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SOLICITATION AMENDMENT
MODIFICATION DE L'INVITATION

The referenced document is hereby revised; unless otherwise indicated, all other terms and conditions of the Solicitation remain the same.

Ce document est par la présente révisé; sauf indication contraire, les modalités de l'invitation demeurent les mêmes.

Comments - Commentaires

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Title - Sujet Outerwear, Consolidated	
Solicitation No. - N° de l'invitation M0077-15I106/A	**Amendment No. - N° modif.** 004
Client Reference No. - N° de référence du client M0077-15I106	**Date** 2016-04-01
GETS Reference No. - N° de référence de SEAG PW-$$PR-760-70425	
File No. - N° de dossier pr760.M0077-15I106	**CCC No./N° CCC - FMS No./N° VME**
Solicitation Closes - L'invitation prend fin **at - à 02:00 PM** **on - le 2016-04-07**	**Time Zone** **Fuseau horaire** Eastern Daylight Saving Time EDT
F.O.B. - F.A.B. Specified Herein - Précisé dans les présentes **Plant-Usine:** ☐ **Destination:** ☐ **Other-Autre:** ☑	
Address Enquiries to: - Adresser toutes questions à: Richard, Josette	**Buyer Id - Id de l'acheteur** pr760
Telephone No. - N° de téléphone (613) 462-4128 ( )	**FAX No. - N° de FAX** ( ) -
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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**	

Canada

Solicitation No. - N° de l'invitation	Amd. No. - N° de la modif.	Buyer ID - Id de l'acheteur
M0077-15I106/A	004	pr760
Client Ref. No. - N° de réf. du client	File No. - N° du dossier	CCC No./N° CCC - FMS No./N° VME
M0077-15I106	pr760. M0077-15I106	

Amendment 004

This amendment answers questions from potential bidders.

QUESTION 7:

G.S. 1045-301, Paragraph 4.1.10.2 calls for a separable two-way zipper. In Drawing No.3, bottom stops and tops stops are shown. A separable zipper only has zipper stops on one end and zipper slider pins on the other. YKK 37370 is a separating zipper but it will not conform to the top stop and bottom stop requirements in Drawing No.3. If we follow the part specified in paragraph 4.1.10.2 should the zipper slider pins be at the top (waist end) of the trousers similar to breakaway pants?

"4.1.10.2 Slide Fastener - Side Seam - Shall be a medium weight, water repellent slide fastener with monofilament coil teeth. It shall be black in colour, with the tape coated with a PU film. The fastener shall be two-way ***separable*** *with non-locking powder coated sliders. YKK product # 37370 CIT4MC 51/51 DFBL EPC 5/8 *BT-0*B-B*REV* (only)."*

ANSWER:

The specification G.S. 1045-301 has been modified to clarify the questions regarding the side seam slide fastener. The drawings have also been revised to accurately reflect the slide fastener required (see attached).

All other terms and conditions remain unchanged.

Royal Canadian Mounted Police
Gendarmerie royale du Canada

Doc. no: G.S. 1045-301
Date: 2016-03-30

Specification

Trousers, Inclement and Stripes

This document has 36 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.

Issued on the authority of the Commissioner, Royal Canadian Mounted Police.

Modifications

Date	Para. No's	Modifications
2015-07-09		Revised Specification
2016-03-30	Para. 4.1.10.2 Para. 4.3.4 Drawings # 3 & 4	Modified paragraph relating to side seam slide fastener. Modified paragraph of side seam. Modified drawings to accurately reflect actual slide fastener.

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 shall govern.

It may be obtained from:

Royal Canadian Mounted Police
ATTN: Uniform & Equipment Program
(440 Coventry Road, Warehouse Building)
1200 Vanier Parkway
Ottawa, Ontario
K1A 0R2

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

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

SPECIFICATION

TROUSERS, INCLEMENT AND STRIPES

1. Definition

1.1 This specification shall 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, tailles spéciales
iii. 5265 Stripe, Trousers Inclement Yellow / Bande jaune, pantalon pour intempéries
iv. 5266-000 Trousers Inclement Yellow, Special / Bande jaune, pantalon pour intempéries, tailles spéciales
v. 5270 Stripe, Trousers Inclement Blue / Bande bleue, pantalon pour intempéries
vi. 5271-000 Stripe, Trousers Inclement Blue Special / Bande bleue, pantalon pour intempéries, tailles spéciales
vii. 5275 Stripe, Trousers Inclement Fluorescent / Bande fluorescente, pantalon pour intempéries
viii. 5276-000 Stripe, Trousers Inclement Fluorescent Special / Bande fluorescente, pantalon pour intempéries, tailles spéciales

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 R.C.M.P. 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 CAN/CGSB 4.2 Textile Test Methods.

2.3 CAN/CGSB 4.131-93, Thread, Polyester, Polyester or Cotton Covered.

2.4 FED-STD-191A, Federal Standard, Textile Test Methods.

2.5 ASTM, American Society for Testing and Materials, Method D3776/D3776M-09a (2013), D2097-03 (2010), D413-98, D3886-99 (2013), D4966-12, D1424-09 (2013), D5034-09 (2013), D5169-98 (2015), D5170-98 (2015), E808-01 (2009), E809-08 (2013), E1164-12 and F392/F392M-11.

2.6 AATCC-8-2013, 15-2013, 16.3-2014, 61-2013, 118-2013 and 135-2012, American Association of Textile Chemists and Colorists - Technical Manual.

2.7 ISO 105-B02:2014, ISO 13937-1:2000, and ISO 6330:2012 International Standards Organization.

2.8 BS 3424-26: 1990, Method 29A, British Standards Institution.

2.9 MIL-C-21852F-Type III Class I, Cloth, Taffeta, Nylon

2.10 CAN/CSA Standard, Z96-09 High-Visibility Safety Apparel.

2.11 CAN/CGSB 86.1-2003, Care Labelling of Textiles.

3. General Requirements

3.1 The article or material covered by this specification shall be free from imperfections or blemishes such as may affect its appearance or serviceability. In all particulars not covered by this specification or contract documents, production shall be equivalent in all respects to the pattern and viewing sample.

3.2 **Design** - The Trousers, Inclement shall be a loose fitting over-pant designed to be worn in conjunction with a removable liner and over a uniform trouser. It shall be constructed from a 3-layer material with a WMVP (waterproof moisture vapour permeable) membrane. It shall be waterproof with all seams permanently seam sealed unless otherwise stated. The design shall encompass removable side stripes and high visibility pull downs.

4. Detail Requirements

4.1 Components

4.1.1 **Shell Material I** - The shell material I shall be plain weave 100% nylon, Type 6.6. The color shall be dark navy blue, meeting the approved color swatch, with a durable water repellent finish. An appropriate heat-set process shall 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 shall be plain weave 100 % polyester. The color shall be fluorescent yellow-green, meeting CAN/CSA Z96-09, with a durable water repellent (DWR) finish. The laminated portion of the contrast shall have an appropriate heat-set process applied to it, in order for it 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** - The shell material III shall be plain weave 100% polyester. The color shall be yellow in colour, meeting the approved color swatch, with a durable water repellent (DWR) finish. The laminated portion of the contrast shall have an appropriate heat-set process applied to it, in order for it to be prepared for the lamination of the waterproof moisture vapour permeable membrane as specified in Para. 4.1.4.3.

