#### STANDARD CONTRACT

- 1. *Parties*. This is a contract between the State of Vermont, Office of Purchasing and Contracting (hereinafter called "State"), and Municipal Emergency Services, Inc, with a principal place of business in Sandy Hook CT, (hereinafter called "Contractor"). The contractor's form of business organization is corporation. It is Contractor's responsibility to contact the Vermont Department of Taxes to determine if, by law, Contractor is required to have a Vermont Department of Taxes Business Account Number.
- 2. **Subject Matter.** The subject matter of this contract is commodities generally on the subject of Firefighter turn out gear. Detailed requirements to be provided by Contractor are described in Attachment A.
- 3. *Maximum Amount*. In consideration of the commodities to be provided by Contractor, the State agrees to pay Contractor, in accordance with the payment provisions specified in Attachment B, a sum not to exceed \$500,000.00.
- 4. *Contract Term.* The period of contractor's performance shall begin on November 1, 2023 and end on November 1, 2024 with an option to renew for three (3) twelve month terms upon mutual agreement of both parties.
- 5. *Prior Approvals*. This Contract shall not be binding unless and until all requisite prior approvals have been obtained in accordance with current State law, bulletins, and interpretations.
- 6. *Amendment.* No changes, modifications, or amendments in the terms and conditions of this contract shall be effective unless reduced to writing, numbered and signed by the duly authorized representative of the State and Contractor.
- 7. *Termination/Cancellation/Rejection*. The State specifically reserves the right upon written notice to immediately terminate the contract or any portion thereof at no additional cost to the State, providing, in the opinion of its Commissioner of Buildings and General Services, the products supplied by Contractor are not satisfactory or are not consistent with the terms of this Contract. The State also specifically reserves the right upon written notice, and at no additional cost to the State, to immediately terminate the contract for convenience and/or to immediately reject or cancel any order for convenience at any time prior to shipping notification.
- 8. *Attachments*. This contract consists of 34 pages including the following attachments which are incorporated herein:

Attachment A - Statement of Work

Attachment B - Payment Provisions

Attachment C – "Standard State Provisions for Contracts and Grants" a preprinted form (revision date 12/15/2017)

Attachment D – Specifications Sheet

Attachment E - State of Vermont – Federal Terms Supplement (non-construction)

Contractor: Municipal Emergency Services, Inc Contract #: 47016

- 9. *Order of Precedence*. Any ambiguity, conflict or inconsistency between the documents comprising this contract shall be resolved according to the following order of precedence:
  - (1) Standard Contract
  - (2) Attachment C (Standard Contract Provisions for Contracts and Grants)
  - (3) Attachment E State of Vermont Federal Terms Supplement (non-construction)
  - (4) Attachment A
  - (5) Attachment B
  - (6) Attachment D Specifications Sheet

## WE THE UNDERSIGNED PARTIES AGREE TO BE BOUND BY THIS CONTRACT

By the State of Vermont:		By the Contractor:	
Date:		Date:	
Signature:		Signature:	
Name: Jennifer M.V. Fitch		Name:	
Commissioner - Buildings and Title: General Services		Title:	

#### ATTACHMENT A – STATEMENT OF WORK

The Contractor shall provide: The following Firefighter turnout gear:

## 1. Coat: LTO Tail 5 inch Drop Agility Gold

- a. Manufacturer: Honeywell Morning Pride
- b. Part # VTVERT000XX (last two digits change by manufacture as they update specs) Price: \$2640.00
- c. Pant: MPL Pant Agility Gold
- d. Manufacturer: Honeywell Morning Pride
- e. Part # VTVERT000XX (last two digits change by manufacture as they update specs)

# 2. Coat: LTO Tail 5 inch Drop Agility Gold

- a. Manufacturer: Honeywell Morning Pride
- b. Part # VTHAZ000XX (last two digits change by manufacture as they update specs) Price: \$2,805.00
- c. Pant: MPL Pant Agility Gold
- d. Manufacturer: Honeywell Morning Pride
- e. Part # VTHAZ000XX (last two digits change by manufacture as they update specs)

## 3. Coat: LTO Tail 5 inch Drop Pioneer Black

- a. Manufacturer: Honeywell Morning Pride
- b. Part # GSAVER000XX (last two digits change by manufacture as they update specs)
  Price: \$2600.00
- c. Coat: LTO Tail 5 inch Drop Pioneer Black
- d. Manufacturer: Honeywell Morning Pride
- e. Part # GSAVER000XX (last two digits change by manufacture as they update specs)

### 4. VTVERT000XX

- a. HFRP Tail Coat
- b. Morning Pride Tail Coat Vermont Fire Academy Spec

#### 5. VTVERT000XX

- a. HFRP Tail Pant
- b. Morning Pride MPL Pant Vermont Fire Academy Spec

## 6. VTVERT000XX

- a. HFRP Tail Pant
- b. Morning Pride MPL Pant Vermont Fire Academy Spec

### 7. VTVERT000XX

- a. HFRP Tail Pant
- b. Morning Pride MPL Pant Vermont State Hazmat
- c. Academy Spec

## 8. GSAVER000XX

- a. HFRP Tail Coat
- b. Morning Pride Tail Coat VT Air National Guard Spec
- c. GSAVER000XX

#### 9. GSAVER000XX

- a. HFRP Tail Pant
- b. Morning Pride MPL Pant VT Air National Guard Spec
- c. GSAVER000XX

## 10. Sizing

11. **WARRANT**Y: Each product purchased hereunder shall include a manufacturer's written warranty, which must be based on commercial use, and extend for a minimum term of ten (10)

years from the date a Product is available for use by the purchaser, or such longer period as set forth in the written warranty.

