

1. Unless a waiver is granted by the RCMP Technical Authority, the technical requirements at Articles 6.19.1, 6.19.2 and 6.19.3 are required for evaluation prior to full production of each option, if exercised.

The waiving of the technical requirements of the option will be at the sole discretion of the Technical Authority. The Technical Authority will provide notification of the waiver in writing to the Contractor and Contracting Authority.

2. These technical requirements must be representative of the components used for the option. The technical requirements must be submitted to the Technical Authority within 120 calendar days from receipt of the contract amendment exercising the option, for evaluation prior to production of the option quantity.

6.19.1 Certificates of Compliance

The certificates of compliance (C of C) must be dated within 120 days of exercising the option quantities.

Where the components are applicable to all specifications, reference is made to the respective paragraph of G.S 1045-298 only.

- a. Paragraph 4.1.5 of specification G.S. 1045-298, Mesh pocketing
- b. Paragraph 4.1.8 of specification G.S. 1045-298, Thread
- c. Paragraph 4.1.9.1 of specification G.S. 1045-298, Slide Fastener (Front)
- d. Paragraph 4.1.9.2 & 4.1.9.3 of specification G.S. 1045-298, Slide Fastener (Inside Front)
- e. Paragraph 4.1.9.4 of specification G.S. 1045-298, Slide Fastener (Pockets)
- f. Paragraph 4.1.9.5 of specification G.S. 1045-298, Slide Fastener (Sleeve Pockets)
- g. Paragraph 4.1.9.6 of specification G.S. 1045-298, Slide Fastener (Side Seam)
- h. Paragraph 4.1.9.7 of specification G.S. 1045-298, Slide Fastener (Inside Pockets)
- i. Paragraph 4.1.10 of specification G.S. 1045-298, Hook and Loop tape
- j. Paragraph 4.1.11 of specification G.S. 1045-298, Elastic Drawcord
- k. Paragraph 4.1.12 of specification G.S. 1045-298, Cord Locks
- l. Paragraph 4.1.14 of specification G.S. 1045-298, Dome Fasteners
- m. Paragraph 4.1.17 of specification G.S. 1045-298, Webbing
- n. Paragraph 4.1.14.8 of specification G.S. 1045-307, Slide Fastener (Hood Snorkel)
- o. Paragraph 4.1.4 of specification G.S. 1045-307, Fleece Lining
- p. Paragraph 4.1.7 of specification G.S. 1045-307, Insulation
- q. Paragraph 4.1.10.1 of specification G.S. 1045-301, Slide Fastener (Fly Front)
- r. Paragraph 4.1.10.2 of specification G.S. 1045-301, Slide Fastener (Side Seam)

6.19.2 Test Reports

The test reports must be dated within 3 months of the exercising of the option quantities. The test reports must be performed on production materials and must be submitted to the Technical Authority for approval prior to beginning production of option quantities.

Where the components are applicable to all specifications, reference is made to the respective section in G.S 1045-298 only.

- a. Test reports as per Table I for Shell Material I as per specification G.S. 1045-298
- b. Test reports as per Table I for Shell Material II as per specifications G.S.1045-310.
- c. Test reports as per Table II as per specification G.S. 1045-298.
- d. Test reports as per Table IV of specifications G.S.1045-310.
- e. Test reports for Retroreflective stripes and lettering as per Para. 4.1.7 of specification G.S 1045-310.

6.19.3 Samples - Trousers, Inclement, Stripe, Yellow

A pair of trouser stripes only as specified in para. 5.1.1 is required and must be made with Government Available Material 9510-000 as per para. 4.1.3 of specification G.S. 1045-301. The size of the stripes is

for size Large/Regular Trousers in accordance with the scale of measurements in Specification G.S. 1045-301.

6.20 Definitions

6.20.1 Certificate of Compliance – definition

A Certificate of Compliance is defined, for this document, as a signed and dated certification to confirm that a specified component or requirement adheres to the specification. The certification must be prepared, signed and dated by an official representative of the component manufacturer using company letterhead making reference to the specification number and paragraph number. It must specifically address the component or requirement and compliance can be shown by referring to a part number, by providing the component values, by providing a manufacturing data sheet to show technical compliance or by a description stating compliance to the requirement. In-house testing is acceptable to show compliance. Copying the specification word for word is not acceptable.

A separate certificate of compliance is required for each individual component or requirement. Multiple components supplied by the same component manufacturer may be submitted on one certificate of compliance as long as the paragraph numbers and components are clearly identified. With this document, the Contractor certifies that the product for which the certificate of compliance is issued is the same product used in the bid submission, or in the pre-award samples or in the pre-production samples, or in the production units as applicable.

The Contractor is to note that copies of invoices, purchase orders, packing slips and certificates of compliance for products or components that are not manufactured by the certifier are not suitable for use as a certificate of compliance.

6.20.2 Test Report – Definition

Test report documents signed and dated by an independent, third-party accredited laboratory acceptable to the RCMP must include the test method, test conditions and test results performed to verify requirements as specified in this specification. Testing for each table must be performed in its entirety on the same garment and/or piece of material to adhere to all specified test methods and conditions.

6.20.3 Component Sample – Definition

A component sample is a piece or part used in the overall construction of the item. The component requirement is indicated in the specification and the sample submitted must adhere to the specification requirements.

6.21 Patterns

The full set of patterns either in individual sizes or as a graded nest will be provided by the RCMP to the Contractor following contract award (refer to Appendix A of the specification G.S 1045-298, G,S 1045-301, G,S 1045-307, G,S 1045-310, G,S 1045-381). The base pattern shall be used for the development of the Pre-production sample. The Contractor shall specify their preference for paper or electronic patterns. The patterns are the property of the RCMP and must be returned directly to the RCMP or destroyed and/or deleted from the contractor's computer system upon completion of the contract.

6.22 Viewing Samples – Guidance Only

The viewing samples are to be used for guidance for all factors not covered by the RCMP specifications and patterns. The RCMP specifications and patterns must govern.

6.23 Viewing Samples – Return to Sender

The viewing samples which may have been sent to the Contractor must be returned to the RCMP

upon completion of the Contract and at the expense of the Contractor.

The viewing samples are not to be mutilated or cut, and must be returned in the same condition as sent to the Contractor.

Lost or damaged viewing samples and patterns must be reimbursed to the RCMP for the cost of an acceptable replacement.

6.24 Specification and Standards

6.24.1 Canadian General Standards Board (CGSB) – Standards

A copy of the CGSB Standards referred to in the Contract is available and may be purchased from:

Canadian General Standards Board

L'Esplanade Laurier Building

140 O'Connor Street

Tower East, 6th floor

Ottawa, ON

K1A 0S5

Telephone: or 1-800-665-CGSB (Canada only)

E-mail: ncr.cgsb-ongc@pwgsc-tpsgc.gc.ca

CGSB Website: <https://www.tpsgc-pwgsc.gc.ca/ongc-cgsb/index-eng.html>

6.24.2 ASTM International – Standards

A copy of the ASTM Standards referred to in the contract is available and may be purchased from:

ASTM Headquarters

100 Barr Harbor Drive

PO Box C700

West Conshohocken, PA

19428-2959 USA

Telephone: 1-877-909-2786 (USA & Canada) or 610-832-9585 (International)

ATSM Website: <http://www.astm.org/Standard/>

6.24.3 International Standards Organization (ISO) – Standards

A copy of the ISO Standards referred to in the Contract is available and may be purchased from:

International Organization for Standardization

ISO Central Secretariat

Chemin de Blandonnet 8

CP 401

1214 Vernier, Geneva

Switzerland

Telephone: +41 22 749 01 11

Fax: +41 22 733 34 30

E-mail: central@iso.org

ISO Website: <http://www.iso.org/iso/home.html>

6.24.4 American Association of Textile Chemists and Colorists (AATCC)

A copy of the AATCC referred to in the Contract is available and may be purchased from:

American Association of Textile Chemists and Colorists

PO Box 12215

Research Triangle Park,

NC 27709-2215 USA

Telephone: (919) 549-8141

Fax: (919) 549-8933

AATCC Website: <http://www.aatcc.org/>

6.25 Procedures for Design Change/Deviation

When it is necessary to depart, either temporarily or permanently, from the governing technical data in a Contract, the Technical Authority or the Contractor may originate a request for design change or deviation.

If the Technical Authority initiates the design change or deviation process, section 1 of form [PWGSC-TPSGC 9038 Design Change/Deviation](#) must be completed and one copy must be sent to the Contractor and Contracting Authority. When required, copies of the supporting technical data should be submitted.

After providing the contractual information required, the Contractor will send a copy of the design form to the Technical Authority and to the Contracting Authority.

The Contractor will be authorized to proceed upon receipt of the design change/deviation form signed by the Contracting Authority. A contract amendment will be issued to incorporate the design change/deviation in the Contract.

6.26 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.

6.27 Dispute Resolution

- (a) The parties agree to maintain open and honest communication about the Work throughout and after the performance of the contract.
- (b) The parties agree to consult and co-operate with each other in the furtherance of the contract and promptly notify the other party or parties and attempt to resolve problems or differences that may arise.

-
- (c) If the parties cannot resolve a dispute through consultation and cooperation, the parties agree to consult a neutral third party offering alternative dispute resolution services to attempt to address the dispute.
- (d) Options of alternative dispute resolution services can be found on Canada's Buy and Sell website under the heading "Dispute Resolution".

ANNEX "A" - REQUIREMENT

A.1. TECHNICAL REQUIREMENT

The Contractor is required to provide Outerwear to Canada for the Royal Canadian Mounted Police (RCMP). The Outerwear must be manufactured in accordance with the specifications listed below, patterns and the viewing samples.

Jacket, Patrol, Unisex: Specification G.S.1045-298, dated 2019-11-25

Trousers, Inclement and Stripes: Specification G.S.1045-301 dated 219-11-25

Parka, Inclement and Hood, Cold Weather: Specification G.S.1045-307 dated 2019-11-25

Jacket, High Visibility: Specification G.S.1045-310 dated 2019-11-25

Jacket, Patrol, Unisex, Auxiliary: Specification G.S. 1045-381, dated 2019-11-25

A.2 ADDRESSES

Destination Address	Invoicing Address
Royal Canadian Mounted Police Uniform & Equipment Program 440 Coventry Road, East Door Ottawa, Ontario K1K 2C4	Royal Canadian Mounted Police Uniform & Equipment Program, 2nd floor Attn.: Planning & Accounting Section Email: _____ (to be inserted at contract award)

A.3 DELIVERABLES

CONTRACT QUANTITY

A 3.1 Firm Quantity

Item	Description	Firm Quantity	Unit of Issue	Firm Unit Price in CAD, DDP, Transportation costs included, Applicable taxes extra
1	4010 Jacket, Patrol, Unisex	4,815	Each	\$ _____
2	5260 Trousers, Inclement	3,080	Each	\$ _____
3	5270 Stripe, Trousers Inclement, Blue	315	Each	\$ _____
4	5030 Parka, Inclement	3,135	Each	\$ _____
5	3900 Hood, Cold Weather, Parka, Inclement	1,150	Each	\$ _____
6	3985 Jacket, High Visibility	195	Each	\$ _____
7	4012 Jacket, Patrol, Unisex, Auxiliary	1,060	Each	\$ _____

Refer to Annex C for the Size Roll

A.3.2 “As and When Requested” Quantity – Regular Sizes

Year 1: if ordered within 12 months from contract award

Year 2: if ordered within 13-24 months from contract award

Year 3: if ordered within 25-36 months from contract award

Year 4: if ordered within 37-48 months from contract award

Item	Description	Estimated Quantity (total for 4 years)	Unit of Issue	Firm Unit Price in CAD, DDP, Transportation costs included, Applicable taxes extra
8	Stripe, Trousers Inclement – Flex (5265, 5270, 5275)	1,000	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____
9	4012 Jacket, Patrol, Unisex, Auxiliary - Flex	2,000	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____

A.3.3 “As and When Requested” Quantity - Special sizes

Year 1: if ordered within 12 months from contract award

Year 2: if ordered within 13-24 months from contract award

Year 3: if ordered within 25-36 months from contract award

Year 4: if ordered within 37-48 months from contract award

Item	Description	Estimated Quantity (total for 4 years)	Unit of Issue	Firm Unit Price in CAD, DDP, Transportation costs included, Applicable taxes extra
10	4011-100 Jacket, Patrol, Unisex, Special	100	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____
11	5261-000 Trousers, Inclement, Special	50	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____
12	Stripe, Inclement, Special (5261- 000, 5266-000, 5271-000)	15	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____
13	5031-000 Parka, Inclement, Special	50	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____

14	3901-000 Hood, Cold Weather, Parka, Inclement, Special	10	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____
15	3986-000 Jacket, High Visibility, Special	15	Each	Year 1 \$ _____ Year 2 \$ _____ Year 3 \$ _____ Year 4 \$ _____

A.3.4. OPTION QUANTITIES**OPTION 1 - within 24 months from contract award**

Item	Description	Estimated Quantity	Unit of Issue	Firm Unit Price in CAD, DDP, Transportation costs included, Applicable taxes extra
16	4010 Jacket, Patrol Unisex	1,500	Each	\$ _____
17	5260 Trousers, Inclement	1,000	Each	\$ _____
18	5030 Parka, Inclement	1,000	Each	\$ _____

OPTION 2 - within 36 months from contract award

Item	Description	Estimated Quantity	Unit of Issue	Firm Unit Price in CAD, DDP, Transportation costs included, Applicable taxes extra
19	4010 Jacket, Patrol Unisex	1,500	Each	\$ _____
20	5260 Trousers, Inclement	1000	Each	\$ _____
21	5030 Parka, Inclement	1,000	Each	\$ _____
22	3900 Hood, Cold Weather, Parka, Inclement	500	Each	\$ _____

OPTION 3 - within 48 months from contract award

Item	Description	Estimated Quantity	Unit of Issue	Firm Unit Price in CAD, DDP, Transportation costs included, Applicable taxes extra
23	4010 Jacket, Patrol Unisex	1,500	Each	\$ _____
24	5260 Trousers, Inclement	1000	Each	\$ _____
25	5030 Parka, Inclement	1,000	Each	\$ _____

26	3985 Jacket, High Visibility	100	Each	\$ _____
27	3900 Hood, Cold Weather, Parka, Inclement	500	Each	\$ _____

A.4 “AS AND WHEN REQUESTED” QUANTITIES - Identified as Items 8, 9, 10, 11, 12, 13, 14 & 15

Under this Contract, the Contractor is required to provide certain goods to Canada on an “as and when requested” basis. Except as expressly provided in this Contract, Canada is not obliged to request any such goods under this Contract and this Contract does not represent a commitment to purchase such goods exclusively from the Contractor.

RCMP may issue orders for “as and when requested” quantity directly to the Contractor detailing the exact quantities of goods being ordered and the delivery date during the effective period and in accordance with the predetermined conditions.

The quantity of “as and when requested” goods specified under items 8, 9, 10, 11, 12, 13, 14 & 15 is only an approximation of requirements.

Orders for “as and when requested” quantities will be made on Form 942 or on a RCMP order form.

The period for placing “as and when requested” orders will be 48 months from contract award date.

Insofar as specials are concerned, the RCMP will provide a completed pattern adapted to the individual's special measurements and/or an individual measurement form adapted to the individual's special measurements. The Contractor shall specify their preference prior to beginning production of the special order. The manufacturer is responsible to make the garment according to the finished garment measurements when using the measurement form. If the manufacturer requires additional measurements, the Technical Authority shall be notified prior to starting the specials. In addition to the label information as specified in the corresponding specification, the following information is required; the members' name, Reg. number and order number. This information can be added to the same label or a separate label.

The RCMP is requesting that delivery of special sizes be made within 28 calendar days after receipt of order document.

The RCMP is requesting that delivery of regular sizes be made within 45 calendar days after receipt of order document.

Deliveries made against orders of the “as and when requested” quantities will be inspected by the Consignee at destination.

Financial Limitation

The total cost to Canada resulting from orders of “as and when requested” quantities must not exceed the sum of \$_____ (to be established at contract award), applicable taxes extra, unless otherwise authorized in writing by the Contracting Authority. The Contractor must not be obligated to perform any work or services or supply any articles in response to orders which would cause the total cost to Canada to exceed the said sum, unless an increase is so authorized.

A.5 OPTION QUANTITIES - Identified as Items 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26 & 27

The Contractor grants to Canada the irrevocable option to acquire the goods described under items 16 to 27 under the same terms and conditions and at the prices stated in the Contract. The Option can be exercised at Canada's discretion. Canada is not obliged to exercise any options to acquire the goods described under items 16-27 inclusively and this Contract does not represent a commitment to purchase such goods from the Contractor.

Three (3) options may be exercised. The options may only be exercised by the Contracting Authority for a minimum of 50% of the estimated quantity up to a maximum of 100% of the estimated quantity per item and per option and will be evidenced through a contract amendment. Multiple amendments may be issued per option.

The Contracting Authority may exercise the option as follows:

- Option 1: within 24 months from the contract award date by sending a written notice to the Contractor.
- Option 2: within 36 months from the contract award date by sending a written notice to the Contractor.
- Option 3: within 48 months from the contract award date by sending a written notice to the Contractor.

A size roll will be provided if and when the option is exercised.

6. GOVERNMENT AVAILABLE MATERIAL (GAM)

The following government available materials is required for the manufacture of the items and must be purchased from the RCMP.

- a. 8653-100 Police Patch, Reflective, Large (for use on contract items 4010, 4011-100, 5030 and 5131-000) @ \$87.10/50pk
- b. 8654-100 Police Patch, Reflective, Small (for use on contract items 4010, 4011-100, 5030 and 5131-000) @ \$45.27/50pk
- c. 2135-108 Badge, Shoulder, Police (for use on contract items 4010, 4011-100, 3985, 3986-000, 5030 and 5031-000) @ \$0.55/ea
- d. 8750-100 Coyote Strips (for use on contract items 3900 and 3901-000) @ \$68.84/ea
- e. 4950-100 Volunteer Patch (for use on contract items 4012 and 4013-100) @ \$3.00/ea
- f. 5265-XXX Stripe, Trousers, Inclement, Yellow (for use on contract items 5260) @ \$10.85/pair – FOR FIRM QUANTITY ONLY (refer to Appendix 1 to Annex B, Paragraph 1)
- g. 9510-000 Cloth, Tri-laminate, Yellow (for use on contract items 5260) @ \$30.00/m – FOR OPTION and AS AND WHEN REQUESTED QUANTITIES ONLY (refer to Appendix 1 to Annex B, Paragraph 2)

The material must be paid in advance of shipment by certified cheque (please add the applicable taxes). Make the certified cheque payable to Receiver General for Canada. The certified cheque must be forwarded to the RCMP, Uniform and Equipment Program, Warehouse Building, 440 Coventry Road, Ottawa, Ontario K1A 0R2, Attn: Planning & Accounting Section.

ANNEX “B”

**Specification G.S.1045-298, dated 2019-11-25
Jacket, Patrol, Unisex**

**Specification G.S.1045-301 dated 2019-11-25
Trousers, Inclement and Stripes**

**Specification G.S.1045-307 dated 2019-11-25
Parka, Inclement and Hood, Cold Weather**

**Specification G.S.1045-310 dated 2019-11-25
Jacket, High Visibility**

**Specification G.S. 1045-381, dated 2019-11-25
Jacket, Patrol, Unisex, Auxiliary**

(See attached documents)

APPENDIX 1 TO ANNEX “B”

301 Trousers Inclement and Stripes – Instructions for Stripes

(see attached document)

ANNEX "C"**Hood, Cold Weather**

Stock #	Description	Quantity
3900-100	XXS/XS	100
3900-200	S/M	500
3900-300	L/XL	500
3900-400	XXL/XXXL	50
	Total	1150

Jacket, Patrol, Hi-Vis

Stock #	Description	Quantity
3985-010	S-S	75
3985-020	M-S	75
3985-640	XL-T	15
3985-660	XXXL-T	30
	Total	195

Jacket, Patrol, Unisex

Stock #	Description	Quantity
4010-100	XS-S	105
4010-121	S-S	165
4010-142	M-S	240
4010-163	L-S	90
4010-300	XS-R	75
4010-316	S-R	165
4010-337	M-R	750
4010-358	L-R	1185
4010-379	XL-R	750
4010-391	XXL-R	270
4010-402	XXXL-R	60
4010-522	S-T	30
4010-543	M-T	225
4010-564	L-T	240
4010-585	XL-T	255
4010-606	XXL-T	135
4010-617	XXXL-T	75
	Total	4815

Jacket, Patrol, Unisex, Auxiliary

4012-105	XS-S	15
4012-126	S-S	30
4012-147	M-S	60
4012-168	L-S	45
4012-189	XL-S	15
4012-210	XXL-S	5
4012-305	XS-R	15
4012-321	S-R	45
4012-342	M-R	150

4012-363	L-R	210
4012-384	XL-R	135
4012-396	XXL-R	45
4012-407	XXXL-R	15
4012-505	XS-T	5
4012-527	S-T	15
4012-548	M-T	45
4012-569	L-T	75
4012-590	XL-T	75
4012-611	XXL-T	45
4012-622	XXXL-T	15
	Total	1060

Parka, Inclement, Unisex

5030-101	XS-S	90
5030-117	S-S	195
5030-133	M-S	225
5030-149	L-S	165
5030-165	XL-S	60
5030-303	XS-R	75
5030-319	S-R	180
5030-335	M-R	705
5030-351	L-R	885
5030-367	XL-R	285
5030-383	XXL-R	60
5030-399	XXXL-R	15
5030-505	S-T	45
5030-521	M-T	150
	Total	3135

Trousers, Inclement

5260-001	XS-S	120
5260-015	S-S	380
5260-030	M-S	680
5260-045	L-S	420
5260-060	XL-S	80
5260-075	XXL-S	20
5260-090	XS-R	20
5260-100	S-R	220
5260-200	M-R	700
5260-300	L-R	320
5260-400	XL-R	20
5260-500	XXL-R	100
	Total	3080

Stripe, Inclement, Blue

5270-425	L-XXL/R	175
5270-635	L-XXL/T	140
	Total	315

ANNEX "1" to PART 5 OF THE BID SOLICITATION

FEDERAL CONTRACTORS PROGRAM FOR EMPLOYMENT EQUITY - CERTIFICATION

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

For further information on the Federal Contractors Program for Employment Equity visit [Employment and Social Development Canada \(ESDC\)-Labour's website](#).

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

Complete both A and B.

A. Check only one of the following:

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

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

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

OR

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

B. Check only one of the following:

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

OR

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

ANNEX "2" TO PART 5 OF THE BID SOLICITATION

ETHICAL CONSIDERATIONS FOR PROCUREMENT OF APPAREL CERTIFICATION

The Bidder certifies the following:

1. Child labour

The Bidder and its first-tier subcontractors do not employ child labour, i.e. work done by children who are younger than the minimum age for admission to employment indicated in applicable legislation in the country, and no younger than the age at which compulsory schooling has been set in applicable legislation in the country. In any event, children are protected from economic exploitation and from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral or social development. Employees younger than 18 shall not perform hazardous work, which includes work that may jeopardize their health, safety or morals.

2. Forced labour

The Bidder and its first-tier subcontractors do not use forced labour or compulsory labour in all its forms, including trafficking in persons for the purpose of forced or compulsory labour, namely any work or service that is exacted from any person under the menace of any penalty, and for which that person has not offered himself or herself voluntarily.

3. Abuse and harassment

The Bidder and its first-tier subcontractors treat their employees with dignity and respect. No employees shall be subject to any physical, sexual or verbal harassment, abuse or violence or psychological hazards. Corporal punishment is not used or tolerated in any form.

4. Discrimination

The Bidder and its first-tier subcontractors do not discriminate against their employees in hiring practices or any other term or condition of work (other than legitimate occupational requirements allowed by law) on the basis of race, national or ethnic origin, colour, religion, age, sex, sexual orientation, gender identity or expression, marital status, family status, genetic characteristics, disability or conviction of any offence for which a pardon has been granted or in respect of which a record of suspension has been ordered.

5. Freedom of association and collective bargaining

Where provided for by law, the Bidder and its first-tier subcontractors shall recognize and respect the right of employees to freely associate, organize and bargain collectively with their employer. No employee or worker representative shall be subject to discrimination, harassment, intimidation or retaliation as a result of his or her efforts to freely associate, organize or bargain collectively. Where the right to freedom of association is restricted under law, the Bidder and its first-tier

subcontractors must provide workers alternative means of association, including effective means to express and remedy workplace grievances.

6. Occupational safety and health

The Bidder and its first-tier subcontractors provide workers with a safe and healthy work environment and, at minimum, comply with local and national health and safety laws. If residential facilities are provided to workers, they are safe and healthy.

7. Fair wages

The Bidder and its first-tier subcontractors provide wages and benefits which comply with all applicable laws and regulations and which match or exceed the local prevailing wages and benefits in the relevant industry or which constitute a living wage, whichever provides greater wages and benefits. Where compensation does not provide a living wage, the Bidder and its first-tier subcontractors shall ensure that real wages are increased annually to continuously close the gap with living wage.

8. Hours of work

Except in extraordinary circumstances, the Bidder's and its first-tier subcontractors' employees are not required to work more than the lesser of (a) 48 hours per week and 12 hours overtime per week, or (b) the limits on regular and overtime hours allowed by the law of the country of manufacture.



Royal Canadian Mounted Police
Gendarmerie royale du Canada

Doc. no: G.S. 1045-298

Date: 2019-11-25

Specification

Jacket, Patrol, Unisex

This document has 41 pages
including the drawings.

This document was created in
English.

The document is available in
English and French.

☒ English/Anglais
Français/French

The photograph on this page
is for reference only.



Modifications

[illegible]

RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification must govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform and Equipment Program
(440 Coventry Road, Warehouse Building)
73 Leikin Drive
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample must be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples must be replaced by an identical item or the RCMP must be reimbursed for the cost of an acceptable replacement.

SPECIFICATION
Jacket, Patrol, Unisex

1. Definitions

- 1.1 This specification must govern the manufacture and inspection of Jacket, Patrol, Unisex. The specific item covered under this specification with stock number is as follows:
- i. 4010 Jacket, Patrol, Unisex / Blouson de patrouille unisexe
 - ii. 4011-100 Jacket, Patrol, Unisex, Special / Blouson de patrouille unisexe, tailles spéciales
- 1.2 This specification, pattern, drawing, viewing sample, or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for RCMP Jacket, Patrol, Unisex.
- 1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.
- 2.2 **Canadian General Standards Board (CAN/CGSB);**
- 4.2 No. 5.1-M90 (R2013) Textile test methods – Unit mass of fabrics
 - 4.2 No. 9.2-M90 (R2013) Textile test methods – Breaking strength of fabrics — Grab method
 - 4.2 No. 12.3-2005 (R2013) Textile test methods – Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)
 - 4.2 No. 14-2005 Textile test methods – Quantitative Analysis of Fibre Mixtures
 - 4.2 No. 19.1-2004 (R2013) Textile test methods – Colourfastness to washing, Accelerated test

- | | |
|--------------------------|---|
| 4.2 No. 22-2004 (R2013) | Textile test methods – Colourfastness to rubbing (Crocking) |
| 4.2 No. 26.3-2010 | Textile test methods – Textile Fabrics — Determination of Resistance to Water Penetration — Hydrostatic Pressure Test |
| 4.2 No. 26.5-M89 (R2013) | Textile test methods – Water resistance — High pressure penetration test |
| 4.2 No. 49-99 (R2013) | Textile test methods – Resistance of materials to water vapour diffusion |
| 4.2 No. 58-2019 | Textile test methods – Dimensional change in domestic laundering of textiles |
| 86.1-2003 | Care Labelling of Textiles |
- 2.3 **General Services Administration – US Government**
Commercial Item Description
A-A-50199A Thread, Polyester Core, Cotton or Polyester-Covered
- 2.4 **General Services Administration – US Government**
Federal Standard, Textile Test Methods; (FED-STD No. 191A)
Method 4108 Strength and Elongation, Breaking; Textile Webbing, Tape and Braided Items
Method 5516 Water Resistance of Cloth; Water Permeability, Hydrostatic Pressure Method
- 2.5 **American Society for Testing and Materials (ASTM)**
D2097-03 (2010) Standard Test Method for Flex Testing of Finish on Upholstery Leather
D413-98 (2017) Standard Test Methods for Rubber Property-Adhesion to Flexible Substrate
D1424-09 (R2013) Standard Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type)
D3512/D3512-16 Standard Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Random Tumble Pilling Tester
D3776/D3776M-09a (2017) Standard Test Method for Mass per Unit Area (Weight) of Fabric
D3786/D3786M-13 Standard Test Method for Bursting Strength of Textile Fabrics—Diaphragm Bursting Strength Tester

D3886-99 (R2015)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Inflated Diaphragm Apparatus) ¹
D4966-12 (R2016)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)
D5034-09 (R2013)	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
D5169-98 (R2015)	Standard Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners
D5170-98 (R2015)	Standard Test Method for Peel Strength (“T” Method) of Hook and Loop Touch Fasteners
D8007-15 ^{e1}	Standard Test Method for Wale and Course Count of Weft Knitted Fabrics

2.6 **American Association of Textile Chemists and Colorists (AATCC)**

Test Method 22-2017	Water Repellency: Spray Test
Test Method 61-2013	Colourfastness to Laundering: Accelerated
Test Method 118-2013	Oil Repellency: Hydrocarbon Resistance Test

2.7 **International Standards Organization (ISO)**

105-B02:2014	Colourfastness to artificial light: Xenon arc fading lamp test
105-X12:2016	Colourfastness to rubbing (Crocking)
4920:2012	Textile fabrics — Determination of resistance to surface wetting (spray test)
6330:2012	Domestic washing and drying procedures for textile testing
13937-1:2000	Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)

2.8 **British Standards Institution (BS)**

BS 3424-26: 1990	Testing coated fabrics. Methods 29A, 29B, 29C and 29D. Methods for determination of resistance to water penetration and surface wetting
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- 2.9 **Royal Canadian Mounted Police Specification (RCMP)**
 G.S.1045-266 Badges Woven – Badge, Shoulder, Police
 PD-PE-93 Police Patch, Reflective, Large & Small.

3. **General Requirements**

- 3.1 The article or material covered by this specification must be free from material and manufacturing defects that may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production must be equivalent in all respects to the pattern and viewing sample.
- 3.2 **Design** – The Jacket, Patrol, Unisex must be a loose fitting, waist length jacket designed to be worn in conjunction with a removable liner. The shell is constructed from a 3-layer material with a WMVP (waterproof moisture vapour permeable) membrane. The 3-layer fabric construction does not require a lining when made up into a garment. The jacket must be waterproof with all seams permanently seam sealed unless otherwise stated.

4. **Detail Requirements**

4.1 **Components**

- 4.1.1. **Shell Material I** – The shell material must be plain weave 100% nylon, Type 6.6. The colour must be dark navy blue, meeting the approved colour swatch, with a durable water repellent finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the waterproof moisture vapour permeable membrane as specified in para. 4.1.2.
- 4.1.2. **Shell Material I, Laminated** – The shell material must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of shell material as specified in para. 4.1.1, with the membrane as the middle layer, and a black, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table II forming part of this specification. The laminated shell materials must not show any visible signs of delamination or loss of film during the garments useful life (approximately 5 years).

The fabric must be capable of having its sewn seams, seam-sealed with an appropriate tape, in a waterproof, durable fashion. Materials not meeting these requirements will be cause for rejection. Delamination is defined as any irreparable separation of the bonded layers of the Laminated Shell Material(s).

- 4.1.3. **Seam Sealing Tape** – The 3-layer composite fabric must be seamed using a compatible nylon or polyester seam-sealing tape with the 3-layer shell fabric and sealed-seams meeting the requirements outlined in Table I forming part of this specification. The tape on the sealed seams must not peel off and/or wear during the projected life span of the garment.
- 4.1.4. **Back Yoke Lining Material** – The back yoke lining material must be 70 denier 100% nylon, weighing between 60-70 g/m², black in colour or to match the shell material.
- 4.1.5. **Mesh Pocketing** – The pocketing must be a polyester, warp knit mesh, black in colour or to match the shell material, meeting the requirements outlined in Table III. Tek-Knit “XPTAR004” has been known to meet the requirement.
- 4.1.6. **Reflective Police Patches** – The RCMP stock item number 8653-100, Police Patch, Reflective, Large and RCMP stock item number 8654-100, Police Patch, Reflective, Small must be purchased from the RCMP.
- 4.1.7. **Shoulder Badges** – The RCMP stock item number 2135-108, Badge, Shoulder, Police must be purchased from the RCMP.
- 4.1.8. **Thread** – The thread must be polyester wrap, polyester core, Tex 50, Type II of matching colour to the shell material, meeting U.S. government Commercial Item Description A-A-50199A.
- 4.1.9. **Slide Fasteners**
 - 4.1.9.1 **Slide Fastener – Front** – The slide fastener must be an open-end separator, black in colour, injection molded, DA automatic slider, Vislon® YKK 26500 VSOR 56 DA86 E 9/16 (only).
 - 4.1.9.2 **Slide Fastener – Right Inside Front** – (To be used for the attachment of a removable liner) – The slide fastener must consist of ½ (half) of an open-end slide fastener with the retaining box and slider; it must be injection molded, with a DA

automatic slider, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).

- 4.1.9.3 **Slide Fastener – Left Inside Front** – (To be used for the attachment of a removable liner) – The slide fastener must consist of ½ (half) of an open-end slide fastener with the insert pin and must be injection molded, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.9.4 **Slide Fastener – Upper & Lower Front Pockets** – The slide fastener must be coil, water repellent, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the sliders facing front. It must be black in colour, with long pull tabs, YKK 37088 CIT4C 51 DFBL E 5/8*BTM-2*P-BTM*REV (only).
- 4.1.9.5 **Slide Fastener – Upper Sleeve Pocket**– The slide fastener must be a closed end coil type slide fastener with a DF non-lock slider, black in colour, YKK 12824 CIFC 51 DFW1 E 5/8*TS-TS1*BS-BW (only).
- 4.1.9.6 **Slide Fastener – Side Seam** – The slide fastener must be coil, water repellent, black in colour, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the sliders facing front. It must be closed-ended with three sliders arranged in a back-to-back-head-to-head relation, Aqua Guard YKK 37338 CIT4MC 56/6/6 DA8BLH E/DA8BLH E/DA8BLH E 5/8*SLSB-BH-H*P-TOP*P-BTM*REV (only).
- 4.1.9.7 **Slide Fastener – Inside Pockets** – The inside pocket slide fasteners must be black in colour, woven-in style, DA automatic slider, YKK 20054 CFC 456 DA E 9/16 *E-BTM-2* (only).
- 4.1.10 **Hook and Loop Tape** – The hook and loop tape must be woven nylon, black in colour, with a high life cycle. The combined hook and loop must have no less than 8 P.S.I length-wise shear strength with initial peel strength of not less than 1 P.I.W. when tested to ASTM D5169-98 (R2015), standard test method for shear strength [dynamic method] of hook and loop touch fasteners and ASTM D5170-98 (R2015), standard test method for peel strength ["T" method] of hook and loop touch fasteners."
- 4.1.11 **Elastic Drawcord** – The drawcord must be round braided polyester elastic, black in colour, 2.4 mm, with maximum elongation of 135% and full recovery. Cansew style #EBR C-38 has been known to meet the requirement.

- 4.1.12 **Cord Locks** – The cord locks must be low profile, cylindrical cord locks, spring loaded in acetyl composition, black in colour. It must come in two sizes. The cord lock for the hem channel must be shaped with a maximum diameter of 13 mm and a maximum depth of 11.2 mm. Texfast style #S217B has been known to meet the requirement. The cord lock for the hood must be shaped with a maximum diameter of 15.5 mm and a maximum depth of 12.5 mm. Texfast style #S217A has been known to meet the requirement.
- 4.1.13 **Eyelets** – The eyelets must be sized to 5-6 mm diameter hole. The eyelets must be made of brass or aluminum in black.
- 4.1.14 **Dome Fastener** – The dome fastener must be a standard type 24 ligne fastener. All metal parts to be brass with a 15 mm matte black, powder coated cap. Universal SW61 (only).
- 4.1.15 **Elastic** – The elastic must be heavy duty woven elastic, with a composition of at least 70% polyester blended with rubber and a medium finish. The elastic must be black in colour. It must be available in two widths: 2.5 cm and 4 cm.
- 4.1.16 **Grosgrain Ribbon** – The grosgrain ribbon must be nylon, black in colour and come in three widths, 6 mm, 1 cm and 2.5 cm.
- 4.1.17 **Webbing, Microphone Strap** – The webbing must be a durable nylon webbing, luggage quality, black in colour measuring 2.54 cm (1”) wide and 0.04” ± 0.01” thick. It must have a minimum tensile strength of 1000 lbs. as per Federal Standard 191A test method 4108. Tape Craft N0015S-1”-YD001-352 has been known to meet the requirements.
- 4.2 **Size and Dimensions** – The Jacket, Patrol, Unisex must be supplied in the sizes specified by the RCMP and to the dimensions given in the scale of measurements and drawings forming part of this specification. The garment components must be shaped, dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in Appendix “A” forming part of this specification.
- 4.3 **Construction**
- 4.3.1 **Stitching and Seam Sealing** – All stitching must be lockstitch. There must be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching must be securely backstitched or tacked, unless secured by other

stitching. Ball point needles must be used for stitching through elastic components. All seams and points where stitching penetrates the shell materials must be permanently sealed on the inside with the appropriate seam-sealing tape as per para. 4.1.3. Care must be taken to ensure that the tape cross-over points where seams join are doubly covered and bonded securely so as to ensure water-resistance. Any sealed seams showing any form of delamination or any non-bonded or peeling seams must be a cause for rejection.

4.3.2 **Body**

4.3.2.1 **Back & Back Yoke** – The body must be made from shell material, as specified in para. 4.1.2 and must have a two piece back with ‘beaver tail’ type extension. There must be a large ‘hide away’ police patch, constructed from the shell material as specified in para. 4.1.2 and a reflective police patch as per para. 4.1.6. It must be shaped and dimensioned as per the patterns and applied to the back yoke. The back yoke must be faced with lining as specified in para. 4.1.4 and stitched from side seam to side seam as shown in drawing 6 and seam sealed appropriately to ensure waterproofness. The back and back yoke when finished must be shaped and dimensioned as per the pattern and viewing sample.

4.3.2.2 **Back Hem Channel** – The back hem facing shaped and dimensioned as per the pattern must be sewn face side out, to the bottom of the jacket back to create a hem channel for the elastic drawcord. The hem channel must have two eyelets as per para. 4.1.13, 4 cm from the left side seam as identified in drawing 5. An elastic drawcord as specified in para. 4.1.11 must be securely attached into the right side seam and threaded through the hem channel. It must continue through the smaller cord lock as specified in para. 4.1.12, and through the eyelet outside the hem channel. It must be threaded through the second eyelet. It must continue back through the cord lock where the drawcord must be knotted. When assembled completely, the cord lock must be hidden in the channel with only the looped end of the elastic drawcord showing as per drawings 3. When the bottom channel is relaxed, there must be no extra length of elastic drawcord showing between the two eyelets. The drawcord must lay flat.

4.3.2.3 **Front** – The jacket must be equipped with a centre front slide fastener as specified in para. 4.1.9.1, length as specified in Table IV, and the bottom ends of the slide fasteners must be bar tacked as per drawing 3. The front must have two front storm flaps with dome fasteners for closure. The front must have four pockets, two upper and two lower pockets, all with slide fasteners and flaps. The outer front yoke extension must be manufactured in a way to create a pocket flap with a dome

fastener in order to close the zippered chest pockets. Under the outer right front yoke flap, there must be a small “hide away” reflective police patch and above the pocket flap must be an 8.5 cm x 2.5 cm piece of loop tape as specified in para. 4.1.10 for the name tag. Both outer left and right front yoke must be equipped with webbing as specified in para. 4.1.17, measuring 2.5 cm x 5 cm for the microphone loop. All components of the front must be constructed as per the patterns and drawings.

- 4.3.2.4 **Chest Pockets** – The jacket must have two upper front pockets with water-resistant slide fasteners as specified in para. 4.1.9.4 and lengths outlined in Table IV. Each chest pocket must have flaps created from the front yoke extension pattern piece which must be dimensioned in accordance with the patterns and drawing 6. The slider must be in a position closest to the centre front when closed. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. Applied to the top right front flap, must be a small ‘hide away’ reflective patch constructed from shell material and a reflective police patch as per para. 4.1.6 and drawing 6. The reflective police patch must be sewn on top of the pull-down with the side edges folded under. The centre front of the front yoke piece when sewn to create a pocket flap must be secured with a dome fastener as specified in para. 4.1.14. There must be two inside pockets constructed out of mesh material as specified in para. 4.1.5 secured with a slide fastener as specified in para. 4.1.9.7 and lengths as specified in Table IV. There must be two labels sewn through the mesh inner pocket bag with the Identification label and Marking and Cleaning Instruction as shown in the drawing 3.
- 4.3.2.5 **Lower Pockets** – The jacket must have two lower front pockets with slash openings and flaps. Both lower pockets must have water-resistant slide fasteners as specified in para. 4.1.9.4, lengths as specified in Table IV. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. The slider must be in the down position when the pocket is closed. The pocket bags must be constructed from mesh material as specified in para. 4.1.5 dimensioned and positioned as per the patterns and drawing 2.
- 4.3.2.6 **Under Fly Front & Front Storm Flaps** – The under fly front must be fitted with two injection molded slide fasteners, length as specified in Table IV. One is for the front closure and one is for the attachment of the removable liner. The jacket front slide fastener, as specified in para. 4.1.9.1, must be inserted in a way to have the slider and retaining box on the left front with a ribbon pull as specified in para. 4.3.12 and the insert pin attached on the right front. The left front storm flap must have five dome fasteners (female portion) as specified in para. 4.1.14, which align

with the male portions attached to the right front storm flap as per drawing 3. There must be ½ (half) of a slide fastener attached to the right facing and ½ (half) of a slide fastener attached to the left facing to be used for the attachment of a removable liner. The ½ (half) attached to the right front inside facing, as specified in para. 4.1.9.2, must consist of the retaining box and slider which must begin 2 cm below the collar seam for all sizes. The ½ (half) attached to the left inside front as specified in para. 4.1.9.3 must consist of the insert pin and begin 2 cm below the collar seam for all sizes, as shown in drawing 3. The bottom ends of all the slide fasteners must be bar tacked as per drawing 3. An external pen pocket measuring 2 cm after folding in half must be constructed from a single layer of shell material. It must be sewn to the left chest only directly under the top storm flap between the front slide fastener and storm flap. The pen pocket must be dimensioned and positioned as per the patterns and drawing 3.

- 4.3.3 **Side Seams** – Both side seams from sleeve underarm to hem must be equipped with a water-resistant slide fastener as specified in para. 4.1.9.6, and lengths as specified in Table IV and the bottom ends of the slide fasteners must be bar tacked as per drawings 3 & 5. The slide fastener, when applied, must be covered by the shell material. There must be 3 sliders, the two closest to the underarm should be in a head to head position and the third must be opening from the bottom upwards as shown in drawing 5. All sliders must be equipped with ribbon pulls as specified in para. 4.3.12. The seam tape, when applied, must extend into the front and back hem facing so that no tape ends are visible as shown in drawing 3. The side seam hem must have an elastic closure strap as specified in para. 4.3.13, positioned as per drawing 5.
- 4.3.4 **Collar** – The collar must be made of shell material as specified in para. 4.1.2. There must be three dome fasteners (male portion) as specified in para. 4.1.14 for the attachment of the detachable hood.
- 4.3.5 **Detachable Hood** – The hood must be constructed from shell material as specified in para. 4.1.2, with all sewn seams, seam-sealed. It must be constructed in a way to have double adjustment for height and width, with an elastic drawcord as specified in para. 4.1.11 and large size cord locks as specified in para. 4.1.12. The hood must be secured to the collar with 3 (three) dome fasteners as specified in para. 4.1.14 with the female portion applied to the hood and the corresponding male portion to the collar. Eyelets as per para. 4.1.13 must be applied to each side of the hood side fronts for the insertion of the elastic drawcord. The elastic drawcord must be threaded through the inside channel continuing through the eyelet with cord locks applied as per drawing 4. A label identifying the corresponding hood size

must be sewn to the bottom back facing mid back position or centered on the facing as shown in drawing 4.

- 4.3.6 **Sleeve & Sleeve Cuffs** – The jacket must have a three piece sleeve with an upper sleeve pocket constructed from shell material as specified in para. 4.1.2. All sleeve seams with exception of the underarm seam must be top stitched using a 2 mm gauge. A dome fastener must be applied to a piece of 2.5 cm wide grosgrain ribbon as specified in para. 4.1.16 which is doubled and sewn securely to the cuff/sleeve seam for the attachment of the liner as shown in drawing 5. The sleeves must have a 9 cm adjustment strap with a 4.5 cm x 2.5 cm piece of hook tape as specified in para. 4.1.10 for adjustability. The cuff must be 4 cm wide with a 12 cm x 2.5 cm piece loop tape to secure the adjustment strap. The cuff must be partially elasticized using 4 cm wide elastic as specified in para. 4.1.15. The elasticized area of the cuff must have two rows of top stitching to anchor the elastic. The sleeves and cuffs must be shaped and dimensioned as per the patterns and viewing sample.
- 4.3.7 **Shoulder Straps** – The shoulder straps shaped and dimensioned in accordance with the patterns and drawing 4, must be made from two layers of shell material as specified in para. 4.1.2. They must be sewn into the sleeve-head and positioned as per the pattern and viewing sample. The shoulder strap must be secured to the jacket shoulder with the dome fastener specified in para. 4.1.14. Refer to Table V for the finished length by size.
- 4.3.8 **Upper Sleeve Pocket** – Both sleeves must have an upper sleeve pocket constructed from shell material with a slide fastener as specified in para. 4.1.9.5. When in a closed position, the slider must be facing toward the shoulder as shown in drawing 2. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. There must be two rows of topstitching around the slide fastener, using 2 mm gauge and 6 mm gauge. The sleeve pocket must be sewn to the sleeve, top-stitched using a 2 mm gauge and seam sealed appropriately to ensure waterproofness. The upper sleeve pocket must be constructed in accordance with the patterns.
- 4.3.9 **‘Hide Away’ Reflective Police Patches** – The front and back ‘hide away’ patches must be constructed of a single layer of shell material folded in half with raw ends turned inside and sewn. The finished length of the front ‘hide away’ must be 13 cm x 6.5 cm wide and the back “hide away” must be 30.5 cm x 10 cm with a reflective police patch as specified in para. 4.1.6. Both ends of the police patch must be folded under and applied to the top of the hide away pull-down. Both ‘hide away’ patches must have loop tape as specified in para. 4.1.10 attached to the back

side for the patch to be concealed in a “hide away” position. All “hide away” patches must be constructed as per drawing 6.

- 4.3.10 **Shoulder Badges** – The RCMP shoulder badges specified in para. 4.1.7 must be sewn through the upper sleeve pocket only (not through the sleeve). The badge is to be centred on the sleeve-head 2.5 cm below the sleeve-head seam and attached with one row of stitching, as per the viewing sample.
- 4.3.11 **Coat Hanger** – A 6 cm long coat hanger, constructed from 6 mm wide grosgrain ribbon as specified in para. 4.1.16 must be centred at the neck in accordance with the viewing sample.
- 4.3.12 **Slide Fastener Ribbon Pulls** – All ribbon pulls must be constructed with grosgrain ribbon 1 cm wide, as specified in para. 4.1.16. The ribbon must be applied to the hole of the slide fastener pull in a way that allows the ribbon pulls to be removed easily without damage and reapplied. The ribbon pull should be 5 cm \pm 0.5 cm in length when finished and attached to the slide fastener.
- 4.3.13 **Side Seam Closure Strap** – There must be a side seam closure strap measuring 9 cm \pm 0.5 cm when finished, at the side seam hem. It must be constructed from 2.5 cm wide elastic as specified in para. 4.1.15, doubled and must be sewn to the lower back side seam flipping toward the front, equipped with a female dome fastener for closure. The corresponding male dome fastener must be applied to the jacket front at the hem.
- 4.3.14 **Identification Label** – Each jacket must have a durable blank label 7.5 cm x 2 cm applied separately below the marking and cleaning label used for the inscription of the wearers’ name.
- 4.3.15 **Marking & Cleaning Instructions Label** – Each jacket must have a durable label positioned and sewn to the bottom of the inside pocket bag as shown in drawing 3. The text must be permanent inks of a contrasting colour and must withstand at least 50 washes with no apparent change in appearance. All text except for the RCMP stock number and size must be in size 6 font. The RCMP stock number and size must appear in size 8 font. The manufacturer’s identification must not appear anywhere on the garment except where indicated on the label. The label must contain the following information in English and French.
1. Item name in English as written in para. 1.1.
 2. Item name in French as written in para. 1.1.

3. RCMP stock number - reference contract documents. (Ex. 4010 000)
4. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/R - G/R)
5. Date of manufacture, in numeric format year/month (Ex. 2018/11)
6. Your manufacturer identification (Company name or number).
7. Print information as shown below.

1		
2		
3		
4		
5		
6		
7	Machine wash - warm (40°C)	Laver à la machine – à l'eau tiède (40°C)
	Do Not use fabric softener or chlorine bleach	Ne pas utiliser d'agent adoucissant ni d'agent de blanchiment
	Tumble dry- medium (Do Not use dryer sheets)	Séchage par culbutage – à température moyenne (Ne pas utiliser d'assouplissant en feuilles)
	Steam iron - low	Repassage à vapeur - à température basse
	Dry clean - If professionally dry cleaned request clear distilled solvent rinse; request spray repellent.	Nettoyer à sec – demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit hydrofuge en aérosol.
	Further care instructions: See Ordering Guide.	Instructions d'entretien supplémentaires: Voir le guide de commande.

4.3.16 **Instruction Sheet** – Each completed jacket must have an instruction sheet folded and inserted into the inside chest pocket bag, with the information included in Appendix 'B' English and French, forming a part of this specification.

5. **Quality Assurance Provisions**

5.1 **Responsibility for Inspection** – Unless otherwise stipulated in the Contract, it is the Contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor must use an independent commercial testing establishment.

- 5.2 The RCMP, Uniform and Equipment Program reserve 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.
- 5.3 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.

6. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing No. 1)

- 6.1 **Chest Circumference (total circumference)** – When placed flat, the chest circumference is the distance across the jacket, measured at the lowest point of the armholes. The result must be doubled to measure total circumference. (A).
- 6.2 **Bottom Circumference (total circumference)** – When placed flat, the bottom is measured across the jacket bottom. The result must be doubled to measure total circumference. (B).
- 6.3 **Front Length** – The length is the distance measured from the top of the collar to the hem at front. (C).
- 6.4 **Side Length** – The length is the distance measured from the base of the armhole at the side to the hem. (D).
- 6.5 **Full Shoulder Width** – The full shoulder width is the distance measured at the shoulder seam from neckline to armhole. (E).
- 6.6 **Sleeve Length Overarm** – The overarm sleeve length is the distance from the armhole at the shoulder seam to the bottom edge of the sleeve cuff. (F).
- 6.7 **Sleeve Length Underarm** – The underarm sleeve length is the distance under sleeve from the armhole to the bottom edge of the sleeve cuff. (G).
- 6.8 **Sleeve Cuff Circumference (Relaxed)** – The sleeve cuff is measured at the bottom edge of the sleeve. The result must be doubled to measure total circumference. (H).
- 6.9 **Elbow Circumference** – The elbow is measured across the width of the sleeve in line with the seam of the sleeve patch. The result must be doubled to measure total circumference. (J).
- 6.10 **Back Length** – The length is the distance measured from the bottom of the collar at the back to the hem. (K).
- 6.11 **Back Width** – When placed flat, the distance measured across the back from armhole to armhole at the yoke seam. (L).
- 6.12 **Collar Length** – The collar length is measured along the seam from slide fastener to slide fastener. (M).

Scale of Measurements – Jacket, Patrol, Unisex															
SIZE DESIGNATION			BODY MEASUREMENTS		GARMENT MEASUREMENTS										
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Short	XXS	31" - 33"	79 - 84	109.0	96.5	48.0	20.0	14.0	51.0	50.0	24.0	44.5	56.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	50.0	21.0	15.0	53.0	51.0	25.0	47.0	58.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	52.0	22.0	16.0	55.0	52.0	26.0	49.5	60.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	54.0	23.0	17.0	57.0	53.0	27.0	52.0	62.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	56.0	24.0	18.0	59.0	54.0	28.0	54.5	64.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	58.0	25.0	19.0	61.0	55.0	29.0	57.0	66.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	60.0	26.0	20.0	63.0	56.0	30.0	59.5	68.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	62.0	27.0	21.0	65.0	57.0	31.0	62.0	70.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	64.0	28.0	22.0	67.0	58.0	32.0	64.5	72.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	66.0	29.0	23.0	69.0	59.0	33.0	67.0	74.0	66.5	65.0
Short	XXS	31" - 33"	79 - 84	109.0	96.5	53.0	25.0	14.0	55.0	54.0	24.0	44.5	61.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	55.0	26.0	15.0	57.0	55.0	25.0	47.0	63.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	57.0	27.0	16.0	59.0	56.0	26.0	49.5	65.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	59.0	28.0	17.0	61.0	57.0	27.0	52.0	67.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	61.0	29.0	18.0	63.0	58.0	28.0	54.5	69.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	63.0	30.0	19.0	65.0	59.0	29.0	57.0	71.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	65.0	31.0	20.0	67.0	60.0	30.0	59.5	73.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	67.0	32.0	21.0	69.0	61.0	31.0	62.0	75.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	69.0	33.0	22.0	71.0	62.0	32.0	64.5	77.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	71	34	23.0	73.0	63.0	33.0	67.0	79.0	66.5	65.0
TOLERANCES ±				3 cm	3 cm	2 cm	1.5 cm	1 cm	1.5 cm	1 cm	2 cm	2 cm	1 cm	1 cm	
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements – Jacket, Patrol, Unisex															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
Regular	XXS	31" - 33"	79 - 84	109.0	96.5	58.0	30.0	14.0	59.0	58.0	24.0	44.5	66.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	60.0	31.0	15.0	61.0	59.0	25.0	47.0	68.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	62.0	32.0	16.0	63.0	60.0	26.0	49.5	70.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	64.0	33.0	17.0	65.0	61.0	27.0	52.0	72.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	66.0	34.0	18.0	67.0	62.0	28.0	54.5	74.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	68.0	35.0	19.0	69.0	63.0	29.0	57.0	76.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	70.0	36.0	20.0	71.0	64.0	30.0	59.5	78.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	72.0	37.0	21.0	73.0	65.0	31.0	62.0	80.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	74.0	38.0	22.0	75.0	66.0	32.0	64.5	82.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	76.0	39.0	23.0	77.0	67.0	33.0	67.0	84.0	66.5	65.0
Tall	XXS	31" - 33"	79 - 84	109.0	96.5	63.0	35.0	14.0	63.0	62.0	24.0	44.5	71.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	65.0	36.0	15.0	65.0	63.0	25.0	47.0	73.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	67.0	37.0	16.0	67.0	64.0	26.0	49.5	75.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	69.0	38.0	17.0	69.0	65.0	27.0	52.0	77.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	71.0	39.0	18.0	71.0	66.0	28.0	54.5	79.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	73.0	40.0	19.0	73.0	67.0	29.0	57.0	81.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	75.0	41.0	20.0	75.0	68.0	30.0	59.5	83.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	77.0	42.0	21.0	77.0	69.0	31.0	62.0	85.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	79.0	43.0	22.0	79.0	70.0	32.0	64.5	87.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	81.0	44.0	23.0	81.0	71.0	33.0	67.0	89.0	66.5	65.0
TOLERANCES ±				3 cm	3 cm	2 cm	1.5 cm	1 cm	1.5 cm	1.5 cm	1 cm	2 cm	2 cm	1 cm	1 cm
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements – Jacket, Patrol, Unisex															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Tall	XXS	31" - 33"	79 - 84	109.0	96.5	68.0	40.0	14.0	67.0	66.0	24.0	44.5	76.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	70.0	41.0	15.0	69.0	67.0	25.0	47.0	78.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	72.0	42.0	16.0	71.0	68.0	26.0	49.5	80.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	74.0	43.0	17.0	73.0	69.0	27.0	52.0	82.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	76.0	44.0	18.0	75.0	70.0	28.0	54.5	84.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	78.0	45.0	19.0	77.0	71.0	29.0	57.0	86.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	80.0	46.0	20.0	79.0	72.0	30.0	59.5	88.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	82.0	47.0	21.0	81.0	73.0	31.0	62.0	90.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	84.0	48.0	22.0	83.0	74.0	32.0	64.5	92.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	86.0	49.0	23.0	85.0	75.0	33.0	67.0	94.0	66.5	65.0
XX Tall	XXS	31" - 33"	79 - 84	109.0	96.5	73.0	45.0	14.0	71.0	70.0	24.0	44.5	81.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	75.0	46.0	15.0	73.0	71.0	25.0	47.0	83.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	77.0	47.0	16.0	75.0	72.0	26.0	49.5	85.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	79.0	48.0	17.0	77.0	73.0	27.0	52.0	87.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	81.0	49.0	18.0	79.0	74.0	28.0	54.5	89.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	83.0	50.0	19.0	81.0	75.0	29.0	57.0	91.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	85.0	51.0	20.0	83.0	76.0	30.0	59.5	93.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	87.0	52.0	21.0	85.0	77.0	31.0	62.0	95.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	89.0	53.0	22.0	87.0	78.0	32.0	64.5	97.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	91.0	54.0	23.0	89.0	79.0	33.0	67.0	99.0	66.5	65.0
TOLERANCES ±				3 cm	3 cm	2 cm	1.5 cm	1 cm	1.5 cm	1.5 cm	1 cm	2 cm	2 cm	1 cm	1 cm
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

TABLE I
Properties of Laminated Shell Material (with WMVP membrane & tricot backing)

	Test	Test Method	Duration	Min. Value Shell Material I
1	Resistance of Materials to Water Vapour Diffusion	CAN CGSB 4.2 No. 49-99 (R2013), Option 1 *See test procedure #1	- Initial - After 5 launderings - After ageing (70°C & 95% RH for 168 hrs)	13 mm max.
2	Hydrostatic Resistance	CAN CGSB 4.2 No. 26.5-M89 (R2013) *See test procedure #2	- Initial - After 5 launderings	1240.2 kPa
3	Low Pressure Water Permeability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #3	- Initial	No Leakage
		ASTM D2097-03 (2010) * See test procedure #4	- After Cold Flex Warp /Fill	No Leakage
4	High Pressure Water Permeability	BS 3424: Part 26: 1990 Method 29A * See test procedure #5	- Initial	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After Unleaded Gasoline	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After DEET Insect Repellent in cream format	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #7	- After Synthetic Perspiration	No Leakage
5	Abrasion Resistance	ASTM D3886-99 (R2015) Procedure: use No. 0 Emery Polishing Paper * See test procedure #8	- 3200 Cycles	No failure
SEAMS				
6a	Seam Tape Durability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #9	- Initial	No Leakage
6b		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #10	- After 10 laundry cycles	No Leakage
6c		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #11	- After 10 dry-clean cycles	No Leakage
7	Delamination	Visual	- Examination after each procedure 6a through 6c	No Delamination
8	Peel Strength N/23 mm	ASTM D413-98 (2017)		8 N/23mm minimum

TEST PROCEDURES FOR TABLE I

1. The knit side of the laminated cloth must face the water. The tests must be completed as outlined in CAN/CGSB 4.2 Method 49-99 (R2013), Option 1. The samples must be conditioned at $21^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($69.8^{\circ}\text{F} \pm 2^{\circ}\text{F}$) and relative humidity must be $65 \pm 2\%$. The test specimen must be placed approximately equidistant between the dry airflow and the water cell. Four specimens must be tested per condition. The tests must be completed initially and after 5 launderings according to ISO 6330:2012 Method 2B-F.
2. The water pressure must be applied to the knit side of the laminated cloth. A taffeta fabric restraint conforming to MIL-C-21852F-TYPE III-CLASS1 PART#WJAAGNA should be placed on top of the sample against the face side of the laminated cloth. The tests must be completed initially and after 5 launderings according to ISO 6330:2012, Method 2B-F.
3. The knit side of the laminated cloth must contact the water. The hydrostatic head must be 13.78 kPa (2.0 psi) and must be held for 3 minutes. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area. The test may be performed using any device which tests the same specimen area at the equivalent pressure. In case of dispute, the apparatus described in FED-STD-191A Method 5516 must be used.
4. Ten warp and ten fill specimens 8.26 cm x 11.43 cm (3.25" x 4.5") must be selected from each sample unit. The 8.26 cm (3.25") dimension is the test direction. Specimens must be flexed for 20,000 cycles as specified in ASTM D2097-03 (2010) and as follows: Mark the knit side of each specimen with two lines 4.32 cm (1.7") apart and perpendicular to the test direction. The area between the lines is the test area and must be centered on the knit side of the specimen. Wrap the specimens around fully extended pistons with the knit side out. The test area lines must meet evenly and must line up with the edges of the pistons. Clamp in place making sure the clamps are not in the test area. Check specimen for smoothness and tautness (wrinkles cause improper flexing). The distance between the pistons must be 4.32 cm (1.7") in the open position and 1.27 cm (0.5") in the closed position as measured from the bottom of the upper piston and top of the lower piston. Place the test apparatus with mounted specimens in a test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$) for a one hour conditioning period and then flex in the test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$). After flexing, test for water permeability as in test procedure 3 except that the orifice of the tester must be modified to accommodate the smaller specimen size
5. The water pressure must be applied to the knit side of the laminated cloth from below the test specimen. The maximum pressure of 172.25 kPa (25 psi) must be attained in 2 minutes \pm 20 seconds and must be applied for 5 minutes. Leakage is defined as the appearance of water any place within the test area.