4.1.4 **Shell Material, Laminated** - The laminated shell materials shall not show any visible signs of delamination or loss of film during the garments useful life (approximately 5 years). The fabric shall 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 shall 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 shall 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/m^2, as the inner layer. The layers shall be joined together by a suitable lamination process. The membrane when laminated to the shell material

shall 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 shall 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 shall 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 shall be joined together by a suitable lamination process. The membrane when laminated to the shell material shall meet the test requirements outlined in Table I and Table IV forming part of this specification.

4.1.4.3 **Shell Material III, Laminated** –The shell material III shall 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 shall consist of contrast yellow shell material as specified in Para. 4.1.3, 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 shall be joined together by a suitable lamination process. The membrane when laminated to the shell material shall meet the test requirements outlined in Table I and Table III forming part of this specification.

4.1.5 **Seam Sealing Tape** – The 3-layer composite fabric shall 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 shall not peel off and/or wear during the projected life span of the garment.

4.1.6 **Thread** - The thread shall be polyester wrap, polyester core, Tex 50, Class B of matching colour, meeting CAN/CGSB 4.131-93.

4.1.7 **Dome Fastener** - The dome fastener shall be a standard type 24 ligne fastener. All metal parts to be brass with a 15 mm matte black, powder coated cap. (Universal SW61 is known to meet these requirements).

4.1.8 **Elastic** - The waist strap shall be heavy duty nylon or polyester elastic, black in colour, with maximum elongation of 130% and full recovery. It shall be 3.8cm (1 ½") in width.

4.1.9 **Hook and Loop Tape** - The hook and loop tape shall be woven nylon, black or white in colour as specified, with a high life cycle. The combined hook and loop shall 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."

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 (½") wide, sized to fit full length of side seam	front trouser leg at side seam		
Trouser Side Seam (Back)	1.27 cm (½") wide, sized to fit length of side seam	back trouser leg at side seam starting 2 cm below waistband		
Stripes			1.27 cm (½") wide, sized to fit full length	top of stripe to bottom hem
			9 cm x1.27 cm (½") (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 (½")	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 (½") (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
Tolerance for all ± 5 mm				

4.1.10 **Slide Fasteners - Lengths - Measurements in Inches**

Height Group	Sizes	Side Seam	Front Fly	Height Group	Sizes	Side Seam	Front Fly
X Short	XX Small	33"	6½"	Tall	XX Small	42½"	8"
	X Small	33½"	6½"		X Small	43"	8"
	Small	34"	6½"		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"

4.1.10.1 **Slide Fastener - Fly Front** - Shall be a closed-ended coil type slide fastener, black in colour. The slide fastener shall be water repellent, with the tape treated with a strong water repellent finish with a coated front of polyurethane. YKK #37003 CIT4C 56 DAB E 5/8 *REV* (only).

4.1.10.2 **Slide Fastener - Side Seam -** Shall be a medium weight, water repellent slide fastener with monofilament coil teeth. It shall be black in colour, with the tape coated with a PU film. PU coated side as the front with the sliders on. The fastener

shall 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*B-B*REV* (only).

4.1.11 **Retroreflective Stripes** - The retroreflective markings shall be exposed, wide angle, retroreflective lenses, silver material in the form of a heat transfer film, 5 cm wide. It shall meet all the retroreflective performance requirements outlined in Section 6, meeting Table 5 in the CAN/CSA Z96-09 High-Visibility Safety Apparel standard. All retroreflective shall meet a minimum coefficient of retroreflection, R_A, that are determined in accordance with the procedures defined in ASTM E808-01 (2009) and E809-08 (2013). Note: 3M Scotchlite™ 8725N silver material in the form of a heat transfer film is known to meet these requirements.

4.1.12 **Grosgrain Ribbon** - Shall be nylon grosgrain ribbon, black in colour and come in 1 cm width.

4.2 **Size and Dimensions** - Trousers, Inclement to this specification shall be supplied in the sizes specified by the R.C.M.P. and to the dimensions given in the scale of measurements and drawings forming part of this specification. The garment components shall 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 shall be lockstitch. There shall be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching shall be securely backstitch, tacked, unless secured by other stitching. All seams and points where stitching penetrates the shell materials shall be permanently sealed on the inside with the appropriate seam-sealing tape. Care shall 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 shall be a cause for rejection.

4.3.2 **Waistband** - The waistband constructed from shell material I as specified in Para. 4.1.4.1, shall be 4.5 cm wide when finished. It shall be fully elasticized with openings at the fly front and side seams. The front fly shall 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 shall be secured by means of tabs complete with

hook and loop tape as specified I Para. 4.1.9 for closure. Five (5) adjustable hook and loop tape secured belt loops shall 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 shall 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 shall be constructed from the shell material I specified in Para. 4.1.4.1. There shall be a water repellent slide fastener in accordance with Para. 4.1.10.1. A ribbon pull as specified in Para. 4.3.7 shall be applied to the slide fastener. The fly front opening at the waistband shall be equipped with a dome fastener as per Para. 4.1.7 and the drawings. The front fly shall be constructed and dimensioned as per the patterns and drawings.

4.3.4 **Side Seams** - Both side seams from waistband to hem shall be equipped with a full length, water repellent slide fastener as specified in Para. 4.1.10.2. There shall be 2 sliders, applied in a back to back position. The end of the slide fastener with the stoppers shall be placed at the waist and the bottom of the slide fastener with coil shall be sewn into seam at the bottom of the trouser leg. The bottom slide fastener shall open up towards the waist area and the top slider shall open towards the hem as per drawing #3. A ribbon pull as specified in Para. 4.3.7 shall be applied to the top slider. A 1.27 cm (½") wide continuous length of loop tape as specified in Para. 4.1.9 shall be applied to the front of the trouser leg starting directly below the waistband seam to hem with a continuous piece of loop be applied to the back starting 2 cm below the waistband as shown in the drawings and pattern for the attachment of the stripe. The bottom of the side seam at the hem shall have a dome fastener (male portion) as specified in Para. 4.1.7 positioned as per the drawings and pattern. The completed side-seam shall conform in all respects to the patterns and drawings. Care shall be taken to ensure that the correct application of loop is applied to the front and back of the trouser side seam.

4.3.5 **Legs** - The leg hem shall 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 shall 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. 5.2.3.