6. Place a 15.24 cm x 15.24 cm (6" x 6") piece of blotting paper on a flat surface and cover with a 25.4 cm x 25.4 cm (10" x 10") test specimen with the face side up. Weigh out 2.0 gm \pm 0.1 gm (.07 oz \pm .004 oz) of solid contaminant or pipette 2.0 ml (.07 f. oz) of a liquid contaminant. Place the contaminant on the center of the specimen and cover with a 15.24 cm x 15.24 cm (6" x 6") piece of glassine paper. Place a 1.81 kg (4 lbs) weight on the glassine paper directly over the contaminated area. Allow the weight to remain on the specimen for 30 minutes. Remove the weight and glassine paper and allow the specimen to sit undisturbed for an additional 30 minutes. Wipe off any excess contaminant using a fresh piece of blotting paper and test for water permeability as per procedure 6 except that the water pressure must be applied for 3 minutes.
7. One specimen per sample unit must be tested for water permeability after exposure to synthetic perspiration. The specimen must be not less than 15.24 cm (6") in diameter. The test cups must accommodate this size specimen and must have a depth of at least 2.5 cm (1"). The cups must be sealed to prevent leakage. The solution must contact the knit side of the laminate.

Synthetic perspiration must be prepared by stirring the following ingredients into 500 ml of distilled water:

3 grams sodium chloride
 1 gram predigested protein
 1 gram n-propyl propionate
 0.5 gram lecithin (phosphatidyl choline)

The predigested protein must contain the following amino acids:

<u>Ingredient</u>	<u>Milligrams (mg)</u>
Lysine	82.5
Histidine	27.5
Arginine	40.0
Aspartic acid	72.5
Threonine	42.5
Serine	50.0
Glutamic acid	197.5
Proline	92.5
Glycine	22.5
Alanine	28.7
Cystine	4.7
Valine	66.2

Methionine	30.0
Isoleucine	53.8
Leucine	87.5
Tyrosine	51.3
Phenylalanine	48.8
Tryptophan	18.8

The solution must be stirred continuously and heated to $50 \pm 1^\circ\text{C}$, then covered and cooled to approximately 35°C .

The solution must be stirred such that any solid particles are suspended in solution and poured into the test cup. The cup must be inverted to allow the synthetic perspiration to touch the specimen.

After 48 hours of contact with the solution, the specimen must be removed from the cup, rinsed in warm water, dried and tested for water permeability as specified in test procedure 6 except that the water pressure must be applied for 3 minutes.

8. Method ASTM D3886-99 (R2015) Procedure: Use No. 0 Emery Polishing Paper. Side abraded must be the knit side, with a multidirectional abrasion motion. Change abradant after each 300 cycles or specimen failure. The air pressure under the diaphragm should be 4 psi, and the load on the abradant plate should be 1 lb. Failure is determined by breaking of the electrical contact.
9. A minimum of 3 straight seams and 2 cross-over seams must be tested prior to laundry cycle testing and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge.
10. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) home laundry cycles and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge. Laundry testing should be performed in accordance with procedure specified in ISO 6330:2012 Method 2B-F.
11. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) dry clean

cycles and remain waterproof (no leakage) when tested a 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge.

TABLE II
Properties of Laminated Shell Material I (Dark Navy Blue)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Colourfastness - To Light - Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
3	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
4	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
5	Dimensional Change to Laundering - <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D1
		Weft:	3% max	
6	Breaking Strength - Grab Method	Warp:	680.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	580.0 Newton (min)	
7	Tearing Strength	Warp:	18.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	20.0 Newton (min)	
8	Abrasion Resistance - Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1
9	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> ISO 4920:2012 OR <ul style="list-style-type: none"> AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
10	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

TABLE III
Properties of Mesh, Pocketing

REQUIREMENT			TEST METHODS
1	Colour	Black or Navy To match colour swatch provided by Uniform and Equipment Program	
2	Fiber Content	100% Polyester	• CAN/CGSB-4.2 No. 14-2005
3	Knit Construction	Warp Knit	
4	Yarns per inch	Wales: 33 ± 3 Courses: 28 ± 3	• ASTM D8007-15 ^{e1}
5	Mass	$115 \text{ g/m}^2 \pm 6 \text{ g/m}^2$ ($109 \text{ g/m}^2 - 121 \text{ g/m}^2$)	• CAN/CGSB-4.2 No. 5.1-M90 (2013) OR • ASTM D3776/D3776M-09a (2017)
6	Dimensional Change to Domestic Washing <i>After 5 cycles</i>	Warp:	4% max
		Weft:	3% max
7	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better
		Wet:	Gray Scale 4 or better
8	Colour fastness to Washing	Colour change:	Gray Scale 4 or better
		Staining – cotton:	Gray Scale 4 or better
		Staining – polyester:	Gray Scale 4 or better
9	Mullen Burst (psi)	100 (minimum)	• ASTM D3786/D3786M-13
10	Abrasion Resistance – Martindale Tester	No breakdown after 25,000 at 9 kPa	• ASTM D4966-12 (R2016) Option 1
11	Pilling	No less than 4 after 120 minutes	• ASTM D3512/D3512M-16

Table IV
Slide Fastener Lengths in inches

Height Group	Sizes	Front	Inside Front	Side Seam	Sleeve Pocket	Chest Pocket	Lower Front Pocket	Inside Pocket
X Short	XX Small	17½"	13½"	13"	7"	5"	5½"	7"
	X Small	18½"	14½"	13"	7"	5"	5½"	7"
	Small	19"	15"	13"	7"	5½"	5½"	7"
	Medium	20"	15½"	14"	7"	5½"	5½"	7"
	Large	21"	16½"	14"	7"	6"	5½"	7"
	X Large	21½"	17½"	15"	7"	6½"	5½"	7"
	2X Large	22½"	18"	15"	7"	7"	5½"	7"
	3X Large	23"	19"	15"	7"	7"	5½"	7"
	4X Large	24"	20"	16"	7"	7"	5½"	7"
	5X Large	25"	20½"	16"	7"	7"	5½"	7"
Short	XX Small	19½"	15½"	15"	7"	5"	6½"	7"
	X Small	20½"	16"	15"	7"	5"	6½"	7"
	Small	21"	17"	15"	7"	5½"	6½"	7"
	Medium	22"	18"	16"	7"	5½"	6½"	7"
	Large	23"	18½"	16"	7"	6"	6½"	7"
	X Large	23½"	19½"	17"	7"	6½"	6½"	7"
	2X Large	24½"	20"	17"	7"	7"	6½"	7"
	3X Large	25"	21"	17"	7"	7"	6½"	7"
	4X Large	26"	22"	18"	7"	7"	6½"	7"
	5X Large	27"	22½"	18"	7"	7"	6½"	7"
Regular	XX Small	21½"	17½"	17"	8"	5"	8"	7"
	X Small	22½"	18"	17"	8"	5"	8"	7"
	Small	23"	19"	17"	8"	5½"	8"	7"
	Medium	24"	20"	18"	8"	5½"	8"	7"
	Large	25"	20½"	18"	8"	6"	8"	7"
	X Large	25½"	21½"	19"	8"	6½"	8"	7"
	2X Large	26½"	22"	19"	8"	7"	8"	7"
	3X Large	27"	23"	19"	8"	7"	8"	7"
	4X Large	28"	24"	20"	8"	7"	8"	7"
	5X Large	29"	24½"	20"	8"	7"	8"	7"
Tall	XX Small	23½"	19½"	19"	8"	5"	8"	7"
	X Small	24½"	20"	19"	8"	5"	8"	7"
	Small	25"	21"	19"	8"	5½"	8"	7"
	Medium	26"	22"	20"	8"	5½"	8"	7"
	Large	27"	22½"	20"	8"	6"	8"	7"
	X Large	27½"	23½"	21"	8"	6½"	8"	7"
	2X Large	28½"	24"	21"	8"	7"	8"	7"
	3X Large	29"	25"	21"	8"	7"	8"	7"
	4X Large	30"	25½"	22"	8"	7"	8"	7"
	5X Large	31"	26"	22"	8"	7"	8"	7"
X Tall	XX Small	25½"	21½"	21"	8"	5"	8"	7"
	X Small	26½"	22"	21"	8"	5"	8"	7"
	Small	27"	23"	21"	8"	5½"	8"	7"
	Medium	28"	24"	22"	8"	5½"	8"	7"
	Large	29"	24½"	22"	8"	6"	8"	7"
	X Large	29½"	25½"	23"	8"	6½"	8"	7"
	2X Large	30½"	26"	23"	8"	7"	8"	7"
	3X Large	31"	27"	23"	8"	7"	8"	7"
	4X Large	32"	27½"	24"	8"	7"	8"	7"
	5X Large	32½"	28½"	24"	8"	7"	8"	7"
XX Tall	XX Small	27½"	23½"	23"	8"	5"	8"	7"
	X Small	28½"	24"	23"	8"	5"	8"	7"
	Small	29"	25"	23"	8"	5½"	8"	7"
	Medium	30"	25½"	24"	8"	5½"	8"	7"
	Large	31"	26½"	24"	8"	6"	8"	7"
	X Large	31½"	27"	25"	8"	6½"	8"	7"
	2X Large	32"	28"	25"	8"	7"	8"	7"
	3X Large	33"	29"	25"	8"	7"	8"	7"
	4X Large	34"	29½"	26"	8"	7"	8"	7"
	5X Large	34½"	30½"	26"	8"	7"	8"	7"

Table V
Shoulder Strap Lengths

Scale of Measurements – Shoulder Strap Length (Finished)	
Jacket Size (All Heights)	Dimension “A”
X-Small	14.25
Small	15.25
Medium	16.25
Large	17.25
X-Large	18.25
2X-Large	19.25
3X-Large	20.25
4X-Large	21.25
5X-Large	22.25
Tolerance ±	0.5

NOTE: All dimensions are in centimeters unless otherwise indicated.

APPENDIX A

Sealed Pattern Identifier

Pattern Title: Jacket, Patrol, Unisex

Patterns - Patterns are available from the RCMP, Uniform and Equipment Program. Firms requested to produce Pre-Award Samples will be provided with the base pattern only. The full set of patterns in individual sizes will be provided to the successful bidder after the contract is awarded. The bidder will receive the files electronically in a .DXF format unless paper is requested.

The paper patterns include seam allowances, drill holes and/or placement templates. Punch holes must not be used on this garment with the exception of the placement of the shoulder badge and the holes must be completely covered by the shoulder badge. All pieces must be cut in the direction indicated on the grain line of the pattern pieces. The scale of measurements indicates the finished garment measurements however the patterns may not reflect the same measurements. The manufacturer is responsible for making changes to the pattern, if necessary, in order to meet the scale of measurements, adjust for shrinkage/stretch and/or to suit the production process, however, the design and grade must not be affected or changed.

All patterns are the property of the RCMP and must be returned upon completion of the contract. Electronic patterns must be deleted from the Contractor's files.

Pattern Pieces - This design has 42 pattern components.

<u>Legend:</u>	
Shell Material I	= Para. 4.1.2
Shell Material I (Tricot RSU)	= Para. 4.1.2 (inside face) Right Side Up
Lining Material	= Para. 4.1.4
Mesh Pocketing	= Para. 4.1.5
Cut 1 Single	= Cut 1
Cut 1 Paired	= Cut 2
Cut 2 Paired	= Cut 4
(RSU)	= Right Side Up

Pattern Components	Nomenclature	Quantity to be cut	Material
# 1 of 42	Back	1 Single	Shell Material I
# 2 of 42	Chest Pocket Zip Stay	1 Paired	Shell Material I

Pattern Components	Nomenclature	Quantity to be cut	Material
# 3 of 42	Middle Side Front	1 Paired	Shell Material I
# 4 of 42	Middle Front	1 Paired	Shell Material I
# 5 of 42	Lower Front	1 Paired	Shell Material I
# 6 of 42	Under Fly Front	1 Paired	Shell Material I
# 7 of 42	Storm Flap - Left	1 Single	Shell Material I (RSU)
# 8 of 42	Storm Flap - Right	1 Single	Shell Material I (RSU)
# 9 of 42	Shoulder Strap	2 Paired	Shell Material I
#10 of 42	Front Facing “A”	1 Paired	Shell Material I
# 11 of 42	Front Facing “B”	1 Paired	Shell Material
# 12 of 42	Sleeve	1 Paired	Shell Material I
# 13 of 42	Sleeve - Upper Back	1 Paired	Shell Material I
# 14 of 42	Sleeve - Lower Back	1 Paired	Shell Material I
# 15 of 42	Cuff	1 Paired	Shell Material I
# 16 of 42	Elasticized Cuff	1 Paired	Shell Material I
# 17 of 42	Cuff Adjustment Strap	1 Paired	Shell Material I
# 18 of 42	Top Collar	1 Single	Shell Material I
# 19 of 42	Under Collar	1 Single	Shell Material I
# 20 of 42	Hood Side	1 Paired	Shell Material I
# 21 of 42	Hood Center	1 Single	Shell Material I
# 22 of 42	Hood Back	1 Single	Shell Material I
# 23 of 42	Hem Facing - Front	1 Paired	Shell Material I
# 24 of 42	Hem Facing - Back	1 Single	Shell Material I
# 25 of 42	Top Collar Stand	1 Single	Shell Material I (Tricot RSU)
# 26 of 42	Hood Facing - Inside Front	1 Paired	Shell Material I (Tricot RSU)
# 27 of 42	Hood Facing - Inside Back	1 Single	Shell Material I (Tricot RSU)

Pattern Components	Nomenclature	Quantity to be cut	Material
# 28 of 42	Yoke Facing - Front	1 Paired	Shell Material I
# 29 of 42	Yoke Front - Right	1 Single	Shell Material I (RSU)
# 30 of 42	Yoke Front - Left	1 Single	Shell Material I (RSU)
# 31 of 42	Yoke Back	1 Single	Shell Material I
# 32 of 42	Hideaway Police Patch - Back	1 Single	Shell Material I (RSU)
# 33 of 42	Hideaway Police Patch - Front	1 Single	Shell Material I (RSU)
# 34 of 42	Pen Loop	1 Single	Shell Material I
# 35 of 42	Pocket - Upper Sleeve	1 Paired	Shell Material I
# 36 of 42	Pocket Bag- Lower Pocket 'A'	1 Paired	Mesh Pocketing
# 37 of 42	Pocket Bag- Lower Pocket 'B'	1 Paired	Mesh Pocketing
# 38 of 42	Pocket Bag - Inside Chest	1 Paired	Mesh Pocketing
# 39 of 42	Pocket Bag - Chest 'A'	1 Paired	Mesh Pocketing
# 40 of 42	Pocket Bag - Chest 'B'	1 Paired	Mesh Pocketing
# 41 of 42	Pocket Bag - Attachment	1 Paired	Mesh Pocketing
# 42 of 42	Yoke - Inside Back	1 Single	Lining

APPENDIX B

CARE INSTRUCTIONS

Applicable To:

Jacket Patrol Unisex
Jacket High Visibility
Jacket Patrol Unisex, Auxiliary
Parka Inclement & Hood Cold Weather (without the fur trim)
Trousers Inclement

These garments are designed to be both waterproof and water repellent. The best way to maintain its performance is to **keep them clean by washing it regularly**. When the water no longer beads up and rolls off, use a water based, solvent free, non-flammable DWR product to restore the water repellency. The following care instructions should ensure a normal life cycle for your garments. These garments should be washed after 10-12 days of continuous use or every 20-30 days with occasional use.

The water repellency, waterproofness and breathability of your garment are affected by the following;

1. Dirt buildup and other contaminants including oils, sunscreen and sweat reduce the effectiveness of the water repellency.
2. Fabric softeners have a detrimental effect on the colour and the waterproofness and water repellency of the fabric. They will make the colour fade more quickly and affect the overall performance of the fabric. These include liquid fabric softeners, detergents that contain softeners and dryer sheets. Therefore, it is very important that these softeners not be used when laundering your garment.

Machine Wash:

- DO NOT COMMERCIAL LAUNDRY
- DO NOT WASH FUR

Close all zippers, fasteners and velcro before washing.

Wash in warm water separately, without detergent. **DO NOT USE FABRIC SOFTENERS OR POWDERED DETERGENTS OR ANY LIQUID DETERGENTS THAT CONTAIN FABRIC SOFTENERS. DO NOT USE BLEACH.**

If heavily soiled, a small amount of detergent or specialty wash products (**i.e. Grangers® Performance Wash, Fibertec Pro Wash or ReviveX® Synthetic fabric cleaner**) for waterproof garments may be used.

At the end of the final rinse cycle, re-adjust the garment in the washer, and put it through an additional rinse cycle. This will assure complete rinsing of detergent that may have been trapped during washing, therefore preserving water repellency.

Drying:

Close all zippers, fasteners and velcro before drying.

If re-application of DWR is necessary, hang wet garment on hanger and follow application instructions of DWR product. (**i.e. Grangers® XT Waterproof spray, Fibertec Blue Guard Spray-on, Revivex® Spray-On or Nikwax Tx-Direct™**)

The garment **must** be tumble dried separately on a warm setting for 50 minutes to reactivate the durable water repellency (DWR.). **DO NOT USE DRYER SHEETS.**

If necessary, touch up with steam iron at low temperature.

Dry Cleaning:

If dry cleaned, request clear distilled solvent rinse and DWR spray repellent.

INSTRUCTIONS D'ENTRETIEN

Applicable à :

Blouson de patrouille unisexe
Veste haute visibilité
Blouson de patrouille unisexe pour auxiliaire
Parka pour intempéries et capuchon pour temps froid (sans la bordure de fourrure)
Pantalon pour intempéries

Ces vêtements sont conçus pour être imperméables et déperlants. La meilleure façon de préserver leurs propriétés est de les **garder propres en les lavant régulièrement**. Lorsque l'eau ne perle plus, utiliser un produit déperlant durable à base d'eau, sans solvant et ininflammable pour restaurer la déperlance. Les instructions d'entretien ci-dessous permettront d'assurer le rendement optimal des vêtements. Ces vêtements devraient être lavés après 10 à 12 jours d'utilisation continue ou à tous les 20 à 30 jours d'utilisation occasionnelle.

Les conditions suivantes peuvent influencer sur l'imperméabilité, la déperlance et la respirabilité des vêtements :

1. L'accumulation de saletés et d'autres contaminants comme de l'huile, de la crème solaire ou de la sueur peut réduire l'imperméabilité.
2. Les agents assouplissants influent sur la couleur, la déperlance et l'imperméabilité. Ils décolorent les tissus plus rapidement et nuisent à leur rendement général. Il est très important de n'utiliser **aucun** type d'assouplissant (agent assouplissant liquide, détergent avec assouplissant et assouplissant en feuilles).

Lavage à la machine :

- NE PAS LAVER DANS UNE BUANDERIE COMMERCIALE
- NE PAS LAVER LA FOURRURE

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de laver. Laver séparément à l'eau tiède, sans détergent. **NE PAS UTILISER D'AGENT ASSOUPLISSANT NI DE DÉTERGENT EN POUDRE OU LIQUIDE AVEC ASSOUPLISSANT. NE PAS UTILISER D'AGENT DE BLANCHIMENT.**

Si le vêtement est très sale, une petite quantité de détergent ou de produit spécifiquement conçu pour l'entretien des vêtements imperméables (**p. ex. nettoyant haute performance de Granger's^{MD}, produit Pro Wash de Fibertec ou nettoyant pour tissus synthétiques ReviveX^{MD}**) peut être utilisée.

À la fin du dernier cycle de rinçage, replacer le vêtement dans la machine et entreprendre un autre cycle de rinçage, afin d'éliminer complètement le détergent qui peut être resté durant le lavage et de préserver la déperlance.

Séchage :

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de sécher.

Si un nouveau traitement déperlant est requis, suspendre le vêtement mouillé sur un cintre et suivre les instructions du fabricant du produit (**p. ex. imperméabilisant à vaporiser XT de Granger's^{MD}, Blue Guard de Fibertec, Revivex^{MD} ou Tx-Direct^{MC} de Nikwax**).

Le vêtement **doit** être séché séparément par culbutage à basse température pendant 50 minutes, afin de réactiver les propriétés déperlantes. **NE PAS UTILISER D'ASSOUPLISSANT EN FEUILLES.**

Au besoin, repasser légèrement à basse température.

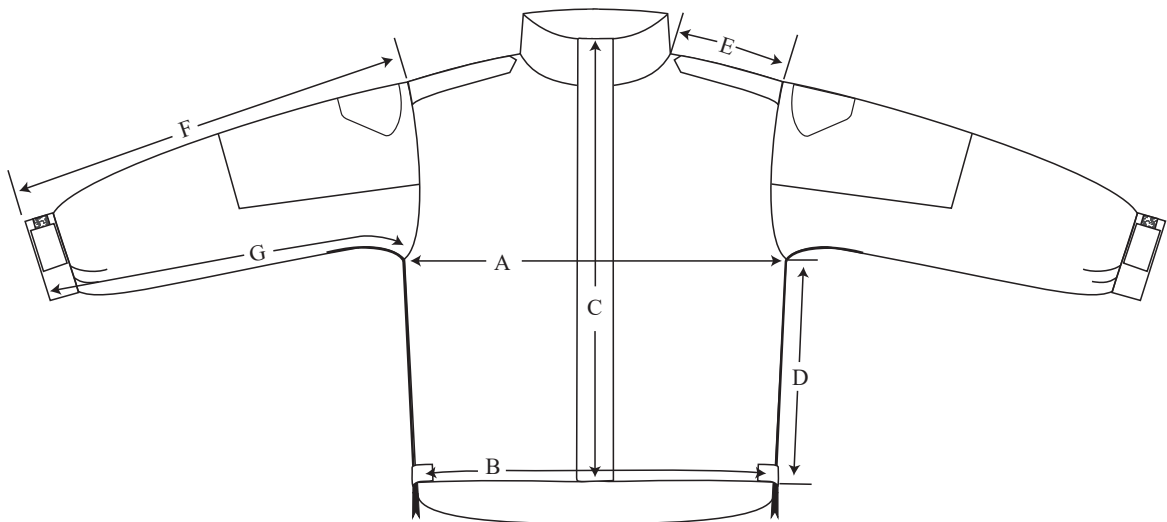
Nettoyage à sec :

Si le vêtement est nettoyé à sec, demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit déperlant à vaporiser.

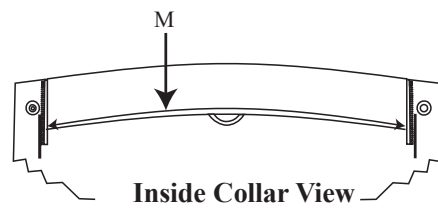
Drawing 1

G.S. 1045-298

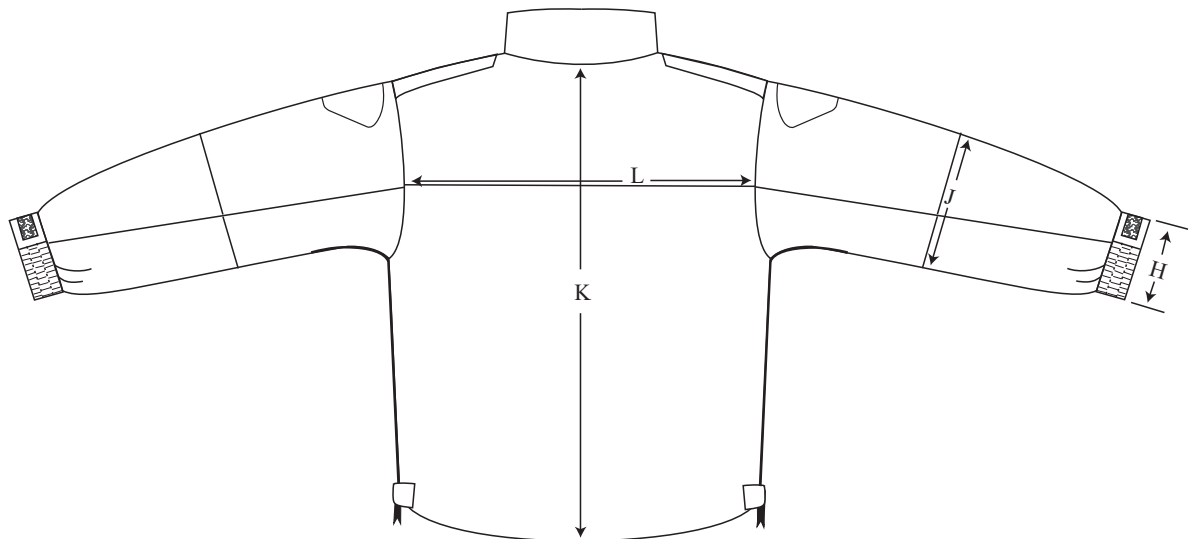
Jacket, Patrol, Unisex
Measurement Location Chart



Front View



Inside Collar View



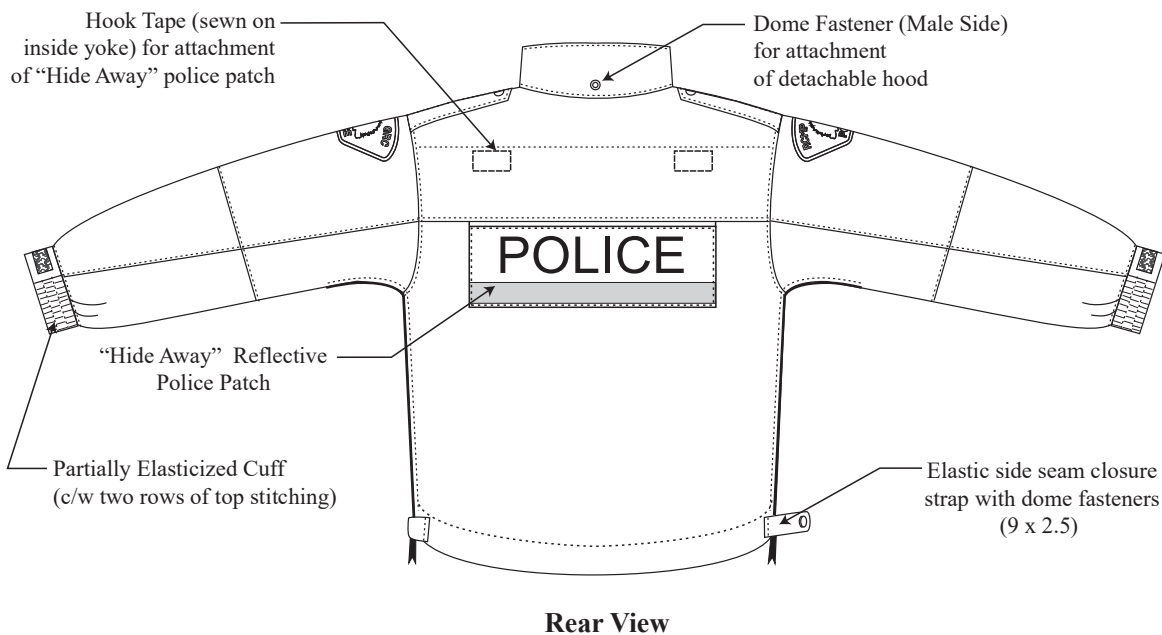
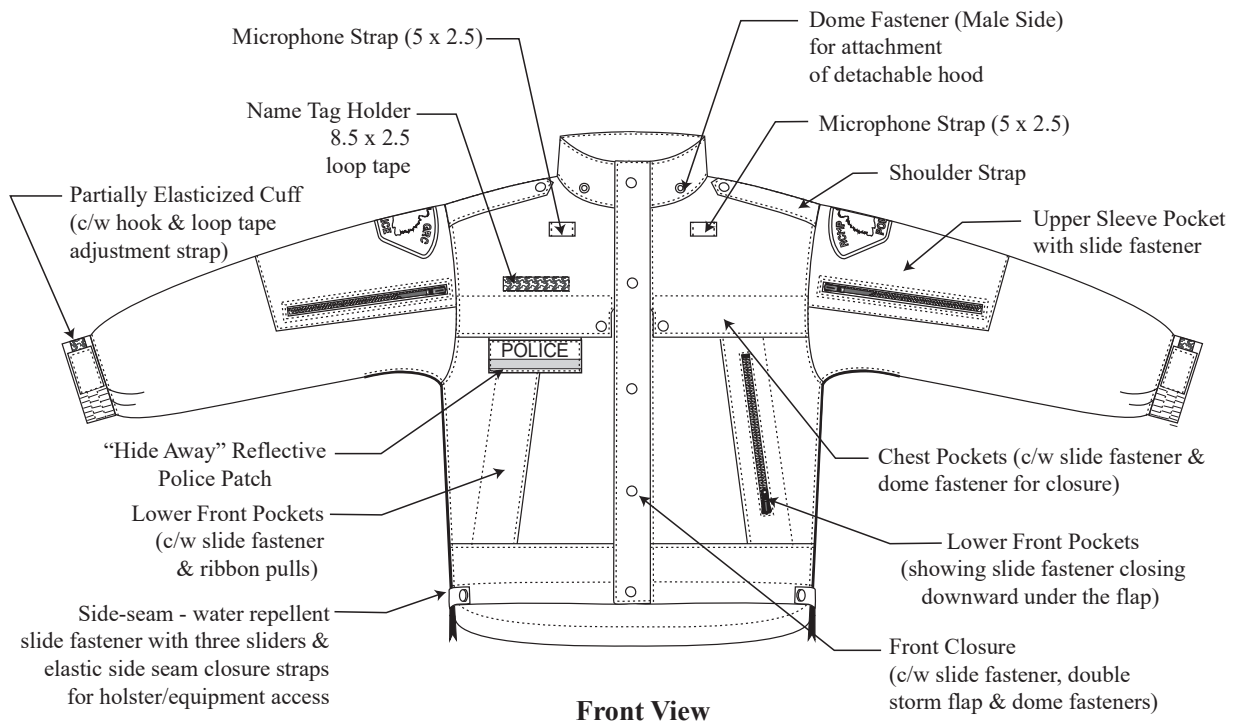
Rear View

NOT TO SCALE

Drawing 2

G.S. 1045-298

Jacket, Patrol, Unisex



NOT TO SCALE

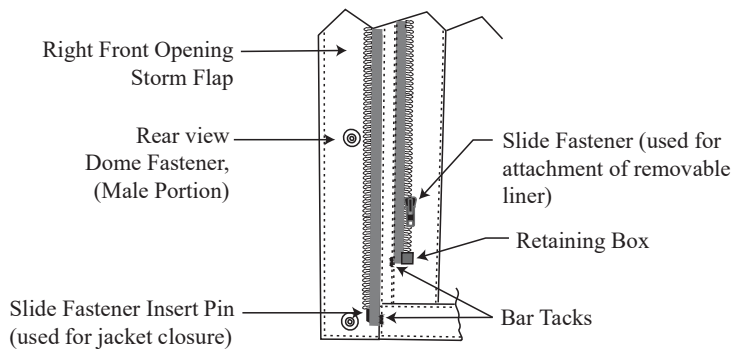
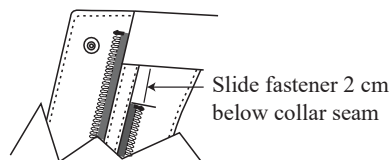
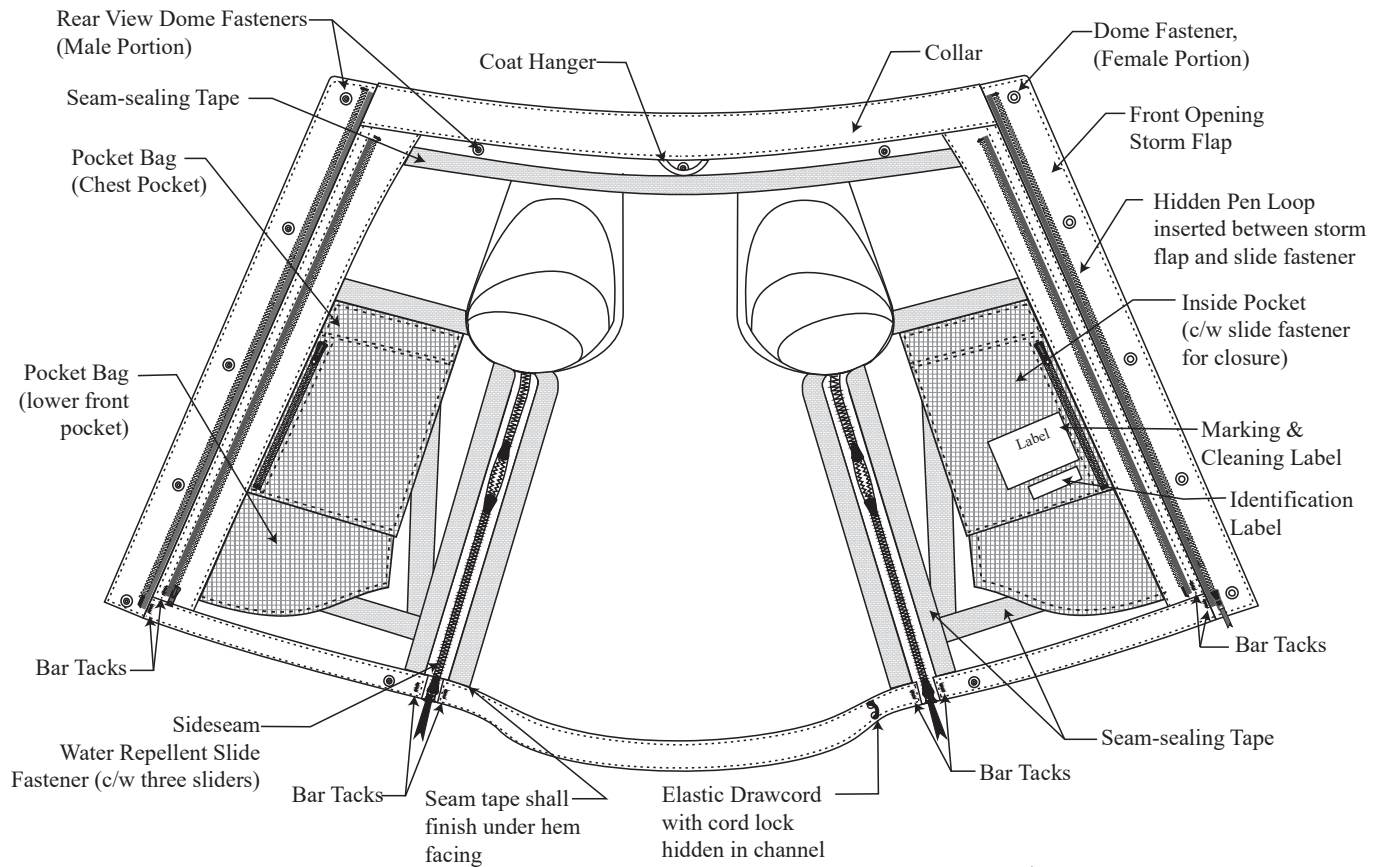
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

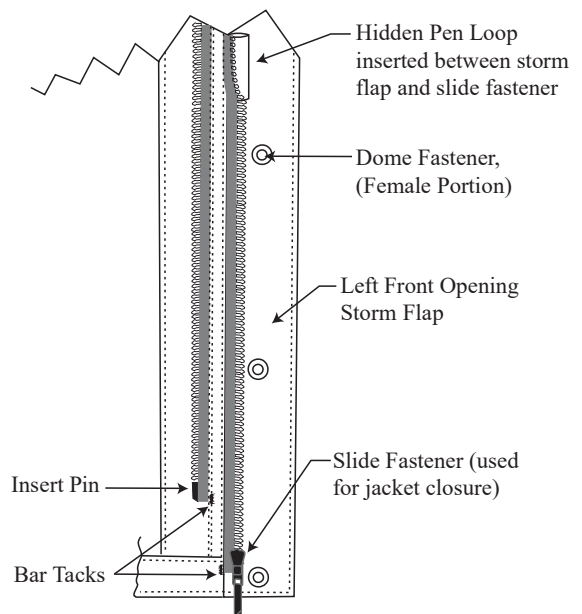
Drawing 3

G.S. 1045-298

Jacket, Patrol, Unisex Inside Jacket & Slide Fastener Detail



Slide Fastener Detail
Right Front (Inside View)



Slide Fastener Detail
Left Front (Inside View)

NOT TO SCALE

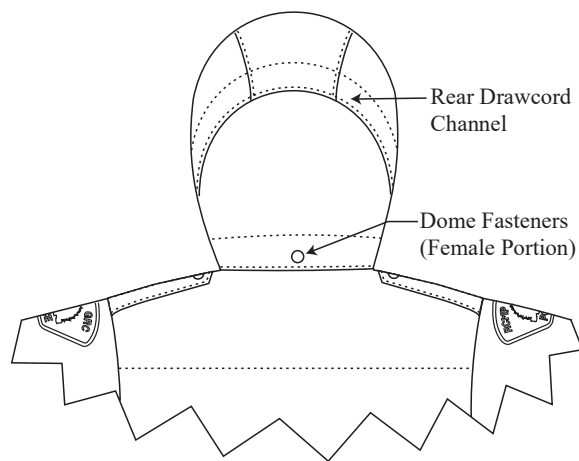
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

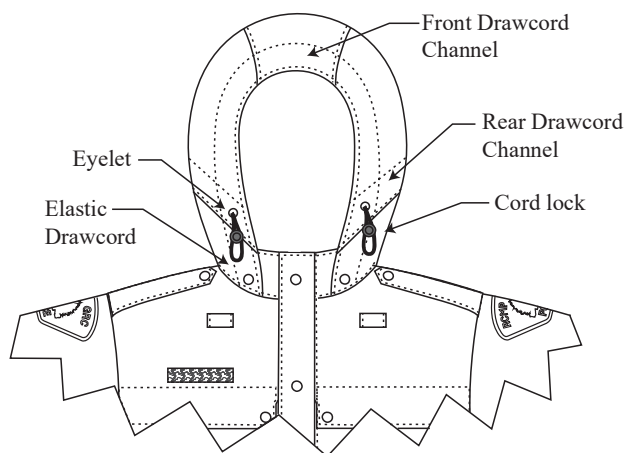
Drawing 4

G.S. 1045-298

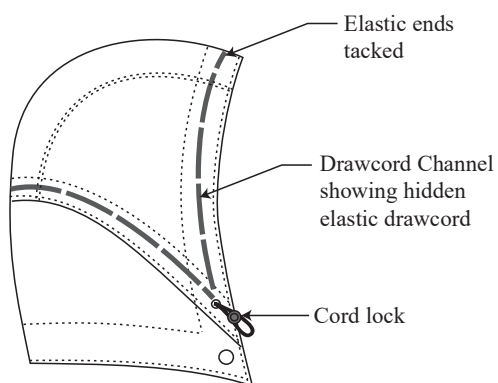
Jacket, Patrol, Unisex
Detachable Hood
& Shoulder Strap Detail



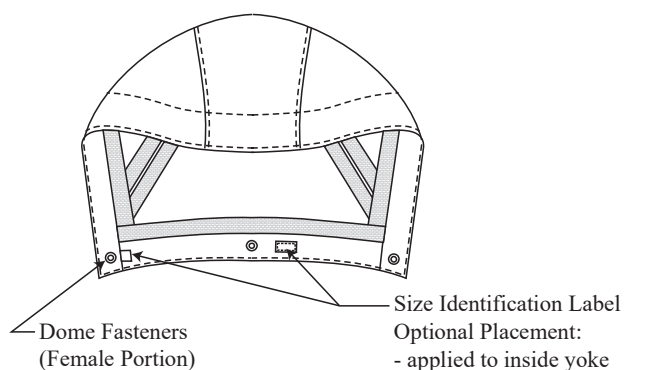
Rear View



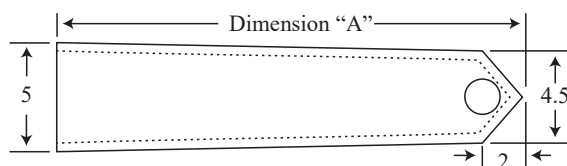
Front View



Side View



Inside Front View



Shoulder Strap Detail

NOT TO SCALE

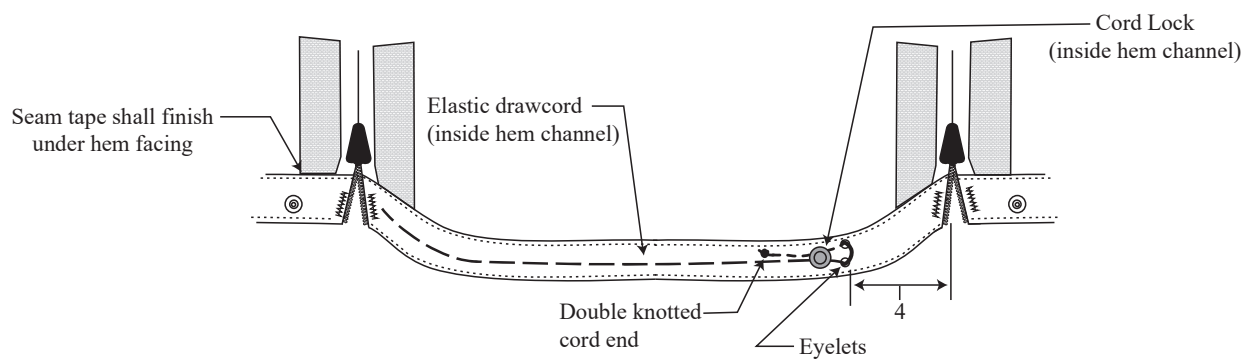
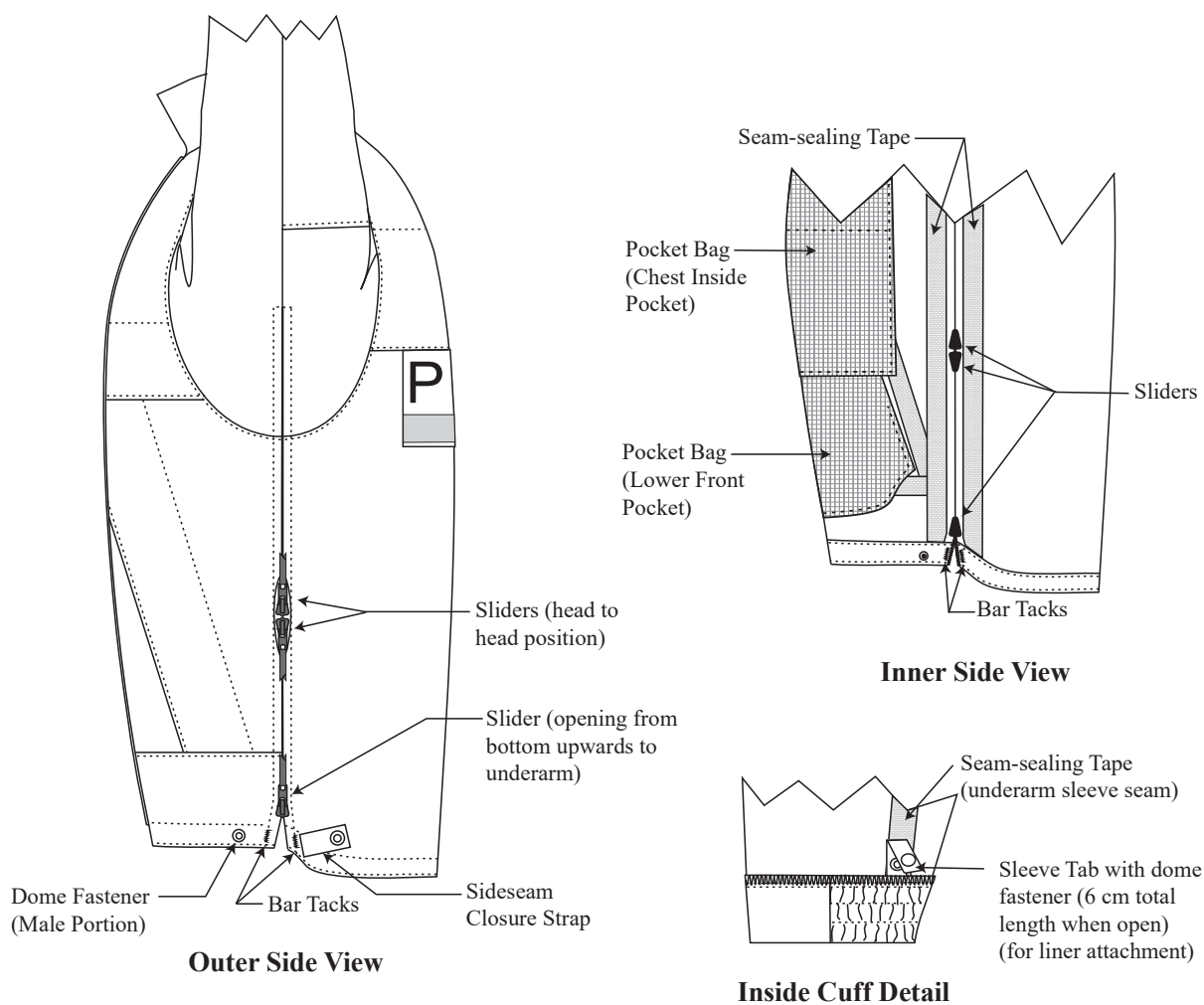
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 5

G.S. 1045-298

Jacket, Patrol, Unisex
Underarm, Inside Cuff
& Back Hem Channel Detail



NOT TO SCALE

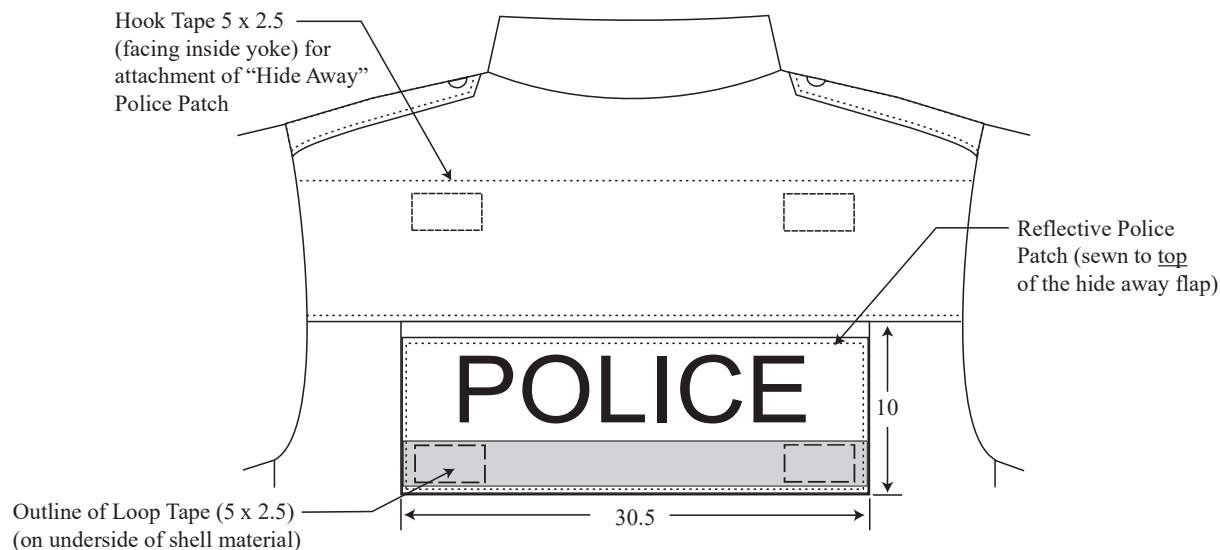
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

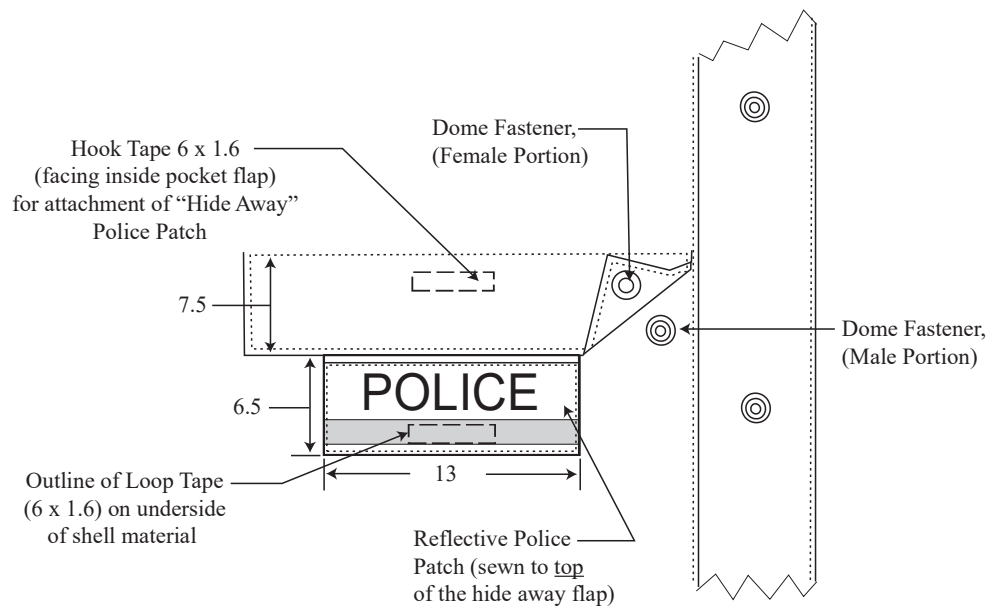
Drawing 6

G.S. 1045-298

Jacket, Patrol, Unisex “Hide Away” Reflective Police Patch & Chest Pocket Detail



Large Back Police Patch



Chest Pocket Detail shown with corner folded up

NOT TO SCALE

All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.



Royal Canadian Mounted Police
Gendarmerie royale du Canada

Doc. no: G.S. 1045-301
Date: 2019-11-25

Specification

Trousers, Inclement and Stripes

This document has 39 pages including the drawings.

This document was created in English.

The document is available in English and French.

☒ English//French

The photograph on this page is for reference only.



Modifications

RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification must govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform & Equipment Program
(440 Coventry Road, Warehouse Building)
73 Leikin Drive
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample must be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples must be replaced by an identical item or the RCMP must be reimbursed for the cost of an acceptable replacement.

SPECIFICATION
Trousers, Inclement and Stripes

1. Definition

- 1.1 This specification must govern the manufacture and inspection of Trousers, Inclement and Stripes. The specific items covered under this specification with stock numbers are as follows:
- i. 5260 Trousers, Inclement/ Pantalon pour intempéries
 - ii. 5261-100 Trousers, Inclement, Special / Pantalon pour intempéries, taille spéciale
 - iii. 5265 Stripe Trousers Inclement Yellow / Bande jaune, pantalon pour intempéries
 - iv. 5266-000 Stripe Trousers Inclement Yellow, Special / Bande jaune, pantalon pour intempéries, taille spéciale
 - v. 5270 Stripe, Trousers Inclement Blue / Bande bleue, pantalon pour intempéries
 - vi. 5271-000 Stripe, Trousers Inclement Blue Special / Bande bleue, pantalon pour intempéries, taille spéciale
 - vii. 5275 Stripe, Trousers Inclement Fluorescent / Bande fluorescente, pantalon pour intempéries
 - viii. 5276-000 Stripe, Trousers Inclement Fluorescent Special / Bande fluorescente, pantalon pour intempéries, taille spéciale
- 1.2 This specification, pattern, drawings, viewing sample or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for RCMP Trousers, Inclement and Stripes.
- 1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.

- 2.2 **Canadian General Standards Board (CAN/CGSB);**
- 4.2 No. 5.1-M90 (R2013) Textile test methods – Unit mass of fabrics
 - 4.2 No. 9.2-M90 (R2013) Textile test methods – Breaking strength of fabrics — Grab method
 - 4.2 No. 12.3-2005 (R2013) Textile test methods – Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)
 - 4.2 No. 19.1-2004 (R2013) Textile test methods – Colourfastness to washing, Accelerated test
 - 4.2 No. 22-2004 (R2013) Textile test methods – Colourfastness to rubbing (Crocking)
 - 4.2 No. 23-M90 (R2013) Textile test methods – Colourfastness to perspiration
 - 4.2 No. 26.3-2010 Textile test methods – Textile Fabrics — Determination of Resistance to Water Penetration — Hydrostatic Pressure Test
 - 4.2 No. 26.5-M89 (R2013) Textile test methods – Water resistance — High pressure penetration test
 - 4.2 No. 49-99 (R2013) Textile test methods – Resistance of materials to water vapour diffusion
 - 4.2 No. 58-2019 Textile test methods – Dimensional change in domestic laundering of textiles
 - 86.1-2003 Care Labelling of Textiles
- 2.3 **Canadian Standards Association (CSA Group)**
- Z96-15 High-visibility safety apparel
- 2.4 **General Services Administration – US Government**
- Commercial Item Description**
- A-A-50199A Thread, Polyester Core, Cotton or Polyester-Covered
- 2.5 **General Services Administration – US Government**
- Federal Standard, Textile Test Methods; (FED-STD No. 191A)**
- Method 5516 Water Resistance of Cloth; Water Permeability, Hydrostatic Pressure Method
- 2.6 **American Society for Testing and Materials (ASTM)**
- D2097-03 (2010) Standard Test Method for Flex Testing of Finish on Upholstery Leather
 - D413-98 (2017) Standard Test Methods for Rubber Property-Adhesion to Flexible Substrate

D1424-09 (R2013)	Standard Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type)
D3776/D3776M-09a (2017)	Standard Test Method for Mass per Unit Area (Weight) of Fabric
D3886-99 (R2015)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Inflated Diaphragm Apparatus) ¹
D4966-12 (R2016)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)
D5034-09 (R2013)	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
D5169-98 (R2015)	Standard Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners
D5170-98 (R2015)	Standard Test Method for Peel Strength ("T" Method) of Hook and Loop Touch Fasteners
E808-01 (R2016)	Standard Practice for Describing Retroreflection ¹
E809-08 (R2013)	Standard Practice for Measuring Photometric Characteristics of Retroreflectors ¹
E1164-12	Standard Practice for Obtaining Spectrometric Data for Object-Colour Evaluation

2.7 **American Association of Textile Chemists and Colourists (AATCC)**

Test Method 16.3-2014	Colourfastness to Light: Xenon-Arc
Test Method 22-2017	Water Repellency: Spray Test
Test Method 61-2013	Colourfastness to Laundering: Accelerated
Test Method 118-2013	Oil Repellency: Hydrocarbon Resistance Test

2.8 **International Standards Organization (ISO)**

105-B02:2014	Colourfastness to artificial light: Xenon arc fading lamp test
105-X12:2016	Colourfastness to rubbing (Crocking)
4920:2012	Textile fabrics — Determination of resistance to surface wetting (spray test)
6330:2012	Domestic washing and drying procedures for textile testing
13937-1:2000	Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)

2.9 **British Standards Institution (BS)**

BS 3424-26: 1990

Testing coated fabrics. Methods 29A, 29B, 29C and 29D. Methods for determination of resistance to water penetration and surface wetting

3. **General Requirements**

- 3.1 The article or material covered by this specification must be free from material and manufacturing defects that may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production must be equivalent in all respects to the pattern and viewing sample.
- 3.2 **Design** – The Trousers, Inclement must be a loose fitting over-pant designed to be worn in conjunction with a removable liner and over a uniform trouser. It must be constructed from a 3-layer material with a WMVP (waterproof moisture vapour permeable) membrane. It must be waterproof with all seams permanently seam sealed unless otherwise stated. The trouser must come with a removable yellow side stripe and high visibility pull downs. Additional stripes in other colours must be supplied separately.

4. **Detail Requirements**

4.1 **Components**

- 4.1.1 **Shell Material I** – The shell material I must be plain weave 100% nylon, Type 6.6. The colour must be dark navy blue, meeting the approved colour swatch, with a durable water repellent finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the waterproof moisture vapour permeable membrane specified in para. 4.1.4.1.
- 4.1.2 **Shell Material II** – The shell material II must be plain weave 100 % polyester. The colour must be fluorescent yellow-green, meeting the approved colour swatch with a durable water repellent (DWR) finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the waterproof moisture vapour permeable membrane as specified in para. 4.1.4.2
- 4.1.3 **Shell Material III, Laminated** – The shell material III is RCMP stock item number 9510-000, Cloth, Tri-laminate, Yellow and must be purchased from the RCMP. The outer layer is a plain weave, 100% polyester with a durable water repellent (DWR)

finish. The middle layer is a waterproof moisture vapour permeable membrane and back layer is a black, 100% nylon or polyester warp tricot knit fabric. They are laminated together which provides a high level of water resistance/waterproofness and breathability.

- 4.1.4 **Shell Material, Laminated** – The laminated shell materials must not show any visible signs of delamination or loss of film during the garments useful life (approximately 5 years). The fabric must be capable of having its sewn seams, seam-sealed with an appropriate tape, in a waterproof, durable fashion. Materials not meeting these requirements will be cause for rejection. Delamination is defined as any irreparable separation of the bonded layers of the Laminated Shell Material(s).
- 4.1.4.1 **Shell Material I, Laminated** – The shell material I must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of primary shell material as specified in para. 4.1.1, with the membrane as the middle layer, and a black, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table II forming part of this specification.
- 4.1.4.2 **Shell Material II, Laminated** – The shell material II must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of contrast fluorescent yellow-green shell material as specified in para. 4.1.2, with the membrane as the middle layer, and a white, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table IV forming part of this specification.
- 4.1.5 **Seam Sealing Tape** – The 3-layer composite fabric must be seamed using a compatible nylon or polyester seam-sealing tape with the 3-layer shell fabric and sealed-seams meeting the requirements outlined in Table I forming part of this specification. The tape on the sealed seams must not peel off and/or wear during the projected life span of the garment.

- 4.1.6 **Thread** – The thread must be polyester wrap, polyester core, Tex 50, Type II of matching colour to the shell material, meeting U.S. government Commercial Item Description A-A-50199A.
- 4.1.7 **Dome Fastener** – The dome fastener must be a standard type 24 ligne fastener. All metal parts to be brass with a 15 mm matte black, powder coated cap. (Universal SW61 has known to meet these requirements).
- 4.1.8 **Elastic** – The elastic must be heavy duty woven elastic, with a composition of at least 70% polyester blended with rubber and a medium finish. It must be 3.8 cm (1 ½") in width.
- 4.1.9 **Hook and Loop Tape** – The hook and loop tape must be woven nylon, black or white in colour as specified, with a high life cycle. The combined hook and loop must have no less than 8 P.S.I length-wise shear strength with initial peel strength of not less than 1 P.I.W. when tested to ASTM D5169-98 (2015), standard test method for shear strength [dynamic method] of hook and loop touch fasteners and ASTM D5170-98 (2015), standard test method for peel strength ["T" method] of hook and loop touch fasteners.
- 4.1.10 **Slide Fasteners**
- 4.1.10.1 **Slide Fastener - Fly Front** – The slide fastener must be a closed-ended coil type slide fastener, black in colour. The slide fastener must be water repellent, with the tape treated with a strong water repellent finish with a coated front of polyurethane. YKK #37003 CIT4C 56 DA86B E 5/8*P-TOP*P-BTM*REV (only).
- 4.1.10.2 **Slide Fastener – Side Seam** – The slide fastener must be a medium weight, water repellent slide fastener with monofilament coil teeth. It must be black in colour, with the tape coated with a PU film. PU coated side as the front with the sliders on. The fastener must be two-way movable with stoppers at one end with non-locking powder coated sliders. YKK product #37370 CIT4MC 51/1 DFBL EPC/DFBL EPC 5/8*BTM-0*SLSB-B*P-TOP*REV (only).
- 4.1.11 **Retroreflective Stripes** – The retroreflective markings must be exposed, wide angle, retroreflective lenses, silver material in the form of a heat transfer film, 5 cm wide. It must meet all the retroreflective performance requirements outlined in Section 6, meeting Table 5 in the CAN/CSA Z96-15 High-Visibility Safety Apparel standard. All retroreflective must meet a minimum coefficient of retro reflection, R_A , that are determined in accordance with the procedures defined in ASTM E808-

01 (R2016) and E809-08 (R2013). Note: 3M Scotchlite™ 8725N silver material in the form of a heat transfer film has been known to meet these requirements.

- 4.1.12 **Grosgrain Ribbon** – The grosgrain ribbon must be nylon, black in colour and come in 1 cm width.
- 4.2 **Size and Dimensions** – The Trousers, Inclement must be supplied in the sizes specified by the RCMP and to the dimensions given in the scale of measurements and drawings forming part of this specification. The garment components must be shaped, dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in Appendix “A” forming part of this specification.
- 4.3 **Construction**
- 4.3.1 **Stitching and Seam Sealing** – All stitching must be lockstitch. There must be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching must be securely backstitched or tacked, unless secured by other stitching. Ball point needles must be used for stitching elastic components. All seams and points where stitching penetrates the shell materials must be permanently sealed on the inside with the appropriate seam-sealing tape. Care must be taken to ensure that the tape cross-over points where seams join are doubly covered and bonded securely so as to ensure water-resistance. Any sealed seams showing any form of delamination or any non-bonded or peeling seams must be a cause for rejection.
- 4.3.2 **Waistband** – The waistband constructed from shell material I as specified in para. 4.1.4.1, must be 4.5 cm wide when finished. It must be fully elasticized with openings at the fly front and side seams. The front fly must be secured with a dome fastener as per 4.1.7 centred on the waistband opening as shown in drawing 3. Both side seams at the waistband must be secured by means of tabs complete with hook and loop tape as specified in para. 4.1.9 for closure. Five (5) adjustable hook and loop tape secured belt loops must be sewn to the waistband. Two (2) loops on the front of the waistband and three (3) on the back as shown in the drawings. The waistband must be constructed and dimensioned as per the patterns and drawings.
- 4.3.3 **Fly Front Opening** – The fly front, fly front curtain and the inner fly facing must be constructed from the shell material I specified in para. 4.1.4.1. There must be a water repellent slide fastener in accordance with para. 4.1.10.1 and lengths specified in Table V. A ribbon pull as specified in para. 4.3.7 must be applied to the slide fastener. The fly front opening at the waistband must be equipped with a

dome fastener as per para. 4.1.7 and the drawings. The front fly must be constructed and dimensioned as per the patterns and drawings.

- 4.3.4 **Side Seams** – Both side seams from waistband to hem must be equipped with a full length, water repellent slide fastener as specified in para. 4.1.10.2 and lengths specified in Table V. There must be 2 sliders, applied in a back to back position. The end of the slide fastener with the stoppers must be placed at the waist and the bottom of the slide fastener with coil must be sewn into the seam at the bottom of the trouser leg. The bottom slide fastener must open up towards the waist area and the top slider must open towards the hem as per drawing 3. A ribbon pull as specified in para. 4.3.7 must be applied to the top slider. A 1.27 cm (½”) wide continuous length of loop tape as specified in para. 4.1.9 must be applied to the front of the trouser leg starting directly below the waistband seam to hem and a continuous piece of loop must be applied to the back directly below the waistband as shown in the drawings and pattern for the attachment of the stripe. The loop tape must be applied on both sides of the slide fastener so that there is no more than 5 cm distance between the far edges of the loop tape to ensure the stripe hook tape aligns properly. The bottom of the side seam at the hem must have a dome fastener (male portion) as specified in para. 4.1.7 positioned as per the drawings and viewing sample. The completed side-seam must conform in all respects to the patterns and drawings and viewing sample. Care must be taken to ensure that the correct application of loop is applied to the front and back of the trouser side seam. There must be a stripe as specified in para. 5.1.1 attached to each finished side seam.
- 4.3.5 **Legs** – The leg hem must be 3 cm finished with the raw edge folded under 1.5 cm and stitched down on the folded edged using a 3 mm gauge. The back portion of the trouser hem must have a 23 cm x 2.5 cm piece of loop tape sewn level with finished hem to secure the adjustment strap of the stripe as per para. 5.2.1.
- 4.3.6 **Hide Away Flap** – The front to back of each trouser leg at the calf level must have a “hide away” flap cover, dimensioned as per the pattern and drawings. Top stitching must be applied as per drawings and viewing sample. The hide-away flap must be constructed of single layer of fluorescent yellow-green material as specified in para. 4.1.4.2. A 5 cm wide piece of retroreflective material as specified in para. 4.1.11 must be applied to the face side of the hide away flap 2.5 cm from the finished edge. The flap, when in a concealed position, must be held in place by three (3) pieces of hook and loop tape as specified in para. 4.1.9 on the hide away curtain as per pattern, and as shown in drawing 4. When finished and opened, the extension on the front of the hide away flap must wrap around to the back to form one piece with a dome fastener as specified in para. 4.1.7 for closure. When the

“hide away” flap is opened, the hook tape on the flap will be attached to 3 pieces of corresponding loop tape applied to the trouser leg as per the patterns and drawings. Care must be taken to ensure that the covering flap of the trouser leg and the hide away flap is in alignment and presents a neat and even appearance.

4.3.7 **Slide Fastener Ribbon Pulls** – All ribbon pulls must be constructed with grosgrain ribbon as specified in para. 4.1.12. The ribbon must be applied to the hole of the slide fastener pull in a way that allows the ribbon pulls to be removed easily without damage and reapplied. The ribbon pull should be 5 cm ± 0.5 cm in length when finished and attached to the slide fastener.

4.3.8 **Marking & Cleaning Instructions Label** – The Trousers, Inclement must have a durable label inserted into the back of the waistband. The text must be permanent inks of a contrasting colour and must withstand at least 50 washes with no apparent change in appearance. All text except for the RCMP stock number and size must be in size 6 font. The RCMP stock number and size must appear in size 8 font. The manufacturer’s identification must not appear anywhere on the garment except where indicated on the label. The label must contain the following information in English and French.

1. Item name in English as written in para. 1.1.
2. Item name in French as written in para. 1.1
3. RCMP stock number - reference contract documents. (Ex. 5260 000)
4. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/R - G/R)
5. Date of manufacture, in numeric format year/month (Ex. 2018/11)
6. Your manufacturer identification (Company name or number).
7. Print information as shown below.

Machine wash - warm (40°C)	Laver à la machine – à l'eau tiède (40°C)
Do Not use fabric softener or chlorine bleach	Ne pas utiliser d'agent adoucissant ni d'agent de blanchiment
Tumble dry- medium (Do Not use dryer sheets)	Séchage par culbutage – à température moyenne (Ne pas utiliser d'assouplissant en feuilles)
Steam iron - low	Repasse à vapeur - à température basse
Dry clean - If professionally dry cleaned request clear distilled solvent rinse; request spray repellent.	Nettoyer à sec – demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit hydrofuge en aérosol.
Further care instructions: See Ordering Guide.	Instructions d'entretien supplémentaires: Voir le guide de commande.

4.3.9 **Identification Label** – Each trouser must have a durable blank label 7.5 cm x 2.5 cm applied separately beside the marking and cleaning label into the back of the waistband used for the inscription of the wearer's name.

4.3.10 **Instruction Sheet** – Each completed trousers when folded and prepared for shipping must have an instruction sheet placed freely into the inside seat area, with the information included in Appendix "B" English and French, forming a part of this specification.

5. **Stripes**

5.1 **Size and Dimensions** – Stripes must be supplied according to Design Option 1 or Design Option 2 in the sizes and colour specified by the RCMP and to the dimensions given in the scale of measurements. The stripes for Design Option 1 are individual sizing and must be shaped and dimensioned in accordance with pattern component #14A. The stripes for Design Option 2 are grouped sizing and must be shaped and dimensioned in accordance with pattern component #14B provided as a separate pattern file and as outlined in Appendix "A".

5.1.1 **Stripe Design Option 1** – The stripe for Design Option 1 is part of and is applied to trouser 5260 and 5261. The stripe must be made of shell material III, Laminated as specified in para. 4.1.3 and must be sized as per pattern piece 14A and the stripe length in the scale of measurements.

5.1.2 Stripe Design Option 2 – The stripe for Design Option 2 is not applied to the trouser and is ordered separately under item numbers 5265, 5270 and 5275. Stripe 5265 is made of shell material III, Laminated as specified in para. 4.1. 3. Stripe 5270 is made of shell material I as specified in para. 4.1.4.1 and stripe 5275 is made of shell material II as specified in para. 4.1.4.2. All stripes must be sized as per pattern piece 14B.

5.2 **Construction**

5.2.1 **Stripe** – The stripes, constructed from shell material I, II or III as specified in para. 5.1.1 and 5.1.2, must be sewn, turned and edge stitched on all sides using a 3 mm gauge. The finished width of all stripes must be 4.5 cm \pm 0.3 cm. The stripes come in mirrored pairs. The lower front portion of the stripe must be equipped with a dome fastener (female portion) as specified in para 4.1.7 and the lower rear must be equipped with a 9 cm long adjustment strap attached as shown in drawing 3 with a 7.5 cm x 2.5 cm piece of hook tape for adjustability that aligns with the trouser hem loop tape. A 1.27 cm ($\frac{1}{2}$ ") wide continuous piece of hook tape as specified in para. 4.1.9 must be sewn securely to the front inside portion of the stripe 1 mm from the finished edge matching the placement of the corresponding piece of loop tape which is applied to the front portion of the trouser. Four (4) pieces of hook tape, length as specified in Table VI must be spaced equally for the attachment of the stripe and sewn to the stripe 1 mm from the finished edge. All stripes constructed with material as specified in para. 4.1.4.1 and 4.1.4.3 must have black hook tape. The stripe constructed with shell material II as specified in para. 4.1.4.2 must have white hook tape. The inside top of each stripe must be equipped with a size label as referenced in para. 5.2.2 and shown in drawing 3. The completed side-seam including stripes must conform in all respects to the patterns and drawings.

5.2.2 **Stripe Size Label** – Each stripe must have a durable label. The label information must be in a text no less than a size 8 font with information as stated below.

5.2.2.1 **Stripe Size Label – Design Option 1 – Individual Sizes**

1. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/R – G/R).

5.2.2.2 **Stripe Size Label – Design Option 2– Grouped Sizes**

1. RCMP stock number - reference contract documents. (Ex. 5265 000).
2. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L-XXL/R – G-2TG/R).

6. **Quality Assurance Provisions**

- 6.1 **Responsibility for Inspection** – Unless otherwise stipulated in the Contract, it is the Contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The Contractor must use an independent commercial testing establishment.
- 6.2 The RCMP, Uniform & Equipment Program 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.
- 6.3 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.

7. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing No. 1)

- 7.1 **Waist Circumference (total circumference)** – When the waistband is closed, the waist is the total circumference from centre front to centre front at the centre of the waistband. (A).
- 7.2 **Seat Circumference (total circumference)** – When placed flat, the seat is measured at the bottom of the fly and measured across the width. The result must be doubled to measure total circumference. (B).
- 7.3 **Hem Circumference** – When placed flat, the bottom is measured across the width at the bottom of leg. The result must be doubled to measure total circumference. (C).
- 7.4 **Outseam Length** – The length is the distance measured from the bottom of the waistband to the hem. (D).
- 7.5 **Inseam Length** – The length is the distance measured from the crotch to the hem following along the inseam. (E).
- 7.6 **Stripe Length** – The length is the distance measured from the top to the bottom of the stripe. (F).

Scale of Measurements – Trousers Inclement														
SIZE DESIGNATION			BODY MEASUREMENTS					GARMENT MEASUREMENTS						
Trouser Inseam	Size	Waist		Seat		Waist Relaxed	Seat Width	Hem Width	Out Seam	Inseam	Stripe Length			
X Short 26" -28" 66 -71 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	53.50	87.75	69.25	86.75			
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	88.50	69.50	87.50			
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	89.25	69.75	88.25			
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	90.00	70.00	89.00			
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	90.75	70.25	89.75			
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	91.50	70.50	90.50			
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	92.25	70.75	91.25			
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	93.00	71.00	92.00			
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	93.75	71.25	92.75			
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	94.50	71.50	93.50			
Short 28" - 31" 71 -78.5 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	53.50	95.75	74.00	94.75			
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	96.50	74.25	95.50			
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	97.25	74.50	96.25			
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	98.00	74.75	97.0			
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	98.75	75.00	97.75			
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	99.50	75.25	98.50			
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	100.25	75.50	99.25			
	3X Large	44" - 46"	111.5- 16.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	101.00	75.75	100.00			
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	101.75	76.00	100.75			
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	102.50	76.25	101.50			
TOLERANCES ±		3 3 1 1.5 1.5 1												
MEASUREMENT LOCATION		A B C D E F												

Note: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements – Trousers Inclement											
SIZE DESIGNATION		BODY MEASUREMENTS				GARMENT MEASUREMENTS					
Trouser Inseam	Size	Waist		Seat		Waist Relaxed	Seat Width	Hem Width	Out Seam	Inseam	Stripe Length
Regular 31" - 33" 78.5 – 84 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	53.50	103.75	78.75	102.75
	X Small	26" - 28"	66 - 71	31" - 33"	78.5 - 84	61.5	109.50	54.00	104.50	79.00	103.50
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	105.25	79.25	104.25
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	106.00	79.50	105.0
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	106.75	79.75	105.75
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	107.50	80.00	106.50
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	108.25	80.25	107.25
	3X Large	44" - 46"	111.5 - 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	109.00	80.50	108.00
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	109.75	80.75	108.75
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	110.50	81.00	109.50
Tall 33" - 35" 84 – 89 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	53.50	111.75	83.50	110.75
	X Small	26" - 28"	66 - 71	31" - 33"	78.5 - 84	61.5	109.50	54.00	112.50	83.75	111.50
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	113.25	84.00	112.25
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	114.00	84.25	113.0
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	114.75	84.50	113.75
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	115.50	84.75	114.50
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	116.25	85.00	115.25
	3X Large	44" - 46"	111.5 - 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	117.00	85.25	116.00
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	117.75	85.50	116.75
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	118.50	85.75	117.50
TOLERANCES ±						3	3	1	1.5	1.5	1
MEASUREMENT LOCATION						A	B	C	D	E	F

Note: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements – Trousers Inclement											
SIZE DESIGNATION		BODY MEASUREMENTS				GARMENT MEASUREMENTS					
Trouser Inseam	Size	Waist		Inches	Seat	Waist Relaxed		Seat Width	Hem Width	Out Seam	Stripe Length
XX Tall 35" - 37" 89 – 94 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	103.00	53.50	119.75	118.75
	X Small	26" - 28"	66 - 71	31" - 33"	78.5 - 84	61.5	109.50	109.50	54.00	120.50	119.50
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	116.00	54.50	121.25	120.25
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	122.50	55.00	122.00	121.00
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	129.00	55.50	122.75	121.75
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	135.50	56.00	123.50	122.50
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	142.00	56.50	124.25	123.25
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	148.50	57.00	125.00	124.00
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	155.00	57.50	125.75	124.75
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	161.50	58.00	126.50	125.50
XX Tall 37" - 39" 94 – 99 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	103.00	53.50	127.75	126.75
	X Small	26" - 28"	66 - 71	31" - 33"	78.5 - 84	61.5	109.50	109.50	54.00	128.50	127.50
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	116.00	54.50	129.25	128.25
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	122.50	55.00	130.00	129.00
	Large	35" - 37"	89 - 94	40" - 42"	101.5 - 106.5	84.00	129.00	129.00	55.50	130.75	129.75
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	135.50	56.00	131.50	130.50
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	142.00	56.50	132.25	131.25
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	148.50	57.00	133.00	132.00
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	155.00	57.50	133.75	132.75
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	161.50	58.00	134.50	133.50
TOLERANCES ±						3	3	3	1	1.5	1
MEASUREMENT LOCATION						A	B	C	D	E	F

Note: All dimensions are in centimeters unless otherwise indicated.

Sizing for Design Option 2 – Grouped Sizes			
SIZE DESIGNATION			<u>Scale of Measurements</u> – Stripes
Trouser Inseam	Size	Label Information	Stripe Finished Length
Short 28" - 31"	XS – M/S	XS – M/S TP – M/C	95.5
71 -78.5 cm	L – XXL/S	L – XXL/S G – 2TG/C	97.5
Regular 31" - 33"	XS – M/R	XS – M/R TP – M/R	103.5
78.5 – 84 cm	L – XXL/R	L – XXL/R G – 2TG/R	105.5
Tall 33" - 35"	XS – M/T	XS – M/T TP – M/L	111.5
84 – 89 cm	L – XXL/T	L – XXL/T G – 2TG/L	113.5
MEASUREMENT LOCATION			F
TOLERANCES ±			1 cm

Note: All dimensions are in centimeters unless otherwise indicated.

TABLE I
Properties of Laminated Shell Material (with WMVP membrane & tricot backing)

	Test	Test Method	Duration	Min. Value Shell Material I
1	Resistance of Materials to Water Vapour Diffusion	CAN CGSB 4.2 No. 49-99 (R2013), Option 1 *See test procedure #1	- Initial - After 5 launderings - After ageing (70°C & 95% RH for 168 hrs)	13 mm max.
2	Hydrostatic Resistance	CAN CGSB 4.2 No. 26.5-M89 (R2013) *See test procedure #2	- Initial - After 5 launderings	1240.2 kPa
3	Low Pressure Water Permeability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #3	- Initial	No Leakage
		ASTM D2097-03 (2010) * See test procedure #4	- After Cold Flex Warp /Fill	No Leakage
4	High Pressure Water Permeability	BS 3424: Part 26: 1990 Method 29A * See test procedure #5	- Initial	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After Unleaded Gasoline	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After DEET Insect Repellent in cream format	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #7	- After Synthetic Perspiration	No Leakage
5	Abrasion Resistance	ASTM D3886-99 (R2015) Procedure: use No. 0 Emery Polishing Paper * See test procedure #8	- 3200 Cycles	No failure
SEAMS				
6a	Seam Tape Durability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #9	- Initial	No Leakage
6b		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #10	- After 10 laundry cycles	No Leakage
6c		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #11	- After 10 dry-clean cycles	No Leakage
7	Delamination	Visual	- Examination after each procedure 6a through 6c	No Delamination
8	Peel Strength N/23 mm	ASTM D413-98 (2017)		8 N/23mm minimum

TEST PROCEDURES FOR TABLE I

1. The knit side of the laminated cloth must face the water. The tests must be completed as outlined in CAN/CGSB 4.2 Method 49-99 (R2013), Option #1. The samples must be conditioned at $21^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($69.8^{\circ}\text{F} \pm 2^{\circ}\text{F}$) and relative humidity must be $65 \pm 2\%$. The test specimen must be placed approximately equidistant between the dry airflow and the water cell. Four specimens must be tested per condition. The tests must be completed initially, after 5 launderings according to ISO 6330:2012 Method 2B-F.
2. The water pressure must be applied to the knit side of the laminated cloth. A taffeta fabric restraint conforming to MIL-C-21852F-TYPE III-CLASS1 PART#WJAAGNA should be placed on top of the sample against the face side of the laminated cloth. The tests must be completed initially and after 5 launderings according to ISO 6330:2012, Method 2B-F.
3. The knit side of the laminated cloth must contact the water. The hydrostatic head must be 13.78 kPa (2.0 psi) and must be held for 3 minutes. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area. The test may be performed using any device which tests the same specimen area at the equivalent pressure. In case of dispute, the apparatus described in FED-STD-191A Method 5516 must be used.
4. Ten warp and ten fill specimens 8.26 cm x 11.43 cm (3.25" x 4.5") must be selected from each sample unit. The 8.26 cm (3.25") dimension is the test direction. Specimens must be flexed for 20,000 cycles as specified in ASTM D2097-03 (2010) and as follows: Mark the knit side of each specimen with two lines 4.32 cm (1.7") apart and perpendicular to the test direction. The area between the lines is the test area and must be centered on the knit side of the specimen. Wrap the specimens around fully extended pistons with the knit side out. The test area lines must meet evenly and must line up with the edges of the pistons. Clamp in place making sure the clamps are not in the test area. Check specimen for smoothness and tautness (wrinkles cause improper flexing). The distance between the pistons must be 4.32 cm (1.7") in the open position and 1.27 cm (0.5") in the closed position as measured from the bottom of the upper piston and top of the lower piston. Place the test apparatus with mounted specimens in a test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$) for a one hour conditioning period and then flex in the test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$). After flexing, test for water permeability as in test procedure 3 except that the orifice of the tester must be modified to accommodate the smaller specimen size
5. The water pressure must be applied to the knit side of the laminated cloth from below the test specimen. The maximum pressure of 172.25 kPa (25 psi) must be attained in 2 minutes ± 20 seconds and must be applied for 5 minutes. Leakage is defined as the appearance of water any place within the test area.

6. Place a 15.24 cm x 15.24 cm (6" x 6") piece of blotting paper on a flat surface and cover with a 25.4 cm x 25.4 cm (10" x 10") test specimen with the face side up. Weigh out 2.0 gm \pm 0.1 gm (.07 oz \pm .004 oz) of solid contaminant or pipette 2.0 ml (.07 f. oz) of a liquid contaminant. Place the contaminant on the center of the specimen and cover with a 15.24 cm x 15.24 cm (6" x 6") piece of glassine paper. Place a 1.81 kg (4 lbs) weight on the glassine paper directly over the contaminated area. Allow the weight to remain on the specimen for 30 minutes. Remove the weight and glassine paper and allow the specimen to sit undisturbed for an additional 30 minutes. Wipe off any excess contaminant using a fresh piece of blotting paper and test for water permeability as per procedure 6 except that the water pressure must be applied for 3 minutes.
7. One specimen per sample unit must be tested for water permeability after exposure to synthetic perspiration. The specimen must be not less than 15.24 cm (6") in diameter. The test cups must accommodate this size specimen and must have a depth of at least 2.5 cm (1"). The cups must be sealed to prevent leakage. The solution must contact the knit side of the laminate.

Synthetic perspiration must be prepared by stirring the following ingredients into 500 ml of distilled water:

3 grams sodium chloride
 1 gram predigested protein
 1 gram n-propyl propionate
 0.5 gram lecithin (phosphatidyl choline)

The predigested protein must contain the following amino acids:

<u>Ingredient</u>	<u>Milligrams (mg)</u>
Lysine	82.5
Histidine	27.5
Arginine	40.0
Aspartic acid	72.5
Threonine	42.5
Serine	50.0
Glutamic acid	197.5
Proline	92.5
Glycine	22.5
Alanine	28.7
Cystine	4.7
Valine	66.2

Methionine	30.0
Isoleucine	53.8
Leucine	87.5
Tyrosine	51.3
Phenylalanine	48.8
Tryptophan	18.8

The solution must be stirred continuously and heated to $50 \pm 1^{\circ}\text{C}$, then covered and cooled to approximately 35°C .

The solution must be stirred such that any solid particles are suspended in solution and poured into the test cup. The cup must be inverted to allow the synthetic perspiration to touch the specimen.

After 48 hours of contact with the solution, the specimen must be removed from the cup, rinsed in warm water, dried and tested for water permeability as specified in test procedure 6 except that the water pressure must be applied for 3 minutes.

8. Method ASTM D3886-99 (R2015) Procedure: Use No. 0 Emery Polishing Paper. Side abraded must be the knit side, with a multidirectional abrasion motion. Change abradant after each 300 cycles or specimen failure. The air pressure under the diaphragm should be 4 psi, and the load on the abradant plate should be 1 lb. Failure is determined by breaking of the electrical contact.
9. A minimum of 3 straight seams and 2 cross-over seams must be tested prior to laundry cycle testing and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge.
10. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) home laundry cycles and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge. Laundry testing should be performed in accordance with procedure specified in ISO 6330:2012 Method 2B-F.

11. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) dry clean cycles and remain waterproof (no leakage) when tested a 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge.

TABLE II
Properties of Laminated Shell Material I (Dark Navy Blue)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Colourfastness - To Light - Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
3	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
4	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
5	Dimensional Change to Laundering - <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2004, 3, D1
		Weft:	3% max	
6	Breaking Strength - Grab Method	Warp:	680.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	580.0 Newton (min)	
7	Tearing Strength	Warp:	18.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	20.0 Newton (min)	
8	Abrasion Resistance - Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1
9	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> ISO 4920:2012 OR <ul style="list-style-type: none"> AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
10	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

TABLE III
Properties of Shell Material III (Yellow)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Colourfastness - To Light - Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
3	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
4	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
5	Dimensional Change to Laundering - <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D1
		Weft:	3% max	
6	Breaking Strength - Grab Method	Warp:	550.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	450.0 Newton (min)	
7	Tearing Strength	Warp:	15.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	14.0 Newton (min)	
8	Abrasion Resistance - Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1
9	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> ISO 4920:2012 OR <ul style="list-style-type: none"> AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
10	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

TABLE IV
Properties of Laminated Shell Material II (Fluorescent Yellow-Green)
CSA-Z96-15 High Visibility Apparel Requirements (Meeting or Exceeding)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none">• ASTM D3776/D3776M-09a (2017)
2	Background - Material Colour	<u>Initial:</u> CSA-Z96-15, Table 2A - Fluorescent yellow-green		<ul style="list-style-type: none">• ASTM E1164-12• Colour to match the viewing sample
		<u>After</u> colourfastness to light (AATCC 16.3-2014 Test Option 3, 40 AATCC Fading Units): CSA-Z96-15, Table 2A - Fluorescent yellow-green		
3	Colourfastness - To Light – Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none">• ISO 105-B02:2014, Method 4 Exposure B, 160 hours
4	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none">• ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
5	Colour Fastness - To Perspiration	Acid:	Gray Scale 4 or better	<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 23-M90 (R2013)
		Alkaline:	Gray Scale 4 or better	
6	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none">• AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
7	Dimensional Change to Laundering – <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 58-2019 3, D1
		Weft:	3% max	
8	Breaking Strength - Grab Method	Warp:	550.0 Newton (min)	<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none">• ASTM D5034-09 (2013)
		Weft:	450.0 Newton (min)	
9	Tearing Strength	Warp:	15.0 Newton (min)	<ul style="list-style-type: none">• CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none">• ISO 13937-1:2000 OR <ul style="list-style-type: none">• ASTM D1424-09 (2013)
		Weft:	14.0 Newton (min)	
10	Abrasion Resistance – Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none">• ASTM D4966-12 (R2016) Option 1

TABLE IV
Properties of Laminated Shell Material II (Fluorescent Yellow-Green)
CSA-Z96-15 High Visibility Apparel Requirements (Meeting or Exceeding)

11	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> • ISO 4920:2012 OR <ul style="list-style-type: none"> • AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> • CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
12	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> • AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> • CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

Table V
Slide Fastener Lengths in inches

Height Group	Sizes	Side Seam	Front Fly	Height Group	Sizes	Side Seam	Front Fly
X Short	XX Small	33"	5½"	Tall	XX Small	42½"	8"
	X Small	33½"	5½"		X Small	43"	8"
	Small	34"	5½"		Small	43"	8"
	Medium	34"	6½"		Medium	43½"	8"
	Large	34½"	6½"		Large	44"	8"
	X Large	35"	6½"		X Large	44"	8"
	2X Large	35"	6½"		2X Large	44½"	8"
	3X Large	35½"	6½"		3X Large	45"	8"
	4X Large	36"	6½"		4X Large	45"	8"
	5X Large	36"	6½"		5X Large	45½"	8"
Short	XX Small	36½"	7"	X Tall	XX Small	46"	8"
	X Small	37"	7"		X Small	46"	8"
	Small	37"	7"		Small	46½"	8"
	Medium	37½"	7"		Medium	47"	8"
	Large	38"	7"		Large	47"	8"
	X Large	38"	7"		X Large	47½"	8"
	2X Large	38½"	"		2X Large	48"	8"
	3X Large	39"	7"		3X Large	48"	8"
	4X Large	39"	7"		4X Large	48½"	8"
	5X Large	39½"	7"		5X Large	49"	8"
Regular	XX Small	40"	7½"	XX Tall	XX Small	49"	8"
	X Small	40"	7½"		X Small	49"	8"
	Small	40½"	7½"		Small	49½"	8"
	Medium	40½"	7½"		Medium	50"	8"
	Large	41"	7½"		Large	50"	8"
	X Large	41½"	7½"		X Large	50½"	8"
	2X Large	41½"	7½"		2X Large	51"	8"
	3X Large	42"	7½"		3X Large	51"	8"
	4X Large	42"	7½"		4X Large	51½"	8"
	5X Large	42½"	7½"		5X Large	52"	8"

Table VI
Hook and Loop Tape Measurements

Location	Loop Tape		Hook Tape	
	Dimension	Location	Dimension	Location
Side Seam / Waistband Closure	7.5 cm x 4 cm	outside waistband at side seam front	7.5 cm x 4 cm	inside back, waistband tab
Trouser Side Seam (Front)	1.27 cm (1/2") wide, sized to fit full length of side seam	front trouser leg at side seam		
Trouser Side Seam (Back)	1.27 cm (1/2") wide, sized to fit length of side seam	back trouser leg at side seam		
Stripes			1.27 cm (1/2") wide, sized to fit full length	top of stripe to bottom hem
			9 cm x 1.27 cm (1/2") (4 pieces per stripe)	evenly spaced see drawing 3
5 Belt Loops	5.5 cm x 2.5 cm	top portion	4.5 cm x 2.5 cm	lower portion
Hide Away Flap			4 cm x 1.27 cm (1/2")	see drawing 2 & 4 and pattern for placement
Hide Away Curtain	4 cm x 2 cm	see pattern for placement		
Hide Away Flap attachment to trouser leg	3 cm x 1.27 cm (1/2") (3 pieces each leg)	lower trouser leg front and back as per pattern		
Adjustment Strap	23 cm x 2.5 cm	trouser hem at back	7.5 cm x 2.5 cm	inside of closure strap
Length Tolerance for all ± 0.5 cm – Width Tolerance for all ± 0.2 cm				

APPENDIX A

Scaled Pattern Identifier

Pattern Title: Trousers, Inclement and Stripes

Patterns - Patterns are available from the RCMP, Uniform and Equipment Program. Firms requested to produce Pre-Award Samples will be provided with the base pattern only. The full set of patterns in individual sizes will be provided to the successful bidder after the contract is awarded. The bidder will receive the files electronically in a .DXF format unless paper is requested.

The patterns include seam allowances, drill holes and/or placement templates. Punch holes must not be used on this garment. All pieces must be cut in the direction indicated on the grain line of the pattern pieces. The scale of measurements indicates the finished garment measurements however the patterns may not reflect the same measurements. The manufacturer is responsible for making changes to the pattern, if necessary, in order to meet the scale of measurements, adjust for shrinkage/stretch and/or to suit the production process, however, the design and grade must not be affected or changed.

All patterns are the property of the RCMP and must be returned upon completion of the contract. Electronic patterns must be deleted from the Contractor's files.

Pattern Pieces - This design has 16 pattern components.

<u>Legend:</u>	
Shell Material I	= Para. 4.1.4.1 Dark Navy Blue
Shell Material II	= Para. 4.1.4.2 Fluorescent Yellow-Green
Shell Material III	= Para. 4.1.4.3 Yellow
Cut 1 Single	= Cut 1
Cut 1 Paired	= Cut 2
(RSU)	= Right Side Up
(RSD)	= Right Side Down

Pattern Components	Nomenclature	Quantity to be cut	Material
# 1 of 16	Upper Back	1 paired	Shell Material I
# 2 of 16	Lower Back	1 paired	Shell Material I
# 3 of 16	Upper Front	1 paired	Shell Material I
# 4 of 16	Middle Front	1 paired	Shell Material I
# 5 of 16	Lower Front	1 paired	Shell Material I
# 6 of 16	Waistband Back	1 single	Shell Material I
# 7 of 16	Waistband Front	1 paired	Shell Material I
# 8 of 16	Fly Front	1 single	Shell Material I
# 9 of 16	Fly Front Curtain	1 single	Shell Material I
# 10 of 16	Inner Fly Facing	1 single (RSD)	Shell Material I
# 11 of 16	Waistband Tabs	1 paired	Shell Material I
# 12 of 16	Adjustment Strap	1 paired	Shell Material I
# 13 of 16	Belt Loops	5 single	Shell Material I
# 14A of 16	Stripe “A”(Individual Sizes)	1 paired	Shell Material I Shell Material II Shell Material III
# 14B of 16	Stripe “B” (Grouped Sizes)	1 paired	Shell Material I Shell Material II Shell Material III
# 15 of 16	Hide Away Flap	1 paired	Shell Material III
# 16 of 16	Hide Away Curtain	1 paired	Shell Material I

Note:

Pattern Component: #14A Stripe “A” is to be used for Special Order and Design Option 1 sizes only.

Pattern Component: #14B Stripe “B” is to be used for Design Option 2 sizes only.

This component is in a separate pattern file.

APPENDIX B

CARE INSTRUCTIONS

Applicable To:

Jacket Patrol Unisex
Jacket High Visibility
Jacket, Patrol, Unisex, Auxiliary
Parka Inclement & Hood Cold Weather (without the fur trim)
Trousers Inclement

These garments are designed to be both waterproof and water repellent. The best way to maintain its performance is to **keep them clean by washing it regularly**. When the water no longer beads up and rolls off, use a water based, solvent free, non-flammable DWR product to restore the water repellency. The following care instructions should ensure a normal life cycle for your garments. These garments should be washed after 10-12 days of continuous use or every 20-30 days with occasional use.

The water repellency, waterproofness and breathability of your garment are affected by the following:

1. Dirt buildup and other contaminants including oils, sunscreen and sweat reduce the effectiveness of the water repellency.
2. Fabric softeners have a detrimental effect on the colour and the waterproofness and water repellency of the fabric. They will make the colour fade more quickly and affect the overall performance of the fabric. These include liquid fabric softeners, detergents that contain softeners and dryer sheets. Therefore, it is very important that these softeners not be used when laundering your garment.

Machine Wash:

- DO NOT COMMERCIAL LAUNDER
- DO NOT WASH FUR

Close all zippers, fasteners and velcro before washing.

Wash in warm water separately, without detergent. **DO NOT USE FABRIC SOFTENERS OR POWDERED DETERGENTS OR ANY LIQUID DETERGENTS THAT CONTAIN FABRIC SOFTENERS. DO NOT USE BLEACH.**

If heavily soiled, a small amount of detergent or specialty wash products (i.e. **Grangers® Performance Wash, Fibertec Pro Wash or ReviveX® Synthetic fabric cleaner**) for waterproof garments may be used.

At the end of the final rinse cycle, re-adjust the garment in the washer, and put it through an additional rinse cycle. This will assure complete rinsing of detergent that may have been trapped during washing, therefore preserving water repellency.

Drying:

Close all zippers, fasteners and velcro before drying.

If re-application of DWR is necessary, hang wet garment on hanger and follow application instructions of DWR product. (i.e. **Grangers® XT Waterproof spray, Fibertec Blue Guard Spray-on, Revivex® Spray-On or Nikwax Tx-Direct™**)

The garment **must** be tumble dried separately on a warm setting for 50 minutes to reactivate the durable water repellency (DWR.). **DO NOT USE DRYER SHEETS.**

If necessary, touch up with steam iron at low temperature.

Dry Cleaning:

If dry cleaned, request clear distilled solvent rinse and DWR spray repellent.

INSTRUCTIONS D'ENTRETIEN

Applicable à :

Blouson de patrouille unisexe

Veste haute visibilité

Blouson de patrouille unisexe pour auxiliaire

Parka pour intempéries et capuchon pour temps froid

Pantalon pour intempéries

Ces vêtements sont conçus pour être imperméables et déperlants. La meilleure façon de préserver leurs propriétés est de les **garder propres en les lavant régulièrement**. Lorsque l'eau ne perle plus, utiliser un produit déperlant durable à base d'eau, sans solvant et ininflammable pour restaurer la déperlance. Les instructions d'entretien ci-dessous permettront d'assurer le rendement optimal des vêtements. Ces vêtements devraient être lavés après 10 à 12 jours d'utilisation continue ou à tous les 20 à 30 jours d'utilisation occasionnelle.

Les conditions suivantes peuvent influencer sur l'imperméabilité, la déperlance et la respirabilité des vêtements :

1. L'accumulation de saletés et d'autres contaminants comme de l'huile, de la crème solaire ou de la sueur peut réduire l'imperméabilité.
2. Les agents assouplissants influent sur la couleur, la déperlance et l'imperméabilité. Ils décolorent les tissus plus rapidement et nuisent à leur rendement général. Il est très important de n'utiliser **aucun** type d'assouplissant (agent assouplissant liquide, détergent avec assouplissant et assouplissant en feuilles).

Lavage à la machine :

- NE PAS LAVER DANS UNE BUANDERIE COMMERCIALE
- NE PAS LAVER LA FOURRURE

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de laver.

Laver séparément à l'eau tiède, sans détergent. NE PAS UTILISER D'AGENT ASSOUPLISSANT NI DE DÉTERGENT EN POUDRE OU LIQUIDE AVEC ASSOUPLISSANT. NE PAS UTILISER D'AGENT DE BLANCHIMENT.

Si le vêtement est très sale, une petite quantité de détergent ou de produit spécifiquement conçu pour l'entretien des vêtements imperméables (**p. ex. nettoyant haute performance de Granger's^{MD}, produit Pro Wash de Fibertec ou nettoyant pour tissus synthétiques ReviveX^{MD}**) peut être utilisée.

À la fin du dernier cycle de rinçage, replacer le vêtement dans la machine et entreprendre un autre cycle de rinçage, afin d'éliminer complètement le détergent qui peut être resté durant le lavage et de préserver la déperlance.

Séchage :

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de sécher.

Si un nouveau traitement déperlant est requis, suspendre le vêtement mouillé sur un cintre et suivre les instructions du fabricant du produit (**p. ex. imperméabilisant à vaporiser XT de Granger's^{MD}, Blue Guard de Fibertec, Revivex^{MD} ou Tx-Direct^{MC} de Nikwax**).

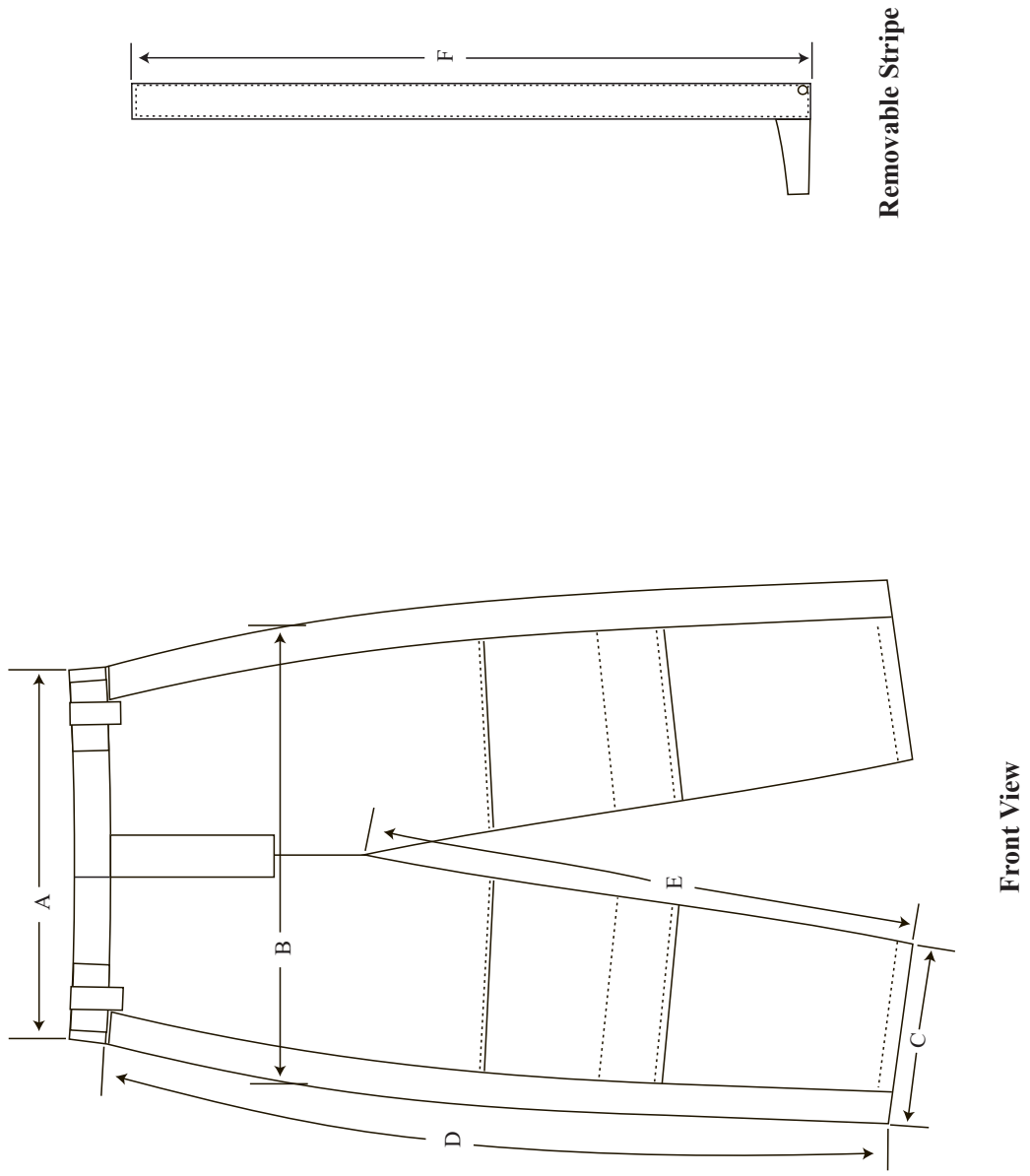
Le vêtement **doit** être séché séparément par culbutage à basse température pendant 50 minutes, afin de réactiver les propriétés déperlantes. NE PAS UTILISER D'ASSOUPLISSANT EN FEUILLES.

Au besoin, repasser légèrement à basse température.

Nettoyage à sec :

Si le vêtement est nettoyé à sec, demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit déperlant à vaporiser.

Drawing 1
Trousers, Inclement and Stripes
Measurement Location Chart

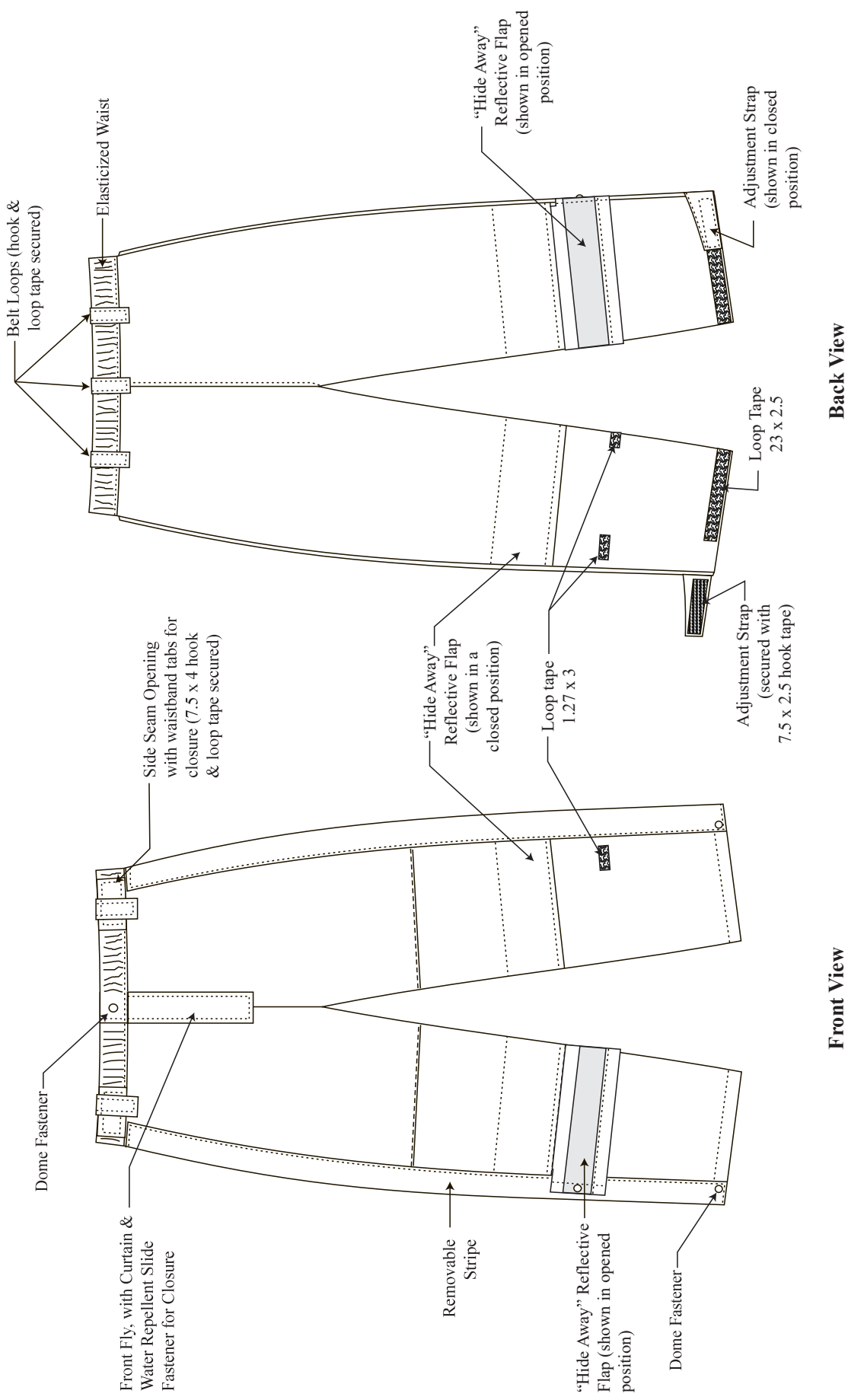


NOT TO SCALE
All measurements are shown in centimeters.
± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 2

G.S. 1045-301

Trouser, Inclement and Stripes

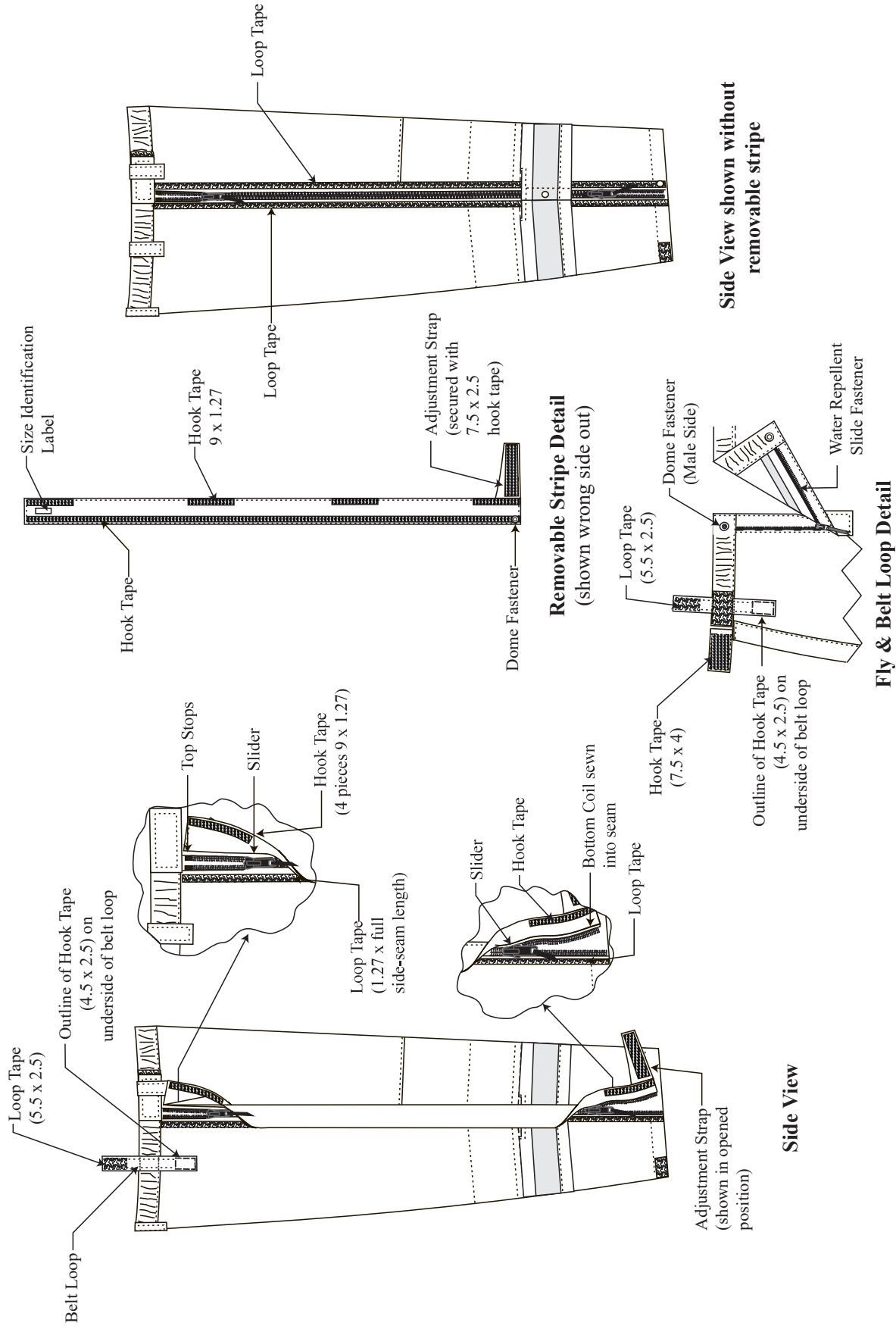


NOT TO SCALE
All measurements are shown in centimeters.
± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 3

G.S. 1045-301

Trousers, Inclement and Stripes

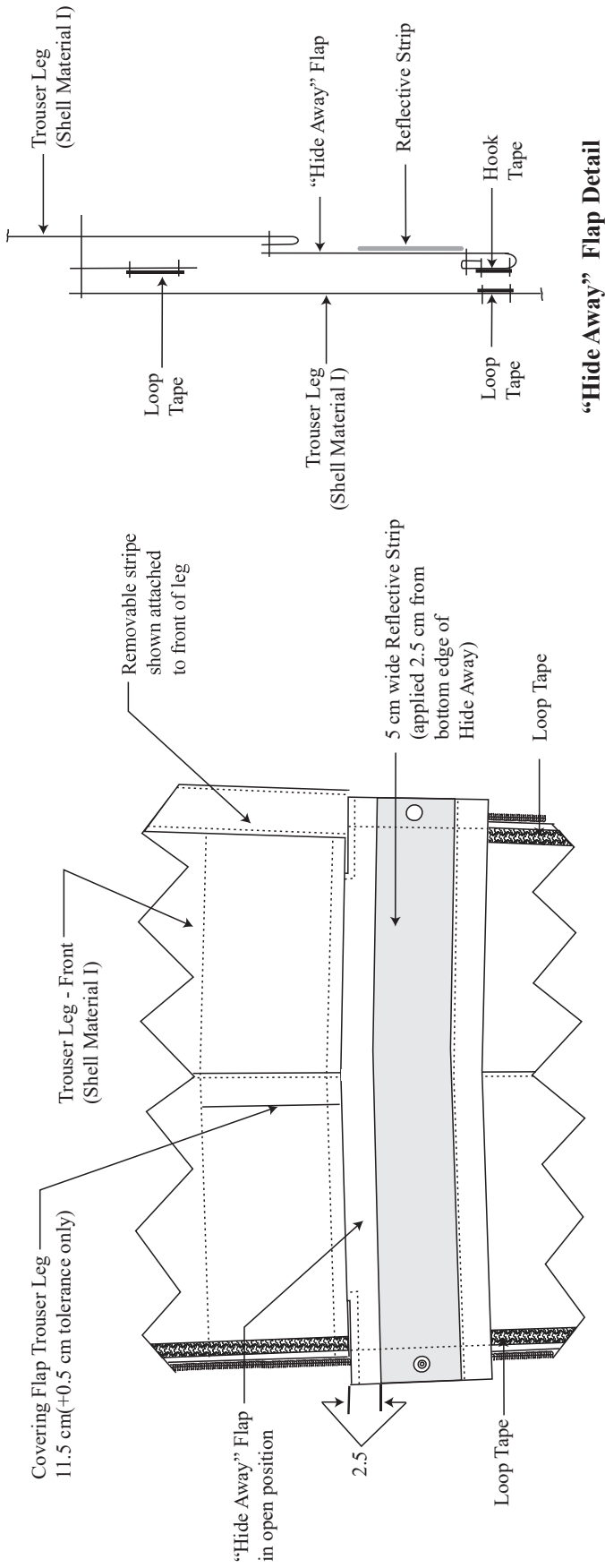


NOT TO SCALE
All measurements are shown in centimeters.
± 0.5 cm tolerance acceptable unless otherwise indicated.

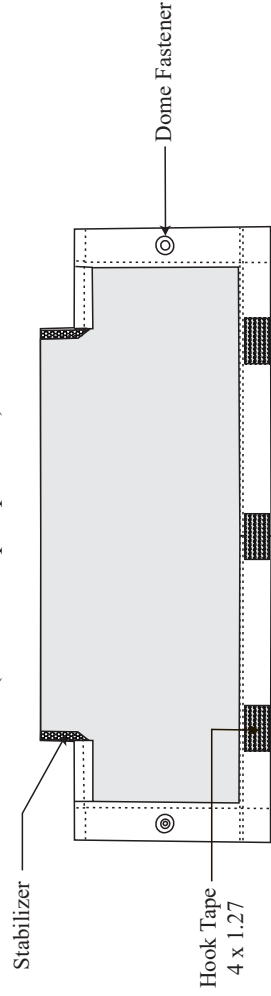
Drawing 4

G.S. 1045-301

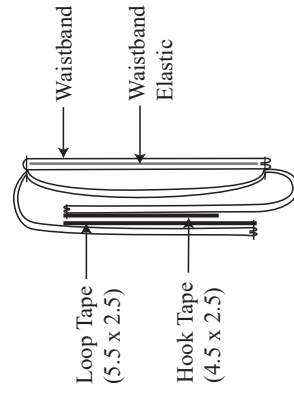
Trousers, Inclement and Stripes



Partial View of Left Leg Covering Flap and “Hide Away” Flap (shown in open position)



View of “Hide Away” Flap (shown wrong side out)



Belt Loop

NOT TO SCALE
All measurements are shown in centimeters.
± 0.5 cm tolerance acceptable unless otherwise indicated.



Royal Canadian Mounted Police
Gendarmerie royale du Canada

Doc. no: G.S. 1045-307
Date: 2019-11-25

Specification

Parka, Inclement and Cold Weather Hood

This document has 51 pages including the drawings.

This document was created in English.

The document is available in English and French.

☒ English/Anglais
Français/French

The photograph on this page is for reference only.



Modifications

[illegible]

RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification must govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform and Equipment Program
(440 Coventry Road, Warehouse Building)
73 Leikin Drive
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample must be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples must be replaced by an identical item or the RCMP must be reimbursed for the cost of an acceptable replacement.

SPECIFICATION**Parka, Inclement and Cold Weather Hood****1. Definition**

1.1 This specification must govern the manufacture and inspection of Parka, Inclement and Cold Weather Hood. The specific items covered under this specification with stock numbers are as follows:

- i. 5030 Parka, Inclement / Parka pour intempéries ;
- ii. 5031-000 Parka, Inclement Special / Parka pour intempéries, taille spéciale ;
- iii. 3900 Parka, Inclement, Hood, Cold Weather / Parka pour intempéries, capuchon pour temps froid;
- iv. 3901-000 Parka, Inclement, Hood, Cold Weather, Special / Parka pour intempéries, capuchon pour temps froid, tailles spéciales.

1.2 The specification, pattern, drawing, viewing sample or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.

1.3 This specification supersedes all previous specifications for RCMP Parka, Inclement and Cold Weather Hood.

1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.