4.3.6 **Hide Away Flap** - The front to back of each trouser leg at the calf level shall have a "hide away" flap cover, dimensioned as per the pattern and drawings. Top stitching shall be applied as per drawings and viewing sample. The hide-away flap shall 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 shall 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, shall 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 shall 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 shall 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 shall be constructed with grosgrain ribbon as specified in Para. 4.1.12. The ribbon shall 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" shall have a durable label inserted into the back of the waistband. The label information shall be as outlined below in a text no less than a size 8 font. The text shall be of permanent inks of a contrasting colour and shall withstand at least 50 washes showing no apparent change in appearance. The label shall be completed in accordance with 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. 2001/11)
6. Your manufacturer identification (Company name or number).
7. Print information as shown below.
8. Print information as shown below.
9. Print information as shown below.
10. Print information as shown below.
11. Print information as shown below.
12. 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	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.

Note: The manufacturer's identification shall not appear anywhere on the garment except on the garment label as indicated.

4.3.9 **Identification Label** - Each trouser shall 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 shall 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 to this specification shall be supplied in the sizes specified by the R.C.M.P. and to the dimensions given in the scale of measurements and drawings forming part of this specification. The stripes shall be shaped, dimensioned in accordance with the pattern components and pattern requirements as outlined in Appendix "A" forming part of this specification.

5.2 **Construction**

5.2.1 **Stitching** - All stitching shall be lockstitch. There shall be not less than three or more than four stitches per centimetre. The beginning and ending of all stitching shall be securely backstitch, tacked, unless secured by other stitching.

5.2.2 **Stripes (Side Seams)** - All stripes are to be made from the appropriate laminated shell material listed below and must meet the requirements outlined in Table I, Table II, Table III and Table IV forming part of this specification.

Design Options	Colour	Material	Hook Tape Colour
Design Option #1 Standard Stripe	Yellow	Shell Material III (Para.4.1.4.3)	Black
Design Option #2 Special Duty Stripe	Dark Navy Blue	Shell Material I (Para.4.1.4.1)	Black
Design Option #3 High Visibility Stripe	Fluorescent Yellow-Green	Shell Material II (Para.4.1.4.2)	White

5.2.3 **Stripe** - The stripes, constructed from shell material I, II or III as specified in Para. 5.2.2, shall be sewn, turned and edge stitched on all sides using a 3 mm gauge. The finished width of all stripes shall be 5.3 cm ± 0.3 cm and the lengths shall be as per the scale of measurements. The lower front portion of the stripe shall be equipped with a dome fastener (female portion) as specified in Para 4.1.7 and the lower rear shall 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. A 1.27 cm (½") wide continuous piece of hook tape as specified in Para. 4.1.9 shall be sewn securely to the front inside portion of the stripe matching 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 Para 4.1.9 shall be spaced equally for the attachment of the stripe. As per the chart in Para. 5.2.2, the Design Option 1 and Design Option 2 stripes shall have black hook tape. The Design Option 3 stripes shall have white hook tape. The inside top of each stripe shall be equipped with a size identification label as referenced in Para. 5.2.4 and shown in the drawing #3. The completed side-seam including stripes shall conform in all respects to the patterns and drawings and sized according to the scale of measurements.

5.2.4 **Stripe Label** - Each stripe shall have a durable label positioned and sewn to the inside top of each stripe as shown in drawing #3. The label information shall in a text no less than a size 8 font with information as stated below.

1. RCMP stock number - reference contract documents. (Ex. 5260 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 prime contractor's responsibility to satisfy the R.C.M.P., Uniform & 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 R.C.M.P., Uniform & Equipment Program that conformity to this specification of manufacturing processes is assured. The contractor must use an independent, North American, ISO 9001 certified and ISO 17025 "Textile" certified testing facilities. Note: CTT Group Inc., Quebec, is known to meet this requirement.

6.2 The R.C.M.P., 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 shall 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 shall be 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 shall be measured at the bottom of the fly and measured across the width. The result shall be doubled to measure total circumference. (B).

7.3 **Hem Circumference -** When placed flat, the bottom shall be measured across the width at the bottom of leg. The result shall be doubled to measure total circumference. (C).

7.4 **Outseam Length** - The length shall be the distance measured from the bottom of the waistband to the hem. (D).

7.5 **Inseam Length** - The length shall be the distance measured from the crotch to the hem following along the inseam. (E).

7.6 **Stripe Length** - The length shall be 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 Inches	Waist cm	Seat Inches	Seat cm	Waist Relaxed	Seat Width	Hem Width	Out Seam	Inseam
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
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	88.50	69.50
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	89.25	69.75
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	90.00	70.00
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	90.75	70.25
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	91.50	70.50
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	92.25	70.75
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	93.00	71.00
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	93.75	71.25
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	94.50	71.50
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
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	96.50	74.25
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	97.25	74.50
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	98.00	74.75
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	98.75	75.00
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	99.50	75.25
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	100.25	75.50
	3X Large	44" - 46"	111.5- 16.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	101.00	75.75
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	101.75	76.00
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	102.50	76.25
TOLERANCES ±						3	3	1	1.5	1.5
MEASUREMENT LOCATION						A	B	C	D	E

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	Waist cm	Seat Inches	Seat cm	Waist Relaxed	Seat Width	Hem Width	Out Seam	Inseam
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
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	104.50	79.00
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	105.25	79.25
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	106.00	79.50
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	106.75	79.75
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	107.50	80.00
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	108.25	80.25
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	109.00	80.50
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	109.75	80.75
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	110.50	81.00
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
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	112.50	83.75
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	113.25	84.00
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	114.00	84.25
	Large	35" - 37"	89 - 94	40" - 42"	101.5-106.5	84.00	129.00	55.50	114.75	84.50
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	115.50	84.75
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	116.25	85.00
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	117.00	85.25
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	117.75	85.50
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	118.50	85.75
TOLERANCES ±						3	3	1	1.5	1.5
MEASUREMENT LOCATION						A	B	C	D	E

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	Waist cm	Seat Inches	Seat cm	Waist Relaxed	Seat Width	Hem Width	Out Seam	Inseam
X Tall 35" - 37" 89 – 94 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	53.50	119.75	88.25
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	120.50	88.50
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	121.25	88.75
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	122.00	89.00
	Large	35" - 37"	89 - 94	40" - 42"	101.5-06.5	84.00	129.00	55.50	122.75	89.25
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	123.50	89.50
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	124.25	89.75
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	125.00	90.00
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	125.75	90.25
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	126.50	90.50
XX Tall 37" - 39" 94 – 99 cm	XX Small	23" - 25"	58 - 63.5	28" - 30"	71-76	54.00	103.00	53.50	127.75	93.00
	X Small	26" - 28"	66 -71	31" - 33"	78.5 - 84	61.5	109.50	54.00	128.50	93.25
	Small	29" - 31"	73.5 - 78.5	34" - 36"	86 - 91	69.00	116.00	54.50	129.25	93.50
	Medium	32" - 34"	81 - 86	37" - 39"	94 - 99	76.50	122.50	55.00	130.00	93.75
	Large	35" - 37"	89 - 94	40" - 42"	101.5 -106.5	84.00	129.00	55.50	130.75	94.00
	X Large	38" - 40"	96.5 - 101.5	43" - 45"	109-114	91.50	135.50	56.00	131.50	94.25
	2X Large	41" - 43"	104 - 109	46" - 48"	116.5-122	99.00	142.00	56.50	132.25	94.50
	3X Large	44" - 46"	111.5- 116.5	49" - 51"	124.5-129.5	106.50	148.50	57.00	133.00	94.75
	4X Large	47"- 49"	119 - 124.5	52"- 54"	132-137	114.00	155.00	57.50	133.75	95.00
	5X Large	50" - 52"	127 - 132	55" - 57"	139.5-144.5	121.50	161.50	58.00	134.50	95.25
TOLERANCES ±						3	3	1	1.5	1.5
MEASUREMENT LOCATION						A	B	C	D	E

Note: All dimensions are in centimeters unless otherwise indicated.