2.2 Canadian General Standards Board (CAN/CGSB);

- 4.2 No. 5.1-M90 (R2013) Textile test methods – Unit mass of fabrics
- 4.2 No. 9.2-M90 (R2013) Textile test methods – Breaking strength of fabrics — Grab method
- 4.2 No. 12.3-2005 (R2013) Textile test methods – Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)

4.2 No. 14-2005	Textile test methods – Quantitative Analysis of Fibre Mixtures
4.2 No. 19.1-2004 (R2013)	Textile test methods – Colourfastness to washing, Accelerated test
4.2 No. 22-2004 (R2013)	Textile test methods – Colourfastness to rubbing (Crocking)
4.2 No. 26.3-2010	Textile test methods – Textile Fabrics — Determination of Resistance to Water Penetration — Hydrostatic Pressure Test
4.2 No. 26.5-M89 (R2013)	Textile test methods – Water resistance — High pressure penetration test
4.2 No. 37-2002 (R2013)	Fabric thickness
4.2 No. 49-99 (R2013)	Textile test methods – Resistance of materials to water vapour diffusion
4.2 No. 58-2019	Textile test methods – Dimensional change in domestic laundering of textiles
86.1- 2003	Care Labelling of Textiles
2.3	General Services Administration – US Government
	Commercial Item Description
A-A-50199A	Thread, Polyester Core, Cotton or Polyester-Covered
2.4	General Services Administration – US Government
	Federal Standard, Textile Test Methods; (FED-STD No. 191A)
Method 4108	Strength and Elongation, Breaking; Textile Webbing, Tape and Braided Items
Method 5516	Water Resistance of Cloth; Water Permeability, Hydrostatic Pressure Method
2.5	American Society for Testing and Materials (ASTM)
D2097-03 (2010)	Standard Test Method for Flex Testing of Finish on Upholstery Leather
D413-98 (2017)	Standard Test Methods for Rubber Property- Adhesion to Flexible Substrate
D1388-14 ^{E1}	Standard Test Method for Stiffness of Fabrics
D1424-09 (R2013)	Standard Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type)
D1518-14	Standard Test Method for Thermal Resistance of Batting Systems Using a Hot Plate

D3512/D3512-16	Standard Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Random Tumble Pilling Tester
D3776/D3776M-09a (2017)	Standard Test Method for Mass per Unit Area (Weight) of Fabric
D3786/D3786M-13	Standard Test Method for Bursting Strength of Textile Fabrics—Diaphragm Bursting Strength Tester
D3886-99 (R2015)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Inflated Diaphragm Apparatus) ¹
D4966-12 (R2016)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)
D5034-09 (R2013)	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
D5169-98 (R2015)	Standard Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners
D5170-98 (R2015)	Standard Test Method for Peel Strength (“T” Method) of Hook and Loop Touch Fasteners
D8007-15 ^{e1}	Standard Test Method for Wale and Course Count of Weft Knitted Fabrics

2.6 **American Association of Textile Chemists and Colorists (AATCC)**

Test Method 22-2017	Water Repellency: Spray Test
Test Method 61-2013	Colourfastness to Laundering: Accelerated
Test Method 118-2013	Oil Repellency: Hydrocarbon Resistance Test

2.7 **International Standards Organization (ISO)**

105-B02:2014	Colourfastness to artificial light: Xenon arc fading lamp test
105-C06:2010	Colour fastness to domestic and commercial laundering
105-X12:2016	Colourfastness to rubbing (Crocking)
3759:2011	Textiles — Preparation, marking and measuring of fabric specimens and garments in tests for determination of dimensional change
4920:2012	Textile fabrics — Determination of resistance to surface wetting (spray test)
6330:2012	Domestic washing and drying procedures for textile testing

13937- 1:2000 Textiles — Tear properties of fabrics — Part
1: Determination of tear force using ballistic
pendulum method (Elmendorf)

2.8 **British Standards Institution (BS)**

BS 3424-26: 1990 Testing coated fabrics. Methods 29A, 29B,
29C and 29D. Methods for determination of
resistance to water penetration and surface
wetting

2.9 **Royal Canadian Mounted Police Specification (RCMP)**

G.S.1045-266 Badges Woven – Badge, Shoulder, Police
PD-PE-93 Police Patch, Reflective, Large & Small
PD-AP-02 Coyote Strips

3. **General Requirements**

3.1 The article or material covered by this specification must be free from material and manufacturing defects that may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production must be equivalent in all respects to the pattern and viewing sample.

3.2 **Design** – The Parka, Inclement must be loose fitting, 3/4 length parka designed to be worn in conjunction with two removable RCMP liners, “Liner, Parka Inclement” or “Liner, Patrol, Unisex”. It comes complete with one standard non-insulated hood and an optional cold weather hood with folding snorkel and fur trim. The front and back waist incorporates an elastic draw cord with cord locks which are divided into 3 separate compartments for adjustability. The shell is constructed from a 3-layer material with a WMVP (waterproof moisture vapour permeable) membrane. The 3-layer fabric construction does not require a lining when made up into a garment. This parka must be waterproof with all seams permanently seam sealed unless otherwise stated.

4. **Detail Requirements**

4.1 **Components**

- 4.1.1 **Shell Material I** – The shell material must be plain weave 100% nylon, Type 6.6. The colour must be dark navy blue, meeting the approved colour swatch, with a durable water repellent finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the waterproof moisture vapour permeable membrane as specified in para. 4.1.2.
- 4.1.2 **Shell Material I, Laminated** – The shell material must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of shell material as specified in para. 4.1.1, with the membrane as the middle layer, and a black, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table II forming part of this specification. The laminated shell materials must not show any visible signs of delamination or loss of film during the garments useful life (approximately 5 years). The fabric must be capable of having its sewn seams, seam-sealed with an appropriate tape, in a waterproof, durable fashion. Materials not meeting these requirements will be cause for rejection. Delamination is defined as any irreparable separation of the bonded layers of the Laminated Shell Material(s).
- 4.1.3 **Seam Sealing Tape** – The 3-layer composite fabric must be seamed using a compatible nylon or polyester seam-sealing tape with the 3-layer shell fabric and sealed-seams meeting the requirements outlined in Table I forming part of this specification. The tape on the sealed seams must not peel off and/or wear during the projected life span of the garment.
- 4.1.4 **Fleece Lining** – The fleece lining must be 100% polyester, Micro-Fleece with a non-pill velour face. It must be black in colour, meeting the requirements outlined in Table V forming part of this specification. Polartec LLC product “6182” has been known to meet the above requirements
- 4.1.5 **Back Yoke Lining Material** – The back yoke lining material must be 70 denier 100% nylon, weighing between 60-70 g/m², black in colour or to match the shell material.
- 4.1.6 **Mesh Pocketing** – The pocketing must be a polyester, warp knit mesh, black in colour or to match the shell material, meeting the requirements outlined in Table III. Tek-Knit “XPTAR004” has been known to meet the requirement.

- 4.1.7 **Insulation Cold Weather Hood** – The insulation must be a blend of 90/10 white goose down/ duck down feathers enclosed between two layers of polyester scrim. The down used in the insulation must be RDS (Responsible Down Standard) certified. The insulation must meet the requirements in Table IV. Thindown article #TAWD05060 from NIPI has been known to meet the requirement.
- 4.1.8 **Reflective Police Patches** – The RCMP stock item number 8653-100, Police Patch, Reflective, Large and RCMP stock item number 8654-100, Police Patch, Reflective, Small must be purchased from the RCMP.
- 4.1.9 **Shoulder Badges** – The RCMP stock item number 2135-108, Badge, Shoulder, Police must be purchased from the RCMP.
- 4.1.10 **Fur Trim - Cold Weather Hood** – The RCMP stock item number 8750-100, Coyote Strips must be purchased from the RCMP.
- 4.1.11 **Elastic Drawcord** – The drawcord must be round braided polyester elastic, black in colour, 2.4 mm, with maximum elongation of 135% and full recovery. Cansew style EBR C-38 has been known to meet the requirement.
- 4.1.12 **Cord Locks**
- 4.1.12.1 **Cord Locks** – The cord locks must be low profile, cylindrical cord locks, , spring loaded in acetyl composition, black in colour. It must come in two sizes. The cord lock for the hem channel must be shaped with a maximum diameter of 13 mm and a maximum depth of 11.2 mm. Texfast style S217B has been known to meet the requirement. The cord lock for the hood must be shaped with a maximum diameter of 15.5 mm and a maximum depth of 12.5 mm. Texfast style S217A has been known to meet the requirement.
- 4.1.12.2 **Cord Locks – Cold Weather Hood** – The cord locks must be commercially available, spring loaded, nylon composition, black in colour, equal in respect to the viewing sample.
- 4.1.13 **Elastic** – The elastic must be heavy duty woven elastic, with a composition of at least 70% polyester blended with rubber and a medium finish. The elastic must be black in colour. It must be available in two widths: 2.5 cm and 4 cm.
- 4.1.14 **Slide Fasteners**

- 4.1.14.1 **Slide Fastener – Front** – The slide fastener must be a two way separable, movable open-end separator, black in colour, injection molded, with two automatic sliders, Slider 1: DA and slider 2: DAG. Vislon® YKK 28000 VSMR 56/6 DA86 E/DAG8 E 9/16 (only).
- 4.1.14.2 **Slide Fastener – Right Inside Front** – (To be used for the attachment of a removable liner) - The slide fastener must consist of ½ (half) of an open-end slide fastener with the retaining box and slider; it must be injection molded, with a DA automatic slider, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.14.3 **Slide Fastener – Left Inside Front** – (To be used for the attachment of a removable liner) - The slide fastener must consist of ½ (half) of an open-end slide fastener with the insert pin and must be injection molded, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.14.4 **Slide Fastener - Upper & Lower Front Pockets** – The slide fastener must be coil, water repellent, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the slider facing front. It must be black in colour, with long pull tabs. YKK 37088 CIT4C 51 DFBL E 5/8*BTM-2*P-BTM*REV (only).
- 4.1.14.5 **Slide Fastener – Upper Sleeve Pocket** – The slide fastener must be a closed end coil type slide fastener with a DF non-lock slider, black in colour, YKK 12824 CIFC 51 DFW1 E 5/8*TS-TS1*BS-BW (only).
- 4.1.14.6 **Slide Fastener – Side Seam** – The slide fastener must be coil, water repellent, black in colour, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the sliders facing front. It must be closed-ended with three sliders arranged in a back-to-back-head-to-head relation, Aqua Guard YKK 37338 CIT4MC 56/6/6 DA8BLH E/DA8BLH E/DA8BLH E 5/8*SLSB-BH-H*P-TOP*P-BTM*REV (only).
- 4.1.14.7 **Slide Fastener – Inside Pockets** – The inside pocket slide fasteners must be black in colour, woven-in style, DA automatic slider, YKK 20054 CFC 456 DA E 9/16 *E-BTM-2* (only).
- 4.1.14.8 **Slide Fastener – Cold Weather Hood (Snorkel)** – The slide fastener must be an open-end separable coil slide fastener, black in colour with a DA automatic lock slider. YKK 22000 CFOR 456 DA E 9/16 (only).

- 4.1.15 **Pull Tab** – Commercially available pull tab, plastisol, black in colour, equal in respect to the viewing sample.
- 4.1.16 **Hook and Loop Tape** – The hook and loop tape must be woven nylon, black in colour, with a high life cycle. The combined hook and loop must have no less than 8 P.S.I length-wise shear strength with initial peel strength of not less than 1 P.I.W. when tested to ASTM D5169-98 (R2015), standard test method for shear strength [dynamic method] of hook and loop touch fasteners and ASTM D5170-98 (R2015), standard test method for peel strength ["T" method] of hook and loop touch fasteners."
- 4.1.17 **Grosgrain Ribbon** – The grosgrain ribbon must be nylon, black in colour and come in three widths, 6 mm, 1 cm and 2.5 cm.
- 4.1.18 **Webbing, Microphone Strap** – The webbing must be a durable nylon webbing, luggage quality, black in colour measuring 2.54 cm (1") wide and 0.04" ± 0.01" thick. It must have a minimum tensile strength of 1000 lbs. as per Federal Standard 191-A test method 4108. Tape Craft # N0015S-1"-YD001-352 has been known to meet the requirements.
- 4.1.19 **Thread** – The thread must be polyester wrap, polyester core, Tex 50, Type II of matching colour to the shell material, meeting U.S. government Commercial Item Description A-A-50199A.
- 4.1.20 **Dome Fastener** – The dome fastener must be a standard type 24 ligne fastener. All metal parts to be brass with a 15 mm matte black, powder coated cap. Universal SW61 (only).
- 4.1.21 **Eyelets** – The eyelets must be black in colour made of brass or aluminium. It must come in two sizes, with a 5-6 mm diameter hole and with a 7-8 mm diameter hole.
- 4.2 **Size and Dimensions** – The Parka, Inclement must be supplied in the sizes specified by the RCMP and to the dimensions given in the scale of measurements and drawings forming part of this specification. The garment components must be shaped, dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in "Appendix A" forming part of this specification.
- 4.3 **Construction**

- 4.3.1 **Stitching and Seam Sealing** – All stitching must be lockstitch. There must be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching must be securely backstitched or tacked, unless secured by other stitching. Ball point needles must be used for stitching through elastic components. All seams and points where stitching penetrates the shell materials must be permanently sealed on the inside with the appropriate seam-sealing tape as per para. 4.1.3. Care must be taken to ensure that the tape cross-over points where seams join are doubly covered and bonded securely so as to ensure water-resistance. Any sealed seams showing any form of delamination or any non-bonded or peeling seams must be a cause for rejection.
- 4.3.2 **Body**
- 4.3.2.1 **Back & Back Yoke** – The body made from shell material as specified in para. 4.1.2 must have a two piece back with an interior drawcord channel and interior cord locks at the waist. There must be a large “hide away” police patch, constructed from shell material and a reflective police patch as per para. 4.1.8. It must be shaped and dimensioned as per the patterns and applied to the back yoke. The back yoke must be faced with lining as specified in para. 4.1.5 and stitched from side seam to side seam as shown in drawing 6 and seam sealed appropriately to ensure waterproofness. The back and back yoke when finished must be shaped and dimensioned as per the pattern and viewing sample.
- 4.3.2.2 **Abrasion Panel/Waist Drawcord Channel** – An abrasion panel, constructed from shell material as specified in para. 4.1.2 must be constructed with the centre portion face side out and the outer edges tricot side out as identified in the patterns and drawings. A 3-part, elastic secured, waist channel must be sewn to the back body underneath the abrasion panel at waist level to create an adjustable drawcord channel as identified in the patterns and drawings. An elastic drawcord as specified in para. 4.1.11 must be securely attached into the side seam for the front waist channel and threaded through the cord channel. The elastic drawcord must continue through the smaller cord lock as specified in para. 4.1.12.1, and through the eyelet outside the cord channel at center front. It must be threaded through the second eyelet outside the abrasion panel. It must continue back through the cord lock where the drawcord must be knotted. An elastic drawcord as specified in para. 4.1.11 must be securely attached to the right side seam for the back waist channel and threaded through the hem channel. Two eyelets must be positioned on the back inside left side seam as indicated on the pattern through the abrasion panel and waist drawcord channel. When assembled completely, the cord locks must be hidden in the channel with only the looped end of the elastic drawcord showing as per drawing 4. When

the waist channel is relaxed, there must be no extra length of elastic drawcord showing between the two eyelets. The drawcord must lay flat.

- 4.3.2.3 **Front** – The parka must be equipped with a centre front slide fastener as specified in para. 4.1.14.1, length as specified in Table VI and the bottom ends of the slide fastener must be bar tacked as per drawings 4 and 5. The front must have two front storm flaps with dome fasteners for closure. Directly below the right front slide fastener must be a pull tab as specified in para. 4.1.15 and drawing 4 and 5. The fronts must have four pockets two upper and two lower storm pockets all with slide fasteners and flaps. The outer front yoke extension must be manufactured in a way to create a pocket flap with a dome fastener in order to close the zippered chest pockets. Under the outer right front yoke flap there must be a small “hide away” reflective police patch and above the pocket flap must be an 8.5 cm x 2.5 cm piece of loop tape as specified in para. 4.1.16 for the name tag. Both outer left and right front yoke must be equipped with webbing as specified in para. 4.1.18, measuring 2.5 cm x 5 cm for the microphone loop. All components of the front must be constructed as per the patterns and drawings.
- 4.3.2.4 **Chest Pockets** – The parka must have two upper front pockets with water resistant slide fasteners as specified in para. 4.1.14.4 and lengths outlined in Table VI. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. Each chest pocket must have flaps created from the front yoke extension pattern piece which must be dimensioned in accordance with the patterns and drawing 6. The slider must be in a position closest to the centre front when closed. Applied to the top right front flap, must be a small “hide away” reflective patch constructed from shell material and a reflective police patch as per para. 4.1.8 and drawing 6. The reflective police patch must be sewn on top of the pull-down with the side edges folded under. The centre front of the front yoke piece when sewn to create a pocket flap must be secured with a dome fastener. There must be two inside pockets constructed out of mesh material as specified in para. 4.1.6 secured with a slide fastener as specified in para. 4.1.14.7 and lengths as specified in Table VI. There must be two labels sewn through the mesh inner pocket bag with the Identification label and Marking and Cleaning Instruction as shown in drawing 4.
- 4.3.2.5 **Lower Storm Pockets** – The parka must have two lower front storm pockets with flaps shaped and dimensioned as per the patterns. Both lower pockets must have water resistant slide fasteners as specified in para. 4.1.14.4. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. The slider must be positioned towards the centre when the pocket is closed. The length of the slide fasteners for the lower storm pockets must be as outlined in Table VI. The inside

pocket constructed as per the pattern must be lined with fleece material as specified in para. 4.1.4.

- 4.3.2.6 **Under Fly Front & Front Storm Flaps** – The under fly front must be fitted with two injection molded slide fasteners, length as specified in Table VI. One is for the front closure and one is for the attachment of the removable liner. The parka front slide fastener as specified in para. 4.1.14.1 must be inserted in a way to have the double sliders and a rubber pull tab as specified in para. 4.1.15 on the left front and the insert pin attached on the right front. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. The left front storm flap must have six dome fasteners (female portion) as specified in para. 4.1.20, which align with the male portions attached to the right front storm flap as per drawing 4 and 5. There must be ½ (half) of a slide fastener attached to the right facing and ½ (half) of a slide fastener attached to the left facing to be used for the attachment of a removable liner. The ½ (half) attached to the right front inside facing, as specified in para. 4.1.14.2, must consist of the retaining box and slider which must begin 2 cm below the collar seam for all sizes. The ½ (half) attached to the left inside front as specified in para. 4.1.14.3 must consist of the insert pin and begin 2 cm below the collar seam for all sizes, as shown in drawing 5. The bottom ends of all the slide fasteners must be bar tacked as per drawing 5. An external pen pocket measuring 2 cm after folding in half must be constructed from a single layer of shell material. It must be sewn to the left chest only directly under the top storm flap between the front slide fastener and storm flap. The pen pocket must be dimensioned and positioned as per the patterns and drawings.
- 4.3.3 **Side Seams** – Both side seams from sleeve underarm to hem must be equipped with a water-resistant slide fastener as specified in para. 4.1.14.6 lengths as specified in Table VI and the bottom ends of the slide fasteners must be bar tacked as per drawings 3 & 4. The slide fastener, when applied, must be covered by the shell material. There must be 3 sliders, the two closest to the underarm should be in a head to head position and the third must be opening from the bottom upwards as shown in drawing 3. Ribbon pulls as specified in para. 4.3.12 must be applied to the all the sliders. Six dome fasteners (female side) as specified in para. 4.1.20 must be applied to the parka and positioned as per the patterns for attachment to the parka liner as shown in drawing 3. The seam tape, when applied, must extend into the front and back hem facing so that no tape ends are visible as shown in drawing 3. The side seam hem must have an elastic closure strap as specified in para. 4.3.13, positioned as per drawing 3.

- 4.3.4 **Collar** – The collar must be made of shell material as specified in para. 4.1.2. There must be three dome fasteners (male portion) as specified in para. 4.1.20 for the attachment of the detachable hoods. Centered underneath each dome fastener must be a 3.5 cm x 2.5 cm piece of loop tape as specified in para. 4.1.16.
- 4.3.5 **Standard Detachable Hood** – The standard hood as shown in drawing 7 must be constructed from shell material as specified in para. 4.1.2 with all sewn seams, seam-sealed. It must be secured to the collar with 3 (three) dome fasteners as specified in para. 4.1.20 with the female portion applied to the hood and the corresponding male portion to the collar. Centred underneath each dome fastener must be a 3.5 cm x 2.5 cm piece of hook tape as specified in para. 4.1.16. The centre front must have a hook and loop closure as specified in para. 4.1.16. The inside left front must have two pieces of loop tape with one piece of hook tape in the centre. The outer right front must have two pieces of hook tape with one piece of loop tape in the centre. Both right and left centre front closures must have the hook and loop tape spaced .65 cm between each piece as per drawing 7. An elastic drawcord as specified in para. 4.1.11 must be threaded through an inside channel continuing through the eyelet with a 5-6 mm diameter hole as specified in para. 4.1.21 and the larger cord lock as specified in para. 4.1.12.1 and applied as per drawing 7. After threading the drawcord through the cord lock it must be knotted and the end tucked into the inside channel. There must be no extra length of elastic given when the hood is completely relaxed and stretched out. A label identifying the corresponding hood size must be sewn to the bottom hood facing either in mid back position, centred on the facing or in the front facing seam as shown in drawing 7. The hood must be shaped and dimensioned as per the patterns and viewing sample.
- 4.3.6 **Sleeve & Sleeve Cuffs** – The parka must have a three piece sleeve with an upper sleeve pocket constructed from shell material as specified in para. 4.1.2. All sleeve seams with exception of the underarm seam must be top stitched using a 2 mm gauge. A dome fastener must be applied to a piece of 2.5 cm wide grosgrain ribbon as specified in para. 4.1.17 which is doubled and sewn securely to the cuff/sleeve seam for the attachment of the liner as shown in drawing 5. The sleeves must have a 9 cm adjustment strap with a 4.5 cm x 2.5 cm piece of hook tape as specified in para. 4.1.16 for adjustability. The cuff must be 4 cm wide with a 12 cm x 2.5 cm piece loop tape to secure the adjustment strap. The cuff must be partially elasticized using 4 cm wide elastic as specified in para. 4.1.13. The elasticized area of the cuff must have two rows of top stitching to anchor the elastic. The sleeves and cuffs must be shaped and dimensioned as per the patterns and viewing sample.

- 4.3.7 **Shoulder Straps** – The shoulder straps shaped and dimensioned in accordance with the patterns and drawing 5, must be made from two layers of shell material as specified in para. 4.1.2. They must be sewn into the sleeve-head and positioned as per the pattern and viewing sample. The shoulder strap must be secured to the parka shoulder with the dome fastener specified in para. 4.1.20. Refer to Table VIII for the finished length by size.
- 4.3.8 **Upper Sleeve Pocket** – Both sleeves must have an upper sleeve pocket constructed from shell material with a slide fastener as specified in para. 4.1.14.5. When in a closed position the slider must be facing toward the shoulder as shown in drawing 2. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. There must be two rows of topstitching around the slide fastener, using 2 mm gauge and 6 mm gauge. The sleeve pocket must be sewn to the sleeve, top-stitched using a 2 mm gauge and seam sealed appropriately to ensure waterproofness. The upper sleeve pocket must be constructed in accordance with the patterns and drawings of this specification.
- 4.3.9 **“Hide Away” Reflective Police Patches** – The front and back “hide away” patches must be constructed of a single layer of shell material folded in half with raw ends turned inside and sewn. The finished length of the front “hide away” must be 13 cm x 6.5 cm wide and the back “hide away” must be 30.5 cm x 10 cm with a reflective police patch as specified in para. 4.1.8. Both ends of the police patch must be folded under and applied to the top of the hide away pull-down. Both “hide away” patches must have loop tape as specified in para. 4.1.16 attached to the back side for the patch to be concealed in a hide away position. All “hide away” patches must be constructed as per drawing 6.
- 4.3.10 **Shoulder Badges** – The RCMP shoulder badges specified in para. 4.1.9 must be sewn through the upper sleeve pocket only (not through the sleeve). The badge is to be centred on the sleeve-head 2.5 cm below the sleeve-head seam and attached with one row of stitching, as per the viewing sample.
- 4.3.11 **Coat Hanger** – A 6 cm long coat hanger, constructed from 6 mm wide grosgrain ribbon as specified in para. 4.1.17 must be centered at the neck in accordance with the viewing sample.
- 4.3.12 **Slide Fastener Ribbon Pulls** – All ribbon pulls must be constructed with grosgrain ribbon 1 cm wide, as specified in para. 4.1.17. The ribbon must be applied to the hole of the slide fastener pull in a way that allows the ribbon pulls to be removed

easily without damage and reapplied. The ribbon pull should be 5 cm \pm 0.5 cm in length when finished and attached to the slide fastener.

4.3.13 **Side Seam Closure Strap** – There must be a side seam closure strap measuring 9 cm \pm 5 cm when finished, at the side seam hem. It must be constructed from 2.5 cm wide elastic as specified in para. 4.1.13, doubled and must be sewn to the lower back side seam flipping toward the front, equipped with a female dome fastener for closure. The corresponding male dome fastener must be applied to the parka front at the hem.

4.3.14 **Identification Label** – Each parka must have a durable blank label 7.5 cm x 2 cm applied separately below the marking and cleaning label used for the inscription of the wearers' name.

4.3.15 **Marking & Cleaning Instructions Label** – Each parka must have a durable label positioned and sewn to the bottom of the inside pocket bag as shown in drawing 4. The text must be permanent inks of a contrasting colour and must withstand at least 50 washes with no apparent change in appearance. All text except for the RCMP stock number and size must be in size 6 font. The RCMP stock number and size must appear in size 8 font. The manufacturer's identification must not appear anywhere on the garment except where indicated on the label. The label must contain the following information in English and French.

1. Item name in English as written in para. 1.1.
2. Item name in French as written in para. 1.1.
3. RCMP stock number - reference contract documents. (Ex. 5030 000)
4. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/R - G/R)
5. Date of manufacture, in numeric format year/month (Ex. 2018/11)
6. Your manufacturer identification (Company name or number).
7. Print information as shown below.

1		
2		
3		
4		
5		
6		
7	Machine wash - warm (40°C)	Laver à la machine – à l’eau tiède (40°C)
	Do Not use fabric softener or chlorine bleach	Ne pas utiliser d’agent adoucissant ni d’agent de blanchiment
	Tumble dry- medium (Do Not use dryer sheets)	Séchage par culbutage – à température moyenne (Ne pas utiliser d’assouplissant en feuilles)
	Steam iron - low	Repassage à vapeur - à température basse
	Dry clean - If professionally dry cleaned request clear distilled solvent rinse; request spray repellent.	Nettoyer à sec – demander un rinçage avec un solvant distillé clair et un traitement à l’aide d’un produit hydrofuge en aérosol.
	Further care instructions: See Ordering Guide.	Instructions d’entretien supplémentaires: Voir le guide de commande.

4.3.15.1 **Marking Label – Hood** – Each hood must have a durable label positioned and sewn to the inside right hood facing as shown in drawing 7. The label information must in a text no less than a size 8 font with information as stated below.

1. Size of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/XL - G/TG).

4.3.16 **Instruction Sheet** – Each completed parka must have an instruction sheet folded and inserted into the inside chest pocket bag, with the information included in Appendix “B” English and French, forming a part of this specification.

5. **Cold Weather Hood**

5.1 **Construction**

5.1.1 **Stitching and Seam Sealing** – All stitching must be lockstitch. There must be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching must be securely backstitch tacked, unless secured by other stitching. All seams and points where stitching penetrates the shell materials must be permanently sealed on the inside with the appropriate seam-sealing tape as per para. 4.1.3. Care must be taken to ensure that the tape cross-over points where seams join are doubly covered and bonded securely so as to ensure water-resistance. Any

sealed seams showing any form of delamination or any non-bonded or peeling seams must be a cause for rejection.

- 5.1.2 **Cold Weather Hood** – The Cold Weather Hood available in combined sizing must be constructed as per the patterns and drawing 8. It is designed to have a folding snorkel (extension) with removable fur trim and hook and loop centre front closure as specified in para. 4.1.16. The inside left front must have two pieces of loop tape with one piece of hook tape in the centre. The outer right front must have two pieces of hook tape with one piece of loop tape in the centre. Both right and left centre front closures must have the hook and loop tape spaced .65 cm between each piece as per drawing 8. The outer shell portion must be constructed out of material as specified in para. 4.1.2 with all sewn seams, seam-sealed. There must be 1 layer of insulation as specified in para. 4.1.7 attached to the shell material as specified in para. 4.1.2. The hood must be lined with fleece lining material as specified in para. 4.1.4. It must be constructed in a way to have double adjustment for height and width, with an elastic drawcord as specified in para. 4.1.11 and cord locks as specified in para 4.1.12.2. Eyelets with a diameter of 5-6 mm as specified in per para. 4.1.21 must be applied to each side of the hood side fronts for the insertion of the elastic drawcord. A larger eyelet with a diameter of 7-8 mm as specified in para. 4.1.21 must be applied to the centre back of the hood as identified in the pattern under the centre back cover. The elastic drawcord must be threaded through the channels and cord locks applied as per drawing 8. There must be no extra length of elastic given when the hood is completely relaxed and stretched out. The front snorkel of the hood constructed as per the patterns must incorporate a slide fastener as specified in para. 4.1.14.8 for the attachment of the removable fur trim. The fur trim as specified in para. 4.1.10, must be faced with shell material as specified in para. 4.1.2. The facing of the fur trim when constructed, must be attached to the twill tape portion of the fur. There must be ½ of a slide fastener attached to the front facing for the attachment of the fur trim with the other ½ attached to the inside hood snorkel. Five dome fasteners as specified in para. 4.1.20 (male portion) must be centred evenly spaced on the facing through the shell material only with the corresponding female portion attached to the hood snorkel. The hood must be secured to the collar with dome fasteners (female portion) as specified in para. 4.1.20 applied through all layers. The dome fastener (female portion) at centre back must have a 3.5 cm x 2.5 cm piece of hook tape as specified in para. 4.1.16 sewn underneath. At the sides, there must be two dome fasteners (female portion) positioned as per pattern with a 6 cm x 2.5 cm piece of hook tape sewn underneath. A label as specified in para. 5.1.3 identifying both the stock number and the corresponding hood size must be sewn to the bottom hood facing either in mid back position, centred on the facing or in the front facing seam as shown in drawing 8.

5.1.3 **Marking Label – Cold Weather Hood** – Each hood must have a durable label positioned and sewn to the inside right hood facing as shown in drawing 8. The label information must in a text no less than a size 8 font with information as stated below.

1. RCMP stock number - reference contract documents. (Ex. 3900 000).
2. Size of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/XL - G/TG).

6. **Quality Assurance Provisions**

6.1 **Responsibility for Inspection** – Unless otherwise stipulated in the Contract, it is the Contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor must use an independent commercial testing establishment.

6.2 The RCMP, Uniform and Equipment Program reserve 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.

6.3 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.

7. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing No. 1)

- 7.1 **Chest Circumference (total circumference)** – When placed flat, the chest circumference is the distance across the jacket, measured at the lowest point of the armholes. The result must be doubled to measure total circumference. (A).
- 7.2 **Bottom Circumference (total circumference)** – When placed flat, the bottom is measured across the jacket bottom. The result must be doubled to measure total circumference. (B).
- 7.3 **Front Length** – The length is the distance measured from the top of the collar to the hem at front. (C).
- 7.4 **Side Length** – The length is the distance measured from the base of the armhole at the side to the hem. (D).
- 7.5 **Full Shoulder Width** – The full shoulder width is the distance measured at the shoulder seam from neckline to armhole. (E).
- 7.6 **Sleeve Length Overarm** – The overarm sleeve length is the distance from the armhole at the shoulder seam to the bottom edge of the sleeve cuff. (F).
- 7.7 **Sleeve Length Underarm** – The underarm sleeve length is the distance under sleeve from the armhole to the bottom edge of the sleeve cuff. (G).
- 7.8 **Sleeve Cuff Circumference (Relaxed)** – The sleeve cuff is measured at the bottom edge of the sleeve. The result must be doubled to measure total circumference. (H).
- 7.9 **Elbow Circumference** – The elbow is measured across the width of the sleeve in line with the seam of the sleeve patch. The result must be doubled to measure total circumference. (J).
- 7.10 **Back Length** – The length is the distance measured from the bottom of the collar at the back to the hem. (K).
- 7.11 **Back Width** – When placed flat, the distance measured across the back from armhole to armhole at the yoke seam. (L).

- 7.12 **Collar Length** – The collar length is measured along the seam from slide fastener to slide fastener. (M).

Scale of Measurements – Parka, Inclement																
SIZE DESIGNATION		BODY MEASUREMENTS			GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)	
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)						
X Short	XXS	31" - 33"	79 - 84	109.5	111.5	74	44	14	53.25	49.5	24	44.5	73	39.5	47	
	XS	34" - 36"	86 - 91	117	119	76	45	15	55	50.5	25	47	75	42.5	49	
	S	37" - 39"	94 - 99	124.5	126.5	78	46	16	56.75	51.5	26	49.5	77	45.5	51	
	M	40" - 42"	102 - 107	132	134	80	47	17	58.5	52.5	27	52	79	48.5	53	
	L	43" - 45"	109 - 114	139.5	141.5	82	48	18	60.25	53.5	28	54.5	81	51.5	55	
	XL	46" - 48"	117 - 122	147	149	84	49	19	62	54.5	29	57	83	54.5	57	
	2XL	49" - 51"	124 - 129	154.5	156.5	86	50	20	63.75	55.5	30	59.5	85	57.5	59	
	3XL	52" - 54"	132 - 137	162	164	88	51	21	65.5	56.5	31	62	87	60.5	61	
	4XL	55" - 57"	140 - 145	169.5	171.5	90	52	22	67.25	57.5	32	64.5	89	63.5	63	
	5XL	58" - 60"	147 - 152	177	179	92	53	23	69	58.5	33	67	91	66.5	65	
Short	XXS	31" - 33"	79 - 84	109.5	111.5	79	49	14	57.25	53.5	24	44.5	78	39.5	47	
	XS	34" - 36"	86 - 91	117	119	81	50	15	59	54.5	25	47	80	42.5	49	
	S	37" - 39"	94 - 99	124.5	126.5	83	51	16	60.75	55.5	26	49.5	82	45.5	51	
	M	40" - 42"	102 - 107	132	134	85	52	17	62.5	56.5	27	52	84	48.5	53	
	L	43" - 45"	109 - 114	139.5	141.5	87	53	18	64.25	57.5	28	54.5	86	51.5	55	
	XL	46" - 48"	117 - 122	147	149	89	54	19	66	58.5	29	57	88	54.5	57	
	2XL	49" - 51"	124 - 129	154.5	156.5	91	55	20	67.75	59.5	30	59.5	90	57.5	59	
	3XL	52" - 54"	132 - 137	162	164	93	56	21	69.5	60.5	31	62	92	60.5	61	
	4XL	55" - 57"	140 - 145	169.5	171.5	95	57	22	71.25	61.5	32	64.5	94	63.5	63	
	5XL	58" - 60"	147 - 152	177	179	97	58	23	73	62.5	33	67	96	66.5	65	
TOLERANCES ±					3	3	2	1.5	1	1.5	1	2	2	1	1	
MEASUREMENT LOCATION					A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimetres unless otherwise indicated.

Scale of Measurements – Parka, Inclement															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
Regular	XXS	31" - 33"	79 - 84	109.5	111.5	84	54	14	61.25	57.5	24	44.5	83	39.5	47
	XS	34" - 36"	86 - 91	117	119	86	55	15	63	58.5	25	47	85	42.5	49
	S	37" - 39"	94 - 99	124.5	126.5	88	56	16	64.75	59.5	26	49.5	87	45.5	51
	M	40" - 42"	102 - 107	132	134	90	57	17	66.5	60.5	27	52	89	48.5	53
	L	43" - 45"	109 - 114	139.5	141.5	92	58	18	68.25	61.5	28	54.5	91	51.5	55
	XL	46" - 48"	117 - 122	147	149	94	59	19	70	62.5	29	57	93	54.5	57
	2XL	49" - 51"	124 - 129	154.5	156.5	96	60	20	71.75	63.5	30	59.5	95	57.5	59
	3XL	52" - 54"	132 - 137	162	164	98	61	21	73.5	64.5	31	62	97	60.5	61
	4XL	55" - 57"	140 - 145	169.5	171.5	100	62	22	75.25	65.5	32	64.5	99	63.5	63
	5XL	58" - 60"	147 - 152	177	179	102	63	23	77	66.5	33	67	101	66.5	65
Tall	XXS	31" - 33"	79 - 84	109.5	111.5	89	59	14	65.25	61.5	24	44.5	88	39.5	47
	XS	34" - 36"	86 - 91	117	119	91	60	15	67	62.5	25	47	90	42.5	49
	S	37" - 39"	94 - 99	124.5	126.5	93	61	16	68.75	63.5	26	49.5	92	45.5	51
	M	40" - 42"	102 - 107	132	134	95	62	17	70.5	64.5	27	52	94	48.5	53
	L	43" - 45"	109 - 114	139.5	141.5	97	63	18	72.25	65.5	28	54.5	96	51.5	55
	XL	46" - 48"	117 - 122	147	149	99	64	19	74	66.5	29	57	98	54.5	57
	2XL	49" - 51"	124 - 129	154.5	156.5	101	65	20	75.75	67.5	30	59.5	100	57.5	59
	3XL	52" - 54"	132 - 137	162	164	103	66	21	77.5	68.5	31	62	102	60.5	61
	4XL	55" - 57"	140 - 145	169.5	171.5	105	67	22	79.25	69.5	32	64.5	104	63.5	63
	5XL	58" - 60"	147 - 152	177	179	107	68	23	81	70.5	33	67	106	66.5	65
TOLERANCES ±				3	3	2	1.5	1	1.5	1	2	2	1	1	
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimetres unless otherwise indicated.

Scale of Measurements – Parka, Inclement															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Tall	XXS	31" - 33"	79 - 84	109.5	111.5	94	64	14	69.25	65.5	24	44.5	93	39.5	47
	XS	34" - 36"	86 - 91	117	119	96	65	15	71	66.5	25	47	95	42.5	49
	S	37" - 39"	94 - 99	124.5	126.5	98	66	16	72.75	67.5	26	49.5	97	45.5	51
	M	40" - 42"	102 - 107	132	134	100	67	17	74.5	68.5	27	52	99	48.5	53
	L	43" - 45"	109 - 114	139.5	141.5	102	68	18	76.25	69.5	28	54.5	101	51.5	55
	XL	46" - 48"	117 - 122	147	149	104	69	19	78	70.5	29	57	103	54.5	57
	2XL	49" - 51"	124 - 129	154.5	156.5	106	70	20	79.75	71.5	30	59.5	105	57.5	59
	3XL	52" - 54"	132 - 137	162	164	108	71	21	81.5	72.5	31	62	107	60.5	61
	4XL	55" - 57"	140 - 145	169.5	171.5	110	72	22	83.25	73.5	32	64.5	109	63.5	63
	5XL	58" - 60"	147 - 152	177	179	112	73	23	85	74.5	33	67	111	66.5	65
XX Tall	XXS	31" - 33"	79 - 84	109.5	111.5	99	69	14	73.25	69.5	24	44.5	98	39.5	47
	XS	34" - 36"	86 - 91	117	119	101	70	15	75	70.5	25	47	100	42.5	49
	S	37" - 39"	94 - 99	124.5	126.5	103	71	16	76.75	71.5	26	49.5	102	45.5	51
	M	40" - 42"	102 - 107	132	134	105	72	17	78.5	72.5	27	52	104	48.5	53
	L	43" - 45"	109 - 114	139.5	141.5	107	73	18	80.25	73.5	28	54.5	106	51.5	55
	XL	46" - 48"	117 - 122	147	149	109	74	19	82	74.5	29	57	108	54.5	57
	2XL	49" - 51"	124 - 129	154.5	156.5	111	75	20	83.75	75.5	30	59.5	110	57.5	59
	3XL	52" - 54"	132 - 137	162	164	113	76	21	85.5	76.5	31	62	112	60.5	61
	4XL	55" - 57"	140 - 145	169.5	171.5	115	77	22	87.25	77.5	32	64.5	114	63.5	63
	5XL	58" - 60"	147 - 152	177	179	117	78	23	89	78.5	33	67	116	66.5	65
TOLERANCES ±				3	3	2	1.5	1	1.5	1.5	1	2	2	1	1
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimetres unless otherwise indicated.

TABLE I
Properties of Laminated Shell Material (with WMVP membrane & tricot backing)

	Test	Test Method	Duration	Min. Value Shell Material I
1	Resistance of Materials to Water Vapour Diffusion	CAN CGSB 4.2 No. 49-99 (R2013), Option 1 *See test procedure #1	- Initial - After 5 launderings - After ageing (70°C & 95% RH for 168 hrs)	13 mm max.
2	Hydrostatic Resistance	CAN CGSB 4.2 No. 26.5-M89 (R2013) *See test procedure #2	- Initial - After 5 launderings	1240.2 kPa
3	Low Pressure Water Permeability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #3	- Initial	No Leakage
		ASTM D2097-03 (2010) * See test procedure #4	- After Cold Flex Warp /Fill	No Leakage
4	High Pressure Water Permeability	BS 3424: Part 26: 1990 Method 29A * See test procedure #5	- Initial	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After Unleaded Gasoline	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After DEET Insect Repellent in cream format	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #7	- After Synthetic Perspiration	No Leakage
5	Abrasion Resistance	ASTM D3886-99 (R2015) Procedure: use No. 0 Emery Polishing Paper * See test procedure #8	- 3200 Cycles	No failure
SEAMS				
6a	Seam Tape Durability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #9	- Initial	No Leakage
6b		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #10	- After 10 laundry cycles	No Leakage
6c		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #11	- After 10 dry-clean cycles	No Leakage
7	Delamination	Visual	- Examination after each procedure 6a through 6c	No Delamination
8	Peel Strength N/23 mm	ASTM D413-98 (2017)		8 N/23mm minimum

TEST PROCEDURES FOR TABLE I

1. The knit side of the laminated cloth must face the water. The tests must be completed as outlined in CAN/CGSB 4.2 Method 49-99 (R2013), Option 1. The samples must be conditioned at $21^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($69.8^{\circ}\text{F} \pm 2^{\circ}\text{F}$) and relative humidity must be $65 \pm 2\%$. The test specimen must be placed approximately equidistant between the dry airflow and the water cell. Four specimens must be tested per condition. The tests must be completed initially and after 5 launderings according to ISO 6330:2012 Method 2B-F.
2. The water pressure must be applied to the knit side of the laminated cloth. A taffeta fabric restraint conforming to MIL-C-21852F-TYPE III-CLASS1 PART#WJAAGNA should be placed on top of the sample against the face side of the laminated cloth. The tests must be completed initially and after 5 launderings according to ISO 6330:2012, Method 2B-F.
3. The knit side of the laminated cloth must contact the water. The hydrostatic head must be 13.78 kPa (2.0 psi) and must be held for 3 minutes. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area. The test may be performed using any device which tests the same specimen area at the equivalent pressure. In case of dispute, the apparatus described in FED-STD-191A Method 5516 must be used.
4. Ten warp and ten fill specimens 8.26 cm x 11.43 cm (3.25" x 4.5") must be selected from each sample unit. The 8.26 cm (3.25") dimension is the test direction. Specimens must be flexed for 20,000 cycles as specified in ASTM D2097-03 (2010) and as follows: Mark the knit side of each specimen with two lines 4.32 cm (1.7") apart and perpendicular to the test direction. The area between the lines is the test area and must be centered on the knit side of the specimen. Wrap the specimens around fully extended pistons with the knit side out. The test area lines must meet evenly and must line up with the edges of the pistons. Clamp in place making sure the clamps are not in the test area. Check specimen for smoothness and tautness (wrinkles cause improper flexing). The distance between the pistons must be 4.32 cm (1.7") in the open position and 1.27 cm (0.5") in the closed position as measured from the bottom of the upper piston and top of the lower piston. Place the test apparatus with mounted specimens in a test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$) for a one hour conditioning period and then flex in the test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$). After flexing, test for water permeability as in test procedure 3 except that the orifice of the tester must be modified to accommodate the smaller specimen size
5. The water pressure must be applied to the knit side of the laminated cloth from below the test specimen. The maximum pressure of 172.25 kPa (25 psi) must be attained in 2 minutes

± 20 seconds and must be applied for 5 minutes. Leakage is defined as the appearance of water any place within the test area.

6. Place a 15.24 cm x 15.24 cm (6" x 6") piece of blotting paper on a flat surface and cover with a 25.4 cm x 25.4 cm (10" x 10") test specimen with the face side up. Weigh out 2.0 gm ± 0.1 gm (.07 oz ± .004 oz) of solid contaminant or pipette 2.0 ml (.07 f. oz) of a liquid contaminant. Place the contaminant on the center of the specimen and cover with a 15.24 cm x 15.24 cm (6" x 6") piece of glassine paper. Place a 1.81 kg (4 lbs) weight on the glassine paper directly over the contaminated area. Allow the weight to remain on the specimen for 30 minutes. Remove the weight and glassine paper and allow the specimen to sit undisturbed for an additional 30 minutes. Wipe off any excess contaminant using a fresh piece of blotting paper and test for water permeability as per procedure 6 except that the water pressure must be applied for 3 minutes.
7. One specimen per sample unit must be tested for water permeability after exposure to synthetic perspiration. The specimen must be not less than 15.24 cm (6") in diameter. The test cups must accommodate this size specimen and must have a depth of at least 2.5 cm (1"). The cups must be sealed to prevent leakage. The solution must contact the knit side of the laminate.

Synthetic perspiration must be prepared by stirring the following ingredients into 500 ml of distilled water:

3 grams sodium chloride
1 gram predigested protein
1 gram n-propyl propionate
0.5 gram lecithin (phosphatidyl choline)

The predigested protein must contain the following amino acids:

<u>Ingredient</u>	<u>Milligrams (mg)</u>
Lysine	82.5
Histidine	27.5
Arginine	40.0
Aspartic acid	72.5
Threonine	42.5
Serine	50.0
Glutamic acid	197.5
Proline	92.5
Glycine	22.5
Alanine	28.7

Cystine	4.7
Valine	66.2
Methionine	30.0
Isolencine	53.8
Leucine	87.5
Tyrosine	51.3
Phenylalanine	48.8
Tryptophan	18.8

The solution must be stirred continuously and heated to $50 \pm 1^{\circ}\text{C}$, then covered and cooled to approximately 35°C .

The solution must be stirred such that any solid particles are suspended in solution and poured into the test cup. The cup must be inverted to allow the synthetic perspiration to touch the specimen.

After 48 hours of contact with the solution, the specimen must be removed from the cup, rinsed in warm water, dried and tested for water permeability as specified in test procedure 6 except that the water pressure must be applied for 3 minutes.

8. Method ASTM D3886-99 (R2015) Procedure: Use No. 0 Emery Polishing Paper. Side abraded must be the knit side, with a multidirectional abrasion motion. Change abradant after each 300 cycles or specimen failure. The air pressure under the diaphragm should be 4 psi, and the load on the abradant plate should be 1 lb. Failure is determined by breaking of the electrical contact.
9. A minimum of 3 straight seams and 2 cross-over seams must be tested prior to laundry cycle testing and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge.
10. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) home laundry cycles and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge. Laundry testing should be performed in accordance with procedure specified in ISO

6330:2012 Method 2B-F.

11. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) dry clean cycles and remain waterproof (no leakage) when tested a 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure 3 except the face fabric must face the water challenge.

TABLE II
Properties of Laminated Shell Material I (Dark Navy Blue)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Colourfastness - To Light - Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
3	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
4	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
5	Dimensional Change to Laundering - After 5 cycles:	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D1
		Weft:	3% max	
6	Breaking Strength - Grab Method	Warp:	680.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	580.0 Newton (min)	
7	Tearing Strength	Warp:	18.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	20.0 Newton (min)	
8	Abrasion Resistance - Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1
9	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> ISO 4920:2012 OR <ul style="list-style-type: none"> AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
10	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

TABLE III
Properties of Mesh, Pocketing

REQUIREMENT				TEST METHODS
1	Colour	Black or Navy To match colour swatch provided by Uniform and Equipment Program		
2	Fiber Content	100% Polyester		• CAN/CGSB-4.2 No. 14-2005
3	Knit Construction	Warp Knit		
4	Yarns per inch	Wales: 33 ± 3 Courses: 28 ± 3		• ASTM D8007-15 ^{e1}
5	Mass	$115 \text{ g/m}^2 \pm 6 \text{ g/m}^2$ ($109 \text{ g/m}^2 - 121 \text{ g/m}^2$)		• CAN/CGSB-4.2 No. 5.1-M90 (2013) OR • ASTM D3776/D3776M-09a (2017)
6	Dimensional Change to Domestic Washing <i>After 5 cycles</i>	Warp:	4% max	• CAN/CGSB-4.2 No. 58-2019 3, D1
		Weft:	3% max	
7	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	• CAN/CGSB-4.2 No. 22-2004 (R2013)
		Wet:	Gray Scale 4 or better	
8	Colour fastness to Washing	Colour change:	Gray Scale 4 or better	• CAN/CGSB-4.2 No. 19.1-2004 Test 2 OR • AATCC 61-2013
		Staining – cotton:	Gray Scale 4 or better	
		Staining – polyester:	Gray Scale 4 or better	
9	Mullen Burst (psi)	100 (minimum)		• ASTM D3786/D3786M-13
10	Abrasion Resistance – Martindale Tester	No breakdown after 25,000 at 9 kPa		• ASTM D4966-12 (R2016) Option 1
11	Pilling	No less than 4 after 120 minutes		• ASTM D3512/D3512M-16

TABLE IV
Insulation Test Requirements

	TEST	RCMP REQUIREMENTS		TEST METHOD
1	Fibre content	90/10 White Goose Down feathers		
2	Weight	60 g/m ² ± 3 g/m ²		
3	CLO – Batt and Scrim	As received	2.3 (min.)	<ul style="list-style-type: none">ASTM D1518-14 <u>Washing:</u>ISO 6330:2012 Wash Procedure 7B, Dry Procedure F
		After 5 Washes	2.0 (min.)	
4	Fabric Thickness – Batt and Scrim	As received	10 mm ± 2 mm	<ul style="list-style-type: none">CAN/CGSB-4.2 No. 37-2002 (R2013)
		<u>Note:</u> Use applied pressure of 1 + 0.01 kPa for all measurements		
5	Dimensional Change in Laundering – Batt and Scrim <i>After 5 Washes</i>	Warp	3% (max.)	<ul style="list-style-type: none">ISO 3759:2011 Test 3 specimens <u>Washing:</u>ISO 6330:2012 Wash Procedure No. 7B, Dry Procedure F
		Weft	3% (max.)	

TABLE V
Micro Fleece

	TEST	RCMP REQUIREMENT		TEST METHOD
1	Colour	Black		
2	Knit	Fleece		
3	Fiber Content	100% Polyester $\pm 3\%$		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 14-2005
4	Mass	159 g/m ² ± 10 g/m ² (149 - 169) 4.7 oz/yd ² ± 0.3 oz/yd ² (4.4 – 5.0)		<ul style="list-style-type: none"> CAN/CGSB 4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> D3776/D3776M-09a (2017)
5	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 3 or better	
6	Colour fastness to Washing	Colour change:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 Test # 1 OR <ul style="list-style-type: none"> ISO 105-C06:2010
		Staining – cotton:	Gray Scale 4 or better	
		Staining – polyester:	Gray Scale 3 or better	
7	Dimensional Change to Domestic Washing <i>After 5 cycles</i>	Warp:	5% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019 3, D1
		Weft:	5% max	

Table VI
Slide Fastener Lengths in inches

Height Group	Sizes	Front	Inside Front	Side Seam	Sleeve Pocket	Chest Pocket	Lower Front Pocket	Inside Pocket
X Short	XX Small	23"	13½"	23½"	7"	5"	6½"	7"
	X Small	23½"	14½"	22"	7"	5"	7"	7"
	Small	24"	15"	22"	7"	5½"	8"	7"
	Medium	25"	15½"	23½"	7"	5½"	8"	7"
	Large	25½"	16½"	23½"	7"	6"	9"	7"
	X Large	26"	17½"	24"	7"	6½"	9"	7"
	2X Large	27"	18"	24"	7"	7"	9"	7"
	3X Large	27"	19"	24"	7"	7"	10"	7"
	4X Large	28"	20"	25½"	7"	7"	10"	7"
	5X Large	28½"	20½"	25½"	7"	7"	10"	7"
Short	XX Small	24"	15½"	24"	7"	5"	6½"	7"
	X Small	24"	16"	24"	7"	5"	7"	7"
	Small	25"	17"	24"	7"	5½"	8"	7"
	Medium	25½"	18"	25½"	7"	5½"	8"	7"
	Large	26"	18½"	25½"	7"	6"	9"	7"
	X Large	27"	19½"	26"	7"	6½"	9"	7"
	2X Large	27½"	20"	26"	7"	7"	9"	7"
	3X Large	28"	21"	26"	7"	7"	10"	7"
	4X Large	29"	22"	27½"	7"	7"	10"	7"
	5X Large	29"	22½"	27½"	7"	7"	10"	7"
Regular	XX Small	24½"	17½"	26"	8"	5"	6½"	7"
	X Small	25"	18"	26"	8"	5"	7"	7"
	Small	26"	19"	26"	8"	5½"	8"	7"
	Medium	26"	20"	27½"	8"	5½"	8"	7"
	Large	27"	20½"	27½"	8"	6"	9"	7"
	X Large	27½"	21½"	28"	8"	6½"	9"	7"
	2X Large	28"	22"	28"	8"	7"	9"	7"
	3X Large	29"	23"	28"	8"	7"	10"	7"
	4X Large	29½"	24"	29½"	8"	7"	10"	7"
	5X Large	30"	24½"	29½"	8"	7"	10"	7"
Tall	XX Small	25"	19½"	28"	8"	5"	6½"	7"
	X Small	26"	20"	28"	8"	5"	7"	7"
	Small	26½"	21"	28"	8"	5½"	8"	7"
	Medium	27"	22"	29½"	8"	5½"	8"	7"
	Large	28"	22½"	29½"	8"	6"	9"	7"
	X Large	28½"	23½"	30"	8"	6½"	9"	7"
	2X Large	29"	24"	30"	8"	7"	9"	7"
	3X Large	30"	25"	30"	8"	7"	10"	7"
	4X Large	30"	25½"	31½"	8"	7"	10"	7"
	5X Large	31"	26"	31½"	8"	7"	10"	7"
X Tall	XX Small	26"	21½"	30"	8"	5"	6½"	7"
	X Small	27"	22"	30"	8"	5"	7"	7"
	Small	27"	23"	30"	8"	5½"	8"	7"
	Medium	28"	24"	31½"	8"	5½"	8"	7"
	Large	28½"	24½"	31½"	8"	6"	9"	7"
	X Large	29"	25½"	32"	8"	6½"	9"	7"
	2X Large	30"	26"	32"	8"	7"	9"	7"
	3X Large	30½"	27"	32"	8"	7"	10"	7"
	4X Large	31"	27½"	33½"	8"	7"	10"	7"
	5X Large	31"	28½"	33½"	8"	7"	10"	7"
XX Tall	XX Small	27"	23½"	32"	8"	5"	6½"	7"
	X Small	27½"	24"	32"	8"	5"	7"	7"
	Small	28"	25"	32"	8"	5½"	8"	7"
	Medium	29"	25½"	33½"	8"	5½"	8"	7"
	Large	29"	26½"	33½"	8"	6"	9"	7"
	X Large	30"	27"	34"	8"	6½"	9"	7"
	2X Large	30½"	28"	34"	8"	7"	9"	7"
	3X Large	31"	29"	34"	8"	7"	10"	7"
	4X Large	32"	29½"	35½"	8"	7"	10"	7"
	5X Large	32"	30½"	35½"	8"	7"	10"	7"

Table VII
Hook and Loop Tape Measurements

Location	Loop Tape		Hook Tape	
	Dimension	Location	Dimension	Location
Collar	3.5 cm x 2.5 cm (3 pieces)	outside of collar placed under dome fastener, see pattern for placement		
Name Tag Holder	8.5 cm x 2.5 cm	outer right front yoke contrast, see diagram and pattern for placement		
Back Yoke			5 cm x 2.5 cm (2 pieces)	sewn to inside back yoke facing inside, see pattern for placement
Back Police Patch	5 cm x 2.5 cm (2 pieces)	Applied facing inside of yoke see dwg. 6		
Front Police Patch	6 cm x 1.6 cm	centred on hideaway flap facing inside	6 cm x 1.6 cm	applied to inside of front yoke facing
Sleeve Cuffs	12 cm x 2.5 cm	cuff	4.5 cm x 2.5 cm	adjustment strap
Cold Weather Hood			3.5 cm x 2.5 cm (1 pieces) 6 cm x 2.5 cm (2 pieces)	Inside hood bottom facing placed under dome fasteners, see pattern for placement
	10 cm x 2 cm (3 pieces)	left front - 2 pieces applied to inside right front - 1 piece applied to outside spaced 65mm apart	10 cm x 2 cm (3 pieces)	left front - 1 piece applied to inside right side - 2 pieces applied to inside spaced 65mm apart
Standard Detachable Hood			3.5 cm x 2.5 cm (3 pieces)	Inside hood bottom facing placed under dome fasteners, see pattern for placement
	10 cm x 2 cm (3 pieces)	left front - 2 pieces applied to inside right front - 1 piece applied to outside	10 cm x 2 cm (3 piece)	left front - 1 piece applied to inside right side - 2 pieces applied to inside
Length Tolerance for all ± 0.5 cm – Width Tolerance for all ± 0.2 cm				

Table VIII
Shoulder Strap Lengths

Scale of Measurements – Shoulder Strap Length (Finished)	
Jacket Size (All Heights)	Dimension “A”
X-Small	14.25
Small	15.25
Medium	16.25
Large	17.25
X-Large	18.25
2X-Large	19.25
3X-Large	20.25
4X-Large	21.25
5X-Large	22.25
Tolerance ±	0.5

NOTE: All dimensions are in centimeters unless otherwise indicated.

APPENDIX A

Scaled Pattern Identifier

Pattern Title: Parka, Inclement and Hoods

Patterns - Patterns are available from the RCMP, Uniform and Equipment Program. Firms requested to produce Pre-Award Samples will be provided with the base pattern only. The full set of patterns in individual sizes will be provided to the successful bidder after the contract is awarded. The bidder will receive the files electronically in a .DXF format unless paper is requested.

The paper patterns include seam allowances, drill holes and/or placement templates. Punch holes must not be used on this garment with the exception of the placement of the shoulder badge and the holes must be completely covered by the shoulder badge. All pieces must be cut in the direction indicated on the grain line of the pattern pieces. The scale of measurements indicates the finished garment measurements however the patterns may not reflect the same measurements. The manufacturer is responsible for making changes to the pattern, if necessary, in order to meet the scale of measurements, adjust for shrinkage/stretch and/or to suit the production process, however, the design and grade must not be affected or changed.

All patterns are the property of the RCMP and must be returned upon completion of the contract. Electronic patterns must be deleted from the Contractor's files.

Pattern Pieces:

Parka Inclement - 50 pattern components

Cold Weather Hood - 14 pattern components

Legend:

Shell Material I	= Para. 4.1.2
Shell Material I (Tricot RSU)	= Para. 4.1.2 (inside face) Right Side Up
Fleece Lining	= Para. 4.1.4
Lining Material	= Para. 4.1.5
Mesh Pocketing	= Para. 4.1.6
Cut 1 Single	= Cut 1
Cut 1 Paired	= Cut 2
Cut 2 Paired	= Cut 4
(RSU)	= Right Side Up

Pattern Components	Nomenclature	Quantity to be cut	Material
# 1 of 50	Back	1 Single	Shell Material I
# 2 of 50	Chest Pocket Zip Stay	1 Paired	Shell Material I
# 3 of 50	Draw Cord Channel - Back	1 Single	Shell Material I (Tricot RSU)
# 4 of 50	Middle Front	1 Paired	Shell Material I
# 5 of 50	Draw Cord Channel - Front	1 Paired	Shell Material I (Tricot RSU)
# 6 of 50	Under Fly Front	1 Paired	Shell Material I
# 7 of 50	Storm Flap	1 Paired	Shell Material I
# 8 of 50	Shoulder Strap	2 Paired	Shell Material I
# 9 of 50	Front Facing "A"	1 Paired	Shell Material I
#10 of 50	Front Facing "B"	1 Paired	Shell Material I
#11 of 50	Sleeve	1 Paired	Shell Material I
#12 of 50	Sleeve - Upper Back	1 Paired	Shell Material I
#13 of 50	Sleeve - Lower Back	1 Paired	Shell Material I
#14 of 50	Cuff	1 Paired	Shell Material I
#15 of 50	Elasticized Cuff	1 Paired	Shell Material I
#16 of 50	Cuff Adjustment Strap	1 Paired	Shell Material I
#17 of 50	Top Collar	1 Single	Shell Material I
#18 of 50	Under Collar	1 Single	Shell Material I
#19 of 50	Top Collar Stand	1 Single	Shell Material I (Tricot RSU)
#20 of 50	Hem Facing - Front	1 Paired	Shell Material I
#21 of 50	Hem Facing - Back	1 Single	Shell Material I
#22 of 50	Yoke Facing - Front	1 Paired	Shell Material I
#23 of 50	Yoke Front - Right	1 Single	Shell Material I
#24 of 50	Yoke Front - Left	1 Single	Shell Material I
#25 of 50	Yoke - Back	1 Single	Shell Material I
#26 of 50	Hideaway Police Patch - Back	1 Single	Shell Material I (RSU)
#27 of 50	Hideaway Police Patch - Front	1 Single	Shell Material I (RSU)

Pattern Components	Nomenclature	Quantity to be cut	Material
#28 of 50	Pen Loop	1 Single	Shell Material I
#29 of 50	Pocket - Upper Sleeve	1 Paired	Shell Material I
#30 of 50	Pocket - Lower Front	1 Paired	Shell Material I
#31 of 50	Pocket - Lower Front Flap	1 Paired	Shell Material I
#32 of 50	Pocket Bag - Inside Chest	1 Paired	Mesh Pocketing
#33 of 50	Pocket Bag - Chest "A"	1 Paired	Mesh Pocketing
#34 of 50	Pocket Bag - Chest "B"	1 Paired	Mesh Pocketing
#35 of 50	Pocket Bag - Lower Front	1 Paired	Shell Material
#36 of 50	Yoke - Inside Back	1 Single	Lining Material
#37 of 50	Pocket - Lower Front Fleece	1 Paired	Fleece Material
#38 of 50	Hood Front (Hood # 1)	1 Paired	Shell Material I
#39 of 50	Hood Centre (Hood #1)	1 Single	Shell Material I
#40 of 50	Hood Bottom Facing (Hood #1)	1 Paired	Shell Material I (Tricot RSU)
#41 of 50	Hood Facing - Front A (Hood #1)	1 Paired	Shell Material I (Tricot RSU)
#42 of 50	Hood Facing - Front B (Hood #1)	1 Paired	Shell Material I
#43 of 50	Hood Channel (Hood # 1)	1 Single	Shell Material I
#44 of 50	Abrasion Panel - Back "A"	1 Single	Shell Material I
#45 of 50	Abrasion Panel - Back "B"	1 Paired	Shell Material I (Tricot RSU)
#46 of 50	Abrasion Panel - Back "C"	1 Paired	Shell Material I (Tricot RSU)
#47 of 50	Abrasion Panel - Front "A"	1 Paired	Shell Material I
#48 of 50	Abrasion Panel - Centre Front "B"	1 Paired	Shell Material (Tricot RSU)
#49 of 50	Abrasion Panel - Front "C"	1 Paired	Shell Material I (Tricot RSU)
#50 of 50	Abrasion Panel - Front "D"	2 Paired	Shell Material I (Tricot RSU)

Cold Weather (CW) Hood

Pattern Components	Nomenclature	Quantity to be cut	Material
# 1 of 14	CW Hood - Front (Hood # 2)	1 Paired	Shell Material I
# 2 of 14	CW Hood - Side (Hood # 2)	1 Paired	Shell Material I
# 3 of 14	CW Hood - Centre (Hood # 2)	1 Single	Shell Material I
# 4 of 14	CW Hood Casing - Front (Hood # 2)	1 Paired	Shell Material I
# 5 of 14	CW Hood Casing - Side (Hood # 2)	1 Paired	Shell Material I
# 6 of 14	CW Hood Casing - Centre Back (Hood #2)	1 Single	Shell Material I
# 7 of 14	CW Hood - Centre Back Cover (Hood #2)	1 Single	Shell Material I
# 8 of 14	CW Facing - Hood Bottom (Hood # 2)	1 Single	Shell Material I
# 9 of 14	CW Hood - Front Extension (Hood # 2)	1 Single	Shell Material I
#10 of 14	CW Fur (Hood # 2)	1 Single	Fur
#11 of 14	CW Hood - Fur Facing (Hood # 2)	1 Single	Shell Material I
#12 of 14	CW Hood - Front Lining (Hood # 2)	1 Paired	Fleece Material
#13 of 14	CW Hood - Side Lining (Hood # 2)	1 Paired	Fleece Material
#14 of 14	CW Hood - Center Lining (Hood # 2)	1 Single	Fleece Material

APPENDIX B

CARE INSTRUCTIONS

Applicable To:

Jacket Patrol Unisex
Jacket High Visibility
Jacket, Patrol, Unisex, Auxiliary
Parka Inclement & Hood Cold Weather (without the fur trim)
Trousers Inclement

These garments are designed to be both waterproof and water repellent. The best way to maintain its performance is to **keep them clean by washing it regularly**. When the water no longer beads up and rolls off, use a water based, solvent free, non-flammable DWR product to restore the water repellency. The following care instructions should ensure a normal life cycle for your garments. These garments should be washed after 10-12 days of continuous use or every 20-30 days with occasional use.

The water repellency, waterproofness and breathability of your garment are affected by the following;

1. Dirt buildup and other contaminants including oils, sunscreen and sweat reduce the effectiveness of the water repellency.
2. Fabric softeners have a detrimental effect on the colour and the waterproofness and water repellency of the fabric. They will make the colour fade more quickly and affect the overall performance of the fabric. These include liquid fabric softeners, detergents that contain softeners and dryer sheets. Therefore, it is very important that these softeners not be used when laundering your garment.

Machine Wash:

- DO NOT COMMERCIAL LAUNDRY
- DO NOT WASH FUR

Close all zippers, fasteners and velcro before washing.

Wash in warm water separately, without detergent. **DO NOT USE FABRIC SOFTENERS OR POWDERED DETERGENTS OR ANY LIQUID DETERGENTS THAT CONTAIN FABRIC SOFTENERS. DO NOT USE BLEACH.**

If heavily soiled, a small amount of detergent or specialty wash products (**i.e. Grangers® Performance Wash, Fibertec Pro Wash or ReviveX® Synthetic fabric cleaner**) for waterproof garments may be used.

At the end of the final rinse cycle, re-adjust the garment in the washer, and put it through an additional rinse cycle. This will assure complete rinsing of detergent that may have been trapped during washing, therefore preserving water repellency.

Drying:

Close all zippers, fasteners and velcro before drying.

If re-application of DWR is necessary, hang wet garment on hanger and follow application instructions of DWR product. (**i.e. Grangers® XT Waterproof spray, Fibertec Blue Guard Spray-on, Revivex® Spray-On or Nikwax Tx-Direct™**)

The garment **must** be tumble dried separately on a warm setting for 50 minutes to reactivate the durable water repellency (DWR.). **DO NOT USE DRYER SHEETS.**

If necessary, touch up with steam iron at low temperature.

Dry Cleaning:

If dry cleaned, request clear distilled solvent rinse and DWR spray repellent.

INSTRUCTIONS D'ENTRETIEN

Applicable à :

Blouson de patrouille unisexe

Veste haute visibilité

Blouson de patrouille unisexe pour auxiliaires

Parka pour intempéries et capuchon pour temps froid (sans la bordure de fourrure)

Pantalons pour intempéries

Ces vêtements sont conçus pour être imperméables et déperlants. La meilleure façon de préserver leurs propriétés est de les **garder propres en les lavant régulièrement**. Lorsque l'eau ne perle plus, utiliser un produit déperlant durable à base d'eau, sans solvant et ininflammable pour restaurer la déperlance. Les instructions d'entretien ci-dessous permettront d'assurer le rendement optimal des vêtements. Ces vêtements devraient être lavés après 10 à 12 jours d'utilisation continue ou à tous les 20 à 30 jours d'utilisation occasionnelle.

Les conditions suivantes peuvent influencer sur l'imperméabilité, la déperlance et la respirabilité des vêtements :

1. L'accumulation de saletés et d'autres contaminants comme de l'huile, de la crème solaire ou de la sueur peut réduire l'imperméabilité.
2. Les agents assouplissants influent sur la couleur, la déperlance et l'imperméabilité. Ils décolorent les tissus plus rapidement et nuisent à leur rendement général. Il est très important de n'utiliser **aucun** type d'assouplissant (agent assouplissant liquide, détergent avec assouplissant et assouplissant en feuilles).

Lavage à la machine :

- NE PAS LAVER DANS UNE BUANDERIE COMMERCIALE
- NE PAS LAVER LA FOURRURE

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de laver.

Laver séparément à l'eau tiède, sans détergent. **NE PAS UTILISER D'AGENT ASSOUPLEISSANT NI DE DÉTERGENT EN POUDRE OU LIQUIDE AVEC ASSOUPLEISSANT. NE PAS UTILISER D'AGENT DE BLANCHIMENT.**

Si le vêtement est très sale, une petite quantité de détergent ou de produit spécifiquement conçu pour l'entretien des vêtements imperméables (**p. ex. nettoyant haute performance de Granger's^{MD}, produit Pro Wash de Fibertec ou nettoyant pour tissus synthétiques ReviveX^{MD}**) peut être utilisée.

À la fin du dernier cycle de rinçage, replacer le vêtement dans la machine et entreprendre un autre cycle de rinçage, afin d'éliminer complètement le détergent qui peut être resté durant le lavage et de préserver la déperlance.

Séchage :

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de sécher.

Si un nouveau traitement déperlant est requis, suspendre le vêtement mouillé sur un cintre et suivre les instructions du fabricant du produit (**p. ex. imperméabilisant à vaporiser XT de Granger's^{MD}, Blue Guard de Fibertec, Revivex^{MD} ou Tx-Direct^{MC} de Nikwax**).

Le vêtement **doit** être séché séparément par culbutage à basse température pendant 50 minutes, afin de réactiver les propriétés déperlantes. **NE PAS UTILISER D'ASSOUPLEISSANT EN FEUILLES.**

Au besoin, repasser légèrement à basse température.

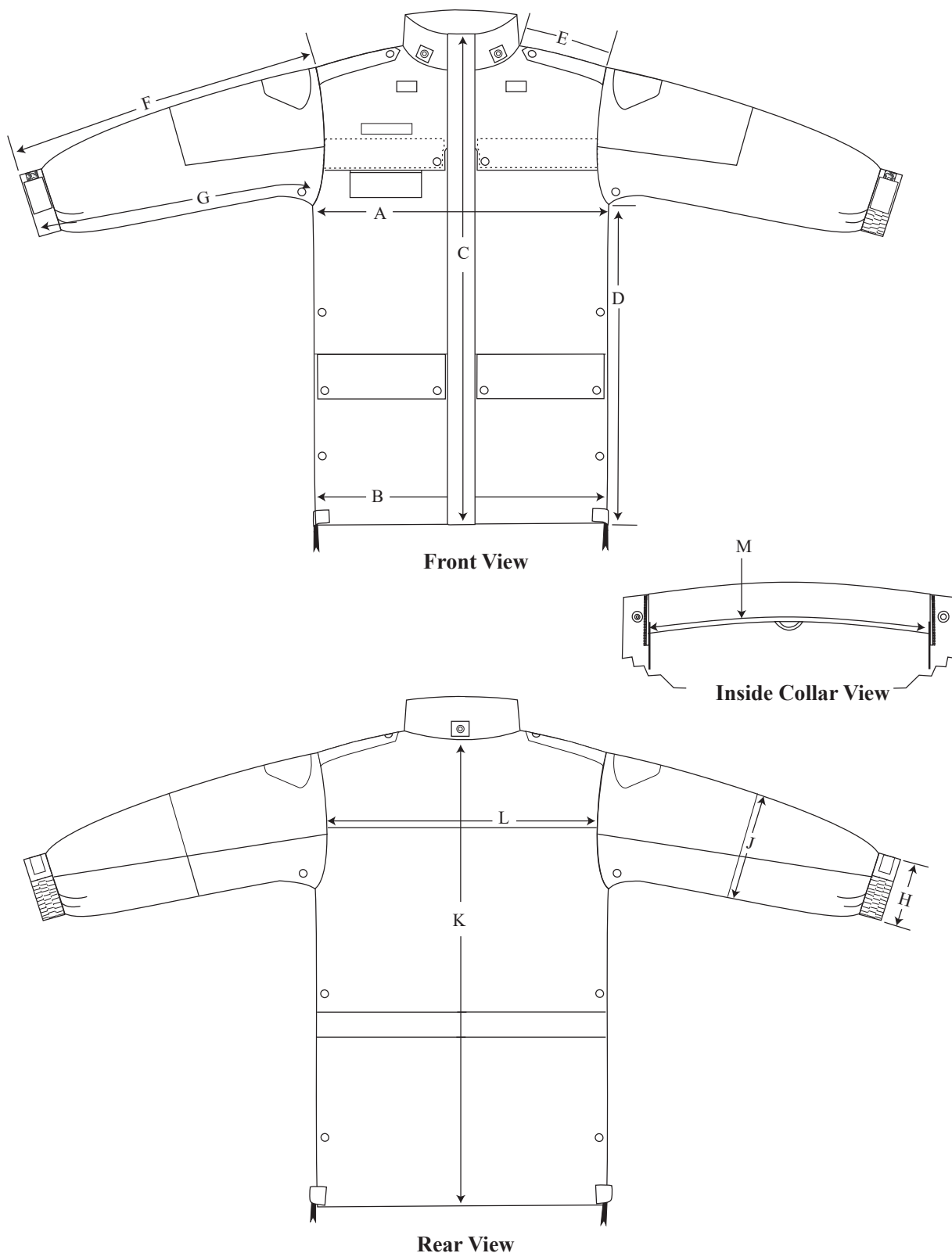
Nettoyage à sec :

Si le vêtement est nettoyé à sec, demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit déperlant à vaporiser.

Drawing 1

G.S. 1045-307

Parka, Inclement and Cold Weather Hood Measurement Location



NOT TO SCALE

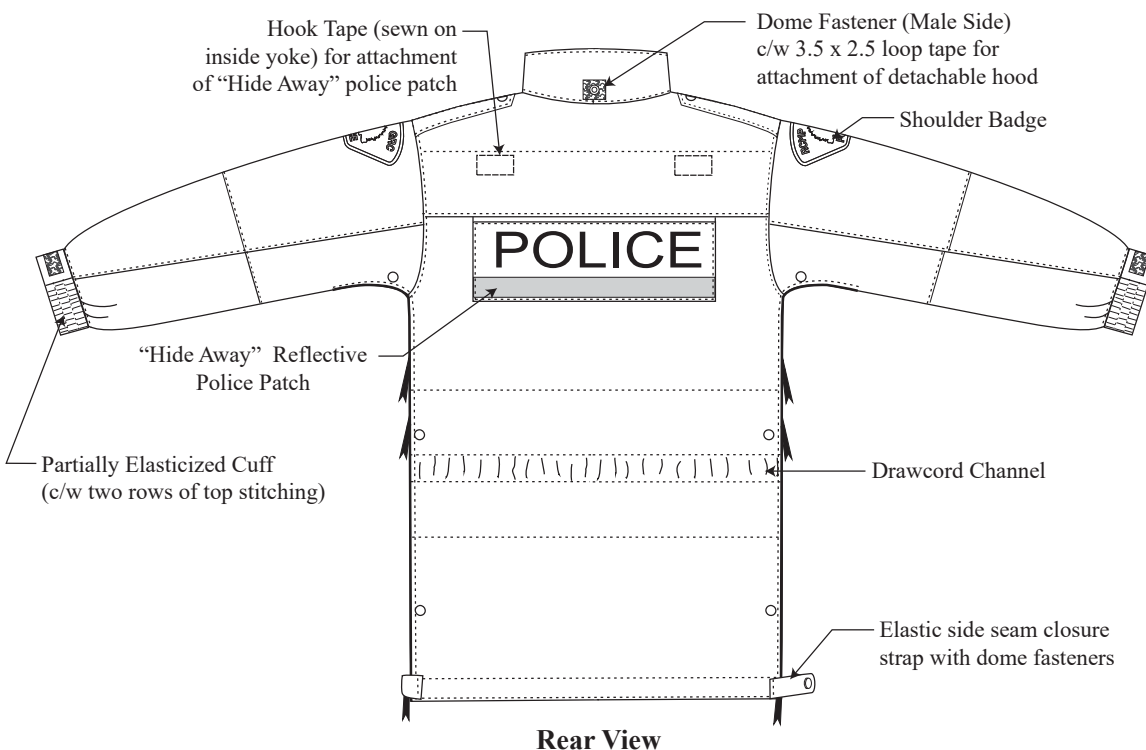
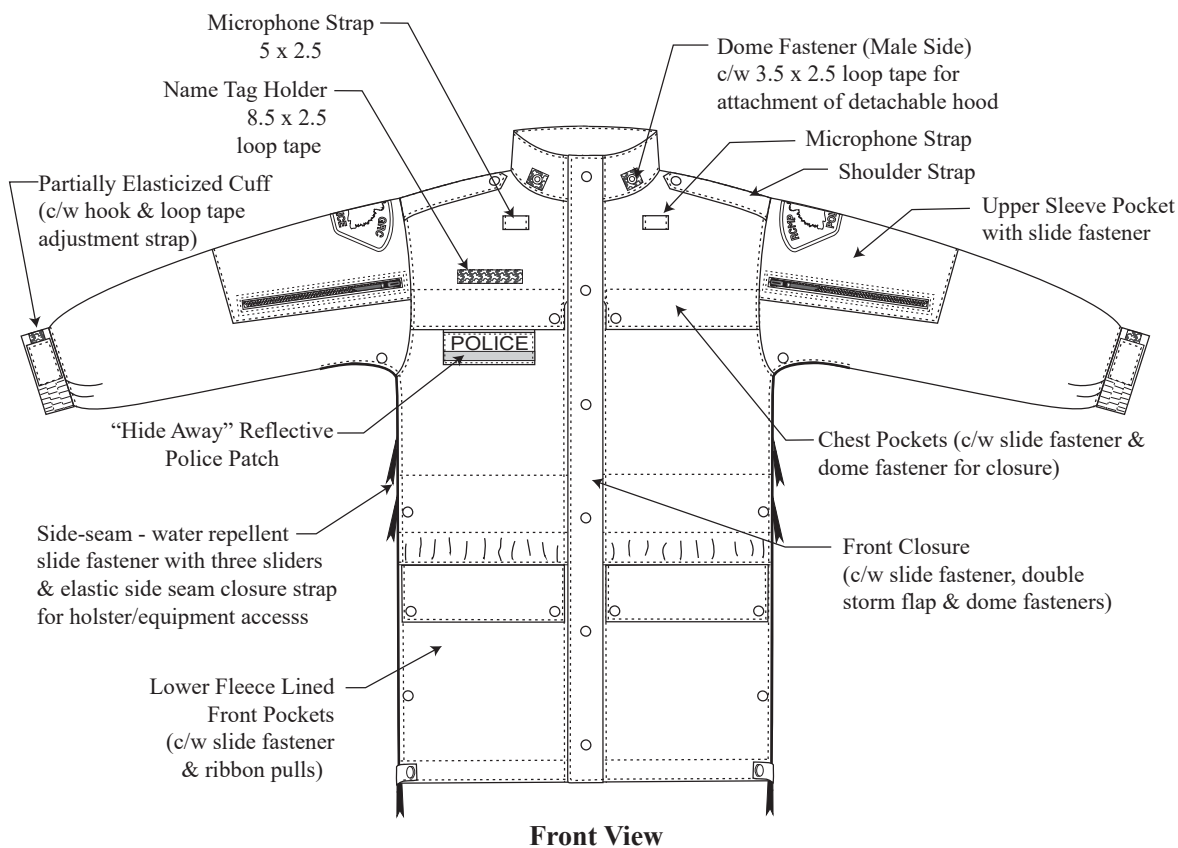
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 2

G.S. 1045-307

Parka, Inclement and Cold Weather Hood



NOT TO SCALE

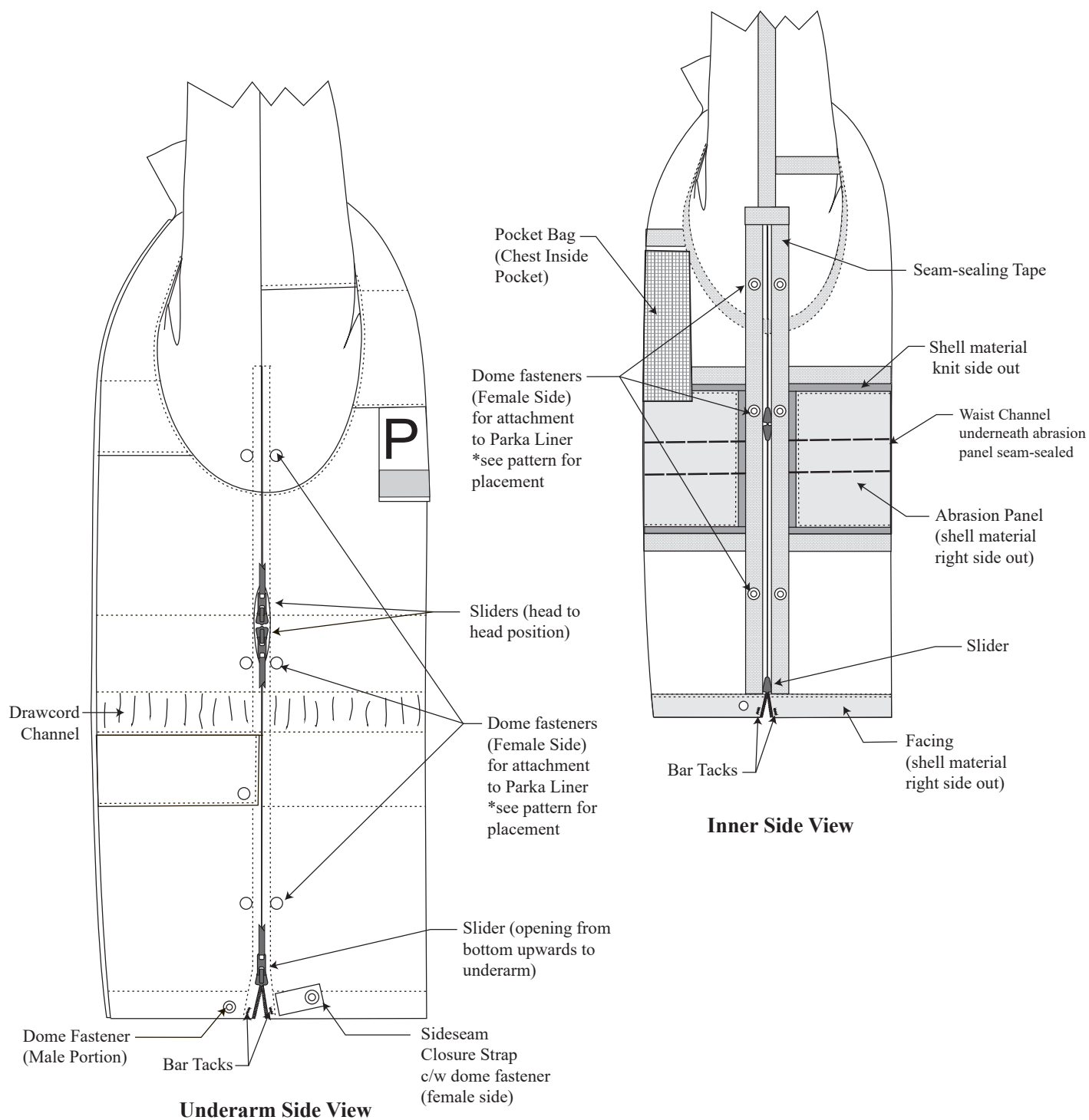
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 3

G.S. 1045-307

Parka, Inclement and Cold Weather Hood Underarm & Inner Side View Detail



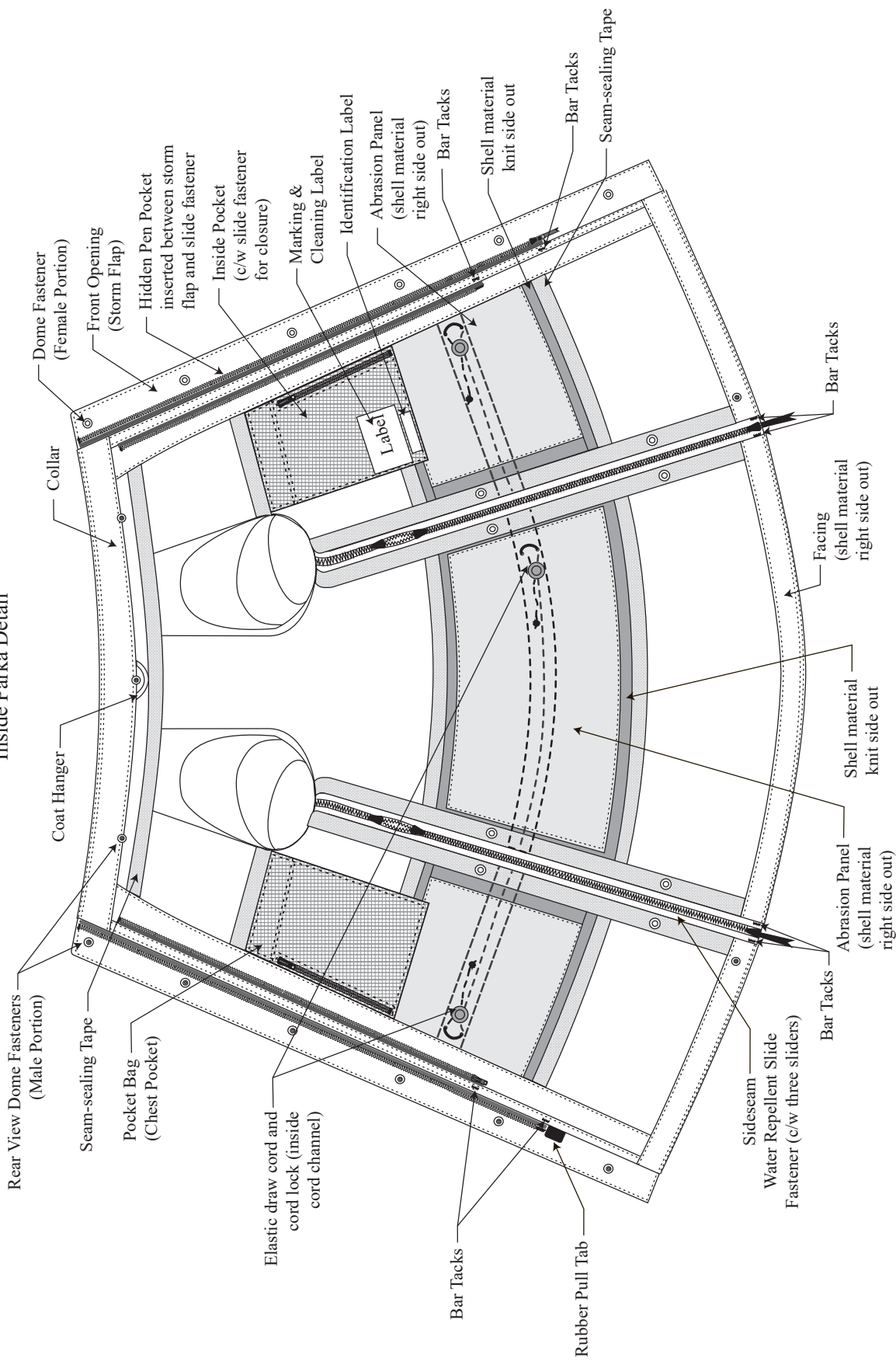
NOT TO SCALE

All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 4

Parka, Inclement and Cold Weather Hood Inside Parka Detail



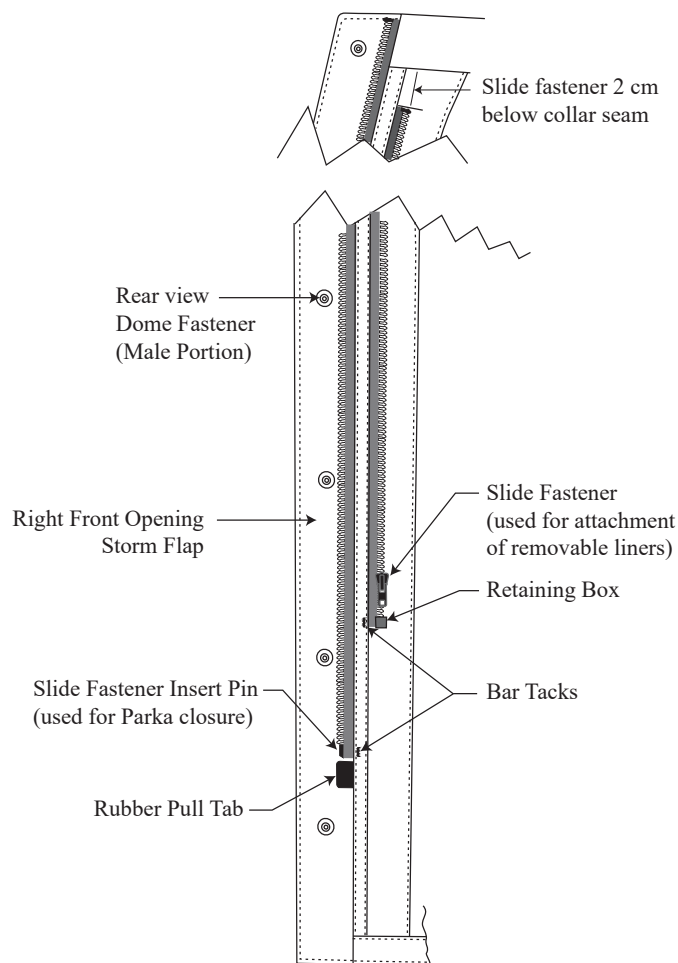
NOT TO SCALE

All measurements are shown in centimeters.
± 0.5 cm tolerance acceptable unless otherwise indicated.

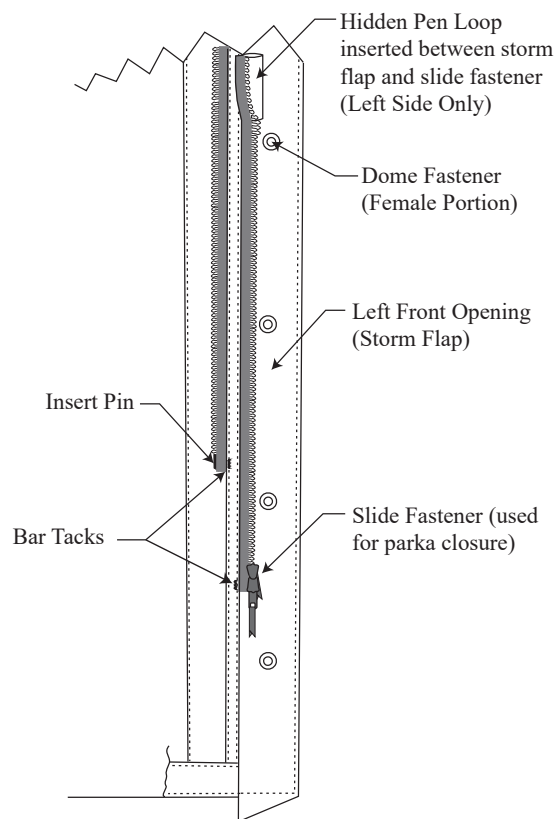
Drawing 5

G.S. 1045-307

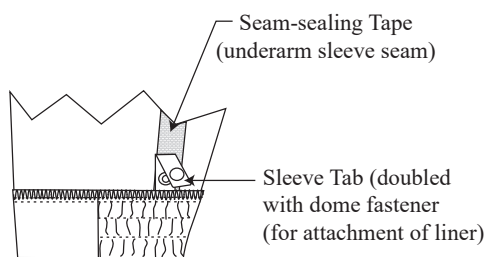
Parka, Inclement and Cold Weather Hood Slide Fastener, Shoulder Strap & Inside Cuff Detail



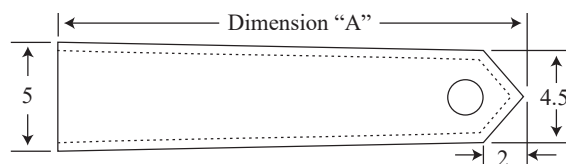
**Slide Fastener Detail
Right Front (Inside View)**



**Slide Fastener Detail
Left Front (Inside View)**



Inside Cuff Detail



Shoulder Strap Detail

NOT TO SCALE

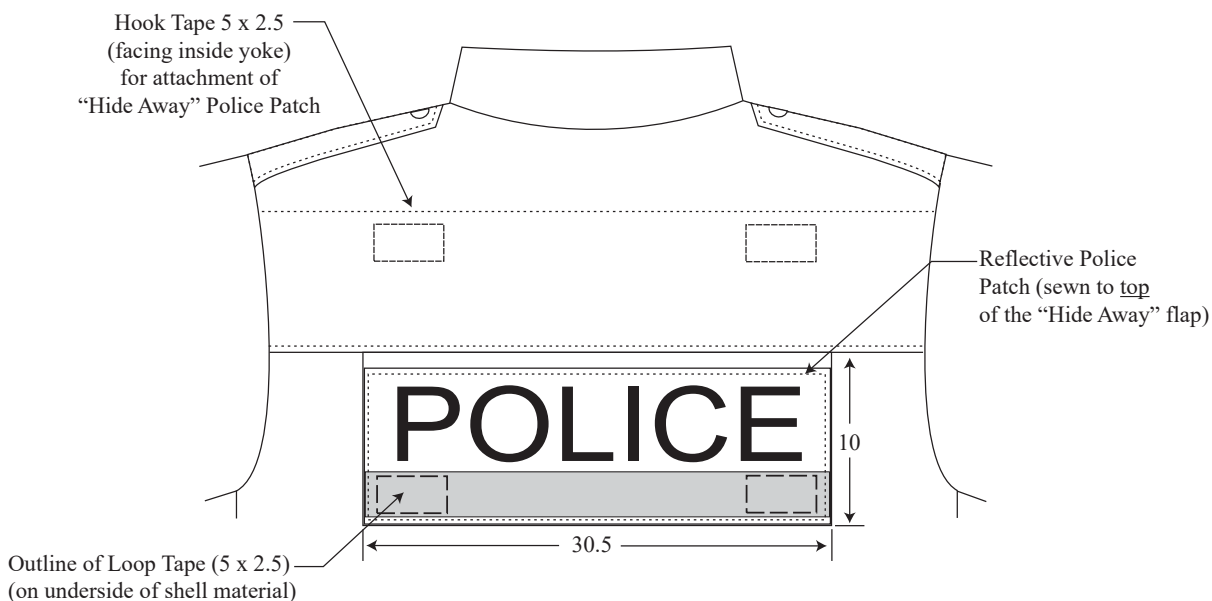
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

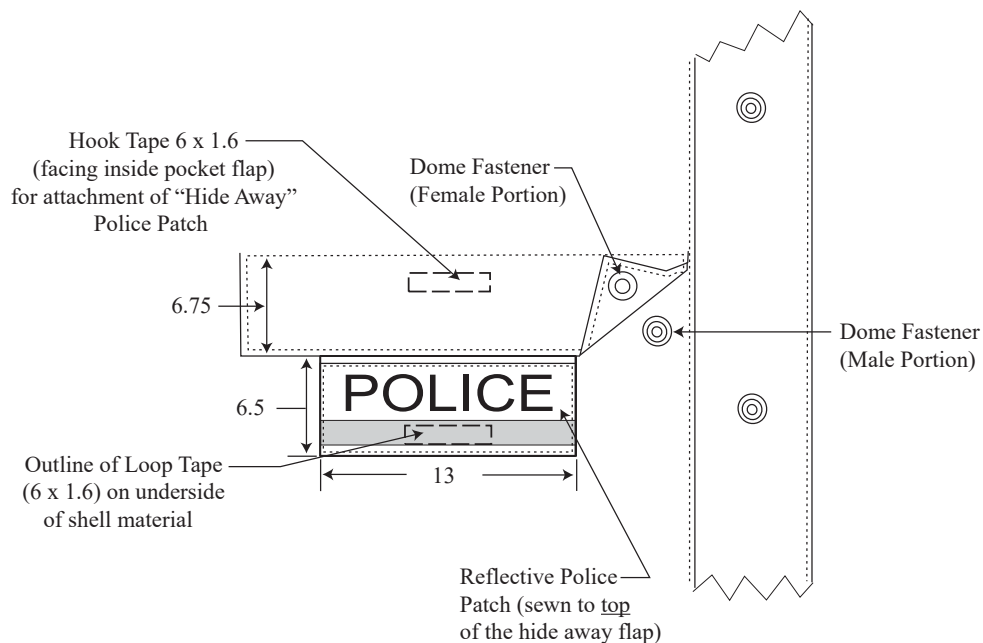
Drawing 6

G.S. 1045-307

Parka, Inclement and Cold Weather Hood “Hide Away” Reflective Police Patch & Chest Pocket Detail



Large Back Police Patch



Chest Pocket Detail shown with corner folded up

NOT TO SCALE

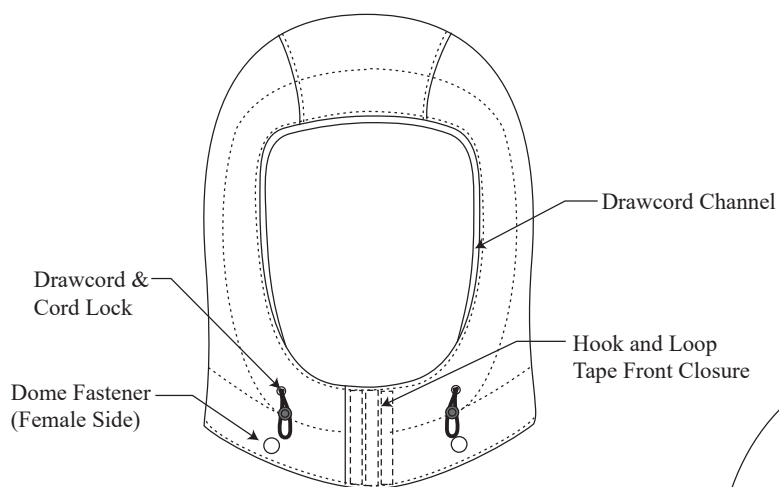
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

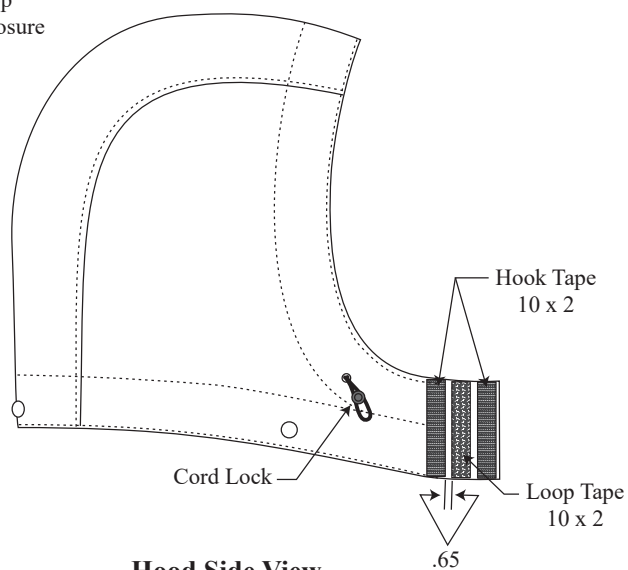
Drawing 7

G.S. 1045-307

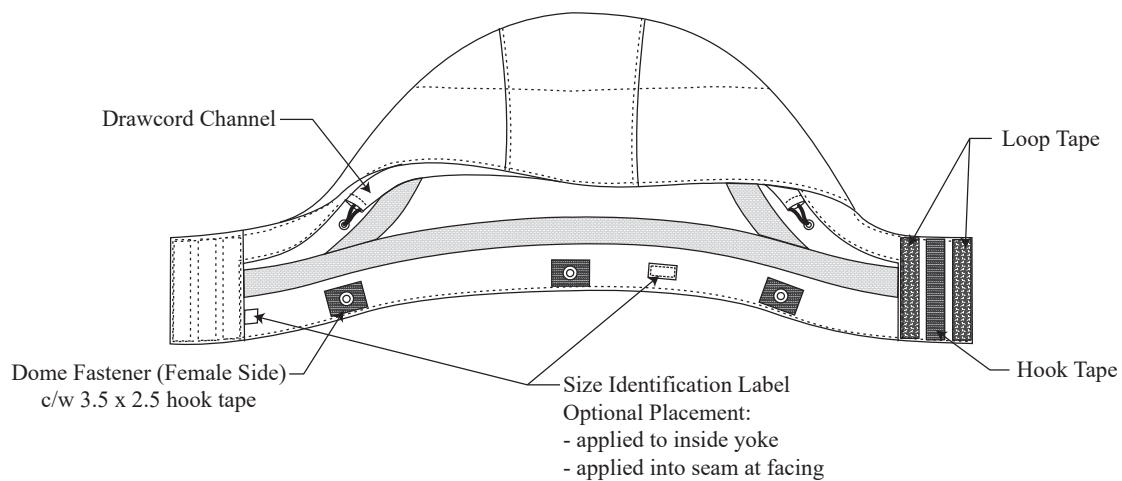
Parka, Inclement and Cold Weather Hood Standard Detachable Hood Detail



Hood Front View



Hood Side View



Inside Front View

NOT TO SCALE

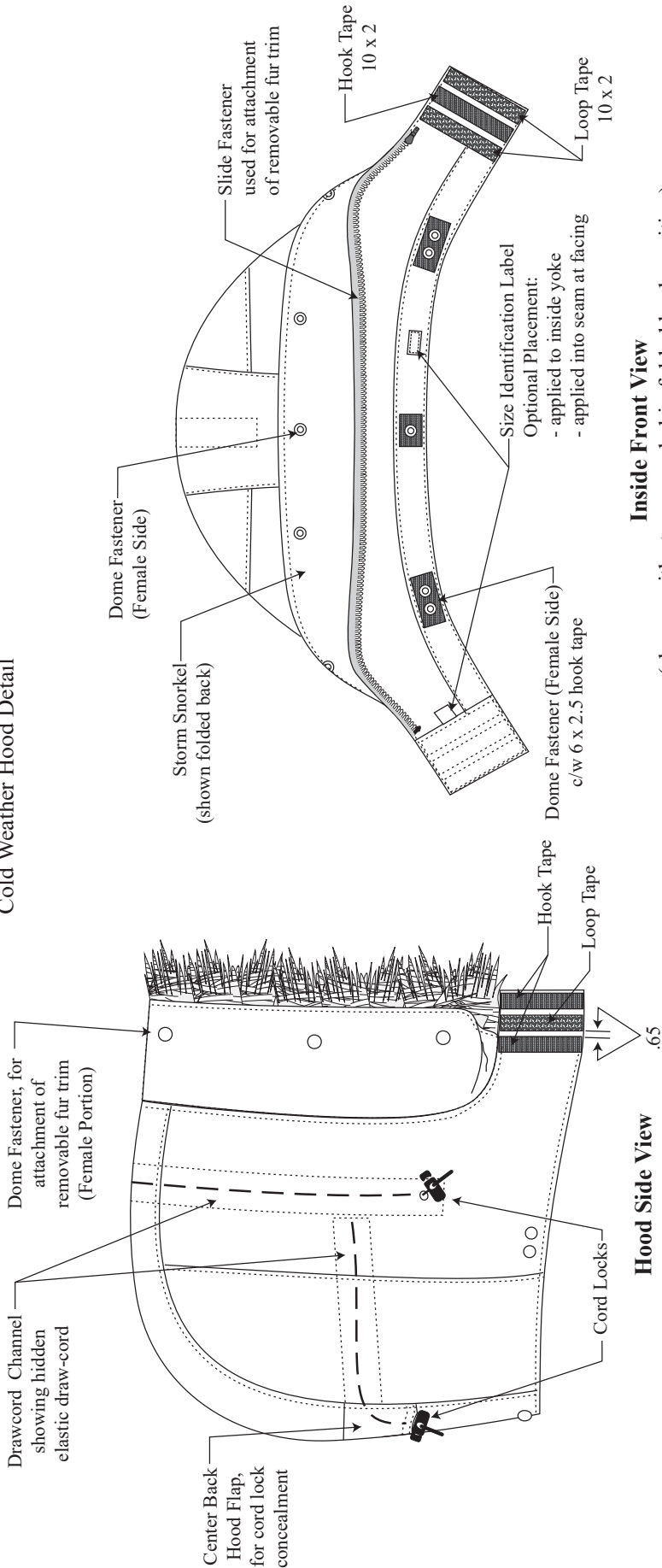
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

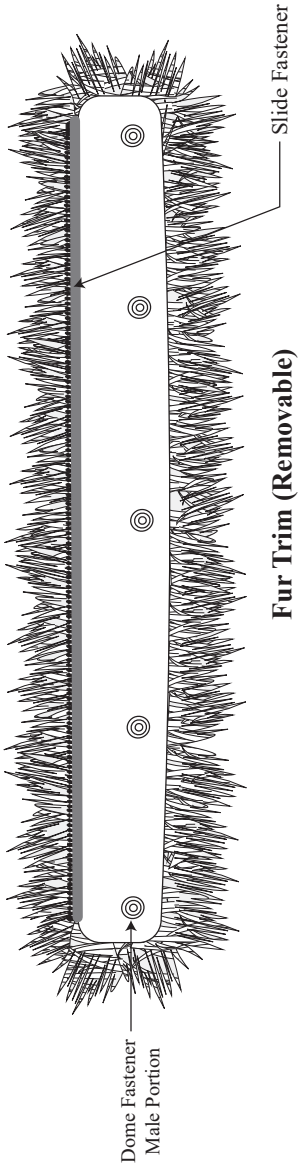
Drawing 8

G.S. 1045-307

Parka, Inclement and Cold Weather Hood
Cold Weather Hood Detail



Hood Sizes	Slide Fastener Lengths
XX Small/ X Small	23 inches
Small/ Medium	24 inches
Large/ XL	25 inches
2XL/ 3XL	26 inches
4XL/ 5XL	27 inches



NOT TO SCALE
All measurements are shown in centimeters.
± 0.5 cm tolerance acceptable unless otherwise indicated.



Royal Canadian Mounted Police
Gendarmerie royale du Canada

Doc. no: G.S. 1045-310
Date: 2019-11-25

Specification

Jacket, High Visibility

This document has 46 pages including the drawings.

This document was created in English.

The document is available in English and French.

☒ English/Anglais
Français/French

The photograph on this page is for reference only.



Modifications

[illegible]

RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification must govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform and Equipment Program
(440 Coventry Road, Warehouse Building)
73 Leikin Drive
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample must be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples must be replaced by an identical item or the RCMP must be reimbursed for the cost of an acceptable replacement.

SPECIFICATION
Jacket, High Visibility

1. Definitions

- 1.1 This specification must govern the manufacture and inspection of Jacket, High Visibility. The specific item covered under this specification with stock number is as follows:
 - i. 3985 Jacket, High Visibility / Veste haute visibilité
 - ii. 3986-000 Jacket, High Visibility, Special / Veste haute visibilité, taille spéciale
- 1.2 This specification, pattern, drawing, viewing sample, or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for RCMP Jacket, High Visibility and/or purchase descriptions for RCMP Rain suit, High Visibility.
- 1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.
- 2.2 **Canadian General Standards Board (CAN/CGSB);**

4.2 No. 5.1-M90 (R2013)	Textile test methods – Unit mass of fabrics
4.2 No. 9.2-M90 (R2013)	Textile test methods – Breaking strength of fabrics — Grab method
4.2 No. 12.3-2005 (R2013)	Textile test methods – Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)
4.2 No. 14-2005	Textile test methods – Quantitative Analysis of Fibre Mixtures
4.2 No. 19.1-2004 (R2013)	Textile test methods – Colourfastness to washing, Accelerated test

- | | |
|--------------------------|---|
| 4.2 No. 22-2004 (R2013) | Textile test methods – Colourfastness to rubbing (Crocking) |
| 4.2 No. 23-M90 (R2013) | Textile test methods – Colourfastness to perspiration |
| 4.2 No. 26.3-2010 | Textile test methods – Textile Fabrics — Determination of Resistance to Water Penetration — Hydrostatic Pressure Test |
| 4.2 No. 26.5-M89 (R2013) | Textile test methods – Water resistance — High pressure penetration test |
| 4.2 No. 49-99 (R2013) | Textile test methods – Resistance of materials to water vapour diffusion |
| 4.2 No. 58-2019 | Textile test methods – Dimensional change in domestic laundering of textiles |
| 86.1-2003 | Care Labelling of Textiles |
- 2.3 **Canadian Standards Association (CSA Group)**
Z96-15 High-visibility safety apparel
- 2.4 **General Services Administration – US Government**
Commercial Item Description
A-A-50199A Thread, Polyester Core, Cotton or Polyester-Covered
- 2.5 **General Services Administration – US Government**
Federal Standard, Textile Test Methods; (FED-STD No. 191A)
Method 4108 Strength and Elongation, Breaking; Textile Webbing, Tape and Braided Items
Method 5516 Water Resistance of Cloth; Water Permeability, Hydrostatic Pressure Method
- 2.6 **American Society for Testing and Materials (ASTM)**
D2097-03 (2010) Standard Test Method for Flex Testing of Finish on Upholstery Leather
D413-98 (2017) Standard Test Methods for Rubber Property- Adhesion to Flexible Substrate
D1424-09 (R2013) Standard Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type)
D3512/D3512-16 Standard Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Random Tumble Pilling Tester
D3776/D3776M-09a (2017) Standard Test Method for Mass per Unit Area (Weight) of Fabric

D3786/D3786M-13	Standard Test Method for Bursting Strength of Textile Fabrics—Diaphragm Bursting Strength Tester
D3886-99 (R2015)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Inflated Diaphragm Apparatus) ¹
D4966-12 (R2016)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)
D5034-09 (R2013)	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
D5169-98 (R2015)	Standard Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners
D5170-98 (R2015)	Standard Test Method for Peel Strength (“T” Method) of Hook and Loop Touch Fasteners
D8007-15 ^{e1}	Standard Test Method for Wale and Course Count of Weft Knitted Fabrics
E808-01 (R2016)	Standard Practice for Describing Retroreflection ¹
E809-08 (R2013)	Standard Practice for Measuring Photometric Characteristics of Retroreflectors ¹
E1164-12	Standard Practice for Obtaining Spectrometric Data for Object-Color Evaluation

2.7 **American Association of Textile Chemists and Colorists (AATCC)**

Test Method 16.3-2014	Colorfastness to Light: Xenon-Arc
Test Method 22-2017	Water Repellency: Spray Test
Test Method 61-2013	Colourfastness to Laundering: Accelerated
Test Method 118-2013	Oil Repellency: Hydrocarbon Resistance Test

2.8 **International Standards Organization (ISO)**

105-B02:2014	Colourfastness to artificial light: Xenon arc fading lamp test
105-X12:2016	Colourfastness to rubbing (Crocking)
4920:2012	Textile fabrics — Determination of resistance to surface wetting (spray test)
6330:2012	Domestic washing and drying procedures for textile testing
13937-1:2000	Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)

- 2.9 **British Standards Institution (BS)**
BS 3424-26: 1990 Testing coated fabrics. Methods 29A, 29B, 29C and 29D. Methods for determination of resistance to water penetration and surface wetting
- 2.10 **Royal Canadian Mounted Police Specification (RCMP)**
G.S.1045-266 Badges Woven – Badge, Shoulder, Police

3. **General Requirements**

- 3.1 The article or material covered by this specification must be free from material and manufacturing defects that may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production must be equivalent in all respects to the pattern and viewing sample.
- 3.2 **Design** – The Jacket, High Visibility must be a loose fitting, waist length jacket designed to be worn in conjunction with a removable liner. The shell is constructed from a 3-layer material with a WMVP (waterproof moisture vapour permeable) membrane. The 3-layer fabric construction does not require a lining when made up into a garment. The jacket must be waterproof with all seams permanently seam sealed unless otherwise stated. This jacket has been designed to meet CSA-Z96-15 requirements for a Class 2, Level 2 garment. The lettering “RCMP”, “GRC”, and “Police” must be retro reflective on the front and back of the garment.

4. **Detail Requirements**

4.1 **Components**

- 4.1.1 **Shell Material I** – The shell material I must be plain weave 100% nylon, Type 6.6. The colour must be dark navy blue, meeting the approved colour swatch, with a durable water repellent finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the waterproof moisture vapour permeable membrane specified in para. 4.1.3.1.
- 4.1.2 **Shell Material II** – The shell material II must be plain weave 100% polyester. The colour must be fluorescent yellow-green, meeting the approved colour swatch, with a durable water repellent (DWR) finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the

waterproof moisture vapour permeable membrane as specified in para. 4.1.3.2.

- 4.1.3 **Shell Material, Laminated** – The laminated shell materials must not show any visible signs of delamination or loss of film during the garments useful life (approximately 5 years). The fabric must be capable of having its sewn seams, seam-sealed with an appropriate tape, in a waterproof, durable fashion. Materials not meeting these requirements will be cause for rejection. Delamination is defined as any irreparable separation of the bonded layers of the Laminated Shell Material(s).
- 4.1.3.1 **Shell Material I, Laminated** – The shell material I must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of shell material I as specified in para. 4.1.1, with the membrane as the middle layer, and a black, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table II forming part of this specification.
- 4.1.3.2 **Shell Material II, Laminated** – The shell material II must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of shell material II as specified in para. 4.1.2, with the membrane as the middle layer, and a white, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table IV forming part of this specification.
- 4.1.4 **Seam Sealing Tape** – The 3-layer composite fabric must be seamed using a compatible nylon or polyester seam-sealing tape with the 3-layer shell fabric and sealed-seams meeting the requirements outlined in Table I forming part of this specification. The tape on the sealed seams must not peel off and/or wear during the projected life span of the garment.
- 4.1.5 **Thread** – The thread must be polyester wrap, polyester core, Tex 50, Type II of matching colour to the shell material, meeting U.S. government Commercial Item Description A-A-50199A.

- 4.1.6 **Mesh Pocketing** – The pocketing must be a polyester, warp knit mesh, black in colour or to match the shell material, meeting the requirements outlined in Table III. Tek-Knit “XPTAR004” has been known to meet the requirement
- 4.1.7 **Retro reflective Markings and Lettering** – The retro reflective markings must be exposed, wide angle, retroreflective lenses, silver material in the form of a heat transfer film, 5 cm wide. The lettering on the front and back will be Arial Black font dimensioned as per drawing 3. It must meet all the retro reflective performance requirements outlined in Section 6, meeting Table 5 in the CSA-Z96-15 High-Visibility Safety Apparel standard. All retro reflective markings and lettering must meet a minimum coefficient of retro reflection, R_A , that are determined in accordance with the procedures defined in E808-01 (2009) and E809-08 (2013). 3M Scotchlite™ 8725N silver material in the form of a heat transfer film has been known to meet these requirements.
- 4.1.8 **Shoulder Badges** – The RCMP stock item number 2135-108, Badge, Shoulder, Police must be purchased from the RCMP.
- 4.1.9 **Slide Fasteners**
- 4.1.9.1 **Slide Fastener – Front** – The slide fastener must be an open-end separator, black in colour, injection molded, DA automatic slider, Vislon® YKK 26500 VSOR 56 DA86 E 9/16 (only).
- 4.1.9.2 **Slide Fastener – Right Inside Front** – (To be used for the attachment of a removable liner) - The slide fastener must consist of ½ (half) of an open-end slide fastener with the retaining box and slider; it must be injection molded, with a DA automatic slider, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.9.3 **Slide Fastener – Left Inside Front** – (To be used for the attachment of a removable liner) – The slide fastener must consist of ½ (half) of an open-end slide fastener with the insert pin and must be injection molded, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.9.4 **Slide Fastener – Upper Sleeve Pocket** – The slide fastener must be a closed end coil type slide fastener with a DF non-lock slider, black in colour, YKK 12824 CIFC 51 DFW1 E 5/8*TS-TS1*BS-BW (only).

- 4.1.9.5 **Slide Fastener – Chest Pockets** – The slide fastener must be coil, water repellent, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the sliders facing front. It must be black in colour, with long pull tabs, YKK 37088 CIT4C 51 DFBL E 5/8*BTM-2*P-BTM*REV (only).
- 4.1.9.6 **Slide Fastener – Side Seam** – The slide fastener must be coil, water repellent, black in colour, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the facing front. It must be closed-ended with three sliders arranged in a back-to-back-head-to-head relation, Aqua Guard YKK 37338 CIT4MC 56/6/6 DA8BLH E/DA8BLH E/DA8BLH E 5/8*SLSB-BH-H*P-TOP*P-BTM*REV (only).
- 4.1.9.7 **Slide Fastener – Inside Pockets** – The inside pocket slide fasteners must be black in colour, woven-in style, DA automatic slider, YKK 20054 CFC 456 DA E 9/16 *E-BTM-2* (only).
- 4.1.10 **Hook and Loop Tape** – The hook and loop tape must be woven nylon, black in colour, with a high life cycle. The combined hook and loop must have no less than 8 P.S.I length-wise shear strength with initial peel strength of not less than 1 P.I.W. when tested to ASTM D5169-98 (2015), standard test method for shear strength [dynamic method] of hook and loop touch fasteners and ASTM D5170-98 (2015), standard test method for peel strength ["T" method] of hook and loop touch fasteners."
- 4.1.11 **Elastic Drawcord** – The drawcord must be round braided polyester elastic, black in colour, 2.4 mm, with maximum elongation of 135% and full recovery. Cansew style EBR C-38 has been known to meet the requirement.
- 4.1.12 **Cord Locks** – The cord locks must be low profile, cylindrical cord locks, spring loaded in acetyl composition, black in colour. It must come in two sizes. The cord lock for the hem channel must be shaped with a maximum diameter of 13 mm and a maximum depth of 11.2 mm. Texfast style #S217B has been known to meet the requirement. The cord lock for the hood must be shaped with a maximum diameter of 15.5 mm and a maximum depth of 12.5 mm. Texfast style #S217A has been known to meet the requirement.
- 4.1.13 **Eyelets** – The eyelets must be sized to 5-6 mm diameter hole. The eyelets must be made of brass or aluminum in black.