Scale of Measurements -Trousers Inclement Stripes

SIZE DESIGNATION			Stripe (Length)
Trouser Inseam	Size	Label Information	
Short 28" - 31" 71 -78.5 cm	X Small Small Medium	XS – M/S TP – M/C	95
	Large X Large 2X Large	L – XXL/S G – TTG/C	97
Regular 31" - 33" 78.5 – 84 cm	X Small Small Medium	XS – M/R TP – M/R	103
	Large X Large 2X Large	L – XXL/R G – TTG/R	104.5
Tall 33" - 35" 84 – 89 cm	X Small Small Medium	XS – M/T TP – M/L	110.5
	Large X Large 2X Large	L – XXL/T G – TTG/L	112.5
MEASUREMENT LOCATION			F
TOLERANCES ±			2 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	Min. Value Shell Material II & III
1	Resistance of Materials to Water Vapour Diffusion	CAN CGSB 4.2 Method 49-M99, Option 1 ***See test procedure #1**	- Initial - After 5 launderings - After ageing (70ºC & 95% RH for 168 hrs)	13 mm max.	13 mm max.
2	Hydrostatic Resistance	CAN CGSB 4.2 Method 26.5 ***See test procedure #2**	- Initial - After 5 launderings	1240.2 kPa	689 kPa
3	Low Pressure Water Permeability	CAN CGSB 4.2 Method 26.3 *** See test procedure #3**	- Initial	No Leakage	No Leakage
		ASTM D2097-03 (2010) *** See test procedure #4**	- After Cold Flex Warp Fill	No Leakage	No Leakage
		AATCC 135-2012/Test procedure 6 *** See test procedure #5**	- After 100 hours of Continuous Wet Flex (Agitation)	No Leakage	No Leakage
4	High Pressure Water Permeability	BS 3424: Part 26: 1990 Method 29A *** See test procedure #6**	- Initial	No Leakage	No Leakage
		BS 3424: Part 26: 1990 Method 29A *** See test procedure #7**	- After Unleaded Gasoline	No Leakage	No Leakage
		BS 3424: Part 26: 1990 Method 29A *** See test procedure #7**	- After DEET Insect Repellent	No Leakage	No Leakage
		BS 3424: Part 26: 1990 Method 29A *** See test procedure #8**	- After Synthetic Perspiration	No Leakage	No Leakage
5	Abrasion Resistance	ASTM D3886-99 (2013) Procedure: use No. 0 Emery Polishing Paper *** See test procedure #9**	- 3200 Cycles	No failure	No failure

TABLE I

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

	Test	Test Method	Duration	Min. Value Shell Material I	Min. Value Shell Material II & III
SEAMS					
6	Seam Tape Durability	CAN CGSB 4.2 Method 26.3 *** See test procedure #10**	- Initial	No Leakage	No Leakage
		CAN CGSB 4.2 Method 26.3 ANSI/AATCC 135 *** See test procedure #11**	- After 10 laundry cycles	No Leakage	No Leakage
		CAN CGSB 4.2 Method 26.3 *** See test procedure #12**	- After 10 dry-clean cycles	No Leakage	No Leakage
7	Delamination	Visual	- During and after the **above** procedures in this table	No Delaminatio n	No Delaminatio n
8	Peel Strength N/23 mm	ASTM D413-98		8 N/23mm minimum	8 N/23mm minimum

TEST PROCEDURES FOR TABLE I

1. The knit side of the laminated cloth shall face the water. The tests shall be completed as outlined in CAN/CGSB 4.2 Method 49-99, Option #1. The samples shall be conditioned at 21ºC ± 1ºC (69.8°F ± 2°F) and relative humidity shall be 65 ± 2%. The test specimen shall be placed approximately equidistant between the dry airflow and the water cell. Four specimens shall be tested per condition. The tests shall be completed initial, after 5 launderings according to ISO 6330-2012 Method 2B-E and after ageing according to ASTM F392/F392M-11.

2. The water pressure shall 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.

3. The knit side of the laminated cloth shall contact the water. The hydrostatic head shall be 13.78 kPa (2.0 psi) and shall 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 shall be used.

4. Ten warp and ten fill specimens 8.26 cm x 11.43 cm (3.25" x 4.5") shall be selected from each sample unit. The 8.26 cm (3.25") dimension is the test direction. Specimens shall 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 shall 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 shall meet evenly and shall 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 shall 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 -31.67ºC ± 1ºC (-25ºF ± 2ºF) for a one hour conditioning period and then flex in the test chamber at -31.67ºC ± 1ºC (-25ºF ± 2ºF). After flexing, test for water permeability as in test procedure #3 except that the orifice of the tester shall be modified to accommodate the smaller specimen size

5. One 35.56 cm (14") by full width specimen shall be selected from each sample unit. The specimens shall be agitated using the 'normal' cycle in an automatic home laundering as specified in AATCC 135-2012 except that the machine shall be capable of continuous agitation. The water level shall be maintained at 72.74ℓ ± -4.55ℓ (16 ± 1 gallons), and the water temperature shall be 32ºC ± 9ºC. The load shall be .91 kg ± .09 kg (2 lbs ± 0.2 lbs). The specimen shall be removed from the washer after 100 hours of continuous agitation. The specimen shall be air dried and then tested for water permeability at three sites across the width of the specimen according to test procedure #3.

6. The water pressure shall be applied to the knit side of the laminated cloth from below the test specimen. The maximum pressure of 172.25 kPa (25 psi) shall be attained in 2 minutes ± 20 seconds and shall be applied for 5 minutes. Leakage is defined as the appearance of water any place within the test area.

7. 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 shall be applied for 3 minutes.

8. One specimen per sample unit shall be tested for water permeability after exposure to synthetic perspiration. The specimen shall be not less than 15.24 cm (6") in diameter. The test cups shall accommodate this size specimen and shall have a depth of at least 2.5 cm (1"). The cups shall be sealed to prevent leakage. The solution shall contact the knit side of the laminate.

Synthetic perspiration shall 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 shall contain the following amino acids:

Ingredient	**Milligrams (mg)**
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 shall be stirred continuously and heated to 50 ± 1ºC, then covered and cooled to approximately 35ºC.