- 4.1.14 **Dome Fastener** – The dome fastener must be a standard type 24 ligne fastener. All metal parts to be brass with a 15 mm matte black, powder coated cap. Universal SW61 (only).
- 4.1.15 **Elastic** – The elastic must be heavy duty woven elastic, with a composition of at least 70% polyester blended with rubber and a medium finish. The elastic must be black in colour. It must be available in two widths: 2.5 cm and 4 cm.
- 4.1.16 **Grosgrain Ribbon** – The grosgrain ribbon must be nylon, black in colour and come in three widths, 6 mm, 1 cm and 2.5 cm.
- 4.1.17 **Webbing, Microphone Strap** – The webbing must be a durable nylon webbing, luggage quality, black in colour measuring 2.54 cm (1”) wide and 0.04” ± 0.01” thick. It must have a minimum tensile strength of 1000 lbs. as per Federal Standard 191A test method 4108. Tape Craft N0015S-1”-YD001-352 has been known to meet the requirements.
- 4.2 **Size and Dimensions** – The Jacket, High Visibility must be supplied in the sizes specified by the RCMP and to the dimensions given in the scale of measurements and drawings forming part of this specification. The garment components must be shaped, dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in Appendix “A” forming part of this specification.
- 4.3 **Construction**
- 4.3.1 **Stitching and Seam Sealing** – All stitching must be lockstitch. There must be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching must be securely backstitched or tacked, unless secured by other stitching. Ball point needles must be used for stitching through elastic components. All seams and points where stitching penetrates the shell materials must be permanently sealed on the inside with the appropriate seam-sealing tape as per para. 4.1.3. Care must be taken to ensure that the tape cross-over points where seams join are doubly covered and bonded securely so as to ensure water-resistance. Any sealed seams showing any form of delamination or any non-bonded or peeling seams must be a cause for rejection.
- 4.3.2 **Body**
- 4.3.2.1 **Back** – The upper body must be made from shell material II as specified in para. 4.1.3.2 and the lower body must be made from shell material I as specified in para.

4.1.3.1. The back must have a retro reflective pattern and retro reflective lettering meeting CSA-Z96-15 requirements as outlined in para. 4.3.9 and 4.3.9.1. The back when finished must conform in every respect to the patterns and drawings.

4.3.2.2 **Back Hem Channel** – The back hem facing shaped and dimensioned as per the pattern must be sewn face side out, to the bottom of the jacket back to create a hem channel for the elastic drawcord. The hem channel must have two eyelets as per para. 4.1.13, 4 cm from the left side seam as identified in drawing 6. An elastic drawcord as specified in para. 4.1.11 must be securely attached into the right side seam and threaded through the hem channel. It must continue through the smaller cord lock as specified in para. 4.1.12, and through the eyelet outside the hem channel. It must be threaded through the second eyelet. It must continue back through the cord lock where the drawcord must be knotted. When assembled completely, the cord lock must be hidden in the channel with only the looped end of the elastic drawcord showing as per drawings 6 and 8. When the bottom channel is relaxed, there must be no extra length of elastic drawcord showing between the two eyelets. The drawcord must lay flat.

4.3.2.3 **Front** – The jacket must be equipped with a centre front slide fastener as specified in para. 4.1.9.1, length as specified Table V, and the bottom ends of the slide fasteners must be bar tacked as per drawing 6. The front must have two front storm flaps with dome fasteners for closure. The front must have two chest pockets with slide fasteners and flaps with dome fasteners. The front must have a retro reflective pattern and retro reflective lettering meeting CSA-Z96-15 requirements as outlined in para. 4.3.9 and 4.3.9.1. On the right-hand side, there must be an 8.5 cm x 2.5 cm piece of loop tape as specified in para. 4.1.10 for the name tag. The left and right fronts must be equipped with webbing as specified in para. 4.1.17, measuring 2.5 cm x 5 cm for the microphone loop. All components of the front must be constructed as per the patterns and drawings.

4.3.2.4 **Chest Pockets** – The jacket must have two vertical chest pockets with water resistant slide fasteners as specified in para. 4.1.9.5 and lengths as specified Table V. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. The slider must be in the down position when the pocket is closed. Each chest pocket must have flaps which must be dimensioned in accordance with the patterns. The dome fastener as specified in para. 4.1.14 must be applied to the flap for closure. There must be two inside pockets as shown in drawing 6 constructed out of mesh material as specified in para. 4.1.6 secured with a slide fastener as specified in para. 4.1.9.7 and lengths as specified in Table V. There must be two labels sewn through

the mesh inner pocket bag with the Identification label and Marking and Cleaning Instructions as shown in drawing 6.

- 4.3.2.5 **Under Fly Front & Front Storm Flaps** – The under fly front must be fitted with two injection molded slide fasteners, length as specified in Table V. One is for the front closure and one is for the attachment of the removable liner. The jacket front slide fastener, as specified in para. 4.1.9.1, must be inserted in a way to have the slider and retaining box on the left front with a ribbon pull as specified in para. 4.3.12 and the insert pin attached on the right front. The left front storm flap must have five dome fasteners (female portion) as specified in para. 4.1.14, which align with the male portions attached to the right front storm flap as per drawing 6. There must be ½ (half) of a slide fastener attached to the right facing and ½ (half) of a slide fastener attached to the left facing to be used for the attachment of a removable liner. The ½ (half) attached to the right front inside facing as specified in para. 4.1.9.2 must consist of the retaining box and slider which must begin 2 cm below the collar seam for all sizes. The ½ (half) attached to the left inside front, as specified in para. 4.1.9.3, must consist of the insert pin and begin 2 cm below the collar seam for all sizes, as shown in drawing 6. The bottom ends of all the slide fasteners must be bar tacked as per drawing 6. An external pen pocket measuring 2 cm after folding in half must be constructed from a single layer of shell material II. It must be sewn to the left chest only directly under the top storm flap between the front slide fastener and storm flap. The pen pocket must be dimensioned and positioned as per the patterns and drawings.
- 4.3.3 **Side Seams** – Both side seams from sleeve underarm to hem must be equipped with a water-resistant slide fastener as specified in para. 4.1.9.6, and lengths as specified in Table V and the bottom ends of the slide fasteners must be bar tacked as per drawings 6. The slide fastener, when applied, must be covered by the shell material. There must be 3 sliders, the two closest to the underarm should be in a head to head position and the third must be opening from the bottom upwards as shown in drawing 8. All sliders must be equipped with ribbon pulls as specified in para. 4.3.12. The seam tape, when applied, must extend into the front and back hem facing so that no tape ends are visible as shown in drawing 8. The side seam hem must have an elastic closure strap as specified in para. 4.3.13, positioned as per drawing 8.
- 4.3.4 **Collar** – The collar must be made of shell material II as specified in para. 4.1.3.2. There must be three dome fasteners (male portion) as specified in para. 4.1.14 for the attachment of the detachable hood.

- 4.3.5 **Detachable Hood** – The hood must be constructed from shell material II as specified in para. 4.1.3.2 with all sewn seams, seam-sealed. It must be constructed in a way to have double adjustment for height and width, with an elastic drawcord as specified in para. 4.1.11 and large size cord locks as specified in para. 4.1.12. The hood must be secured to the collar with 3 (three) dome fasteners as specified in para. 4.1.14 with the female portion applied to the hood and the corresponding male portion to the collar. Eyelets as per para. 4.1.13 must be applied to each side of the hood side fronts for the insertion of the elastic drawcord. The elastic drawcord must be threaded through the inside channel continuing through the eyelet with cord locks applied as per drawing 7. A label identifying the corresponding hood size must be sewn to the bottom back facing mid back position or centered on the facing as shown in drawing 7.
- 4.3.6 **Sleeve & Sleeve Cuffs** – The jacket must have a three piece sleeve with an upper sleeve pocket constructed from shell material II as specified in para. 4.1.3.2. All sleeve seams with exception of the underarm seam must be top stitched using a 2 mm gauge. A dome fastener must be applied to a piece of 2.5 cm wide grosgrain ribbon as specified in para. 4.1.16 which is doubled and sewn securely to the cuff/sleeve seam for the attachment of the liner as shown in drawing 8. The cuff must be made from shell material I as specified in para. 4.1.3.1. The sleeves must have a 9 cm adjustment strap with a 4.5 cm x 2.5 cm piece of hook tape as specified in para. 4.1.10 for adjustability. The cuff must be 4 cm wide with a 12 cm x 2.5 cm piece loop tape to secure the adjustment strap. The cuff must be partially elasticized using 4 cm wide elastic as specified in para. 4.1.15. The elasticized area of the cuff must have two rows of top stitching to anchor the elastic. The sleeves and cuffs must be shaped and dimensioned as per the patterns and viewing sample.
- 4.3.7 **Shoulder Straps** – The shoulder straps, shaped and dimensioned in accordance with the patterns and drawing 7, must be made from two layers of shell material II as specified in para. 4.1.3.2. They must be sewn into the sleeve-head and positioned as per the pattern and viewing sample. The shoulder strap must be secured to the jacket shoulder with the dome fastener specified in para. 4.1.14. Refer to Table VI for the finished length by size.
- 4.3.8 **Upper Sleeve Pocket** – Both sleeves must have an upper sleeve pocket constructed from shell material II with a slide fastener as specified in para. 4.1.9.4. When in a closed position, the slider must be facing toward the shoulder as shown in drawing 2. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. There must be two rows of topstitching around the slide fastener, using 2 mm gauge and 6 mm gauge. The sleeve pocket must be sewn to the sleeve, top-stitched using a 2

mm gauge and seam sealed appropriately to ensure waterproofness. The upper sleeve pocket must be constructed in accordance with the patterns.

- 4.3.9 **Retro reflective Pattern** – The retro reflective material as specified in para. 4.1.7 must be heat transferred to the shell material II and positioned as per drawing 2. The pattern template for the retro reflective markings must be used but it does not show the break for the letter placement on the back. Refer to drawing 5 for letter placement. The break must be 10 cm high, measuring 5 cm vertically on both sides of center keeping the “X” symmetrical. The word “POLICE” must be centered in the “X” and the words “RCMP” and “GRC” must be above it as per drawing 4. The horizontal band extending from side to side must align to meet with the bottom of the “X”. The front body must have retro reflective material from the shoulder seam extending down the body to meet the horizontal band that extends from side to side as per pattern. Each sleeve must have a continuous retro reflective band circling the sleeve as per pattern. All retro reflective material must be permanently attached to the shell material by means of heat sealing. No stitching must be employed in attaching the retro reflective material, and the heat-sealing must endure for the life of the garment. There must be no loose or unbonded edges, or loss of film. Retro reflective material must not cover other retro reflective material in order to provide the best bond between the retro reflective material and the shell material.
- 4.3.9.1 **Retro reflective Lettering** – The font must be Arial Black in retro reflective material as specified in para. 4.1.7. On the back, the word “POLICE” must be centered within the 10 cm high break in the “X” and the words “RCMP” and “GRC” must be above “POLICE”, dimensioned and positioned as per drawing 4 and 5. The lettering “RCMP” must be left justified in relation to “POLICE” and the “GRC” must be right justified in relation to “POLICE”. On the front, 1 cm below the name tag must be “RCMP”, “GRC” and “POLICE” lettering, dimensioned and positioned as per drawing 4. The lettering “RCMP” must be left justified in relation to “POLICE” and the lettering “GRC” must be right justified in relation to “POLICE”. The front lettering must be in line with the left side of the name tag.
- 4.3.10 **Shoulder Badges** – The RCMP shoulder badges specified in para. 4.1.8 must be sewn through the upper sleeve pocket only (not through the sleeve). The badge is to be centred on the sleeve-head 2.5 cm below the sleeve-head seam and attached with one row of stitching, as per the viewing sample.

- 4.3.11 **Coat Hanger** – A 6 cm long coat hanger, constructed from 6 mm wide grosgrain ribbon as specified in para. 4.1.16 must be centred at the neck in accordance with the viewing sample.
- 4.3.12 **Slide Fastener Ribbon Pulls** – All ribbon pulls must be constructed with grosgrain ribbon 1 cm wide, as specified in para. 4.1.16. The ribbon must be applied to the hole of the slide fastener pull in a way that allows the ribbon pulls to be removed easily without damage and reapplied. The ribbon pull should be 5 cm \pm 0.5 cm in length when finished and attached to the slide fastener.
- 4.3.13 **Side Seam Closure Strap** – There must be a side seam closure strap measuring 9 cm \pm 0.5 cm when finished, at the side seam hem. It must be constructed from 2.5 cm wide elastic as specified in para. 4.1.15, doubled and must be sewn to the lower back side seam flipping toward the front, equipped with a female dome fastener for closure. The corresponding male dome fastener must be applied to the jacket front at the hem.
- 4.3.14 **Identification Label** – Each jacket must have a durable blank label 7.5 cm x 2 cm applied separately below the marking and cleaning label used for the inscription of the wearers' name.
- 4.3.15 **Marking & Cleaning Instructions Label** – Each jacket must have a durable label positioned and sewn to the bottom of the inside pocket bag as shown in drawing 6. The text must be permanent inks of a contrasting colour and must withstand at least 50 washes with no apparent change in appearance. All text except for the RCMP stock number and size must be in size 6 font. The RCMP stock number and size must appear in size 8 font. The manufacturer's identification must not appear anywhere on the garment except where indicated on the label. The label must contain the following information in English and French.
1. Item name in English as written in para. 1.1.
 2. Item name in French as written in para. 1.1.
 3. RCMP stock number - reference contract documents. (Ex. 3985 000)
 4. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/R - G/R)
 5. Date of manufacture, in numeric format year/month (Ex. 2018/11)
 6. Your manufacturer identification (Company name or number).
 7. Print information as shown below.

1		
2		
3		
4		
5		
6		
7	Machine wash - warm (40°C)	Laver à la machine – à l’eau tiède (40°C)
	Do Not use fabric softener or chlorine bleach	Ne pas utiliser d’agent adoucissant ni d’agent de blanchiment
	Tumble dry- medium (Do Not use dryer sheets)	Séchage par culbutage – à température moyenne (Ne pas utiliser d’assouplissant en feuilles)
	Steam iron - low	Repassage à vapeur - à température basse
	Dry clean - If professionally dry cleaned request clear distilled solvent rinse; request spray repellent.	Nettoyer à sec - demander un rinçage avec un solvant distillé clair et un traitement à l’aide d’un produit hydrofuge en aérosol.
	Further care instructions: See Ordering Guide.	Instructions d’entretien supplémentaires: Voir le guide de commande.
	CSA-Z96-15 Class 2, Level 2 Fluorescent Yellow-Green	Norme CSA-Z96-15 Classe 2, Niveau 2 Jaune-vert fluorescent

4.3.16 **Instruction Sheet** – Each completed jacket must have an instruction sheet folded and inserted into the inside chest pocket bag, with the information included in Appendix “B” English and French, forming a part of this specification.

5. **Quality Assurance Provisions**

5.1 **Responsibility for Inspection** – Unless otherwise stipulated in the Contract, it is the Contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor must use an independent commercial testing establishment.

5.2 The RCMP, Uniform and Equipment Program reserve 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.

- 5.3 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.

6. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing No. 1)

- 6.1 **Chest Circumference (total circumference)** – When placed flat, the chest circumference is the distance across the jacket, measured at the lowest point of the armholes. The result must be doubled to measure total circumference. (A).
- 6.2 **Bottom Circumference (total circumference)** – When placed flat, the bottom is measured across the jacket bottom. The result must be doubled to measure total circumference. (B).
- 6.3 **Front Length** – The length is the distance measured from the top of the collar to the hem at front. (C).
- 6.4 **Side Length** – The length is the distance measured from the base of the armhole at the side to the hem. (D).
- 6.5 **Full Shoulder Width** – The full shoulder width is the distance measured at the shoulder seam from neckline to armhole. (E).
- 6.6 **Sleeve Length Overarm** – The overarm sleeve length is the distance from the armhole at the shoulder seam to the bottom edge of the sleeve cuff. (F).
- 6.7 **Sleeve Length Underarm** – The underarm sleeve length is the distance under sleeve from the armhole to the bottom edge of the sleeve cuff. (G).
- 6.8 **Sleeve Cuff Circumference (Relaxed)** – The sleeve cuff is measured at the bottom edge of the sleeve. The result must be doubled to measure total circumference. (H).
- 6.9 **Elbow Circumference** – The elbow is measured across the width of the sleeve in line with the seam of the sleeve patch. The result must be doubled to measure total circumference. (J).
- 6.10 **Back Length** – The length is the distance measured from the bottom of the collar at the back to the hem. (K).
- 6.11 **Back Width** – When placed flat, the distance measured across the back from armhole to armhole at the yoke seam. (L).
- 6.12 **Collar Length** – The collar length is measured along the seam from slide fastener to slide fastener. (M).

SCALE OF MEASUREMENTS - Jacket, High Visibility															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Short	XXS	31" - 33"	79 - 84	108	98	55	25	14	52.75	48.5	24	43	61	40.5	47
	XS	34" - 36"	86 - 91	115.5	105.5	57	26	15	54.5	49.75	25	46	63	43.25	49
	S	37" - 39"	94 - 99	123	113	59	27	16	56.25	51	26	49	65	46	51
	M	40" - 42"	102 - 107	130.5	120.5	61	28	17	58	52.25	27	52	67	48.75	53
	L	43" - 45"	109 - 114	138	128	63	29	18	59.75	53.5	28	55	69	51.5	55
	XL	46" - 48"	117 - 122	145.5	135.5	65	30	19	61.5	54.75	29	58	71	54.25	57
	2XL	49" - 51"	124 - 129	153	143	67	31	20	63.25	56	30	61	73	57	59
	3XL	52" - 54"	132 - 137	160.5	150.5	69	32	21	65	57.25	31	64	75	59.75	61
	4XL	55" - 57"	140 - 145	168	158	71	33	22	66.75	58.5	32	67	77	62.5	63
	5XL	58" - 60"	147 - 152	175.5	165.5	73	34	23	68.5	59.75	33	70	79	65.25	65
Short	XXS	31" - 33"	79 - 84	108	98	60	30	14	56.75	52.5	24	43	66	40.5	47
	XS	34" - 36"	86 - 91	115.5	105.5	62	31	15	58.5	53.75	25	46	68	43.25	49
	S	37" - 39"	94 - 99	123	113	64	32	16	60.25	55	26	49	70	46	51
	M	40" - 42"	102 - 107	130.5	120.5	66	33	17	62	56.25	27	52	72	48.75	53
	L	43" - 45"	109 - 114	138	128	68	34	18	63.75	57.5	28	55	74	51.5	55
	XL	46" - 48"	117 - 122	145.5	135.5	70	35	19	65.5	58.75	29	58	76	54.25	57
	2XL	49" - 51"	124 - 129	153	143	72	36	20	67.25	60	30	61	78	57	59
	3XL	52" - 54"	132 - 137	160.5	150.5	74	37	21	69	61.25	31	64	80	59.75	61
	4XL	55" - 57"	140 - 145	168	158	76	38	22	70.75	62.5	32	67	82	62.5	63
	5XL	58" - 60"	147 - 152	175.5	165.5	78	39	23	72.5	63.75	33	70	84	65.25	65
TOLERANCES±				3	3	2	1.5	1	1.5	1.5	1	2	2	1	1
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

SCALE OF MEASUREMENTS - Jacket, High Visibility															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
Regular	XXS	31" - 33"	79 - 84	108	98	65	35	14	60.75	56.5	24	43	71	40.5	47
	XS	34" - 36"	86 - 91	115.5	105.5	67	36	15	62.5	57.75	25	46	73	43.25	49
	S	37" - 39"	94 - 99	123	113	69	37	16	64.25	59	26	49	75	46	51
	M	40" - 42"	102 - 107	130.5	120.5	71	38	17	66	60.25	27	52	77	48.75	53
	L	43" - 45"	109 - 114	138	128	73	39	18	67.75	61.5	28	55	79	51.5	55
	XL	46" - 48"	117 - 122	145.5	135.5	75	40	19	69.5	62.75	29	58	81	54.25	57
	2XL	49" - 51"	124 - 129	153	143	77	41	20	71.25	64	30	61	83	57	59
	3XL	52" - 54"	132 - 137	160.5	150.5	79	42	21	73	65.25	31	64	85	59.75	61
	4XL	55" - 57"	140 - 145	168	158	81	43	22	74.75	66.5	32	67	87	62.5	63
	5XL	58" - 60"	147 - 152	175.5	165.5	83	44	23	76.5	67.75	33	70	89	65.25	65
Tall	XXS	31" - 33"	79 - 84	108	98	70	40	14	64.75	60.5	24	43	76	40.5	47
	XS	34" - 36"	86 - 91	115.5	105.5	72	41	15	66.5	61.75	25	46	78	43.25	49
	S	37" - 39"	94 - 99	123	113	74	42	16	68.25	63	26	49	80	46	51
	M	40" - 42"	102 - 107	130.5	120.5	76	43	17	70	64.25	27	52	82	48.75	53
	L	43" - 45"	109 - 114	138	128	78	44	18	71.75	65.5	28	55	84	51.5	55
	XL	46" - 48"	117 - 122	145.5	135.5	80	45	19	73.5	66.75	29	58	86	54.25	57
	2XL	49" - 51"	124 - 129	153	143	82	46	20	75.25	68	30	61	88	57	59
	3XL	52" - 54"	132 - 137	160.5	150.5	84	47	21	77	69.25	31	64	90	59.75	61
	4XL	55" - 57"	140 - 145	168	158	86	48	22	78.75	70.5	32	67	92	62.5	63
	5XL	58" - 60"	147 - 152	175.5	165.5	88	49	23	80.5	71.75	33	70	94	65.25	65
TOLERANCES±				3	3	2	1.5	1	1.5	1.5	1	2	2	1	1
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

SCALE OF MEASUREMENTS - Jacket, High Visibility															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Tall	XXS	31" - 33"	79 - 84	108	98	75	45	14	68.75	64.5	24	43	81	40.5	47
	XS	34" - 36"	86 - 91	115.5	105.5	77	46	15	70.5	65.75	25	46	83	43.25	49
	S	37" - 39"	94 - 99	123	113	79	47	16	72.25	67	26	49	85	46	51
	M	40" - 42"	102 - 107	130.5	120.5	81	48	17	74	68.25	27	52	87	48.75	53
	L	43" - 45"	109 - 114	138	128	83	49	18	75.75	69.5	28	55	89	51.5	55
	XL	46" - 48"	117 - 122	145.5	135.5	85	50	19	77.5	70.75	29	58	91	54.25	57
	2XL	49" - 51"	124 - 129	153	143	87	51	20	79.25	72	30	61	93	57	59
	3XL	52" - 54"	132 - 137	160.5	150.5	89	52	21	81	73.25	31	64	95	59.75	61
	4XL	55" - 57"	140 - 145	168	158	91	53	22	82.75	74.5	32	67	97	62.5	63
	5XL	58" - 60"	147 - 152	175.5	165.5	93	54	23	84.5	75.75	33	70	99	65.25	65
XX Tall	XXS	31" - 33"	79 - 84	108	98	80	50	14	72.75	68.5	24	43	86	40.5	47
	XS	34" - 36"	86 - 91	115.5	105.5	82	51	15	74.5	69.75	25	46	88	43.25	49
	S	37" - 39"	94 - 99	123	113	84	52	16	76.25	71	26	49	90	46	51
	M	40" - 42"	102 - 107	130.5	120.5	86	53	17	78	72.25	27	52	92	48.75	53
	L	43" - 45"	109 - 114	138	128	88	54	18	79.75	73.5	28	55	94	51.5	55
	XL	46" - 48"	117 - 122	145.5	135.5	90	55	19	81.5	74.75	29	58	96	54.25	57
	2XL	49" - 51"	124 - 129	153	143	92	56	20	83.25	76	30	61	98	57	59
	3XL	52" - 54"	132 - 137	160.5	150.5	94	57	21	85	77.25	31	64	100	59.75	61
	4XL	55" - 57"	140 - 145	168	158	96	58	22	86.75	78.5	32	67	102	62.5	63
	5XL	58" - 60"	147 - 152	175.5	165.5	98	59	23	88.5	79.75	33	70	104	65.25	65
TOLERANCES±				3	3	2	1.5	1	1.5	1	2	2	1	1	
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

TABLE I
Properties of Laminated Shell Material (with WMVP membrane & tricot backing)

	Test	Test Method	Duration	Min. Value Shell Material I
1	Resistance of Materials to Water Vapour Diffusion	CAN CGSB 4.2 No. 49-99 (R2013), Option 1 *See test procedure #1	- Initial - After 5 launderings - After ageing (70°C & 95% RH for 168 hrs)	13 mm max.
2	Hydrostatic Resistance	CAN CGSB 4.2 No. 26.5-M89 (R2013) *See test procedure #2	- Initial - After 5 launderings	1240.2 kPa
3	Low Pressure Water Permeability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #3	- Initial	No Leakage
		ASTM D2097-03 (2010) * See test procedure #4	- After Cold Flex Warp /Fill	No Leakage
4	High Pressure Water Permeability	BS 3424: Part 26: 1990 Method 29A * See test procedure #5	- Initial	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After Unleaded Gasoline	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After DEET Insect Repellent in cream format	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #7	- After Synthetic Perspiration	No Leakage
5	Abrasion Resistance	ASTM D3886-99 (R2015) Procedure: use No. 0 Emery Polishing Paper * See test procedure #8	- 3200 Cycles	No failure
SEAMS				
6a	Seam Tape Durability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #9	- Initial	No Leakage
6b		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #10	- After 10 laundry cycles	No Leakage
6c		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #11	- After 10 dry-clean cycles	No Leakage
7	Delamination	Visual	- Examination after each procedure 6a through 6c	No Delamination
8	Peel Strength N/23 mm	ASTM D413-98 (2017)		8 N/23mm minimum

TEST PROCEDURES FOR TABLE I

1. The knit side of the laminated cloth must face the water. The tests must be completed as outlined in CAN/CGSB 4.2 Method 49-99 (R2013), Option #1. The samples must be conditioned at $21^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($69.8^{\circ}\text{F} \pm 2^{\circ}\text{F}$) and relative humidity must be $65 \pm 2\%$. The test specimen must be placed approximately equidistant between the dry airflow and the water cell. Four specimens must be tested per condition. The tests must be completed initially and after 5 launderings according to ISO 6330:2012 Method 2B-F.
2. The water pressure must be applied to the knit side of the laminated cloth. A taffeta fabric restraint conforming to MIL-C-21852F-TYPE III-CLASS1 PART#WJAAGNA should be placed on top of the sample against the face side of the laminated cloth. The tests must be completed initially and after 5 launderings according to ISO 6330:2012, Method 2B-F.
3. The knit side of the laminated cloth must contact the water. The hydrostatic head must be 13.78 kPa (2.0 psi) and must be held for 3 minutes. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area. The test may be performed using any device which tests the same specimen area at the equivalent pressure. In case of dispute, the apparatus described in FED-STD-191A Method 5516 must be used.
4. Ten warp and ten fill specimens 8.26 cm x 11.43 cm (3.25" x 4.5") must be selected from each sample unit. The 8.26 cm (3.25") dimension is the test direction. Specimens must be flexed for 20,000 cycles as specified in ASTM D2097-03 (2010) and as follows: Mark the knit side of each specimen with two lines 4.32 cm (1.7") apart and perpendicular to the test direction. The area between the lines is the test area and must be centered on the knit side of the specimen. Wrap the specimens around fully extended pistons with the knit side out. The test area lines must meet evenly and must line up with the edges of the pistons. Clamp in place making sure the clamps are not in the test area. Check specimen for smoothness and tautness (wrinkles cause improper flexing). The distance between the pistons must be 4.32 cm (1.7") in the open position and 1.27 cm (0.5") in the closed position as measured from the bottom of the upper piston and top of the lower piston. Place the test apparatus with mounted specimens in a test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$) for a one hour conditioning period and then flex in the test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$). After flexing, test for water permeability as in test procedure 3 except that the orifice of the tester must be modified to accommodate the smaller specimen size
5. The water pressure must be applied to the knit side of the laminated cloth from below the test specimen. The maximum pressure of 172.25 kPa (25 psi) must be attained in 2 minutes \pm 20 seconds and must be applied for 5 minutes. Leakage is defined as the appearance of water any place within the test area.

6. Place a 15.24 cm x 15.24 cm (6" x 6") piece of blotting paper on a flat surface and cover with a 25.4 cm x 25.4 cm (10" x 10") test specimen with the face side up. Weigh out 2.0 gm \pm 0.1 gm (.07 oz \pm .004 oz) of solid contaminant or pipette 2.0 ml (.07 f. oz) of a liquid contaminant. Place the contaminant on the center of the specimen and cover with a 15.24 cm x 15.24 cm (6" x 6") piece of glassine paper. Place a 1.81 kg (4 lbs) weight on the glassine paper directly over the contaminated area. Allow the weight to remain on the specimen for 30 minutes. Remove the weight and glassine paper and allow the specimen to sit undisturbed for an additional 30 minutes. Wipe off any excess contaminant using a fresh piece of blotting paper and test for water permeability as per procedure 6 except that the water pressure must be applied for 3 minutes.
7. One specimen per sample unit must be tested for water permeability after exposure to synthetic perspiration. The specimen must be not less than 15.24 cm (6") in diameter. The test cups must accommodate this size specimen and must have a depth of at least 2.5 cm (1"). The cups must be sealed to prevent leakage. The solution must contact the knit side of the laminate.

Synthetic perspiration must be prepared by stirring the following ingredients into 500 ml of distilled water:

3 grams sodium chloride
 1 gram predigested protein
 1 gram n-propyl propionate
 0.5 gram lecithin (phosphatidyl choline)

The predigested protein must contain the following amino acids:

<u>Ingredient</u>	<u>Milligrams (mg)</u>
Lysine	82.5
Histidine	27.5
Arginine	40.0
Aspartic acid	72.5
Threonine	42.5
Serine	50.0
Glutamic acid	197.5
Proline	92.5
Glycine	22.5
Alanine	28.7
Cystine	4.7
Valine	66.2
Methionine	30.0
Isolencine	53.8
Leucine	87.5

Tyrosine	51.3
Phenylalanine	48.8
Tryptophan	18.8

The solution must be stirred continuously and heated to $50 \pm 1^\circ\text{C}$, then covered and cooled to approximately 35°C .

The solution must be stirred such that any solid particles are suspended in solution and poured into the test cup. The cup must be inverted to allow the synthetic perspiration to touch the specimen.

After 48 hours of contact with the solution, the specimen must be removed from the cup, rinsed in warm water, dried and tested for water permeability as specified in test procedure #6 except that the water pressure must be applied for 3 minutes.

8. Method ASTM D3886-99 (R2015) Procedure: Use No. 0 Emery Polishing Paper. Side abraded must be the knit side, with a multidirectional abrasion motion. Change abradant after each 300 cycles or specimen failure. The air pressure under the diaphragm should be 4 psi, and the load on the abradant plate should be 1 lb. Failure is determined by breaking of the electrical contact.
9. A minimum of 3 straight seams and 2 cross-over seams must be tested prior to laundry cycle testing and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge.
10. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) home laundry cycles and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge. Laundry testing should be performed in accordance with procedure specified in ISO 6330:2012 Method 2B-F.
11. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) dry clean cycles and remain waterproof (no leakage) when tested a 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge.

TABLE II
Properties of Laminated Shell Material I (Dark Navy Blue)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Colourfastness - To Light - Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
3	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
4	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
5	Dimensional Change to Laundering - <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D1
		Weft:	3% max	
6	Breaking Strength - Grab Method	Warp:	680.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	580.0 Newton (min)	
7	Tearing Strength	Warp:	18.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	20.0 Newton (min)	
8	Abrasion Resistance - Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1
9	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> ISO 4920:2012 OR <ul style="list-style-type: none"> AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
10	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

TABLE III
Properties of Mesh, Pocketing

REQUIREMENT				TEST METHODS
1	Colour	Black or Navy To match colour swatch provided by Uniform and Equipment Program		
2	Fiber Content	100% Polyester		• CAN/CGSB-4.2 No. 14-2005
3	Knit Construction	Warp Knit		
4	Yarns per inch	Wales: 33 ± 3 Courses: 28 ± 3		• ASTM D8007-15 ^{el}
5	Mass	$115 \text{ g/m}^2 \pm 6 \text{ g/m}^2$ ($109 \text{ g/m}^2 - 121 \text{ g/m}^2$)		• CAN/CGSB-4.2 No. 5.1-M90 (2013) OR • ASTM D3776/D3776M-09a (2017)
6	Dimensional Change to Domestic Washing <i>After 5 cycles</i>	Warp:	4% max	• CAN/CGSB-4.2 No. 58-2019 3, D1
		Weft:	3% max	
7	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	• CAN/CGSB-4.2 No. 22-2004 (R2013)
		Wet:	Gray Scale 4 or better	
8	Colour fastness to Washing	Colour change:	Gray Scale 4 or better	• CAN/CGSB-4.2 No. 19.1-2004 Test #2 OR • AATCC Test Method 61-2013
		Staining – cotton:	Gray Scale 4 or better	
		Staining – polyester:	Gray Scale 4 or better	
9	Mullen Burst (psi)	100 (minimum)		• ASTM D3786/D3786M-13
10	Abrasion Resistance – Martindale Tester	No breakdown after 25,000 at 9 kPa		• ASTM D4966-12 (R2016) Option 1
11	Pilling	No less than 4 after 120 minutes		• ASTM D3512/D3512M-16

TABLE IV
Properties of Laminated Shell Material II (Fluorescent Yellow-Green)
CSA-Z96-15 High Visibility Apparel Requirements (Meeting or Exceeding)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Background - Material Colour	<u>Initial:</u> CSA-Z96-15, Table 2A - Fluorescent yellow-green <u>After colourfastness to light (AATCC 16.3-2014 Test Option 3, 40 AATCC Fading Units):</u> CSA-Z96-15, Table 2A - Fluorescent yellow-green		<ul style="list-style-type: none"> ASTM E1164-12 Colour to match the viewing sample
3	Colourfastness - To Light - Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
4	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
5	Colour Fastness - To Perspiration	Colour change:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 23-M90 (R2013)
		Staining:	Gray Scale 4 or better	
6	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
7	Dimensional Change to Laundering - <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D1
		Weft:	3% max	
8	Breaking Strength - Grab Method	Warp:	550.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	450.0 Newton (min)	
9	Tearing Strength	Warp:	15.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	14.0 Newton (min)	
10	Abrasion Resistance - Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1

TABLE IV
Properties of Laminated Shell Material II (Fluorescent Yellow-Green)
CSA-Z96-15 High Visibility Apparel Requirements (Meeting or Exceeding)

11	Resistance to Surface Wetting - Spray Method	Initial:	100 (min)	<ul style="list-style-type: none"> • ISO 4920:2012 OR <ul style="list-style-type: none"> • AATCC Test Method 22-2017 <u>Washing:</u> <ul style="list-style-type: none"> • CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	90 or better	
		After 10 washes:	80 or better	
12	Oil Repellent	Initial:	6 (min)	<ul style="list-style-type: none"> • AATCC Test Method 118-2013 <u>Washing:</u> <ul style="list-style-type: none"> • CAN/CGSB-4.2 No. 58-2019, 3, D2
		After 5 washes:	5 or better	
		After 10 washes:	4 or better	

Table V
Slide Fastener Lengths in inches

Height Group	Sizes	Front	Inside Front	Side Seam	Sleeve Pocket	Chest Pocket	Inside Pocket
X Short	XX Small	19½"	13½"	15"	7"	6½"	7"
	X Small	20½"	14½"	15"	7"	6½"	7"
	Small	21"	15"	15"	7"	6½"	7"
	Medium	22"	15½"	16"	7"	6½"	7"
	Large	23"	16½"	16"	7"	6½"	7"
	X Large	23½"	17½"	17"	7"	6½"	7"
	2X Large	24½"	18"	17"	7"	6½"	7"
	3X Large	25"	19"	17"	7"	6½"	7"
	4X Large	26"	20"	18"	7"	6½"	7"
	5X Large	27"	20½"	18"	7"	6½"	7"
Short	XX Small	21½"	15½"	17"	7"	7"	7"
	X Small	22½"	16"	17"	7"	7"	7"
	Small	23"	17"	17"	7"	7"	7"
	Medium	24"	18"	18"	7"	7"	7"
	Large	25"	18½"	18"	7"	7"	7"
	X Large	25½"	19½"	19"	7"	7"	7"
	2X Large	26½"	20"	19"	7"	7"	7"
	3X Large	27"	21"	19"	7"	7"	7"
	4X Large	28"	22"	20"	7"	7"	7"
	5X Large	29"	22½"	20"	7"	7"	7"
Regular	XX Small	23½"	17½"	19"	8"	7½"	7"
	X Small	24½"	18"	19"	8"	7½"	7"
	Small	25"	19"	19"	8"	7½"	7"
	Medium	26"	20"	20"	8"	7½"	7"
	Large	27"	20½"	20"	8"	7½"	7"
	X Large	27½"	21½"	21"	8"	7½"	7"
	2X Large	28½"	22"	21"	8"	7½"	7"
	3X Large	29"	23"	21"	8"	7½"	7"
	4X Large	30"	24"	22"	8"	7½"	7"
	5X Large	31"	24½"	22"	8"	7½"	7"

Table V
Slide Fastener Lengths in inches

Height Group	Sizes	Front	Inside Front	Side Seam	Sleeve Pocket	Chest Pocket	Inside Pocket
Tall	XX Small	25½"	19½"	21"	8"	8"	7"
	X Small	26½"	20"	21"	8"	8"	7"
	Small	27"	21"	21"	8"	8"	7"
	Medium	28"	22"	22"	8"	8"	7"
	Large	29"	22½"	22"	8"	8"	7"
	X Large	29½"	23½"	23"	8"	8"	7"
	2X Large	30½"	24"	23"	8"	8"	7"
	3X Large	31"	25"	23"	8"	8"	7"
	4X Large	32"	25½"	24"	8"	8"	7"
	5X Large	33"	26"	24"	8"	8"	7"
X Tall	XX Small	27½"	21½"	23"	8"	8"	7"
	X Small	28½"	22"	23"	8"	8"	7"
	Small	29"	23"	23"	8"	8"	7"
	Medium	30"	24"	24"	8"	8"	7"
	Large	31"	24½"	24"	8"	8"	7"
	X Large	31½"	25½"	25"	8"	8"	7"
	2X Large	32½"	26"	25"	8"	8"	7"
	3X Large	33"	27"	25"	8"	8"	7"
	4X Large	34"	27½"	26"	8"	8"	7"
	5X Large	34½"	28½"	26"	8"	8"	7"
XX Tall	XX Small	29½"	23½"	25"	8"	8"	7"
	X Small	30½"	24"	25"	8"	8"	7"
	Small	31"	25"	25"	8"	8"	7"
	Medium	32"	25½"	26"	8"	8"	7"
	Large	33"	26½"	26"	8"	8"	7"
	X Large	33½"	27"	27"	8"	8"	7"
	2X Large	34"	28"	27"	8"	8"	7"
	3X Large	35"	29"	27"	8"	8"	7"
	4X Large	36"	29½"	28"	8"	8"	7"
	5X Large	36½"	30½"	28"	8"	8"	7"

Table VI
Shoulder Strap Lengths

Scale of Measurements – Shoulder Strap Length (Finished)	
Jacket Size (All Heights)	Dimension “A”
X-Small	14.25
Small	15.25
Medium	16.25
Large	17.25
X-Large	18.25
2X-Large	19.25
3X-Large	20.25
4X-Large	21.25
5X-Large	22.25
Tolerance ±	0.5

NOTE: All dimensions are in centimeters unless otherwise indicated.

APPENDIX A

Sealed Pattern Identifier

Pattern Title: Jacket, High Visibility

Patterns - Patterns are available from the RCMP, Uniform and Equipment Program. Firms requested to produce Pre-Award Samples will be provided with the base pattern only. The full set of patterns in individual sizes will be provided to the successful bidder after the contract is awarded. The bidder will receive the files electronically in a .DXF format unless paper is requested.

The patterns include seam allowances, drill holes and/or placement templates. Punch holes must not be used on this garment with the exception of the placement of the shoulder badge and the holes must be completely covered by the shoulder badge. All pieces must be cut in the direction indicated on the grain line of the pattern pieces. The scale of measurements indicates the finished garment measurements however the patterns may not reflect the same measurements. The manufacturer is responsible for making changes to the pattern, if necessary, in order to meet the scale of measurements, adjust for shrinkage/stretch and/or to suit the production process, however, the design and grade must not be affected or changed. Placement markings used for the retroreflective pattern must be covered or removed and must not be visible on the finished garment.

All patterns are the property of the RCMP and must be returned upon completion of the contract. Electronic patterns must be deleted from the Contractor's files.

Pattern Pieces - This design has 36 pattern components.

<u>Legend:</u>	
Shell Material I	= Para. 4.1.3.1 (Dark Navy Blue)
Shell Material II	= Para. 4.1.3.2 (fluorescent yellow-green)
Shell Material I, (Tricot RSU)	= Para. 4.1.3.1 with Tricot (inside face) Right Side Up
Shell Material II, (Tricot RSU)	= Para. 4.1.3.2 (fluorescent yellow-green)
Mesh Pocketing	= Para. 4.1.6
Cut 1 Single	= Cut 1
Cut 1 Paired	= Cut 2
Cut 2 Paired	= Cut 4
(RSU)	= Right Side Up

Pattern Components	Nomenclature	Quantity to be cut	Material
# 1 of 36	Upper Back	1 Single	Shell Material II
# 2 of 36	Lower Back	1 Single	Shell Material I

Pattern Components	Nomenclature	Quantity to be cut	Material
# 3 of 36	Front - Upper Right	1 Single	Shell Material II (RSU)
# 4 of 36	Front - Upper Left	1 Single	Shell Material II (RSU)
# 5 of 36	Lower Front	1 Paired	Shell Material I
# 6 of 36	Under Fly Front	1 Paired	Shell Material II
# 7 of 36	Storm Flap - Upper Left	1 Single	Shell Material II (RSU)
# 8 of 36	Storm Flap - Lower Left	1 Single	Shell Material I (RSU)
# 9 of 36	Storm Flap - Upper Right	1 Single	Shell Material II (RSU)
# 10 of 36	Storm Flap - Lower Right	1 Single	Shell Material I (RSU)
# 11 of 36	Shoulder Strap	2 Paired	Shell Material II
# 12 of 36	Front Facing "A"	1 Paired	Shell Material II
# 13 of 36	Front Facing "B"	1 Paired	Shell Material II
# 14 of 36	Sleeve	1 Paired	Shell Material II
# 15 of 36	Sleeve - Upper Back	1 Paired	Shell Material II
# 16 of 36	Sleeve - Lower Back	1 Paired	Shell Material II
# 17 of 36	Cuff	1 Paired	Shell Material I
# 18 of 36	Elasticized Cuff	1 Paired	Shell Material I
# 19 of 36	Cuff Adjustment Strap	1 Paired	Shell Material I
# 20 of 36	Top Collar	1 Single	Shell Material II
# 21 of 36	Under Collar	1 Single	Shell Material II
# 22 of 36	Hood Side	1 Paired	Shell Material II
# 23 of 36	Hood Center	1 Single	Shell Material II
# 24 of 36	Hood Back	1 Single	Shell Material II
# 25 of 36	Hem Facing - Front	1 Paired	Shell Material I (RSU)
# 26 of 36	Hem Facing - Back	1 Single	Shell Material I (Tricot RSU)
# 27 of 36	Top Collar Stand	1 Single	Shell Material II (Tricot RSU)
# 28 of 36	Hood Facing-Inside Front	1 Paired	Shell Material II (Tricot RSU)
# 29 of 36	Hood Facing-Inside Back	1 Single	Shell Material II (Tricot RSU)
# 30 of 36	Pocket Flap - Chest	2 Paired	Shell Material II
# 31 of 36	Pen Loop	1 Single	Shell Material II
# 32 of 36	Pocket - Upper Sleeve	1 Paired	Shell Material II
# 33 of 36	Pocket Bag - Chest "A"	1 Paired	Mesh Pocketing
# 34 of 36	Pocket Bag - Chest "B"	1 Paired	Mesh Pocketing

Pattern Components	Nomenclature	Quantity to be cut	Material
# 35 of 36	Pocket Bag - Inside Chest	1 Paired	Mesh Pocketing
# 36 of 36	Pocket Bag - Inside Chest Facing	1 Paired	Shell Material I

APPENDIX B

CARE INSTRUCTIONS

Applicable To:

Jacket Patrol Unisex
Jacket High Visibility
Jacket Patrol Unisex, Auxiliary
Parka Inclement & Hood Cold Weather (without the fur trim)
Trousers Inclement

These garments are designed to be both waterproof and water repellent. The best way to maintain its performance is to **keep them clean by washing it regularly**. When the water no longer beads up and rolls off, use a water based, solvent free, non-flammable DWR product to restore the water repellency. The following care instructions should ensure a normal life cycle for your garments. These garments should be washed after 10-12 days of continuous use or every 20-30 days with occasional use.

The water repellency, waterproofness and breathability of your garment are affected by the following;

1. Dirt buildup and other contaminants including oils, sunscreen and sweat reduce the effectiveness of the water repellency.
2. Fabric softeners have a detrimental effect on the colour and the waterproofness and water repellency of the fabric. They will make the colour fade more quickly and affect the overall performance of the fabric. These include liquid fabric softeners, detergents that contain softeners and dryer sheets. Therefore, it is very important that these softeners not be used when laundering your garment.

Machine Wash:

- DO NOT COMMERCIAL LAUNDRY
- DO NOT WASH FUR

Close all zippers, fasteners and velcro before washing.

Wash in warm water separately, without detergent. **DO NOT USE FABRIC SOFTENERS OR POWDERED DETERGENTS OR ANY LIQUID DETERGENTS THAT CONTAIN FABRIC SOFTENERS. DO NOT USE BLEACH.**

If heavily soiled, a small amount of detergent or specialty wash products (**i.e. Grangers® Performance Wash, Fibertec Pro Wash or ReviveX® Synthetic fabric cleaner**) for waterproof garments may be used.

At the end of the final rinse cycle, re-adjust the garment in the washer, and put it through an additional rinse cycle. This will assure complete rinsing of detergent that may have been trapped during washing, therefore preserving water repellency.

Drying:

Close all zippers, fasteners and velcro before drying.

If re-application of DWR is necessary, hang wet garment on hanger and follow application instructions of DWR product. (**i.e. Grangers® XT Waterproof spray, Fibertec Blue Guard Spray-on, Revivex® Spray-On or Nikwax Tx-Direct™**)

The garment **must** be tumble dried separately on a warm setting for 50 minutes to reactivate the durable water repellency (DWR.). **DO NOT USE DRYER SHEETS.**

If necessary, touch up with steam iron at low temperature.

Dry Cleaning:

If dry cleaned, request clear distilled solvent rinse and DWR spray repellent.

INSTRUCTIONS D'ENTRETIEN

Applicable à :

Blouson de patrouille unisexe
Veste haute visibilité
Blouson de patrouille unisexe pour auxiliaire
Parka pour intempéries et capuchon pour temps froid (sans la bordure de fourrure)
Pantalons pour intempéries

Ces vêtements sont conçus pour être imperméables et déperlants. La meilleure façon de préserver leurs propriétés est de les **garder propres en les lavant régulièrement**. Lorsque l'eau ne perle plus, utiliser un produit déperlant durable à base d'eau, sans solvant et ininflammable pour restaurer la déperlance. Les instructions d'entretien ci-dessous permettront d'assurer le rendement optimal des vêtements. Ces vêtements devraient être lavés après 10 à 12 jours d'utilisation continue ou à tous les 20 à 30 jours d'utilisation occasionnelle.

Les conditions suivantes peuvent influencer sur l'imperméabilité, la déperlance et la respirabilité des vêtements :

1. L'accumulation de saletés et d'autres contaminants comme de l'huile, de la crème solaire ou de la sueur peut réduire l'imperméabilité.
2. Les agents assouplissants influent sur la couleur, la déperlance et l'imperméabilité. Ils décolorent les tissus plus rapidement et nuisent à leur rendement général. Il est très important de n'utiliser **aucun** type d'assouplissant (agent assouplissant liquide, détergent avec assouplissant et assouplissant en feuilles).

Lavage à la machine :

- NE PAS LAVER DANS UNE BUANDERIE COMMERCIALE
- NE PAS LAVER LA FOURRURE

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de laver.

Laver séparément à l'eau tiède, sans détergent. **NE PAS UTILISER D'AGENT ASSOUPLISSANT NI DE DÉTERGENT EN POUDRE OU LIQUIDE AVEC ASSOUPLISSANT. NE PAS UTILISER D'AGENT DE BLANCHIMENT.**

Si le vêtement est très sale, une petite quantité de détergent ou de produit spécifiquement conçu pour l'entretien des vêtements imperméables (**p. ex. nettoyant haute performance de Granger's^{MD}, produit Pro Wash de Fibertec ou nettoyant pour tissus synthétiques ReviveX^{MD}**) peut être utilisée.

À la fin du dernier cycle de rinçage, remplacer le vêtement dans la machine et entreprendre un autre cycle de rinçage, afin d'éliminer complètement le détergent qui peut être resté durant le lavage et de préserver la déperlance.

Séchage :

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de sécher.

Si un nouveau traitement déperlant est requis, suspendre le vêtement mouillé sur un cintre et suivre les instructions du fabricant du produit (**p. ex. imperméabilisant à vaporiser XT de Granger's^{MD}, Blue Guard de Fibertec, Revivex^{MD} ou Tx-Direct^{MC} de Nikwax**).

Le vêtement **doit** être séché séparément par culbutage à basse température pendant 50 minutes, afin de réactiver les propriétés déperlantes. **NE PAS UTILISER D'ASSOUPLISSANT EN FEUILLES.**

Au besoin, repasser légèrement à basse température.

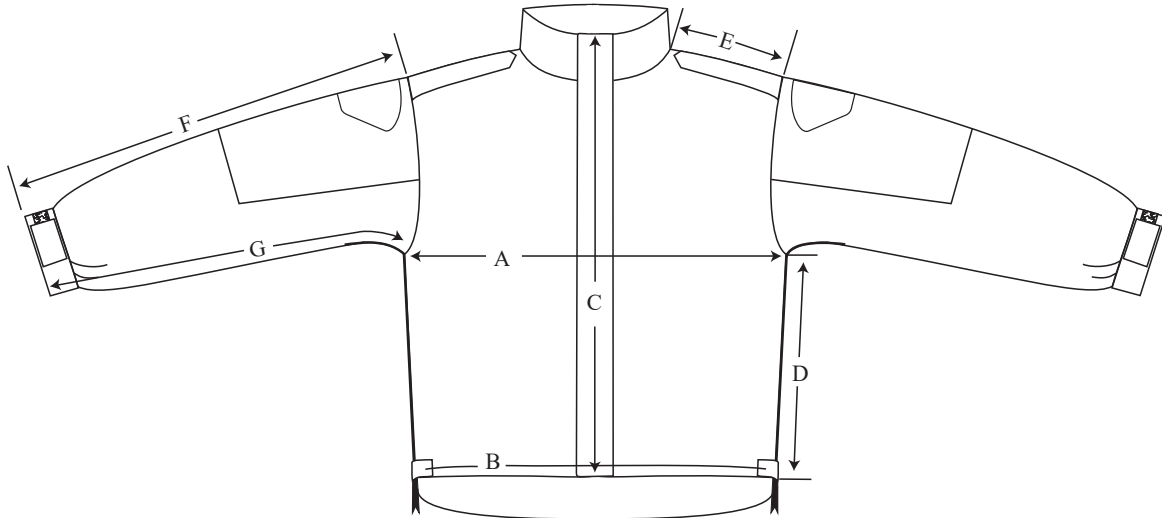
Nettoyage à sec :

Si le vêtement est nettoyé à sec, demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit déperlant à vaporiser.

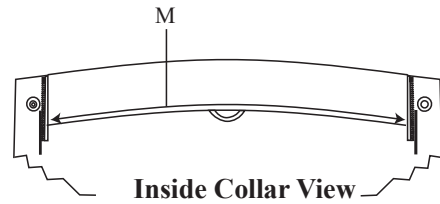
Drawing 1

G.S. 1045-310

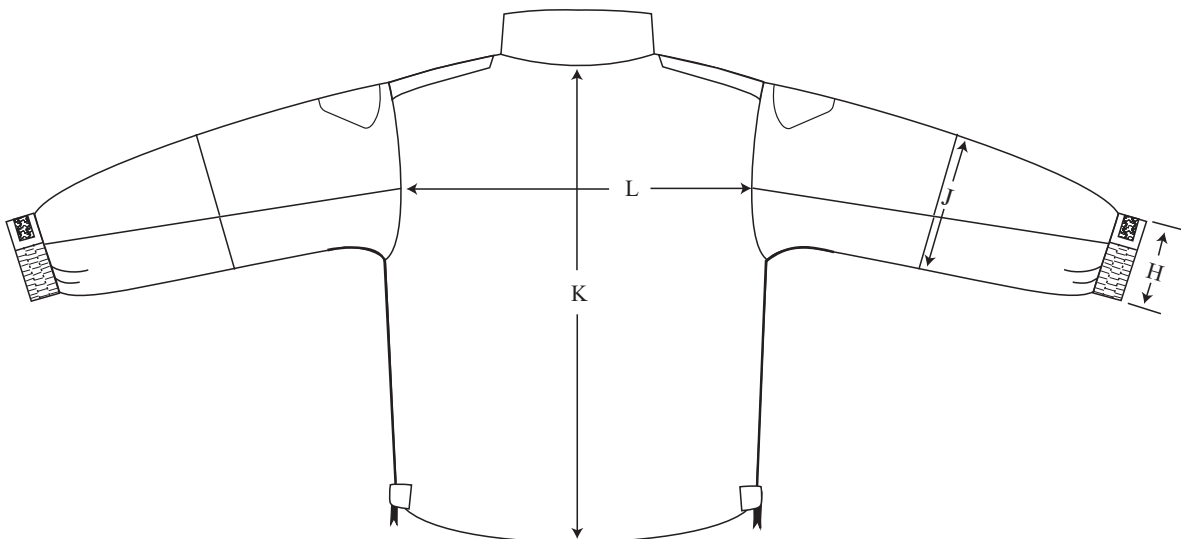
Jacket, High Visibility Measurement Location Chart



Front View



Inside Collar View



Rear View

NOT TO SCALE

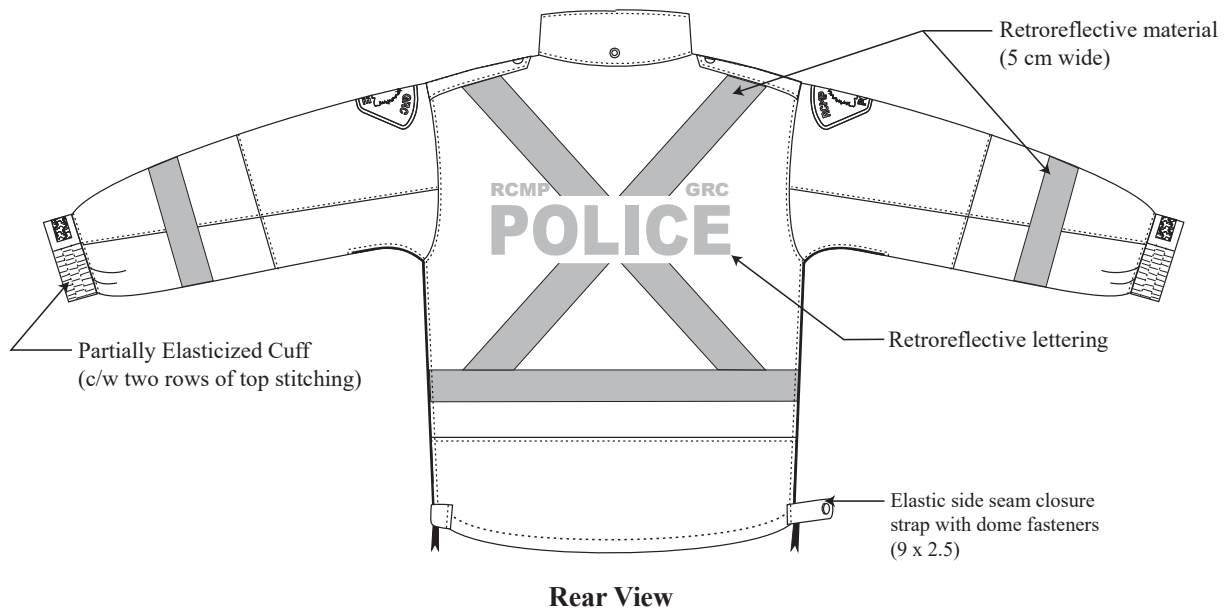
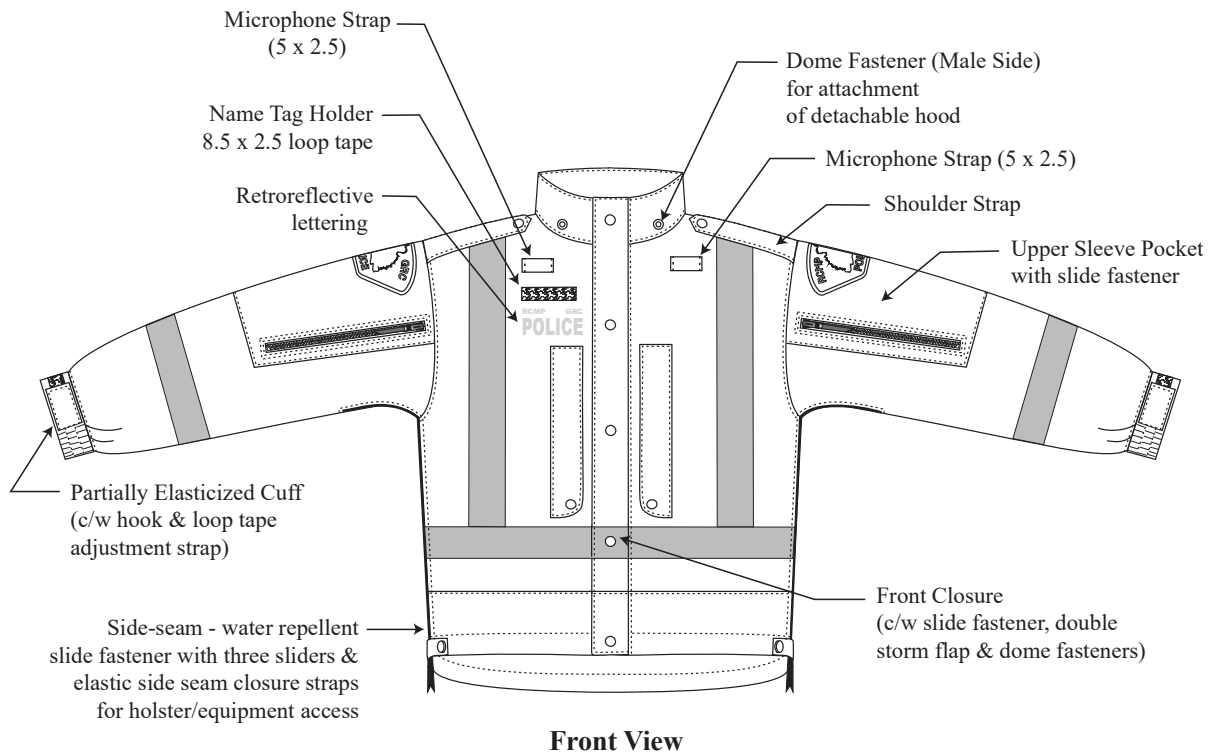
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 2

G.S. 1045-310

Jacket, High Visibility



NOT TO SCALE

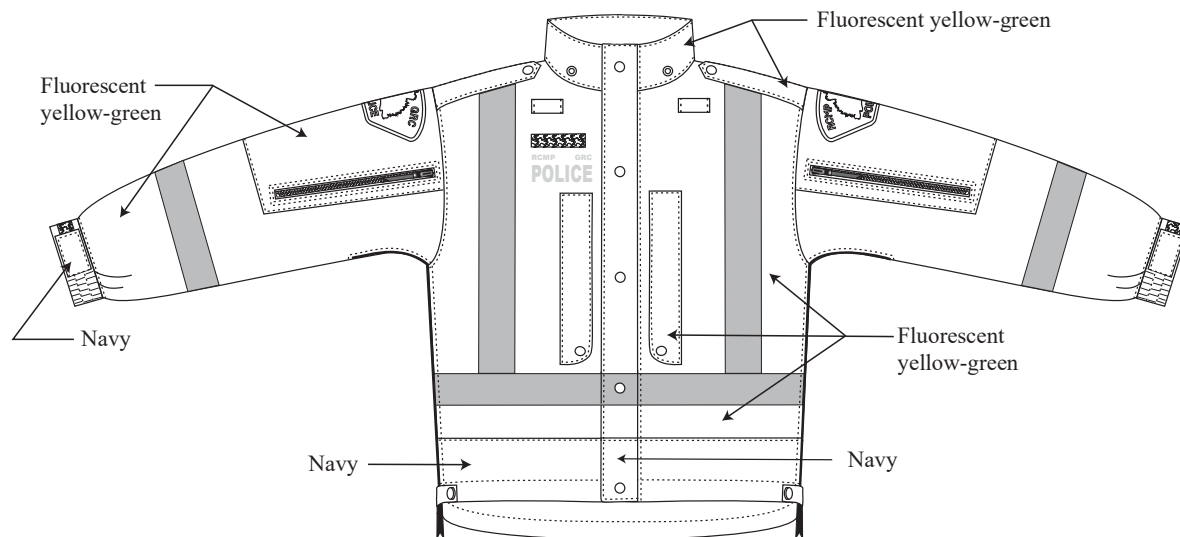
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 3

G.S. 1045-310

Jacket, High Visibility Colour Location



Front View



Rear View

NOT TO SCALE

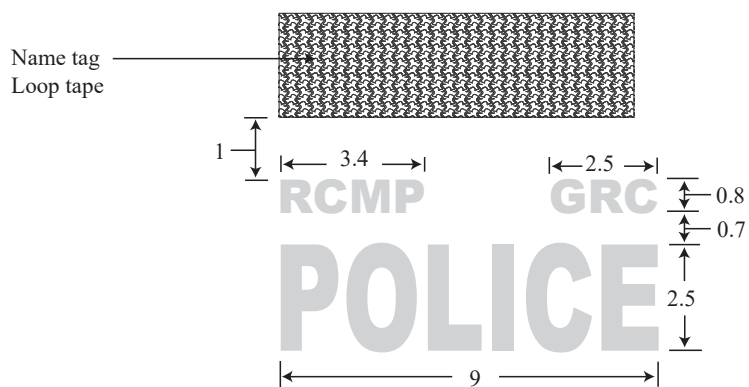
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

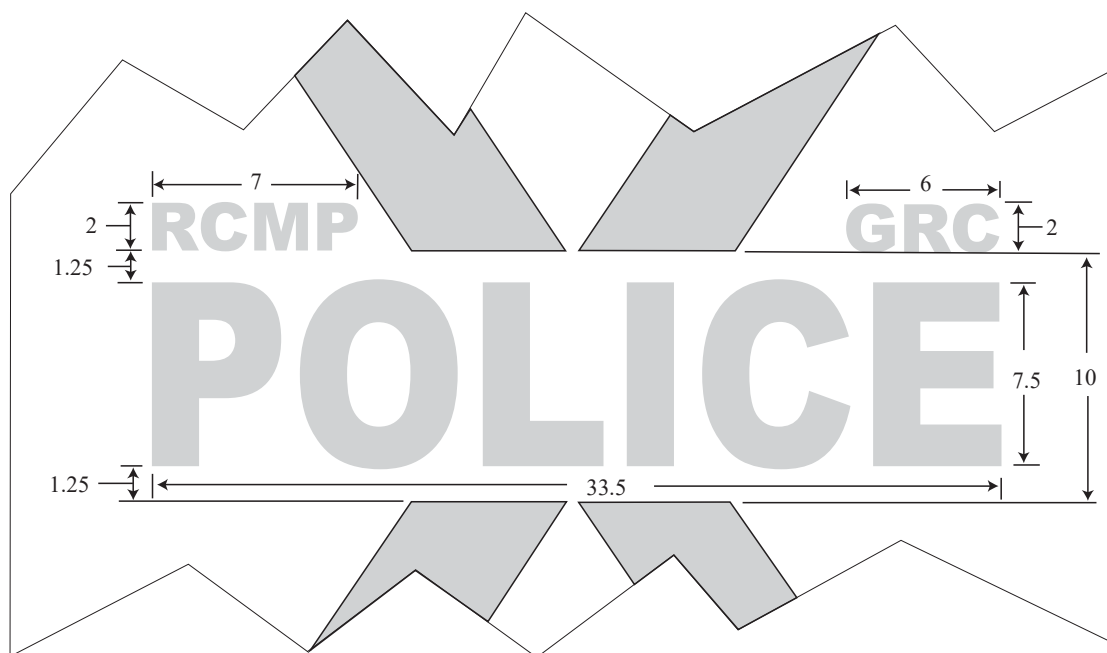
Drawing 4

G.S. 1045-310

Jacket, High Visibility
Police Lettering



Front Retroreflective Lettering



Back Retroreflective Lettering

NOT TO SCALE

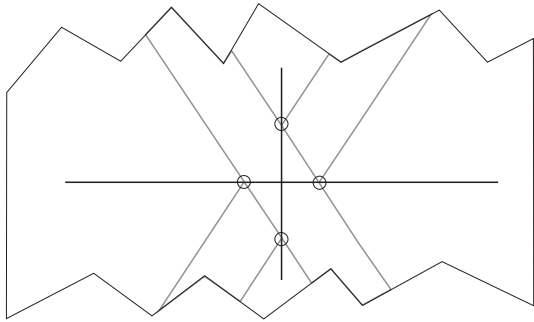
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

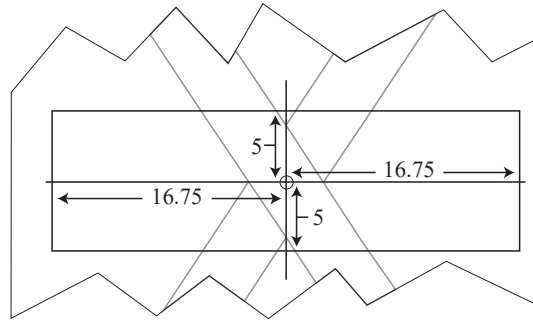
Drawing 5

G.S. 1045-310

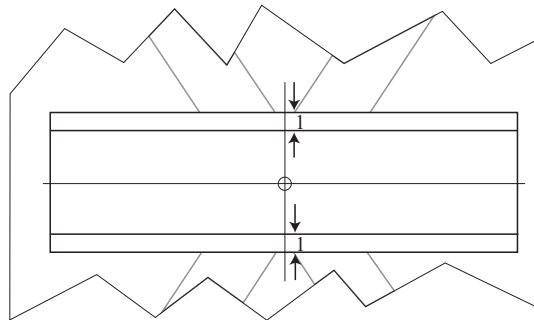
Jacket, High Visibility Lettering Placement for Back



Locate center with vertical and horizontal lines



Measure distances vertically and horizontally from center and mark.
This defines the retroreflective break.



Measure vertically towards center 1 cm and mark



This defines the placement for POLICE.



Extend the lines vertically at each end.
This defines the placement for the RCMP and GRC.



NOT TO SCALE

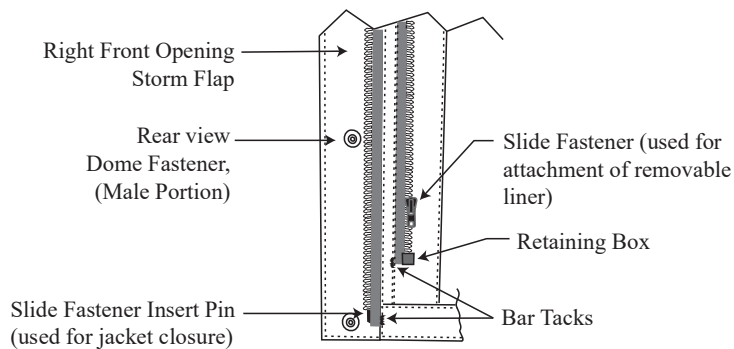
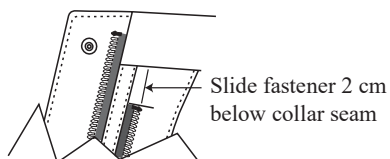
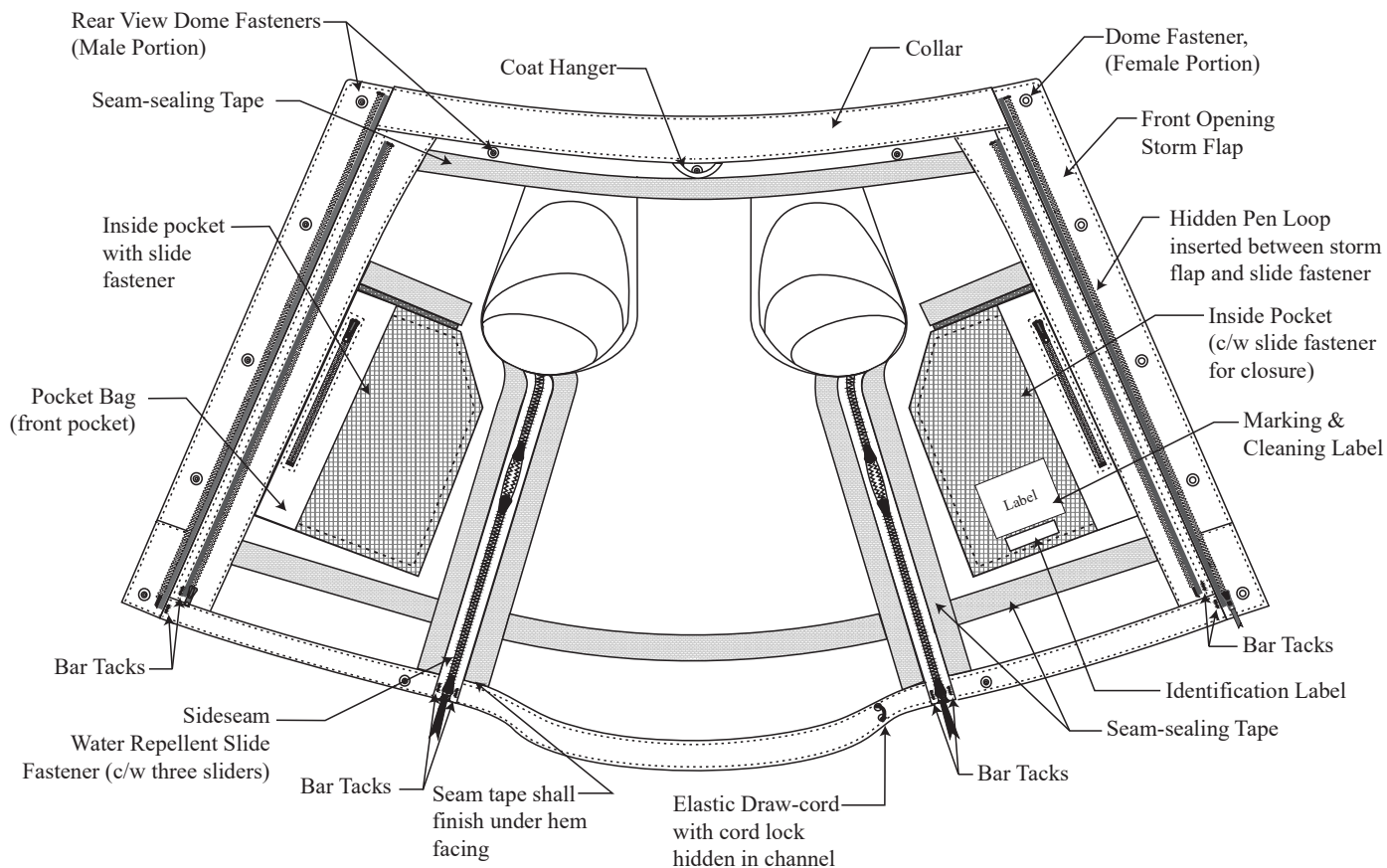
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

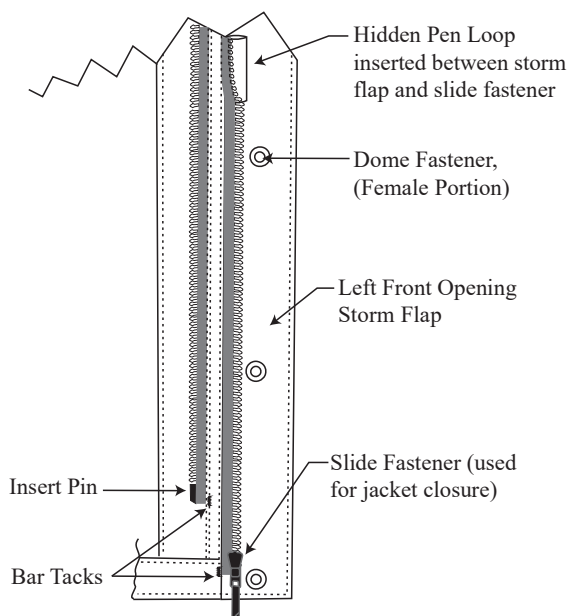
Drawing 6

G.S. 1045-310

Jacket, High Visibility Inside Jacket and Slide Fastener Detail



Slide Fastener Detail
Right Front (Inside View)



Slide Fastener Detail
Left Front (Inside View)

NOT TO SCALE

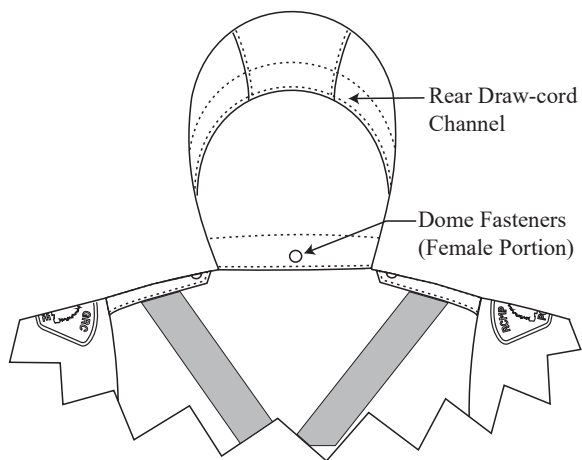
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

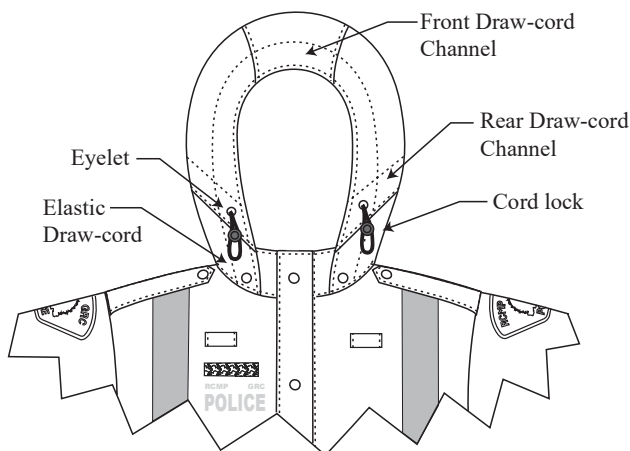
Drawing 7

G.S. 1045-310

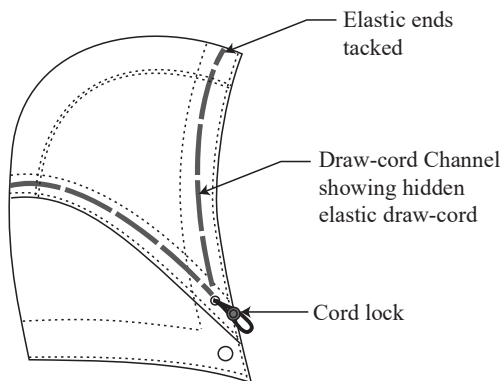
Jacket, High Visibility Detachable Hood and Shoulder Strap Detail



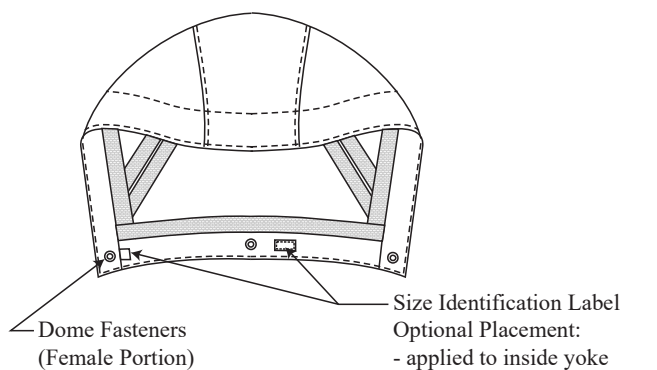
Rear View



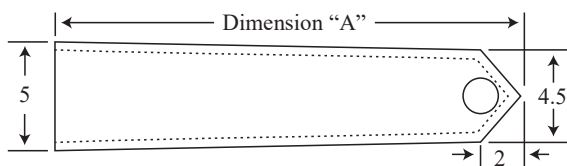
Front View



Side View



Inside Front View



Shoulder Strap Detail

NOT TO SCALE

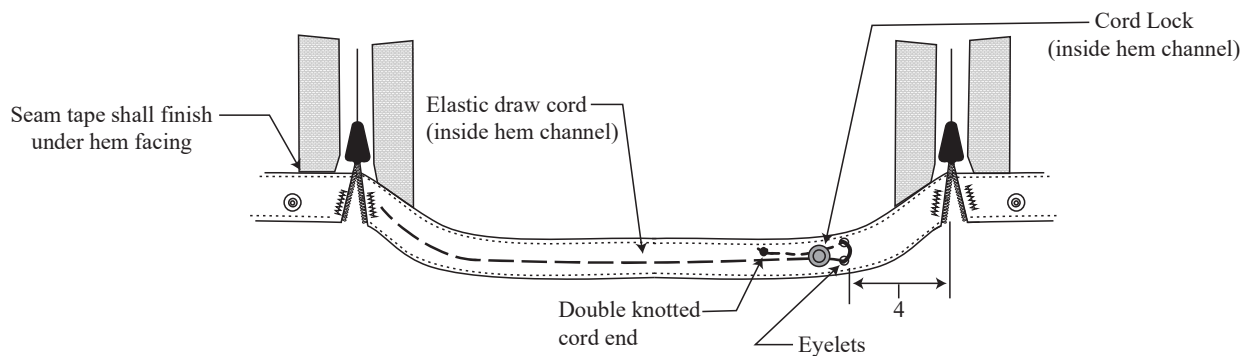
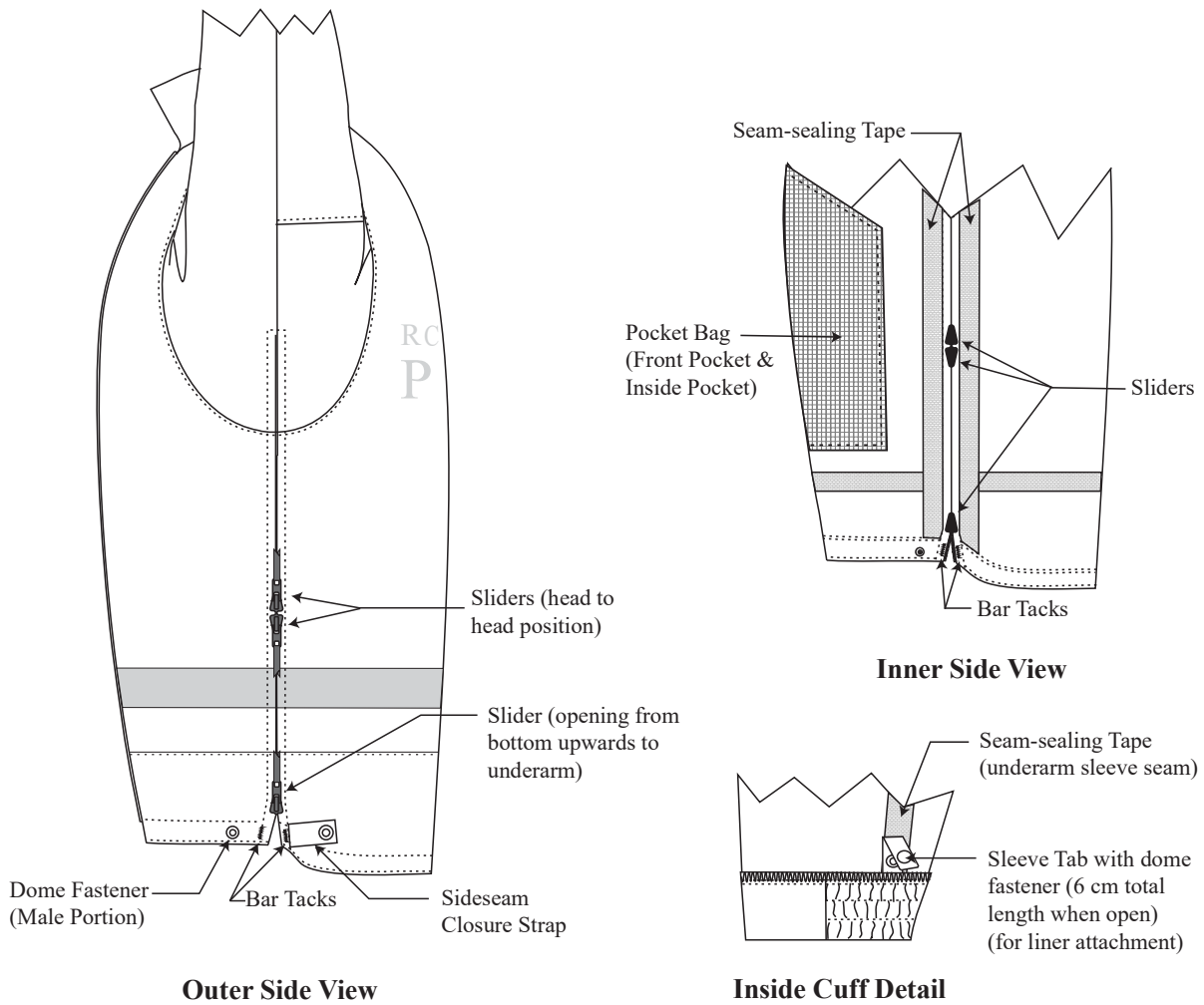
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 8

G.S. 1045-310

Jacket, High Visibility Underarm Detail and Back Hem Channel Detail



NOT TO SCALE

All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.



Royal Canadian Mounted Police
Gendarmerie royale du Canada

Doc. no: G.S. 1045-381
Date: 2019-11-25

Specification

Jacket, Patrol, Unisex, Auxiliary

This document has 41 pages
including the drawings.

This document was created in
English.

The document is available in
English and French.

☒ English/Anglais
Français/French

The photograph on this page
is for reference only.

Modifications

[illegible]

RCMP VIEWING SAMPLE

A viewing sample, when available, will be supplied to the successful bidder.

This will be used for the guidance of the manufacturer in all factors not covered by this specification or referred to therein. Variation from the specification may appear in the sample in which case the specification must govern.

It may be obtained from:

Royal Canadian Mounted Police
Uniform & Equipment Program
(440 Coventry Road, Warehouse Building)
73 Leikin Drive
Ottawa, Ontario
K1A 0R2

It will be sent “prepaid” and is to be returned “prepaid”.

The viewing sample must be returned to the RCMP in the same condition as received by the manufacturer. Lost or damaged viewing samples must be replaced by an identical item or the RCMP must be reimbursed for the cost of an acceptable replacement.

SPECIFICATION
Jacket, Patrol, Unisex, Auxiliary

1. Definitions

- 1.1 This specification must govern the manufacture and inspection of Jacket, Patrol, Unisex, Auxiliary. The specific item covered under this specification with stock number is as follows:
- i. 4012 Jacket, Patrol, Unisex, Auxiliary / Blouson de patrouille unisexe pour auxiliaires,
 - ii. 4013-100 Jacket, Patrol, Unisex, Auxiliary, Special / Blouson de patrouille unisexe pour auxiliaires, taille spéciale.
- 1.2 This specification, pattern, drawing, or other information issued in connection therewith, may only be used for specific enquiries, solicitations, or orders placed on behalf of the Royal Canadian Mounted Police.
- 1.3 This specification supersedes all previous specifications for RCMP Jacket, Patrol, Unisex, Auxiliary.
- 1.4 This specification has been translated into French from this original English language document.

2. Applicable Specifications

- 2.1 The following publications are applicable to this specification and to the issues in effect on the date of the solicitation, unless otherwise specified.
- 2.2 **Canadian General Standards Board (CAN/CGSB);**
- 4.2 No. 5.1-M90 (R2013) Textile test methods – Unit mass of fabrics
 - 4.2 No. 9.2-M90 (R2013) Textile test methods – Breaking strength of fabrics — Grab method
 - 4.2 No. 12.3-2005 (R2013) Textile test methods – Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)
 - 4.2 No. 14-2005 Textile test methods – Quantitative Analysis of Fibre Mixtures
 - 4.2 No. 19.1-2004 (R2013) Textile test methods – Colourfastness to washing, Accelerated test

- | | |
|--------------------------|---|
| 4.2 No. 22-2004 (R2013) | Textile test methods – Colourfastness to rubbing (Crocking) |
| 4.2 No. 23-M90 (R2013) | Textile test methods – Colourfastness to perspiration |
| 4.2 No. 26.3-2010 | Textile test methods – Textile Fabrics — Determination of Resistance to Water Penetration — Hydrostatic Pressure Test |
| 4.2 No. 26.5-M89 (R2013) | Textile test methods – Water resistance — High pressure penetration test |
| 4.2 No. 49-99 (R2013) | Textile test methods – Resistance of materials to water vapour diffusion |
| 4.2 No. 58-2019 | Textile test methods – Dimensional change in domestic laundering of textiles |
| 86.1-2003 | Care Labelling of Textiles |
- 2.3 **General Services Administration – US Government**
Commercial Item Description
A-A-50199A Thread, Polyester Core, Cotton or Polyester-Covered
- 2.4 **General Services Administration – US Government**
Federal Standard, Textile Test Methods; (FED-STD No. 191A)
Method 4108 Strength and Elongation, Breaking; Textile Webbing, Tape and Braided Items
Method 5516 Water Resistance of Cloth; Water Permeability, Hydrostatic Pressure Method
- 2.5 **American Society for Testing and Materials (ASTM)**
D2097-03 (2010) Standard Test Method for Flex Testing of Finish on Upholstery Leather
D413-98 (2017) Standard Test Methods for Rubber Property-Adhesion to Flexible Substrate
D1424-09 (R2013) Standard Test Method for Tearing Strength of Fabrics by Falling-Pendulum (Elmendorf-Type)
D3512/D3512-16 Standard Test Method for Pilling Resistance and Other Related Surface Changes of Textile Fabrics: Random Tumble Pilling Tester
D3776/D3776M-09a (2017) Standard Test Method for Mass per Unit Area (Weight) of Fabric
D3786/D3786M-13 Standard Test Method for Bursting Strength of Textile Fabrics—Diaphragm Bursting Strength Tester

D3886-99 (R2015)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Inflated Diaphragm Apparatus) ¹
D4966-12 (R2016)	Standard Test Method for Abrasion Resistance of Textile Fabrics (Martindale Abrasion Tester Method)
D5034-09 (R2013)	Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)
D5169-98 (R2015)	Standard Test Method for Shear Strength (Dynamic Method) of Hook and Loop Touch Fasteners
D5170-98 (R2015)	Standard Test Method for Peel Strength (“T” Method) of Hook and Loop Touch Fasteners
D8007-15 ^{e1}	Standard Test Method for Wale and Course Count of Weft Knitted Fabrics

2.6 **American Association of Textile Chemists and Colorists (AATCC)**

Test Method 22-2017	Water Repellency: Spray Test
Test Method 61-2013	Colourfastness to Laundering: Accelerated
Test Method 118-2013	Oil Repellency: Hydrocarbon Resistance Test

2.7 **International Standards Organization (ISO)**

105-B02:2014	Colourfastness to artificial light: Xenon arc fading lamp test
105-X12:2016	Colourfastness to rubbing (Crocking)
4920:2012	Textile fabrics — Determination of resistance to surface wetting (spray test)
6330:2012	Domestic washing and drying procedures for textile testing
13937-1:2000	Textiles — Tear properties of fabrics — Part 1: Determination of tear force using ballistic pendulum method (Elmendorf)

2.8 **British Standards Institution (BS)**

BS 3424-26: 1990	Testing coated fabrics. Methods 29A, 29B, 29C and 29D. Methods for determination of resistance to water penetration and surface wetting
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2.9 **Royal Canadian Mounted Police Specification (RCMP)**

PD-PE-97	Patch, Volunteer.
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3. **General Requirements**

- 3.1 The article or material covered by this specification must be free from material and manufacturing defects that may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production must be equivalent in all respects to the pattern.
- 3.2 **Design** – The Jacket, Patrol, Unisex, Auxiliary must be a loose fitting, waist length jacket designed to be worn in conjunction with a removable liner. The shell is constructed from a 3-layer material with a WMVP (waterproof moisture vapour permeable) membrane. The 3-layer fabric construction does not require a lining when made up into a garment. The jacket must be waterproof with all seams permanently seam sealed unless otherwise stated.

4. **Detail Requirements**

4.1 **Components**

- 4.1.1. **Shell Material I** – The shell material I must be plain weave 100% polyester. The colour must be fluorescent yellow-green, meeting the approved colour swatch, with a durable water repellent (DWR) finish. An appropriate heat-set process must be applied to the shell material in order to be prepared for the lamination of the waterproof moisture vapour permeable membrane as specified in para. 4.1.2.
- 4.1.2. **Shell Material I, Laminated** – The shell material must be laminated in a 3-layer format with a membrane, which after lamination provides a high level of water resistance/waterproofness and breathability. The outer layer must consist of shell material as specified in para. 4.1.1, with the membrane as the middle layer, and a white, 100% nylon or polyester warp tricot knit fabric with a maximum weight of 55 g/m², as the inner layer. The layers must be joined together by a suitable lamination process. The membrane when laminated to the shell material must meet the test requirements outlined in Table I and Table II forming part of this specification. The laminated shell materials must not show any visible signs of delamination or loss of film during the garments useful life (approximately 5 years). The fabric must be capable of having its sewn seams, seam-sealed with an appropriate tape, in a waterproof, durable fashion. Materials not meeting these requirements will be cause for rejection. Delamination is defined as any irreparable separation of the bonded layers of the Laminated Shell Material(s).

- 4.1.3. **Seam Sealing Tape** – The 3-layer composite fabric must be seamed using a compatible nylon or polyester seam-sealing tape with the 3-layer shell fabric and sealed-seams meeting the requirements outlined in Table I forming part of this specification. The tape on the sealed seams must not peel off and/or wear during the projected life span of the garment.
- 4.1.4. **Mesh Pocketing** – The pocketing must be a polyester, warp knit mesh, black in colour or to match the shell material, meeting the requirements outlined in Table III. Tek-Knit “XPTAR004” has been known to meet the requirement.
- 4.1.5. **Patch Volunteer** – The RCMP stock item number 4950-100, Patch Volunteer must be purchased from the RCMP.
- 4.1.6. **Thread** – The thread must be polyester wrap, polyester core, Tex 50, Type II of matching colour to the shell material, meeting U.S. government Commercial Item Description A-A-50199A.
- 4.1.7 **Slide Fasteners**
- 4.1.7.1 **Slide Fastener – Front** – The slide fastener must be an open-end separator, black in colour, injection molded, DA automatic slider, Vislon® YKK 26500 VSOR 56 DA86 E 9/16 (only).
- 4.1.7.2 **Slide Fastener – Right Inside Front** – (To be used for the attachment of a removable liner) – The slide fastener must consist of ½ (half) of an open-end slide fastener with the retaining box and slider; it must be injection molded, with a DA automatic slider, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.7.3 **Slide Fastener – Left Inside Front** – (To be used for the attachment of a removable liner) – The slide fastener must consist of ½ (half) of an open-end slide fastener with the insert pin and must be injection molded, black in colour, Vislon® YKK 26590 VSOL 56 DA86 E 9/16 (Left Hand Pin Insertion) (only).
- 4.1.7.4 **Slide Fastener – Upper & Lower Front Pockets** – The slide fastener must be coil, water repellent, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the sliders facing front. It must be black in colour, with long pull tabs, YKK 37088 CIT4C 51 DFBL E 5/8*BTM-2*P-BTM*REV (only).

- 4.1.7.5 **Slide Fastener – Upper Sleeve Pocket** – The slide fastener must be a closed end coil type slide fastener with a DF non-lock slider, black in colour, YKK 12824 C1FC 51 DFW1 E 5/8*TS-TS1*BS-BW (only).
- 4.1.7.6 **Slide Fastener – Side Seam** – The slide fastener must be coil, water repellent, black in colour, with the tape treated with a strong water repellent finish and a coated back of polyurethane. The PU coated side is used as the front with the sliders facing front. It must be closed-ended with three sliders arranged in a back-to-back-head-to-head relation, Aqua Guard YKK 37338 CIT4MC 56/6/6 DA8BLH E/DA8BLH E/DA8BLH E 5/8*SLSB-BH-H*P-TOP*P-BTM*REV (only).
- 4.1.7.7 **Slide Fastener – Inside Pockets** – The inside pocket slide fasteners must be black in colour, woven-in style, DA automatic slider, YKK 20054 CFC 456 DA E 9/16 *E-BTM-2* (only).
- 4.1.8 **Hook and Loop Tape** – The hook and loop tape must be nylon, black in colour, with a high life cycle. The combined hook and loop must have no less than 8 P.S.I length-wise shear strength with initial peel strength of not less than 1 P.I.W. when tested to ASTM D5169-98 (R2015), standard test method for shear strength [dynamic method] of hook and loop touch fasteners and ASTM D5170-98 (R2015), standard test method for peel strength ["T" method] of hook and loop touch fasteners."
- 4.1.9 **Elastic Drawcord** – The drawcord must be round braided polyester elastic, black in colour, 2.4 mm, with maximum elongation of 135% and full recovery. Cansew style #EBR C-38 has been known to meet the requirement.
- 4.1.10 **Cord Locks** – The cord locks must be low profile, cylindrical cord locks, spring loaded in acetyl composition, black in colour. It must come in two sizes. The cord lock for the hem channel must be shaped with a maximum diameter of 13 mm and a maximum depth of 11.2 mm. Texfast style #S217B has been known to meet the requirement. The cord lock for the hood must be shaped with a maximum diameter of 15.5 mm and a maximum depth of 12.5 mm. Texfast style #S217A has been known to meet the requirement.
- 4.1.11 **Eyelets** – The eyelets must be sized to 5-6 mm diameter hole. The eyelets must be made of brass or aluminum in black.

- 4.1.12 **Dome Fastener** – The dome fastener must be a standard type 24 ligne fastener. All metal parts to be brass with a 15 mm matte black, powder coated cap. Universal SW61 (only).
- 4.1.13 **Elastic** – The elastic must be heavy duty woven elastic, with a composition of at least 70% polyester blended with rubber and a medium finish. The elastic must be black in colour. It must be available in two widths: 2.5 cm and 4 cm.
- 4.1.14 **Grosgrain Ribbon** – The grosgrain ribbon must be nylon, black in colour and come in three widths, 6 mm, 1 cm and 2.5 cm.
- 4.1.15 **Webbing, Microphone Strap** – The webbing must be a durable nylon webbing, luggage quality, black in colour measuring 2.54 cm (1”) wide and 0.04” ± 0.01” thick. It must have a minimum tensile strength of 1000 lbs. as per Federal Standard 191A test method 4108. Tape Craft N0015S-1”-YD001-352 has been known to meet the requirements.
- 4.1.16 **Heat Transfer Vinyl** – The heat transfer vinyl used for the volunteer markings must be a polyurethane composition. The thickness must be 80 microns (.08 mm) with a stretch and rebound of 3. The vinyl must withstand 50 home launderings after application.
- 4.2 **Size and Dimensions** – The Jacket, Patrol, Unisex, Auxiliary must be supplied in the sizes specified by the RCMP and to the dimensions given in the scale of measurements and drawings forming part of this specification. The garment components must be shaped, dimensioned and positioned in accordance with the pattern components and pattern requirements as outlined in Appendix “A” forming part of this specification.
- 4.3 **Construction**
- 4.3.1 **Stitching and Seam Sealing** – All stitching must be lockstitch. There must be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching must be securely backstitched or tacked, unless secured by other stitching. Ball point needles must be used for stitching through elastic components. All seams and points where stitching penetrates the shell materials must be permanently sealed on the inside with the appropriate seam-sealing tape as per para. 4.1.3. Care must be taken to ensure that the tape cross-over points where seams join are doubly covered and bonded securely so as to ensure water-resistance. Any

sealed seams showing any form of delamination or any non-bonded or peeling seams must be a cause for rejection.

4.3.2 **Body**

4.3.2.1 **Back**– The body must be made from shell material, as specified in para. 4.1.2. The back panel must have permanent markings must be applied using heat-transfer method. The heat transfer material used must be as specified in para. 4.1.16. The markings must be dark navy blue in colour. The words ‘VOLUNTEER’ and ‘BÉNÉVOLE’ must be centred on the back horizontally and, the words ‘RCMP’, ‘GRC’, ‘AUXILIARY’ and ‘AUXILIAIRE’ must be below as specified in para. 4.3.9 and positioned 20 ± 1.0 cm below the back neckline. The dimensions must be as indicated in drawing 6. The back when finished must be shaped and dimensioned as per the pattern.

4.3.2.2 **Back Hem Channel** – The back hem facing shaped and dimensioned as per the pattern must be sewn face side out, to the bottom of the jacket back to create a hem channel for the elastic drawcord. The hem channel must have two eyelets as per para. 4.1.11, 4 cm from the left side seam as identified in drawing 5. An elastic drawcord as specified in para. 4.1.9 must be securely attached into the right side seam and threaded through the hem channel. It must continue through the smaller cord lock as specified in para. 4.1.10, and through the eyelet outside the hem channel. It must be threaded through the second eyelet. It must continue back through the cord lock where the drawcord must be knotted. When assembled completely, the cord lock must be hidden in the channel with only the looped end of the elastic drawcord showing as per drawings 3. When the bottom channel is relaxed, there must be no extra length of elastic drawcord showing between the two eyelets. The drawcord must lay flat.

4.3.2.3 **Front** – The jacket must be equipped with a center front slide fastener as specified in para. 4.1.7.1, length as specified in Table IV and the bottom ends of the slide fasteners must be bar tacked as per drawing 3. The front must have two front storm flaps with dome fasteners for closure. The front must have four pockets, two upper and two lower pockets, all with slide fasteners and flaps. The outer front yoke extension must be manufactured in a way to create a pocket flap with a dome fastener in order to close the zippered chest pockets. The outer right front yoke flap must have permanent markings applied using heat-transfer method. The heat transfer material used must be as specified in para. 4.1.16. The markings must be dark navy blue in colour. The words ‘VOLUNTEER’ and ‘BÉNÉVOLE’ must be left justified under the loop tape name tag and, the words ‘RCMP’, ‘GRC’,

‘AUXILIARY’ and ‘AUXILIAIRE’ must be below as specified in para. 4.3.9 and dimensioned as per drawing 6. Above the pocket flap must be an 8.5 cm x 2.5 cm piece of loop tape as specified in para. 4.1.8 for the name tag. Both outer left and right front yoke must be equipped with webbing as specified in para. 4.1.15, measuring 2.5 cm x 5 cm for the microphone loop. All components of the front must be constructed as per the patterns and drawings.

- 4.3.2.4 **Chest Pockets** – The jacket must have two upper front pockets with water-resistant slide fasteners as specified in para. 4.1.7.4 and lengths outlined in Table IV. Each chest pocket must have flaps created from the front yoke extension pattern piece which must be dimensioned in accordance with the patterns and drawing 4. The slider must be in a position closest to the center front when closed. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. The centre front of the front yoke piece when sewn to create a pocket flap must be secured with a dome fastener as specified in para. 4.1.12. There must be two inside pockets constructed out of mesh material as specified in para. 4.1.4 secured with a slide fastener as specified in para. 4.1.7.7 and lengths outlined in Table IV. There must be two labels sewn through the mesh inner pocket bag with the Identification label and Marking and Cleaning Instruction as shown in the drawing 3.
- 4.3.2.5 **Lower Pockets** – The jacket must have two lower front pockets with slash openings and flaps. Both lower pockets must have water-resistant slide fasteners as specified in para. 4.1.7.4, lengths outlined in Table IV. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. The slider must be in the down position when the pocket is closed. The pocket bags must be constructed from mesh material as specified in para. 4.1.4 dimensioned and positioned as per the patterns and drawing 2.
- 4.3.2.6 **Under Fly Front & Front Storm Flaps** – The under fly front must be fitted with two injection molded slide fasteners, length as specified in Table IV. One is for the front closure and one is for the attachment of the removable liner. The jacket front slide fastener, as specified in para. 4.1.7.1, must be inserted in a way to have the slider and retaining box on the left front with a ribbon pull as specified in para. 4.3.12 and the insert pin attached on the right front. The left front storm flap must have five dome fasteners (female portion) as specified in para. 4.1.12, which align with the male portions attached to the right front storm flap as per drawing 3. There must be ½ (half) of a slide fastener attached to the right facing and ½ (half) of a slide fastener attached to the left facing to be used for the attachment of a removable liner. The ½ (half) attached to the front right inside facing, as specified in para. 4.1.7.2, must consist of the retaining box and slider which must begin 2 cm below

the collar seam for all sizes. The ½ (half) attached to the left inside front as specified in para. 4.1.7.3 must consist of the insert pin and begin 2 cm below the collar seam for all sizes, as shown in drawing 3. The bottom ends of all the slide fasteners must be bar tacked as per drawing 3. An external pen pocket measuring 2 cm after folding in half must be constructed from a single layer of shell material. It must be sewn to the left chest only directly under the top storm flap between the front slide fastener and storm flap. The pen pocket must be dimensioned and positioned as per the patterns and drawing 3.

- 4.3.3 **Side Seams** – Both side seams from sleeve underarm to hem must be equipped with a water-resistant slide fastener as specified in para. 4.1.7.6, and lengths outlined in Table IV and the bottom ends of the slide fasteners must be bar tacked as per drawings 3 & 5. The slide fastener, when applied, must be covered by the shell material. There must be 3 sliders, the two closest to the underarm should be in a head to head position and the third must be opening from the bottom upwards as shown in drawing 5. All sliders must be equipped with ribbon pulls as specified in para. 4.3.12. The seam tape, when applied, must extend into the front and back hem facing so that no tape ends are visible as shown in drawing 3. The side seam hem must have an elastic closure strap as specified in para. 4.3.13, positioned as per drawing 5.
- 4.3.4 **Collar** – The collar must be made of shell material as specified in para. 4.1.2. There must be three dome fasteners (male portion) as specified in para. 4.1.12 for the attachment of the detachable hood.
- 4.3.5 **Detachable Hood** – The hood must be constructed from shell material as specified in para. 4.1.2, with all sewn seams, seam-sealed. It must be constructed in a way to have double adjustment for height and width, with an elastic drawcord as specified in para. 4.1.9 and large size cord locks as specified in para. 4.1.10. The hood must be secured to the collar with 3 (three) dome fasteners as specified in para. 4.1.12 with the female portion applied to the hood and the corresponding male portion to the collar. Eyelets as per para. 4.1.11 must be applied to each side of the hood side fronts for the insertion of the elastic drawcord. The elastic drawcord must be threaded through the inside channel continuing through the eyelet with cord locks applied as per drawing 4. A label identifying the corresponding hood size must be sewn to the bottom back facing mid back position or centered on the facing as shown in drawing 4.
- 4.3.6 **Sleeve & Sleeve Cuffs** – The jacket must have a three piece sleeve with an upper sleeve pocket constructed from shell material as specified in para. 4.1.2. All sleeve

seams with exception of the underarm seam must be top stitched using a 2 mm gauge. A dome fastener must be applied to a piece of 2.5 cm wide grosgrain ribbon as specified in para. 4.1.14 which is doubled and sewn securely to the cuff/sleeve seam for the attachment of the liner as shown in drawing 5. The sleeves must have a 9 cm adjustment strap with a 4.5 cm x 2.5 cm piece of hook tape as specified in para. 4.1.8 for adjustability. The cuff must be 4 cm wide with a 12 cm x 2.5 cm piece loop tape to secure the adjustment strap. The cuff must be partially elasticized using 4 cm wide elastic as specified in para. 4.1.13. The elasticized area of the cuff must have two rows of top stitching to anchor the elastic. The sleeves and cuffs must be shaped and dimensioned as per the patterns.

- 4.3.7 **Shoulder Straps** – The shoulder straps shaped and dimensioned in accordance with the patterns and drawing 4, must be made from two layers of shell material as specified in para. 4.1.2. They must be sewn into the sleeve-head and positioned as per the pattern. The shoulder strap must be secured to the jacket shoulder with the dome fastener specified in para. 4.1.12. Refer to Table V for the finished length by size.
- 4.3.8 **Upper Sleeve Pocket** – Both sleeves must have an upper sleeve pocket constructed from shell material with a slide fastener as specified in para. 4.1.7.5. When in a closed position, the slider must be facing toward the shoulder as shown in drawing 2. Ribbon pulls as specified in para. 4.3.12 must be applied to the sliders. There must be two rows of topstitching around the slide fastener, using 2 mm gauge and 6 mm gauge. The sleeve pocket must be sewn to the sleeve, top-stitched using a 2 mm gauge and seam sealed appropriately to ensure waterproofness. The upper sleeve pocket must be constructed in accordance with the patterns and drawings of this specification.
- 4.3.9 **Heat Transfer Lettering** –The heat transfer material as specified in para. 4.1.16 must be heat transferred with ‘VOLUNTEER’, ‘BÉNÉVOLE’, ‘RCMP’, ‘GRC’, ‘AUXILIARY’ and ‘AUXILIAIRE’ dark navy blue lettering on the front and back shell material II and positioned as per drawing 2. The dimensions of the lettering must be as per drawing 6.
- 4.3.10 **Volunteer Patches** – The Volunteer patches specified in para. 4.1.5 must be sewn through the upper sleeve pocket only (not through the sleeve). The patch is to be centered on the sleeve-head 2.5 ± 0.2 cm below the sleeve-head seam and attached with one row of stitching.

- 4.3.11 **Coat Hanger** – A 6 cm long coat hanger, constructed from 6 mm wide grosgrain ribbon as specified in para. 4.1.14 must be centered at the neck.
- 4.3.12 **Slide Fastener Ribbon Pulls** – All ribbon pulls must be constructed with grosgrain ribbon 1 cm wide, as specified in para. 4.1.14. The ribbon must be applied to the hole of the slide fastener pull in a way that allows the ribbon pulls to be removed easily without damage and reapplied. The ribbon pull should be 5 cm \pm 0.5 cm in length when finished and attached to the slide fastener.
- 4.3.13 **Side Seam Closure Strap** – There must be a side seam closure strap measuring 9 cm \pm .5 cm when finished, at the side seam hem. It must be constructed from 2.5 cm wide elastic as specified in para. 4.1.13, doubled and must be sewn to the lower back side seam flipping toward the front, equipped with a female dome fastener for closure. The corresponding male dome fastener must be applied to the jacket front at the hem.
- 4.3.14 **Identification Label** – Each jacket must have a durable blank label 7.5 cm x 2 cm applied separately below the marking and cleaning label used for the inscription of the wearers' name.
- 4.3.15 **Marking & Cleaning Instructions Label** – Each jacket must have a durable label positioned and sewn to the bottom of the inside pocket bag as shown in drawing 3. The text must be permanent inks of a contrasting colour and must withstand at least 50 washes with no apparent change in appearance. All text except for the RCMP stock number and size must be in size 6 font. The RCMP stock number and size must appear in size 8 font. The manufacturer's identification must not appear anywhere on the garment except where indicated on the label. The label must contain the following information in English and French.
1. Item name in English as written in para. 1.1.
 2. Item name in French as written in para. 1.1.
 3. RCMP stock number - reference contract documents. (Ex. 4012 000)
 4. Size and height group of the article, combining the size designation referenced in the English and French contract documents. (Ex. L/R - G/R)
 5. Date of manufacture, in numeric format year/month (Ex. 2018/11)
 6. Your manufacturer identification (Company name or number).
 7. Print information as shown below.

1		
2		
3		
4		
5		
6		
7	Machine wash - warm (40°C)	Laver à la machine – à l'eau tiède (40°C)
	Do Not use fabric softener or chlorine bleach	Ne pas utiliser d'agent adoucissant ni d'agent de blanchiment
	Tumble dry- medium (Do Not use dryer sheets)	Séchage par culbutage – à température moyenne (Ne pas utiliser d'assouplissant en feuilles)
	Steam iron - low	Repassage à vapeur - à température basse
	Dry clean - If professionally dry cleaned request clear distilled solvent rinse; request spray repellent.	Nettoyer à sec – demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit hydrofuge en aérosol.
	Further care instructions: See Ordering Guide.	Instructions d'entretien supplémentaires: Voir le guide de commande.

4.3.16 **Instruction Sheet** – Each completed jacket must have an instruction sheet folded and inserted into the inside chest pocket bag, with the information included in Appendix 'B' English and French, forming a part of this specification.

5. **Quality Assurance Provisions**

5.1 **Responsibility for Inspection** – Unless otherwise stipulated in the Contract, it is the Contractor's responsibility to satisfy the RCMP, Uniform and Equipment Program that the material and services being supplied conform to this specification. This may be accomplished by performing the tests specified in this specification or by demonstrating to the satisfaction of the RCMP, Uniform and Equipment Program that conformity to this specification of manufacturing processes is assured. The Contractor must use an independent commercial testing establishment.

5.2 The RCMP, Uniform and Equipment Program reserve 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.

- 5.3 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.

6. **Scale of Measurement Definitions and Location References**

(Refer to the Scale of Measurements and Drawing No. 1).

- 6.1 **Chest Circumference (total circumference)** – When placed flat, the chest circumference is the distance across the jacket, measured at the lowest point of the armholes. The result must be doubled to measure total circumference. (A).
- 6.2 **Bottom Circumference (total circumference)** – When placed flat, the bottom is measured across the jacket bottom. The result must be doubled to measure total circumference. (B).
- 6.3 **Front Length** – The length is the distance measured from the top of the collar to the hem at front. (C).
- 6.4 **Side Length** – The length is the distance measured from the base of the armhole at the side to the hem. (D).
- 6.5 **Full Shoulder Width** – The full shoulder width is the distance measured at the shoulder seam from neckline to armhole. (E).
- 6.6 **Sleeve Length Overarm** – The overarm sleeve length is the distance from the armhole at the shoulder seam to the bottom edge of the sleeve cuff. (F).
- 6.7 **Sleeve Length Underarm** – The underarm sleeve length is the distance under sleeve from the armhole to the bottom edge of the sleeve cuff. (G).
- 6.8 **Sleeve Cuff Circumference (Relaxed)** – The sleeve cuff is measured at the bottom edge of the sleeve. The result must be doubled to measure total circumference. (H).
- 6.9 **Elbow Circumference** – The elbow is measured across the width of the sleeve in line with the seam of the sleeve patch. The result must be doubled to measure total circumference. (J).
- 6.10 **Back Length** – The length is the distance measured from the bottom of the collar at the back to the hem. (K).
- 6.11 **Back Width** – When placed flat, the distance measured across the back from armhole to armhole at the sleeve seam. (L).
- 6.12 **Collar Length** – The collar length is measured along the seam from slide fastener to slide fastener. (M).

Scale of Measurements – Jacket, Patrol, Unisex, Auxiliary															
SIZE DESIGNATION		BODY MEASUREMENTS			GARMENT MEASUREMENTS										
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Short	XXS	31" - 33"	79 - 84	109.0	96.5	48.0	20.0	14.0	51.0	50.0	24.0	44.5	56.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	50.0	21.0	15.0	53.0	51.0	25.0	47.0	58.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	52.0	22.0	16.0	55.0	52.0	26.0	49.5	60.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	54.0	23.0	17.0	57.0	53.0	27.0	52.0	62.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	56.0	24.0	18.0	59.0	54.0	28.0	54.5	64.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	58.0	25.0	19.0	61.0	55.0	29.0	57.0	66.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	60.0	26.0	20.0	63.0	56.0	30.0	59.5	68.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	62.0	27.0	21.0	65.0	57.0	31.0	62.0	70.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	64.0	28.0	22.0	67.0	58.0	32.0	64.5	72.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	66.0	29.0	23.0	69.0	59.0	33.0	67.0	74.0	66.5	65.0
Short	XXS	31" - 33"	79 - 84	109.0	96.5	53.0	25.0	14.0	55.0	54.0	24.0	44.5	61.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	55.0	26.0	15.0	57.0	55.0	25.0	47.0	63.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	57.0	27.0	16.0	59.0	56.0	26.0	49.5	65.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	59.0	28.0	17.0	61.0	57.0	27.0	52.0	67.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	61.0	29.0	18.0	63.0	58.0	28.0	54.5	69.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	63.0	30.0	19.0	65.0	59.0	29.0	57.0	71.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	65.0	31.0	20.0	67.0	60.0	30.0	59.5	73.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	67.0	32.0	21.0	69.0	61.0	31.0	62.0	75.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	69.0	33.0	22.0	71.0	62.0	32.0	64.5	77.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	71	34	23.0	73.0	63.0	33.0	67.0	79.0	66.5	65.0
TOLERANCES ±				3 cm	3 cm	2 cm	1.5 cm	1 cm	1.5 cm	1 cm	2 cm	2 cm	1 cm	1 cm	
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements – Jacket, Patrol, Unisex, Auxiliary															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
Regular	XXS	31" - 33"	79 - 84	109.0	96.5	58.0	30.0	14.0	59.0	58.0	24.0	44.5	66.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	60.0	31.0	15.0	61.0	59.0	25.0	47.0	68.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	62.0	32.0	16.0	63.0	60.0	26.0	49.5	70.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	64.0	33.0	17.0	65.0	61.0	27.0	52.0	72.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	66.0	34.0	18.0	67.0	62.0	28.0	54.5	74.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	68.0	35.0	19.0	69.0	63.0	29.0	57.0	76.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	70.0	36.0	20.0	71.0	64.0	30.0	59.5	78.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	72.0	37.0	21.0	73.0	65.0	31.0	62.0	80.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	74.0	38.0	22.0	75.0	66.0	32.0	64.5	82.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	76.0	39.0	23.0	77.0	67.0	33.0	67.0	84.0	66.5	65.0
Tall	XXS	31" - 33"	79 - 84	109.0	96.5	63.0	35.0	14.0	63.0	62.0	24.0	44.5	71.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	65.0	36.0	15.0	65.0	63.0	25.0	47.0	73.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	67.0	37.0	16.0	67.0	64.0	26.0	49.5	75.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	69.0	38.0	17.0	69.0	65.0	27.0	52.0	77.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	71.0	39.0	18.0	71.0	66.0	28.0	54.5	79.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	73.0	40.0	19.0	73.0	67.0	29.0	57.0	81.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	75.0	41.0	20.0	75.0	68.0	30.0	59.5	83.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	77.0	42.0	21.0	77.0	69.0	31.0	62.0	85.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	79.0	43.0	22.0	79.0	70.0	32.0	64.5	87.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	81.0	44.0	23.0	81.0	71.0	33.0	67.0	89.0	66.5	65.0
TOLERANCES ±				3 cm	3 cm	2 cm	1.5 cm	1 cm	1.5 cm	1.5 cm	1 cm	2 cm	2 cm	1 cm	1 cm
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements – Jacket, Patrol, Unisex, Auxiliary															
SIZE DESIGNATION		BODY MEASUREMENTS		GARMENT MEASUREMENTS											
Height Group	Size	Chest		Chest Circumference	Bottom Circumference	Front Length (top of collar to hem)	Side Seam Length (underarm to hem)	Full Shoulder Width (Shoulder seam from neckline to armhole)	Sleeve Length		Cuff Circumference	Elbow Circumference	Back Length (Bottom of collar at back to hem)	Back Width	Collar Length (zipper to zipper)
		Inches	cm						Overarm (Shoulder seam to cuff)	Underarm (Underarm seam to cuff)					
X Tall	XXS	31" - 33"	79 - 84	109.0	96.5	68.0	40.0	14.0	67.0	66.0	24.0	44.5	76.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	70.0	41.0	15.0	69.0	67.0	25.0	47.0	78.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	72.0	42.0	16.0	71.0	68.0	26.0	49.5	80.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	74.0	43.0	17.0	73.0	69.0	27.0	52.0	82.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	76.0	44.0	18.0	75.0	70.0	28.0	54.5	84.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	78.0	45.0	19.0	77.0	71.0	29.0	57.0	86.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	80.0	46.0	20.0	79.0	72.0	30.0	59.5	88.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	82.0	47.0	21.0	81.0	73.0	31.0	62.0	90.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	84.0	48.0	22.0	83.0	74.0	32.0	64.5	92.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	86.0	49.0	23.0	85.0	75.0	33.0	67.0	94.0	66.5	65.0
XX Tall	XXS	31" - 33"	79 - 84	109.0	96.5	73.0	45.0	14.0	71.0	70.0	24.0	44.5	81.0	39.5	47.0
	XS	34" - 36"	86 - 91	116.5	104.0	75.0	46.0	15.0	73.0	71.0	25.0	47.0	83.0	42.5	49.0
	S	37" - 39"	94 - 99	124.0	111.5	77.0	47.0	16.0	75.0	72.0	26.0	49.5	85.0	45.5	51.0
	M	40" - 42"	102 - 107	131.5	119.0	79.0	48.0	17.0	77.0	73.0	27.0	52.0	87.0	48.5	53.0
	L	43" - 45"	109 - 114	139.0	126.5	81.0	49.0	18.0	79.0	74.0	28.0	54.5	89.0	51.5	55.0
	XL	46" - 48"	117 - 122	146.5	134.0	83.0	50.0	19.0	81.0	75.0	29.0	57.0	91.0	54.5	57.0
	2XL	49" - 51"	124 - 129	154.0	141.5	85.0	51.0	20.0	83.0	76.0	30.0	59.5	93.0	57.5	59.0
	3XL	52" - 54"	132 - 137	161.5	149.0	87.0	52.0	21.0	85.0	77.0	31.0	62.0	95.0	60.5	61.0
	4XL	55" - 57"	140 - 145	169.0	156.5	89.0	53.0	22.0	87.0	78.0	32.0	64.5	97.0	63.5	63.0
	5XL	58" - 60"	147 - 152	176.5	164.0	91.0	54.0	23.0	89.0	79.0	33.0	67.0	99.0	66.5	65.0
TOLERANCES ±				3 cm	3 cm	2 cm	1.5 cm	1 cm	1.5 cm	1.5 cm	2 cm	2 cm	1 cm	1 cm	
MEASUREMENT LOCATION				A	B	C	D	E	F	G	H	J	K	L	M

NOTE: All dimensions are in centimeters unless otherwise indicated.