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

After the solution has evaporated through the specimen, such that no more than .32 cm (0.125") of solution remains, the specimen shall 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 shall be applied for 3 minutes.

9. Method ASTM D3886-99 (2013) Procedure: Use No. 0 Emery Polishing Paper. Side abraded shall 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.

10. A minimum of 3 straight seams and 2 cross-over seams shall 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 shall face the water challenge.

11. A minimum of 3 straight seams and 2 cross-over seams shall 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 shall face the water challenge. Laundry testing should be performed in accordance with procedure specified in Machine Cycle 1, Wash Temperature 111, and Drying Procedure Ai of ANSI/AATCC 135-2012.

12. A minimum of 3 straight seams and 2 cross-over seams shall 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 shall 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.)	• CAN/CGSB-4.2 Method 5.1-M90 (2013) • ASTM D3776/D3776M-09a (2013)
2	Colour fastness to Light	Equal to AATCC Standard L5 or better	• CAN/CGSB-4.2 Method 18.3 • ISO 105-B02:2014
3	Colour Fastness - To Crocking	Wet: Grey Scale 4 or better Dry: Grey Scale 4 or better	• CAN/CGSB-4.2 Method 22 • AATCC 8-2013
4	Colour Fastness - To Laundering	Colour change: Grey Scale 4.5 or better Staining: Grey Scale 3 or better	• CAN/CGSB-4.2 Method 19.1 Test 2A • AATCC 61-2013
5	Dimensional Change to Laundering	After 5 cycles: Not exceed ± 3% length Not exceed ± 3% width	• CAN/CGSB-4.2 Method 58-2004, 3, E • AATCC Method 135-2012 (1) (III) (Ai)
6	Breaking Strength - Grab Method	Warp 800 Newton (min.) Weft 800 Newton (min.)	• CAN/CGSB-4.2 Method 9.2 • ASTM D5034-09 (2013)
7	Tearing Strength	Warp 20 Newton (min.) Weft 20 Newton (min.)	• CAN/CGSB-4.2 Method 12.3 • ISO 13937-1:2000 • ASTM D1424-09 (2013)
8	Abrasion Resistance - Martindale Method Part 2 (Determination of Specimen Breakdown)	No breakdown after 10,000 at 9 kPa	• ASTM D4966-12
9	DWR (durable water repellent)	- 100 spray rating. Initial - 90 spray rating. After 5 launderings - 80 spray rating. After 10 launderings	• CAN/CGSB-4.2 Method 26.2 • Perma Press washing cycles (Washing Temp. 40ºC ± 3ºC) • Tumble Dry - Perma Press for 30 minutes as per (AATCC Method 135-2012)
10	Oil Repellent	- 6 Initial - 5 After 5 launderings - 4 After 10 launderings	• AATCC 118-2013 • Perma Press washing cycles (Washing Temp. 40ºC ± 3ºC) • Tumble Dry - Perma Press for 30 minutes as per (AATCC Method 135-2012)

TABLE III
Properties of Laminated Shell Material III (Yellow)

		REQUIREMENTS	TEST METHODS
1	Mass (Laminated)	205 g/m^2 (maximum.)	• CAN/CGSB-4.2 Method 5.1-M90 (2013) • ASTM D3776/D3776M-09a (2013)
2	Colour fastness to Light	Equal to AATCC Standard L5 or better	• CAN/CGSB-4.2 Method 18.3 • ISO 105-B02:2014
3	Colour Fastness - To Crocking	Wet: Grey Scale 4 or better Dry: Grey Scale 4 or better	• CAN/CGSB-4.2 Method 22 • AATCC 8-2013
4	Colour Fastness - To Laundering	Colour change: Grey Scale 4.5 or better Staining: Grey Scale 3 or better	• CAN/CGSB-4.2 Method 19.1 Test 2A • AATCC 61-2013
5	Dimensional Change to Laundering	After 5 cycles: Not exceed ± 3% length Not exceed ± 3% width	• CAN/CGSB-4.2 Method 58-2004, 3, E • AATCC Method 135-2012 (1) (III) (Ai)
6	Breaking Strength - Grab Method	Warp: 550N (min.) Weft: 450N (min.)	• CAN/CGSB-4.2 Method 9.2 • ASTM D5034-09 (2013)
7	Tearing Strength	Warp 15 Newtons (min.) Weft 14 Newtons (min.)	• CAN/CGSB-4.2 Method 12.3 • ISO 13937-1:2000 • ASTM D1424-09 (2013)
8	Abrasion Resistance - Martindale Method Part 2 (Determination of Specimen Breakdown)	No breakdown after 10,000 at 9 kPa	• ASTM D4966-12
9	DWR (durable water repellent)	- 100 spray rating. Initial - 90 spray rating. After 5 launderings - 80 spray rating. After 10 launderings	• CAN/CGSB-4.2 Method 26.2 • -Perma Press washing cycles (Washing Temp. 40ºC ± 3ºC) • - Tumble Dry - Perma Press for 30 minutes as per (AATCC Method 135-2012)
10	Oil Repellent	- 6 Initial - 5 After 5 launderings - 4 After 10 launderings	• AATCC 118-2013 • -Perma Press washing cycles (Washing Temp. 40ºC ± 3ºC) • - Tumble Dry - Perma Press for 30 minutes as per (AATCC Method 135-2012)

TABLE IV

Properties of Laminated Shell Material II (Fluorescent Yellow-Green)
CAN/CSA Z96-09 High Visibility Apparel Requirements (Meeting or Exceeding)

REQUIREMENTS			TEST METHODS
1	Mass (Laminated)	205 g/m^2 (maximum.)	• CAN/CGSB-4.2 Method 5.1-M90 (2013) • ASTM D3776/D3776M-09a (2013)
2	Background - Material Colour	**Initial**: CSA-Z96-09, Table 2A - Fluorescent yellow-green **After** colourfastness to light (AATCC 16 Test Option E, 40 AATCC Fading Units): CSA-Z96-09, Table 2A - Fluorescent yellow-green	• ASTM E1164-12
3	Colour Fastness - To Light (Xenon)	Light fastness shall be equal or better than Grade 4 by Grey Scale for Colour change after 40 AATCC Fading Units.	• AATCC 16.3-2014 Test Option E • ISO 105-B02:2014
4	Colour Fastness - To Crocking	Wet: Grey Scale 4 or better Dry: Grey Scale 4 or better	• CAN/CGSB-4.2 Method 22 • AATCC 8-2013
5	Colour Fastness - To Perspiration	Colour change: Grey Scale 4 or better Staining: Grey Scale 4 or better	• CAN/CGSB-4.2 Method 23-M90 • AATCC 15-2013
6	Colour Fastness - To Laundering	Colour change: Grey Scale 4.5 or better Staining: Grey Scale 3 or better	• CAN/CGSB-4.2 Method 19.1 Test 2A • AATCC 61-2013
7	Dimensional Change to Laundering	After 5 cycles: Not exceed ± 3% length Not exceed ± 3% width	• CAN/CGSB-4.2 Method 58-2004, 3, E • AATCC Method 135-2012 (1) (III) (Ai)
8	Breaking Strength	Warp: 550N (min.) Weft: 450N (min.)	• CAN/CGSB-4.2 Method 9.2 • ASTM D5034-09 (2013)
9	Tearing Strength	Warp 15 Newtons (min.) Weft 14 Newtons (min.)	• CAN/CGSB-4.2 Method 12.3 • ISO 13937-1:2000 • ASTM D1424-09 (2013)
10	Abrasion Resistance - Martindale Method Part 2 (Determination of Specimen Breakdown)	No breakdown after 10,000 at 9 kPa	• ASTM D4966-12
11	DWR (durable water repellent)	- 100 spray rating. Initial - 90 spray rating. After 5 launderings - 80 spray rating. After 10 launderings	• CAN/CGSB-4.2 Method 26.2 • Perma Press washing cycles (Washing Temp. 40ºC ± 3ºC) • Tumble Dry - Perma Press for 30 minutes as per (AATCC Method 135-2012)
12	Oil Repellent	- 6 Initial - 5 After 5 launderings - 4 After 10 launderings	• AATCC 118-2013 • Perma Press washing cycles (Washing Temp. 40ºC ± 3ºC) • Tumble Dry - Perma Press for 30 minutes as per (AATCC Method 135-2012)

APPENDIX A

Sealed Pattern Identifier

Pattern #: G.S. 1045-301
Title: Trousers, Inclement and Stripes

Paper Patterns - Paper patterns are available from the RCMP, Uniform & Equipment Program, Ottawa Ontario, under Pattern # G.S. 1045-301. Firms requested to produce Pre-contract Award Samples will be provided with the base pattern only. The full set of patterns either in individual sizes or as a graded nest will be provided to the successful bidder after the contract is awarded.

The paper patterns include seam allowances, and/or placement templates. Contractors may make changes required to suit their production process, however, the design and grade shall not be affected or changed. **Punch holes are not an acceptable method of placement. Shrinkage has not been included in any pattern piece. It is the responsibility of the manufacturer to make allowances for shrinkage, in order to meet the scale of measurements included in this specification.**

All patterns are the property of the RCMP and must be returned upon completion of the contract.

Pattern Pieces - This design has 16 pattern components.

Legend:	
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
# **14** of 16	Stripe "A"(Contract Sizes)	1 paired	Shell Material I Shell Material II Shell Material III
# **14** of 16	Stripe "B" (Special 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: #14 Stripe "A" to be used for all contract sizes.
Pattern Component: #14 Stripe "B" to be used for special order sizes only.

APPENDIX B

CARE INSTRUCTIONS

Applicable To:
Jacket Patrol Unisex
Jacket High Visibility
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, nonflammable 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
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 influer 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.

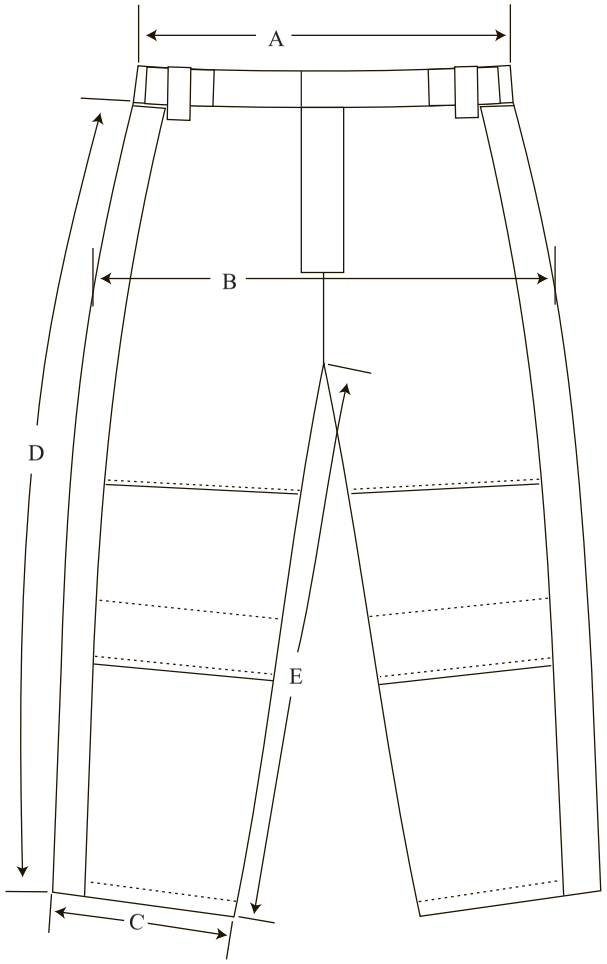
Au besoin, repasser légèrement à basse température.

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.

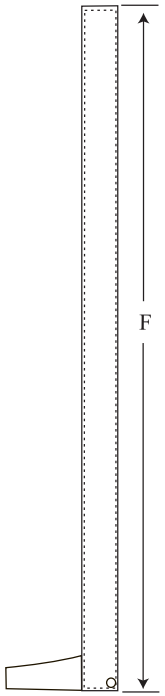
TROUSERS, INCLEMENT AND STRIPES G.S.1045-301