TABLE I
Properties of Laminated Shell Material (with WMVP membrane & tricot backing)

	Test	Test Method	Duration	Min. Value Shell Material I
1	Resistance of Materials to Water Vapour Diffusion	CAN CGSB 4.2 No. 49-99 (R2013), Option 1 *See test procedure #1	- Initial - After 5 launderings - After ageing (70°C & 95% RH for 168 hrs)	13 mm max.
2	Hydrostatic Resistance	CAN CGSB 4.2 No. 26.5-M89 (R2013) *See test procedure #2	- Initial - After 5 launderings	1240.2 kPa
3	Low Pressure Water Permeability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #3	- Initial	No Leakage
		ASTM D2097-03 (2010) * See test procedure #4	- After Cold Flex Warp /Fill	No Leakage
4	High Pressure Water Permeability	BS 3424: Part 26: 1990 Method 29A * See test procedure #5	- Initial	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After Unleaded Gasoline	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #6	- After DEET Insect Repellent in cream format	No Leakage
		BS 3424: Part 26: 1990 Method 29A * See test procedure #7	- After Synthetic Perspiration	No Leakage
5	Abrasion Resistance	ASTM D3886-99 (R2015) Procedure: use No. 0 Emery Polishing Paper * See test procedure #8	- 3200 Cycles	No failure
SEAMS				
6a	Seam Tape Durability	CAN CGSB 4.2 No. 26.3-2010 * See test procedure #9	- Initial	No Leakage
6b		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #10	- After 10 laundry cycles	No Leakage
6c		CAN CGSB 4.2 No. 26.3-2010 * See test procedure #11	- After 10 dry-clean cycles	No Leakage
7	Delamination	Visual	- Examination after each procedure 6a through 6c	No Delamination
8	Peel Strength N/23 mm	ASTM D413-98 (2017)		8 N/23mm minimum

TEST PROCEDURES FOR TABLE I

1. The knit side of the laminated cloth must face the water. The tests must be completed as outlined in CAN/CGSB 4.2 Method 49-99 (R2013), Option #1. The samples must be conditioned at $21^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($69.8^{\circ}\text{F} \pm 2^{\circ}\text{F}$) and relative humidity must be $65 \pm 2\%$. The test specimen must be placed approximately equidistant between the dry airflow and the water cell. Four specimens must be tested per condition. The tests must be completed initially and after 5 launderings according to ISO 6330:2012 Method 2B-F.
2. The water pressure must be applied to the knit side of the laminated cloth. A taffeta fabric restraint conforming to MIL-C-21852F-TYPE III-CLASS1 PART#WJAAGNA should be placed on top of the sample against the face side of the laminated cloth. The tests must be completed initially and after 5 launderings according to ISO 6330:2012, Method 2B-F.
3. The knit side of the laminated cloth must contact the water. The hydrostatic head must be 13.78 kPa (2.0 psi) and must be held for 3 minutes. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area. The test may be performed using any device which tests the same specimen area at the equivalent pressure. In case of dispute, the apparatus described in FED-STD-191A Method 5516 must be used.
4. Ten warp and ten fill specimens 8.26 cm x 11.43 cm (3.25" x 4.5") must be selected from each sample unit. The 8.26 cm (3.25") dimension is the test direction. Specimens must be flexed for 20,000 cycles as specified in ASTM D2097-03 (2010) and as follows: Mark the knit side of each specimen with two lines 4.32 cm (1.7") apart and perpendicular to the test direction. The area between the lines is the test area and must be centered on the knit side of the specimen. Wrap the specimens around fully extended pistons with the knit side out. The test area lines must meet evenly and must line up with the edges of the pistons. Clamp in place making sure the clamps are not in the test area. Check specimen for smoothness and tautness (wrinkles cause improper flexing). The distance between the pistons must be 4.32 cm (1.7") in the open position and 1.27 cm (0.5") in the closed position as measured from the bottom of the upper piston and top of the lower piston. Place the test apparatus with mounted specimens in a test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$) for a one hour conditioning period and then flex in the test chamber at $-31.67^{\circ}\text{C} \pm 1^{\circ}\text{C}$ ($-25^{\circ}\text{F} \pm 2^{\circ}\text{F}$). After flexing, test for water permeability as in test procedure 3 except that the orifice of the tester must be modified to accommodate the smaller specimen size
5. The water pressure must be applied to the knit side of the laminated cloth from below the test specimen. The maximum pressure of 172.25 kPa (25 psi) must be attained in 2 minutes \pm 20 seconds and must be applied for 5 minutes. Leakage is defined as the appearance of water any place within the test area.

6. Place a 15.24 cm x 15.24 cm (6" x 6") piece of blotting paper on a flat surface and cover with a 25.4 cm x 25.4 cm (10" x 10") test specimen with the face side up. Weigh out 2.0 gm \pm 0.1 gm (.07 oz \pm .004 oz) of solid contaminant or pipette 2.0 ml (.07 f. oz) of a liquid contaminant. Place the contaminant on the center of the specimen and cover with a 15.24 cm x 15.24 cm (6" x 6") piece of glassine paper. Place a 1.81 kg (4 lbs) weight on the glassine paper directly over the contaminated area. Allow the weight to remain on the specimen for 30 minutes. Remove the weight and glassine paper and allow the specimen to sit undisturbed for an additional 30 minutes. Wipe off any excess contaminant using a fresh piece of blotting paper and test for water permeability as per procedure 6 except that the water pressure must be applied for 3 minutes.
7. One specimen per sample unit must be tested for water permeability after exposure to synthetic perspiration. The specimen must be not less than 15.24 cm (6") in diameter. The test cups must accommodate this size specimen and must have a depth of at least 2.5 cm (1"). The cups must be sealed to prevent leakage. The solution must contact the knit side of the laminate.

Synthetic perspiration must be prepared by stirring the following ingredients into 500 ml of distilled water:

3 grams sodium chloride
 1 gram predigested protein
 1 gram n-propyl propionate
 0.5 gram lecithin (phosphatidyl choline)

The predigested protein must contain the following amino acids:

<u>Ingredient</u>	<u>Milligrams (mg)</u>
Lysine	82.5
Histidine	27.5
Arginine	40.0
Aspartic acid	72.5
Threonine	42.5
Serine	50.0
Glutamic acid	197.5
Proline	92.5
Glycine	22.5
Alanine	28.7
Cystine	4.7
Valine	66.2

Methionine	30.0
Isoleucine	53.8
Leucine	87.5
Tyrosine	51.3
Phenylalanine	48.8
Tryptophan	18.8

The solution must be stirred continuously and heated to $50 \pm 1^{\circ}\text{C}$, then covered and cooled to approximately 35°C .

The solution must be stirred such that any solid particles are suspended in solution and poured into the test cup. The cup must be inverted to allow the synthetic perspiration to touch the specimen.

After 48 hours of contact with the solution, the specimen must be removed from the cup, rinsed in warm water, dried and tested for water permeability as specified in test procedure #6 except that the water pressure must be applied for 3 minutes.

8. Method ASTM D3886-99 (R2015) Procedure: Use No. 0 Emery Polishing Paper. Side abraded must be the knit side, with a multidirectional abrasion motion. Change abradant after each 300 cycles or specimen failure. The air pressure under the diaphragm should be 4 psi, and the load on the abradant plate should be 1 lb. Failure is determined by breaking of the electrical contact.
9. A minimum of 3 straight seams and 2 cross-over seams must be tested prior to laundry cycle testing and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge.
10. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) home laundry cycles and remain waterproof (no leakage) when tested at 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge. Laundry testing should be performed in accordance with procedure specified in ISO 6330:2012 Method 2B-F.
11. A minimum of 3 straight seams and 2 cross-over seams must be tested after ten (10) dry clean

cycles and remain waterproof (no leakage) when tested a 13.78 kPa (2 psi) for 3 minutes with the seam tape side facing up, away from the water challenge. Leakage is defined as the appearance of water any place within the 11.43 cm (4.5") diameter test area since the seam tape process can damage the fabric adjacent to the tape. Test for water permeability as in procedure #3 except the face fabric must face the water challenge.

TABLE II
Properties of Laminated Shell Material I (Fluorescent Yellow-Green)

REQUIREMENTS				TEST METHODS
1	Mass (Laminated)	205 g/m ² (maximum.)		<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 5.1-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D3776/D3776M-09a (2017)
2	Background - Material Colour	<u>Initial:</u> CSA-Z96-15, Table 2A - Fluorescent yellow-green <u>After colourfastness to light (AATCC 16.3-2014 Test Option 3, 40 AATCC Fading Units):</u> CSA-Z96-15, Table 2A - Fluorescent yellow-green		<ul style="list-style-type: none"> ASTM E1164-12 Colour to match the sample swatch
3	Colourfastness - To Light – Xenon Arc Method	Gray Scale 3 or better, when compared to an unexposed swatch of the same fabric		<ul style="list-style-type: none"> ISO 105-B02:2014, Method 4 Exposure B, 160 hours
4	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 22-2004 (R2013) OR <ul style="list-style-type: none"> ISO 105-X12:2016
		Wet:	Gray Scale 4 or better	
5	Colour Fastness - To Perspiration	Colour change:	Gray Scale 4 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 23-M90 (R2013)
		Staining:	Gray Scale 4 or better	
6	Colour Fastness - To Laundering	Colour change:	Gray Scale 4.5 or better	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 19.1-2004 (R2013) Test 2A OR <ul style="list-style-type: none"> AATCC Test Method 61-2013
		Staining:	Gray Scale 3 or better	
7	Dimensional Change to Laundering – <i>After 5 cycles:</i>	Warp:	3% max	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 58-2019, 3, D1
		Weft:	3% max	
8	Breaking Strength - Grab Method	Warp:	550.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 9.2-M90 (R2013) OR <ul style="list-style-type: none"> ASTM D5034-09 (2013)
		Weft:	450.0 Newton (min)	
9	Tearing Strength	Warp:	15.0 Newton (min)	<ul style="list-style-type: none"> CAN/CGSB-4.2 No. 12.3-2005 (R2013) OR <ul style="list-style-type: none"> ISO 13937-1:2000 OR <ul style="list-style-type: none"> ASTM D1424-09 (2013)
		Weft:	14.0 Newton (min)	
10	Abrasion Resistance – Martindale Tester	No breakdown after 10,000 at 9 kPa		<ul style="list-style-type: none"> ASTM D4966-12 (R2016) Option 1

TABLE III
Properties of Mesh, Pocketing

REQUIREMENT				TEST METHODS
1	Colour	Black or Navy To match colour swatch provided by Uniform and Equipment Program		
2	Fiber Content	100% Polyester		• CAN/CGSB-4.2 No. 14-2005
3	Knit Construction	Warp Knit		
4	Yarns per inch	Wales: 33 ± 3 Courses: 28 ± 3		• ASTM D8007-15 ^{el}
5	Mass	115 g/m ² ± 6 g/m ² (109 g/m ² – 121 g/m ²)		• CAN/CGSB-4.2 No. 5.1-M90 (2013) OR • ASTM D3776/D3776M-09a (2017)
6	Dimensional Change to Domestic Washing <i>After 5 cycles</i>	Warp:	4% max	• CAN/CGSB-4.2 No. 58-2019 3,D1
		Weft:	3% max	
7	Colour Fastness - To Crocking	Dry:	Gray Scale 4 or better	• CAN/CGSB-4.2 No. 22-2004 (R2013)
		Wet:	Gray Scale 4 or better	
8	Colour fastness to Washing	Colour change:	Gray Scale 4 or better	• CAN/CGSB-4.2 No. 19.1-2004 Test #2 OR • AATCC 61-2013
		Staining – cotton:	Gray Scale 4 or better	
		Staining – polyester:	Gray Scale 4 or better	
9	Mullen Burst (psi)	100 (minimum)		• ASTM D3786/D3786M-13
10	Abrasion Resistance – Martindale Tester	No breakdown after 25,000 at 9 kPa		• ASTM D4966-12 (R2016) Option 1
11	Pilling	No less than 4 after 120 minutes		• ASTM D3512/D3512M-16

Table IV
Slide Fastener Lengths in inches

Height Group	Sizes	Front	Inside Front	Side Seam	Sleeve Pocket	Chest Pocket	Lower Front Pocket	Inside Pocket
X Short	XX Small	17½"	13½"	13"	7"	5"	5½"	7"
	X Small	18½"	14½"	13"	7"	5"	5½"	7"
	Small	19"	15"	13"	7"	5½"	5½"	7"
	Medium	20"	15½"	14"	7"	5½"	5½"	7"
	Large	21"	16½"	14"	7"	6"	5½"	7"
	X Large	21½"	17½"	15"	7"	6½"	5½"	7"
	2X Large	22½"	18"	15"	7"	7"	5½"	7"
	3X Large	23"	19"	15"	7"	7"	5½"	7"
	4X Large	24"	20"	16"	7"	7"	5½"	7"
	5X Large	25"	20½"	16"	7"	7"	5½"	7"
Short	XX Small	19½"	15½"	15"	7"	5"	6½"	7"
	X Small	20½"	16"	15"	7"	5"	6½"	7"
	Small	21"	17"	15"	7"	5½"	6½"	7"
	Medium	22"	18"	16"	7"	5½"	6½"	7"
	Large	23"	18½"	16"	7"	6"	6½"	7"
	X Large	23½"	19½"	17"	7"	6½"	6½"	7"
	2X Large	24½"	20"	17"	7"	7"	6½"	7"
	3X Large	25"	21"	17"	7"	7"	6½"	7"
	4X Large	26"	22"	18"	7"	7"	6½"	7"
	5X Large	27"	22½"	18"	7"	7"	6½"	7"
Regular	XX Small	21½"	17½"	17"	8"	5"	8"	7"
	X Small	22½"	18"	17"	8"	5"	8"	7"
	Small	23"	19"	17"	8"	5½"	8"	7"
	Medium	24"	20"	18"	8"	5½"	8"	7"
	Large	25"	20½"	18"	8"	6"	8"	7"
	X Large	25½"	21½"	19"	8"	6½"	8"	7"
	2X Large	26½"	22"	19"	8"	7"	8"	7"
	3X Large	27"	23"	19"	8"	7"	8"	7"
	4X Large	28"	24"	20"	8"	7"	8"	7"
	5X Large	29"	24½"	20"	8"	7"	8"	7"
Tall	XX Small	23½"	19½"	19"	8"	5"	8"	7"
	X Small	24½"	20"	19"	8"	5"	8"	7"
	Small	25"	21"	19"	8"	5½"	8"	7"
	Medium	26"	22"	20"	8"	5½"	8"	7"
	Large	27"	22½"	20"	8"	6"	8"	7"
	X Large	27½"	23½"	21"	8"	6½"	8"	7"
	2X Large	28½"	24"	21"	8"	7"	8"	7"
	3X Large	29"	25"	21"	8"	7"	8"	7"
	4X Large	30"	25½"	22"	8"	7"	8"	7"
	5X Large	31"	26"	22"	8"	7"	8"	7"
X Tall	XX Small	25½"	21½"	21"	8"	5"	8"	7"
	X Small	26½"	22"	21"	8"	5"	8"	7"
	Small	27"	23"	21"	8"	5½"	8"	7"
	Medium	28"	24"	22"	8"	5½"	8"	7"
	Large	29"	24½"	22"	8"	6"	8"	7"
	X Large	29½"	25½"	23"	8"	6½"	8"	7"
	2X Large	30½"	26"	23"	8"	7"	8"	7"
	3X Large	31"	27"	23"	8"	7"	8"	7"
	4X Large	32"	27½"	24"	8"	7"	8"	7"
	5X Large	32½"	28½"	24"	8"	7"	8"	7"
XX Tall	XX Small	27½"	23½"	23"	8"	5"	8"	7"
	X Small	28½"	24"	23"	8"	5"	8"	7"
	Small	29"	25"	23"	8"	5½"	8"	7"
	Medium	30"	25½"	24"	8"	5½"	8"	7"
	Large	31"	26½"	24"	8"	6"	8"	7"
	X Large	31½"	27"	25"	8"	6½"	8"	7"
	2X Large	32"	28"	25"	8"	7"	8"	7"
	3X Large	33"	29"	25"	8"	7"	8"	7"
	4X Large	34"	29½"	26"	8"	7"	8"	7"
	5X Large	34½"	30½"	26"	8"	7"	8"	7"

Table V
Shoulder Strap Lengths

Scale of Measurements – Shoulder Strap Length (Finished)	
Jacket Size (All Heights)	Dimension “A”
X-Small	14.25
Small	15.25
Medium	16.25
Large	17.25
X-Large	18.25
2X-Large	19.25
3X-Large	20.25
4X-Large	21.25
5X-Large	22.25
Tolerance ±	0.5

NOTE: All dimensions are in centimeters unless otherwise indicated.

APPENDIX A

Sealed Pattern Identifier

Pattern Title: Jacket, Patrol, Unisex, Auxiliary

Patterns - Patterns are available from the RCMP, Uniform and Equipment Program. Firms requested to produce Pre-Award Samples will be provided with the base pattern only. The full set of patterns in individual sizes will be provided to the successful bidder after the contract is awarded. The bidder will receive the files electronically in a .DXF format unless paper is requested.

The paper patterns include seam allowances, drill holes and/or placement templates. Punch holes must not be used on this garment with the exception of the placement of the shoulder badge and the holes must be completely covered by the shoulder badge. All pieces must be cut in the direction indicated on the grain line of the pattern pieces. The scale of measurements indicates the finished garment measurements however the patterns may not reflect the same measurements. The manufacturer is responsible for making changes to the pattern, if necessary, in order to meet the scale of measurements, adjust for shrinkage/stretch and/or to suit the production process, however, the design and grade must not be affected or changed.

All patterns are the property of the RCMP and must be returned upon completion of the contract. Electronic patterns must be deleted from the Contractor's files.

Pattern Pieces - This design has 38 pattern components.

<u>Legend:</u>	
Shell Material I	= Para. 4.1.2
Shell Material I (Tricot RSU)	= Para. 4.1.2 (inside face) Right Side Up
Mesh Pocketing	= Para. 4.1.4
Cut 1 Single	= Cut 1
Cut 1 Paired	= Cut 2
Cut 2 Paired	= Cut 4
(RSU)	= Right Side Up

Pattern Components	Nomenclature	Quantity to be cut	Material
# 1 of 38	Back	1 Single	Shell Material I
# 2 of 38	Chest Pocket Zip Stay	1 Paired	Shell Material I
# 3 of 38	Middle Side Front	1 Paired	Shell Material I

Pattern Components	Nomenclature	Quantity to be cut	Material
# 4 of 38	Middle Front	1 Paired	Shell Material I
# 5 of 38	Lower Front	1 Paired	Shell Material I
# 6 of 38	Under Fly Front	1 Paired	Shell Material I
# 7 of 38	Storm Flap - Left	1 Single	Shell Material I (RSU)
# 8 of 38	Storm Flap - Right	1 Single	Shell Material I (RSU)
# 9 of 38	Shoulder Strap	2 Paired	Shell Material I
#10 of 38	Front Facing "A"	1 Paired	Shell Material I
# 11 of 38	Front Facing "B"	1 Paired	Shell Material
# 12 of 38	Sleeve	1 Paired	Shell Material I
# 13 of 38	Sleeve - Upper Back	1 Paired	Shell Material I
# 14 of 38	Sleeve - Lower Back	1 Paired	Shell Material I
# 15 of 38	Cuff	1 Paired	Shell Material I
# 16 of 38	Elasticized Cuff	1 Paired	Shell Material I
# 17 of 38	Cuff Adjustment Strap	1 Paired	Shell Material I
# 18 of 38	Top Collar	1 Single	Shell Material I
# 19 of 38	Under Collar	1 Single	Shell Material I
# 20 of 38	Hood Side	1 Paired	Shell Material I
# 21 of 38	Hood Center	1 Single	Shell Material I
# 22 of 38	Hood Back	1 Single	Shell Material I
# 23 of 38	Hem Facing - Front	1 Paired	Shell Material I
# 24 of 38	Hem Facing - Back	1 Single	Shell Material I
# 25 of 38	Top Collar Stand	1 Single	Shell Material I (Tricot RSU)
# 26 of 38	Hood Facing - Inside Front	1 Paired	Shell Material I (Tricot RSU)
# 27 of 38	Hood Facing - Inside Back	1 Single	Shell Material I (Tricot RSU)
# 28 of 38	Yoke Facing - Front	1 Paired	Shell Material I
# 29 of 38	Yoke Front - Right	1 Single	Shell Material I (RSU)

Pattern Components	Nomenclature	Quantity to be cut	Material
# 30 of 38	Yoke Front - Left	1 Single	Shell Material I (RSU)
# 31 of 38	Pen Loop	1 Single	Shell Material I
# 32 of 38	Pocket - Upper Sleeve	1 Paired	Shell Material I
# 33 of 38	Pocket Bag- Lower Pocket 'A'	1 Paired	Mesh Pocketing
# 34 of 38	Pocket Bag- Lower Pocket 'B'	1 Paired	Mesh Pocketing
# 35 of 38	Pocket Bag - Inside Chest	1 Paired	Mesh Pocketing
# 36 of 38	Pocket Bag - Chest 'A'	1 Paired	Mesh Pocketing
# 37 of 38	Pocket Bag - Chest 'B'	1 Paired	Mesh Pocketing
# 38 of 38	Pocket Bag - Attachment	1 Paired	Mesh Pocketing

APPENDIX B

CARE INSTRUCTIONS

Applicable To:

Jacket Patrol Unisex
Jacket High Visibility
Jacket Patrol Unisex, Auxiliary
Parka Inclement & Hood Cold Weather (without the fur trim)
Trouser Inclement

These garments are designed to be both waterproof and water repellent. The best way to maintain its performance is to **keep them clean by washing it regularly**. When the water no longer beads up and rolls off, use a water based, solvent free, non-flammable DWR product to restore the water repellency. The following care instructions should ensure a normal life cycle for your garments. These garments should be washed after 10-12 days of continuous use or every 20-30 days with occasional use.

The water repellency, waterproofness and breathability of your garment are affected by the following;

1. Dirt buildup and other contaminants including oils, sunscreen and sweat reduce the effectiveness of the water repellency.
2. Fabric softeners have a detrimental effect on the colour and the waterproofness and water repellency of the fabric. They will make the colour fade more quickly and affect the overall performance of the fabric. These include liquid fabric softeners, detergents that contain softeners and dryer sheets. Therefore, it is very important that these softeners not be used when laundering your garment.

Machine Wash:

- DO NOT COMMERCIAL LAUNDER
- DO NOT WASH FUR

Close all zippers, fasteners and velcro before washing.

Wash in warm water separately, without detergent. DO NOT USE FABRIC SOFTENERS OR POWDERED DETERGENTS OR ANY LIQUID DETERGENTS THAT CONTAIN FABRIC SOFTENERS. DO NOT USE BLEACH.

If heavily soiled, a small amount of detergent or specialty wash products (**i.e. Grangers® Performance Wash, Fibertec Pro Wash or ReviveX® Synthetic fabric cleaner**) for waterproof garments may be used.

At the end of the final rinse cycle, re-adjust the garment in the washer, and put it through an additional rinse cycle. This will assure complete rinsing of detergent that may have been trapped during washing, therefore preserving water repellency.

Drying:

Close all zippers, fasteners and velcro before drying.

If re-application of DWR is necessary, hang wet garment on hanger and follow application instructions of DWR product. (**i.e. Grangers® XT Waterproof spray, Fibertec Blue Guard Spray-on, Revivex® Spray-On or Nikwax Tx-Direct™**)

The garment **must** be tumble dried separately on a warm setting for 50 minutes to reactivate the durable water repellency (DWR.). DO NOT USE DRYER SHEETS.

If necessary, touch up with steam iron at low temperature.

Dry Cleaning:

If dry cleaned, request clear distilled solvent rinse and DWR spray repellent.

INSTRUCTIONS D'ENTRETIEN

Applicable à :

Blouson de patrouille unisexe
Veste haute visibilité
Blouson de patrouille unisexe pour auxiliaire
Parka pour intempéries et capuchon pour temps froid (sans la bordure de fourrure)
Pantalon pour intempéries

Ces vêtements sont conçus pour être imperméables et déperlants. La meilleure façon de préserver leurs propriétés est de les **garder propres en les lavant régulièrement**. Lorsque l'eau ne perle plus, utiliser un produit déperlant durable à base d'eau, sans solvant et ininflammable pour restaurer la déperlance. Les instructions d'entretien ci-dessous permettront d'assurer le rendement optimal des vêtements. Ces vêtements devraient être lavés après 10 à 12 jours d'utilisation continue ou à tous les 20 à 30 jours d'utilisation occasionnelle.

Les conditions suivantes peuvent influencer sur l'imperméabilité, la déperlance et la respirabilité des vêtements :

1. L'accumulation de saletés et d'autres contaminants comme de l'huile, de la crème solaire ou de la sueur peut réduire l'imperméabilité.
2. Les agents assouplissants influent sur la couleur, la déperlance et l'imperméabilité. Ils décolorent les tissus plus rapidement et nuisent à leur rendement général. Il est très important de n'utiliser **aucun** type d'assouplissant (agent assouplissant liquide, détergent avec assouplissant et assouplissant en feuilles).

Lavage à la machine :

- NE PAS LAVER DANS UNE BUANDERIE COMMERCIALE
- NE PAS LAVER LA FOURRURE

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de laver.
Laver séparément à l'eau tiède, sans détergent. NE PAS UTILISER D'AGENT ASSOUPLISSANT NI DE DÉTERGENT EN POUDRE OU LIQUIDE AVEC ASSOUPLISSANT. NE PAS UTILISER D'AGENT DE BLANCHIMENT.

Si le vêtement est très sale, une petite quantité de détergent ou de produit spécifiquement conçu pour l'entretien des vêtements imperméables (**p. ex. nettoyant haute performance de Granger's^{MD}, produit Pro Wash de Fibertec ou nettoyant pour tissus synthétiques ReviveX^{MD}**) peut être utilisée.

À la fin du dernier cycle de rinçage, replacer le vêtement dans la machine et entreprendre un autre cycle de rinçage, afin d'éliminer complètement le détergent qui peut être resté durant le lavage et de préserver la déperlance.

Séchage :

Fermer toutes les fermetures à glissière, les attaches et les attaches à ruban autoagrippant avant de sécher.

Si un nouveau traitement déperlant est requis, suspendre le vêtement mouillé sur un cintre et suivre les instructions du fabricant du produit (**p. ex. imperméabilisant à vaporiser XT de Granger's^{MD}, Blue Guard de Fibertec, Revivex^{MD} ou Tx-Direct^{MC} de Nikwax**).

Le vêtement **doit** être séché séparément par culbutage à basse température pendant 50 minutes, afin de réactiver les propriétés déperlantes. NE PAS UTILISER D'ASSOUPLISSANT EN FEUILLES.

Au besoin, repasser légèrement à basse température.

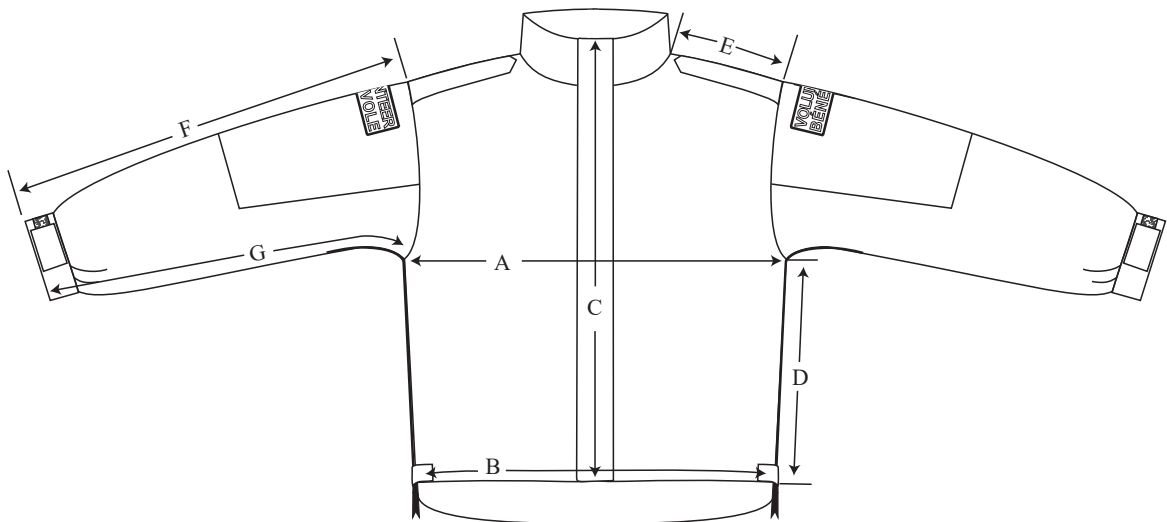
Nettoyage à sec :

Si le vêtement est nettoyé à sec, demander un rinçage avec un solvant distillé clair et un traitement à l'aide d'un produit déperlant à vaporiser.

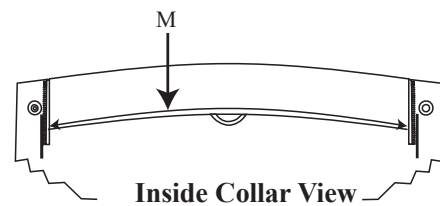
Drawing 1

G.S. 1045-381

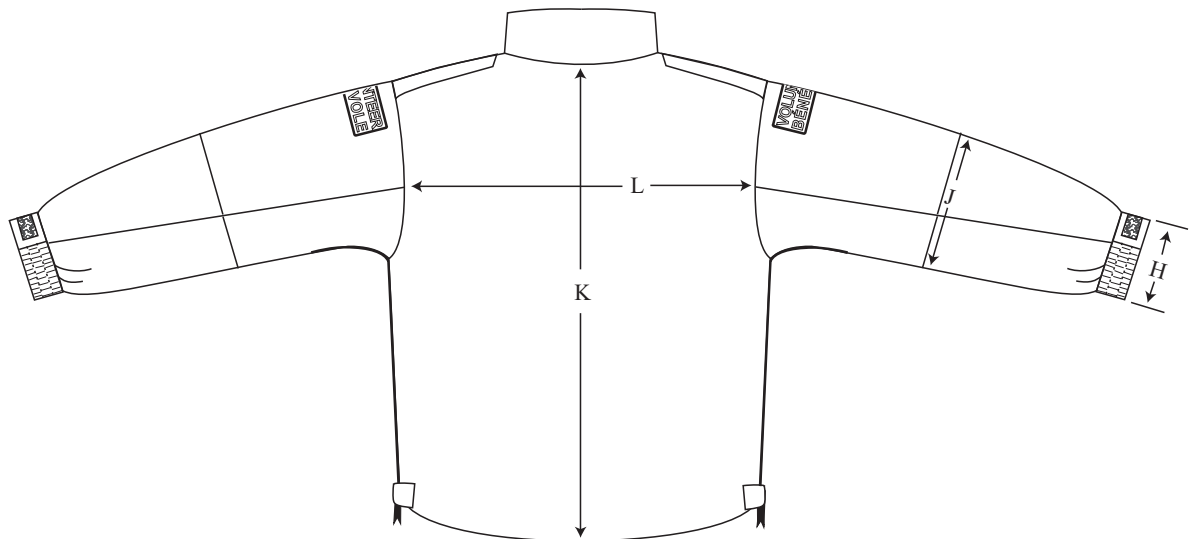
Jacket, Patrol, Unisex, Auxiliary
Measurement Location Chart



Front View



Inside Collar View



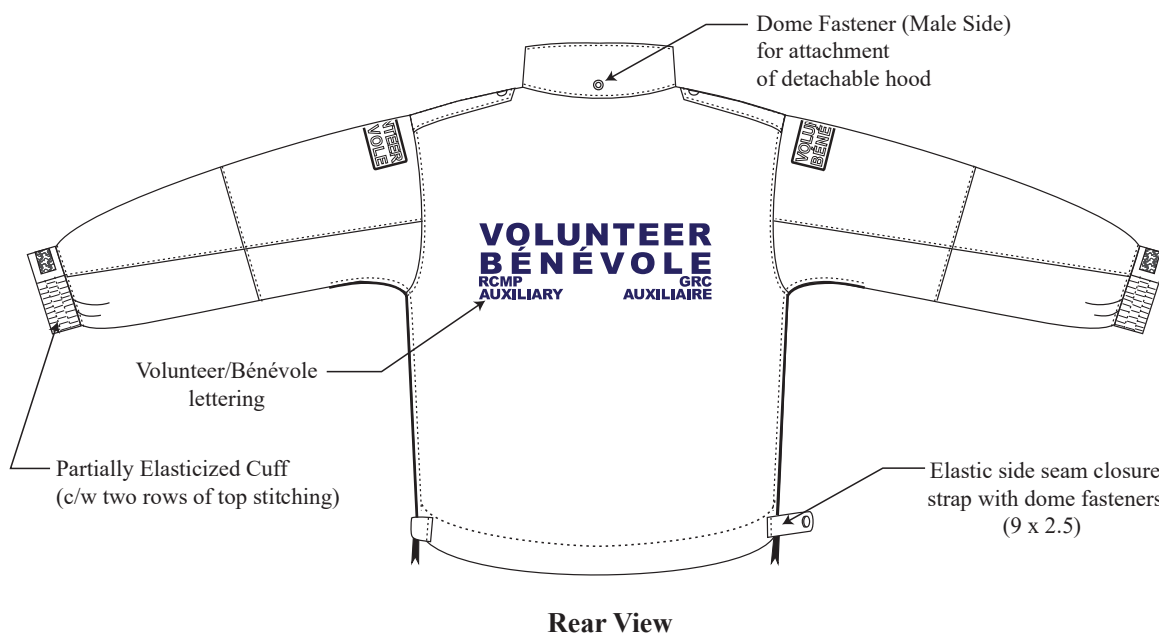
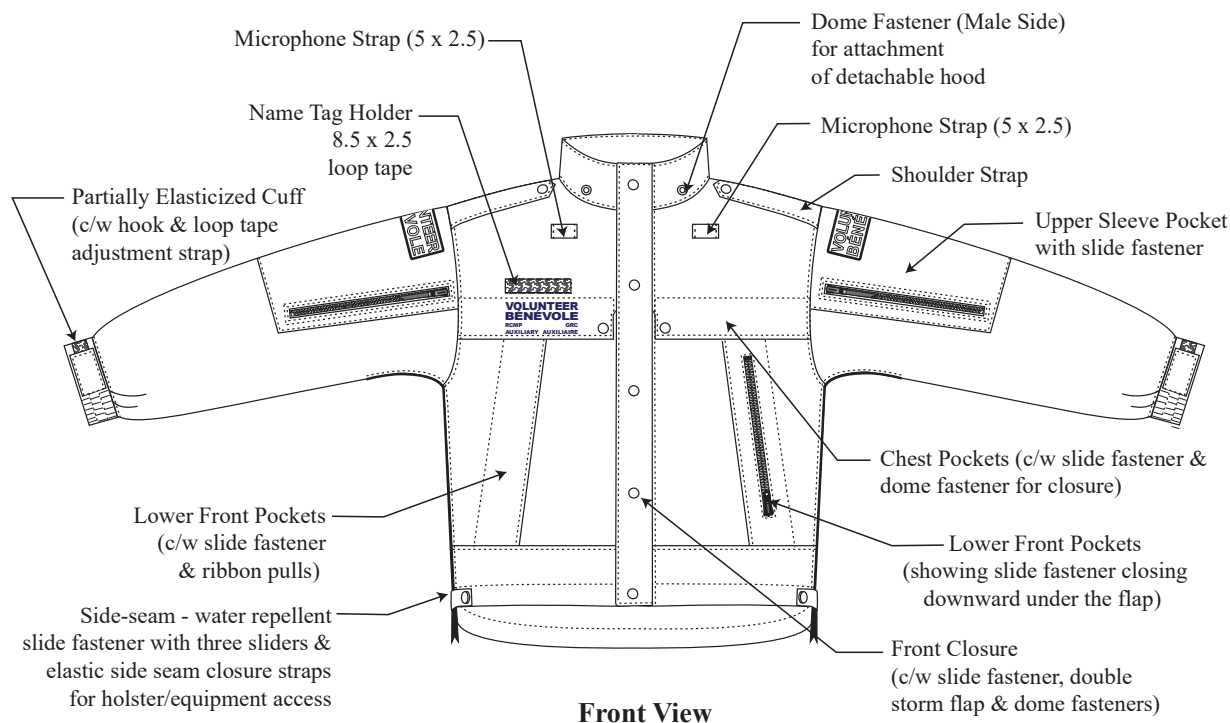
Rear View

NOT TO SCALE

Drawing 2

G.S. 1045-381

Jacket, Patrol, Unisex, Auxiliary



NOT TO SCALE

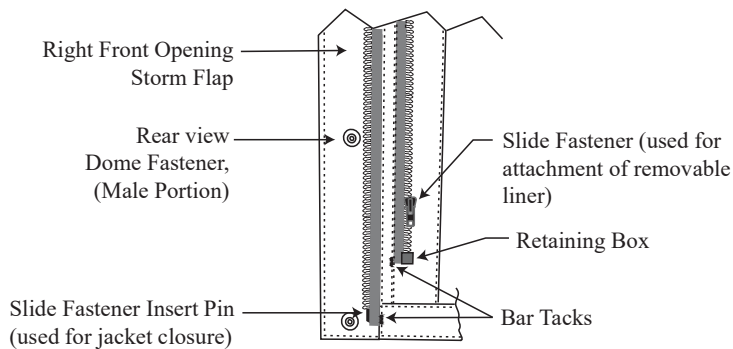
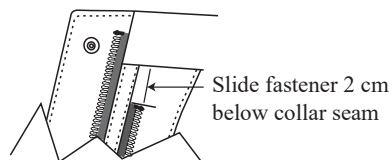
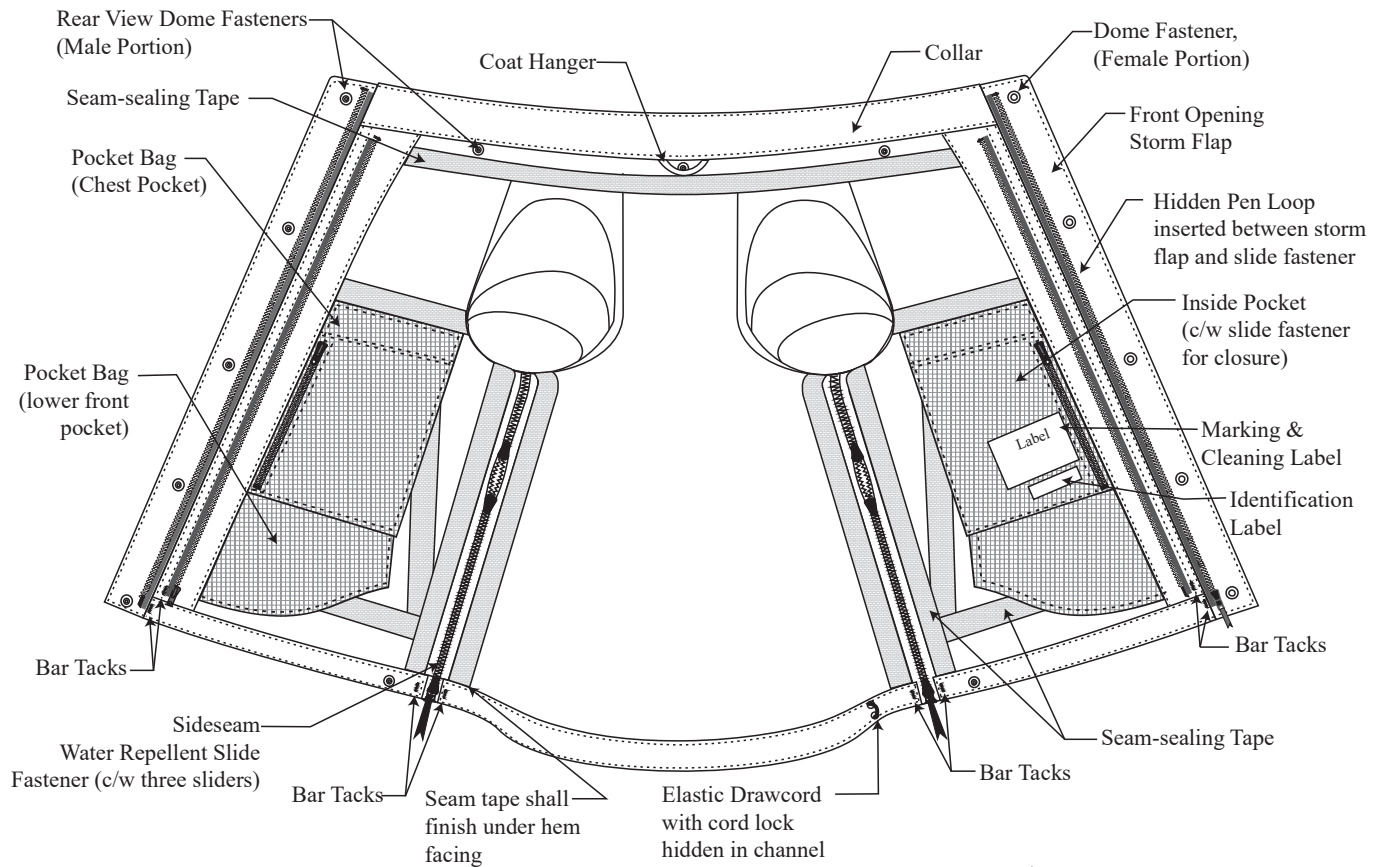
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

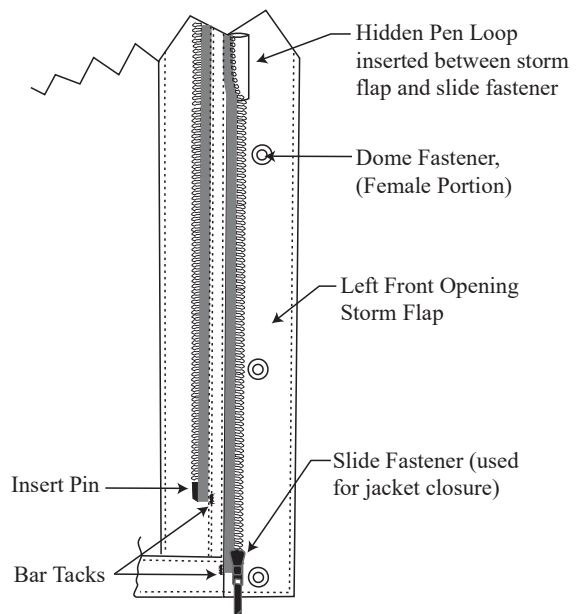
Drawing 3

G.S. 1045-381

Jacket, Patrol, Unisex, Auxiliary Inside Jacket & Slide Fastener Detail



Slide Fastener Detail
Right Front (Inside View)



Slide Fastener Detail
Left Front (Inside View)

NOT TO SCALE

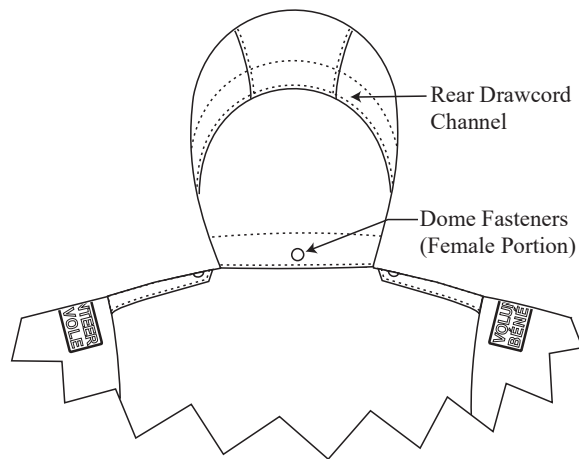
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

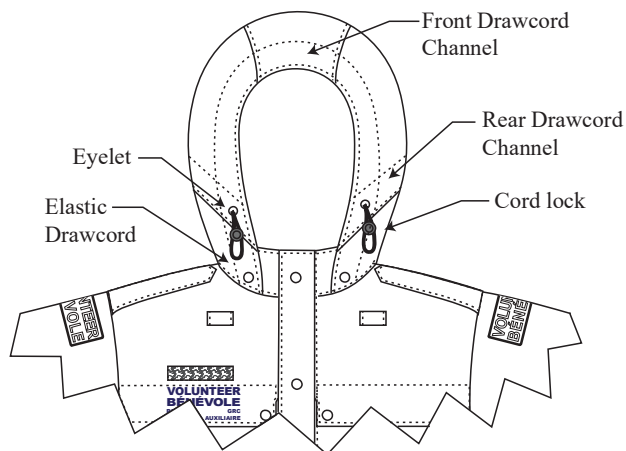
Drawing 4

G.S. 1045-381

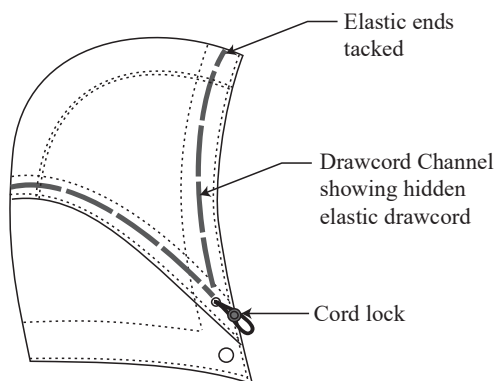
Jacket, Patrol, Unisex, Auxiliary Detachable Hood, Shoulder Strap & Chest Pocket Detail



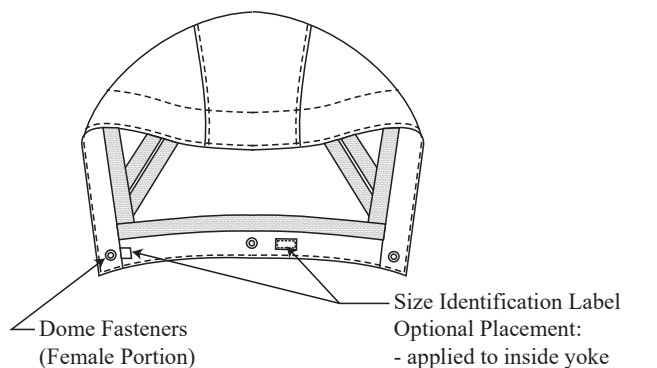
Rear View



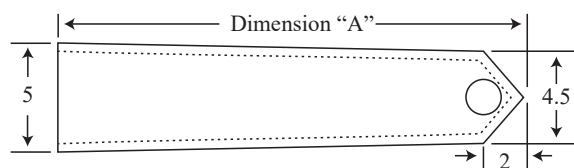
Front View



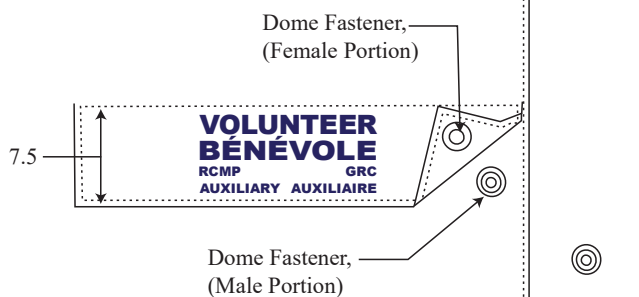
Side View



Inside Front View



Shoulder Strap Detail



Chest Pocket Detail
shown with corner folded up

NOT TO SCALE

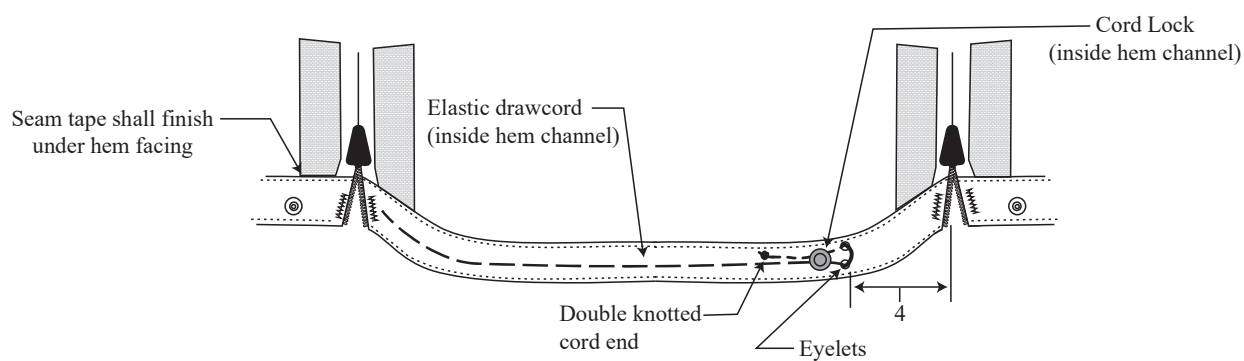
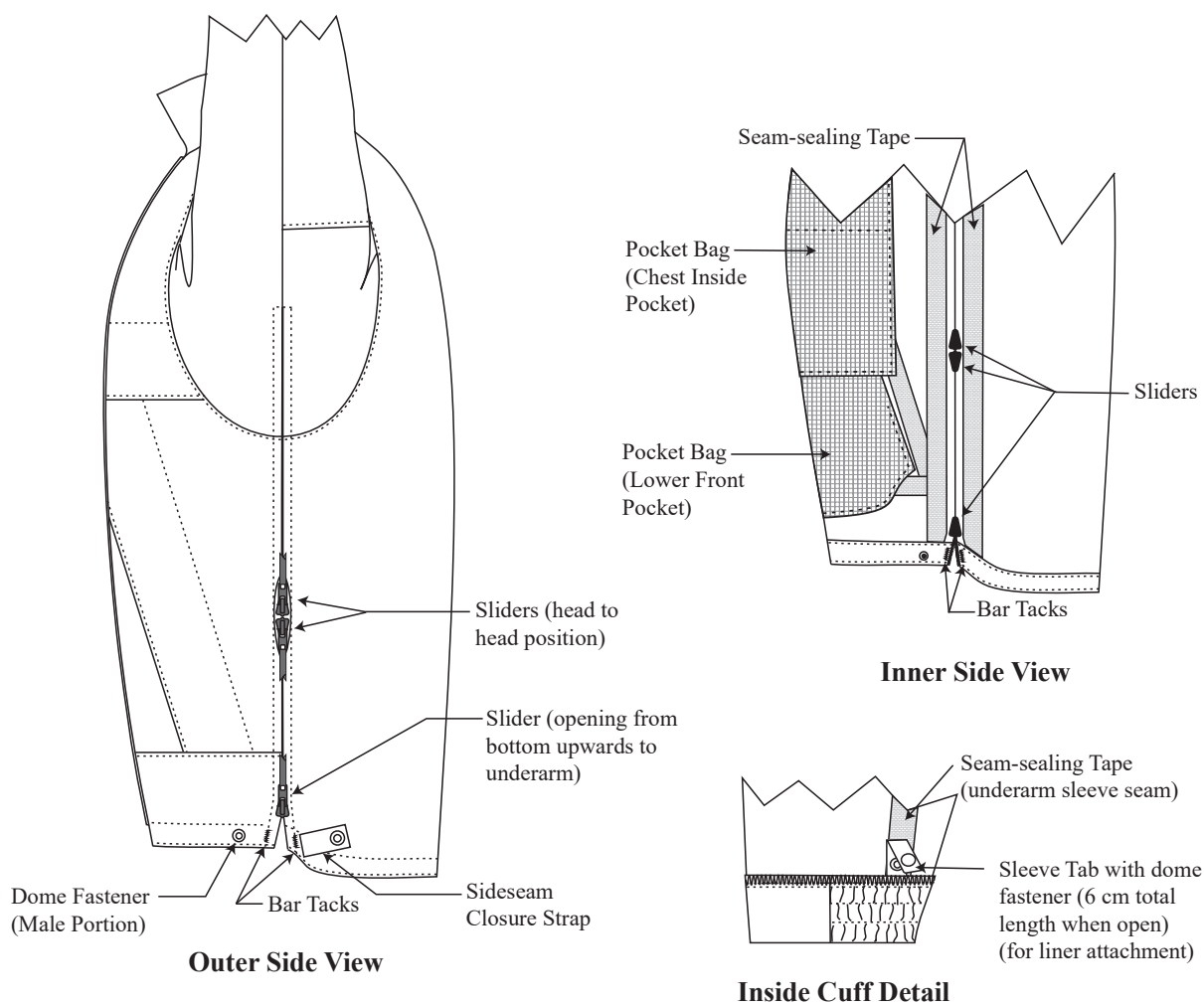
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

Drawing 5

G.S. 1045-381

Jacket, Patrol, Unisex, Auxiliary
Underarm, Inside Cuff
& Back Hem Channel Detail



NOT TO SCALE

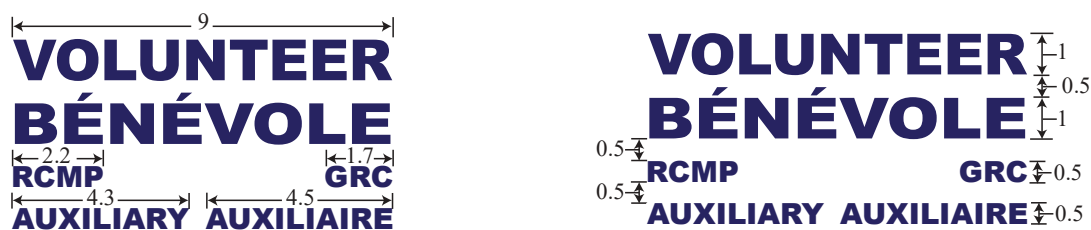
All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

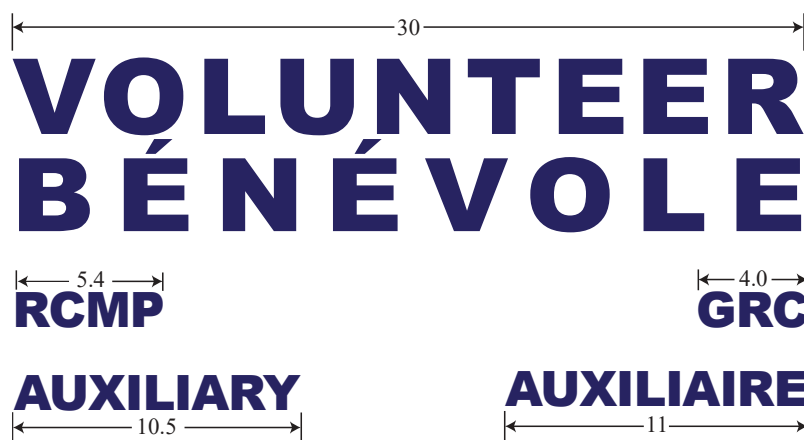
Drawing 6

G.S. 1045-381

Jacket, Patrol, Unisex, Auxiliary
Heat Transfer Lettering Detail



Volunteer Lettering on Front



Volunteer Lettering on Back



Volunteer Lettering on Back

NOT TO SCALE

All measurements are shown in centimeters.

± 0.5 cm tolerance acceptable unless otherwise indicated.

RCMP-GRC

Appendix 1 to Annex B

301 Trousers Inclement and Stripes – Instructions for Stripes

G.S. 1045-301
2019-11-25

Introduction

The RCMP has an excess inventory of Stripes Inclement Yellow (5265). These stripes will be sold to the successful bidder for the firm quantity only. These stripes are various lengths and most must be cut to fit the size as outlined below.

Trousers Inclement Stripes for Firm Quantity

1. In place of paragraph 5.1.1 of specification G.S. 1045-301, the RCMP will sell the exact quantity of stripes to be cut down to the appropriate length or to be used as is. The table below outlines the specific stock number of stripe to use for each size of the firm quantity. It also includes the finished length of the stripe. For most stripes, they must be cut from the top, squared off and turned and stitched to the new finished length. The hook tape must only be cut from the portion of the stripe being removed. Extra hook tape is not required. The finished stripe must be topstitched around the top edge. No extra stitching on the hook tape is required. The manufacturer must use the allocated size of stripe to ensure that at least 2.5 cm of hook tape remains at the top of the finished stripe.

M7594-20-4766 Trousers, Inclement with Yellow Stripes					
Stock Number	Size	Quantity	Stripe Stock Number	Comments	Finished Length
5260-001	X-Small/S	120	5265-400	Cut to size	95.5 cm
5260-015	Small/S	380	5265-400	Cut to size	95.5 cm
5260-030	Medium/S	680	5265-400	Cut to size	95.5 cm
5260-045	Large/S	420	5265-400	Cut to size	97.5 cm
5260-060	X-Large/S	80	5265-400	Cut to size	97.5 cm
5260-075	XX-Large/S	20	5265-400	Cut to size	97.5 cm
5260-090	X-Small/R	20	5265-300	Use with no modification	103.5 cm
5260-100	Small/R	220	5265-300	Use with no modification	103.5 cm
5260-200	Medium/R	700	5265-300 (155)	Use with no modification	103.5 cm
			5265-600 (555)	Cut to size	
5260-300	Large/R	320	5265-600	Cut to size	105.5 cm
5260-400	X-Large/R	20	5265-600	Cut to size	105.5 cm
5260-500	XX-Large/R	100	5265-600	Cut to size	105.5 cm
Tolerance \pm					1.0 cm

Trousers Inclement Stripes for Option Quantities and As and When Requested

2. The option and as and when requested quantities will be made as per paragraph 5.1.1 of specification G.S. 1045-301 with Shell Material III purchased from the RCMP as per paragraph 4.1.3.
 - a. The approximate yield of the Cloth, Trilaminat, Yellow is 6 pairs per 1.05 metres. The exact yield will be determined by the sizes ordered and the manufacturers' production process.