Dwg. 1

Measurement Location Chart



Front View

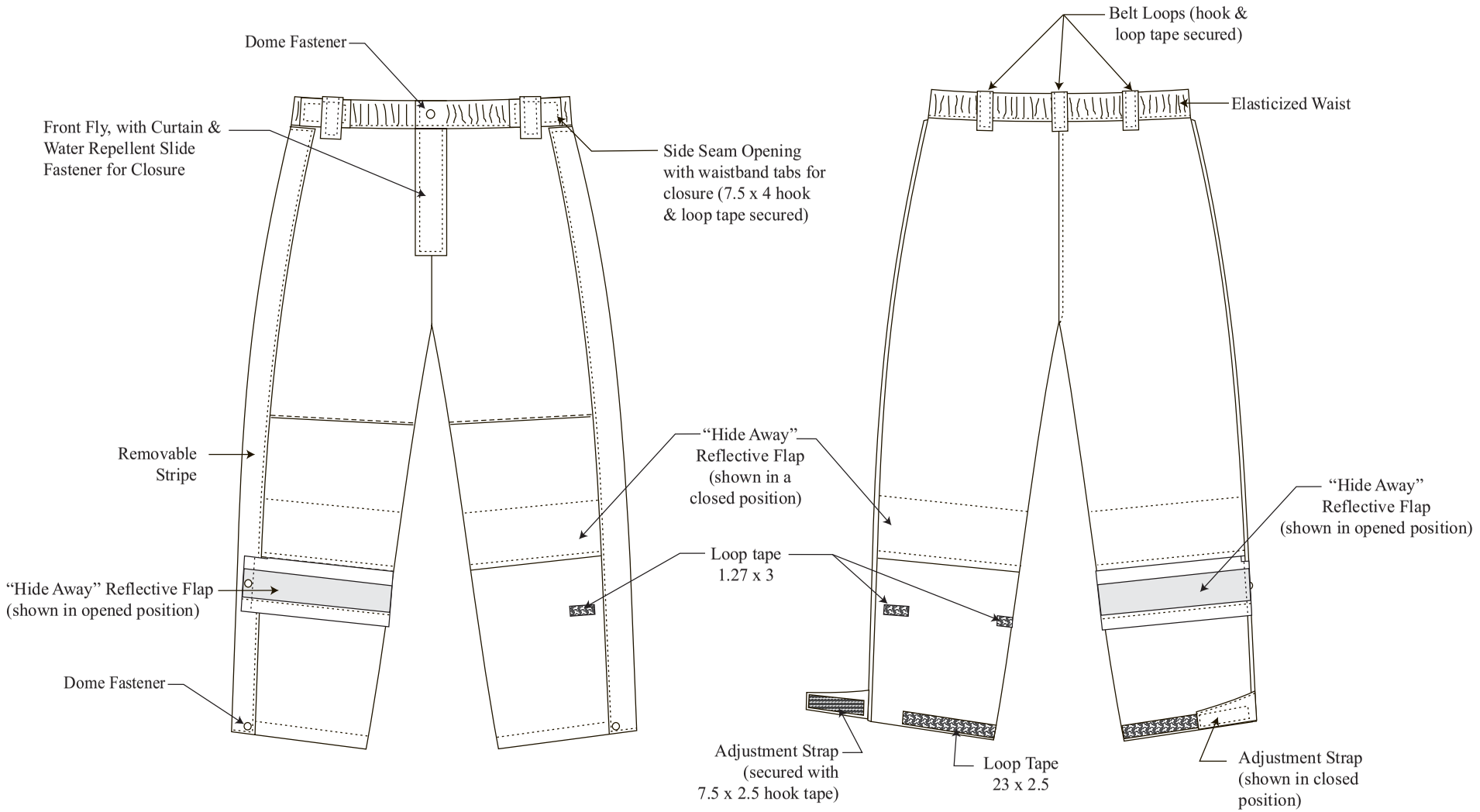


Removable Stripe

NOT TO SCALE

TROUSERS, INCLEMENT AND STRIPES
Dwg. 2

G.S.1045-301

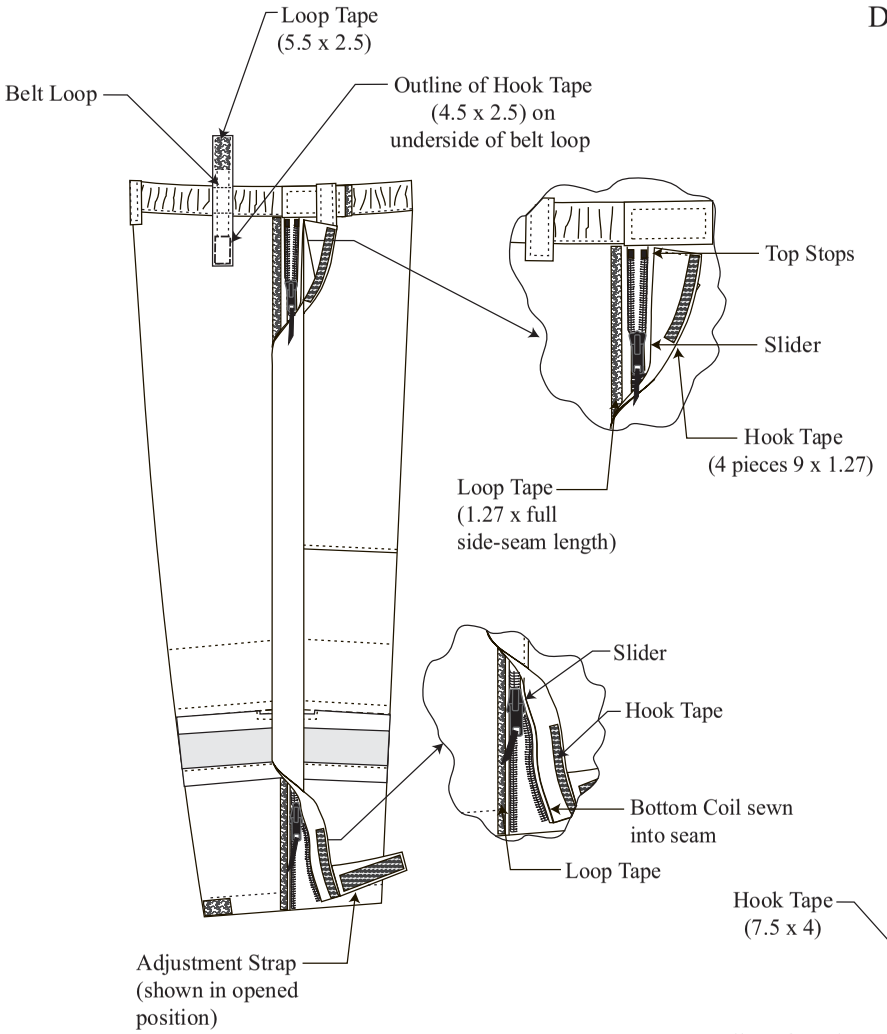


Front View

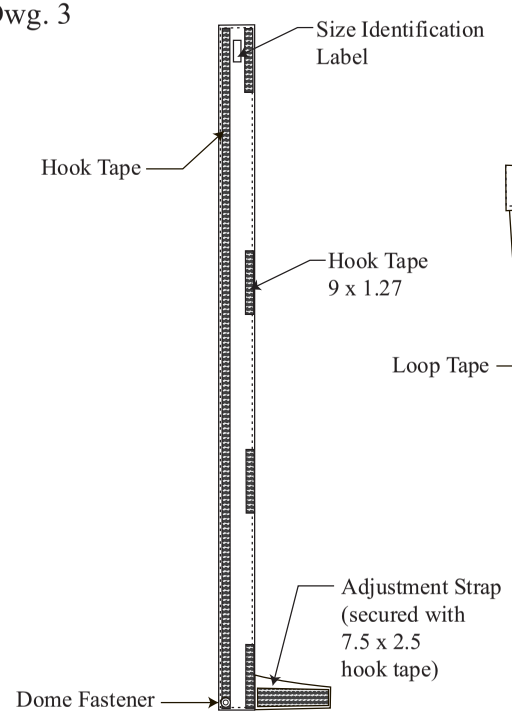
Back View

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

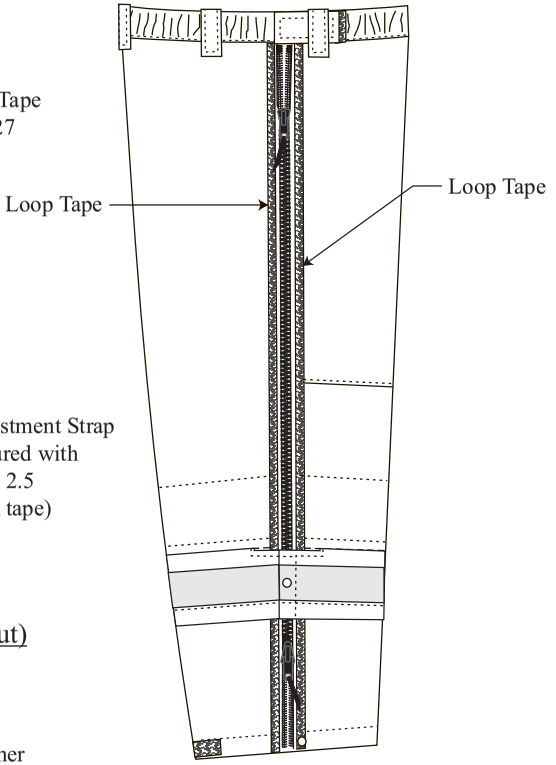
Dwg. 3



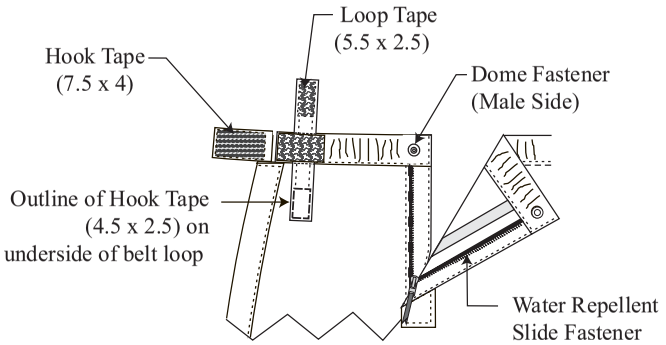
Side View



Removable Stripe
Detail (shown wrong side out)



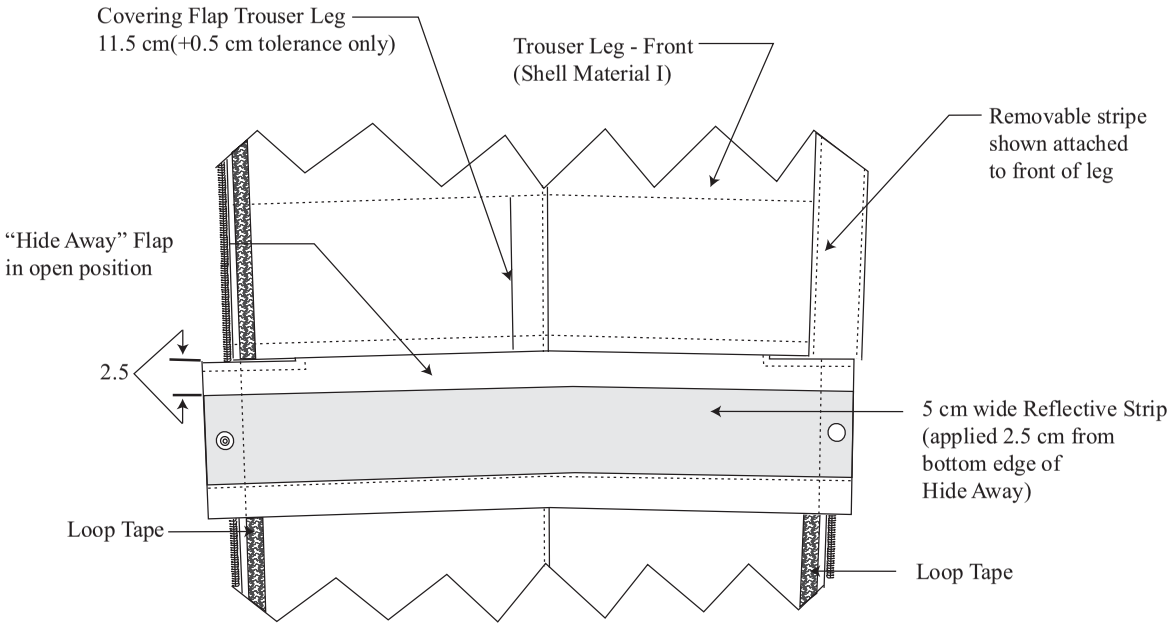
Side View shown without
removable stripe



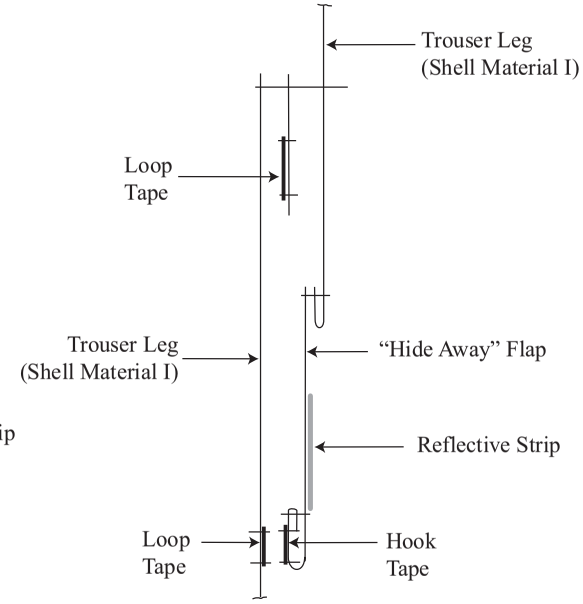
Fly & Belt Loop Detail

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

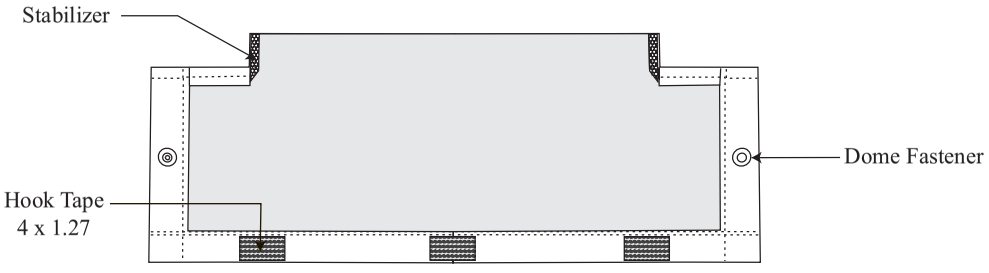
Dwg. 4



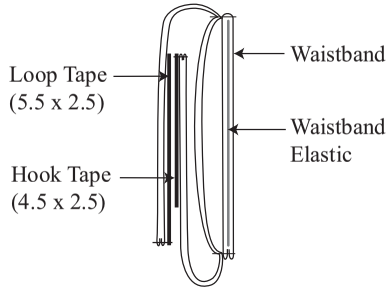
Partial View of Left Leg Covering Flap and "Hide Away" Flap
(shown in open position)



"Hide Away" Flap Detail



View of "Hide Away" Flap
(shown wrong side out)



Belt Loop

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