- 12. **REPORTING REQUIREMENTS:** Contractor will be required to submit quarterly product sales report to the Purchasing Agent pursuant to the schedule below detailing the purchasing of all items under this Contractor. Contractor's reporting shall state "no activity" for any month in which there is no activity during a quarterly reporting period.
  - a. The reports shall be an excel spreadsheet transmitted electronically to the Purchasing Agent.
  - b. Reports are due for each quarter as follows:

Reporting Period	Report Due		
January 1 to March 31	April 30		
April 1 to June 30	July 31		
July 1 to September 30	October 31		
October 1 to December 31	January 31		

- c. Failure to meet these reporting requirements may result in suspension or termination of this Participating Addendum.
- d. Notwithstanding the fact that any payment obligation for sales by contractor to any political subdivision or college, pursuant to "Purchasing Entities," below, shall be solely between the political subdivision or college and the contractor, the contractor must include, in reporting to State, the figures on quantities sold by contractor to, and amounts paid to contractor by, any such political subdivisions or independent colleges.
- 13. **DELIVERY:** Responsibility for product delivery remains with Contractor until the product is properly delivered and signed for. Contractor shall securely and properly pack all shipments in accordance with accepted commercial practices. Upon delivery, all packaging and containers shall become the property of the State, unless otherwise stated. Delivered goods that do not conform to the specifications or are not in good condition upon receipt shall be replaced promptly by the Contractor.
- 14. **QUALITY:** All products will be new and unused. All products provided by the Contractor must meet all federal, state, and local standards for quality and safety requirements. Products not meeting the requirements of this section will be deemed unacceptable and returned to the Contractor for credit at no charge to the State.
- 15. **DEFAULT:** In case of default of the Contractor, the State may procure the materials or supplies from other sources and hold the Contractor responsible for any excess cost occasioned thereby, provided, that if public necessity requires the use of materials or supplies not conforming to the specifications they may be accepted and payment therefore shall be made at a proper reduction in price.

Revised: April 19, 2023

- 16. *Primary Contacts*. The Parties will keep and maintain current at all times a primary point of contact for this contract. The primary contacts for this this Contract are as follows:
  - e. For the Contractor:

Name: Matt Wilson Phone: 800-560-8030

Email: matt.wilson@mesfire.com

f. For the State:

Name: State of Vermont, Bill Vivian

Address: 133 State Street, 5<sup>th</sup> Floor, Montpelier, VT 05633-8000

Phone: 802/261-0797 Fax: 802/828-2222

Email: Bill. Vivian@Vermont.gov

17. **Purchasing Entities:** This Participating Addendum may be used by (a) all departments, offices, institutions, and other agencies of the State of Vermont and counties (each a "State Purchaser") according to the process for ordering and other restrictions applicable to State Purchasers set forth herein; and (b) political subdivisions of the state (including, but not limited to, cities, towns, and school districts) and any institution of higher education chartered in Vermont and accredited or holding a certificate of approval from the State Board of Education as authorized under 29 V.S.A. § 902 (each an "Additional Purchaser"). Issues concerning interpretation and eligibility for participation are solely within the authority of the State of Vermont Chief Procurement Officer. The State of Vermont and its officers and employees shall have no responsibility or liability for Additional Purchasers. Each Additional Purchaser is to make its own determination whether this Participating Addendum and the Master Agreement are consistent with its procurement policies and regulations.

Revised: April 19, 2023

#### ATTACHMENT B – PAYMENT PROVISIONS

The maximum dollar amount payable under this contract is not intended as any form of a guaranteed amount. The Contractor will be paid for products actually delivered or performed, as specified in Attachment A, up to the maximum allowable amount specified on page 1 of this contract.

- 1. Prior to commencement of work and release of any payments, Contractor shall submit to the State:
  - a. a certificate of insurance consistent with the requirements set forth in Attachment C, Section 8 (Insurance), and with any additional requirements for insurance as may be set forth elsewhere in this contract; and
- 2. Payment terms are **Net 30** days from the date the State receives an error-free invoice with all necessary and complete supporting documentation.
- 3. All invoices are to be rendered by the Contractor on the vendor's standard billhead and forwarded directly to the institution or agency ordering materials and shall specify the address to which payments will be sent.

#### 4. PRICING:

## a. Coat: LTO Tail 5 inch Drop Agility Gold

- i. Manufacturer: Honeywell Morning Pride
- ii. Part # VTVERT000XX (last two digits change by manufacture as they update specs)
- iii. Price: \$2640.00

## b. Pant: MPL Pant Agility Gold

- i. Manufacturer: Honeywell Morning Pride
- ii. Part # VTVERT000XX (last two digits change by manufacture as they update specs)
- iii. Price: \$1,735.00

## c. Coat: LTO Tail 5 inch Drop Agility Gold

- i. Manufacturer: Honeywell Morning Pride
- ii. Part # VTHAZ000XX (last two digits change by manufacture as they update specs)
- iii. Price: \$2,805.00

## d. Pant: MPL Pant Agility Gold

- i. Manufacturer: Honeywell Morning Pride
- ii. Part # VTHAZ000XX (last two digits change by manufacture as they update specs)
- iii. Price: \$1,800.00

## e. Coat: LTO Tail 5 inch Drop Pioneer Black

- i. Manufacturer: Honeywell Morning Pride
- ii. Part # GSAVER000XX (last two digits change by manufacture as they update specs)
- iii. Price: \$2600.00

Contractor: Municipal Emergency Services, Inc Contract #: 47016

## f. Coat: LTO Tail 5 inch Drop Pioneer Black

- i. Manufacturer: Honeywell Morning Pride
- ii. Part # GSAVER000XX (last two digits change by manufacture as they update specs)
- iii. Price: \$1,760.00

## g. VTVERT000XX

- i. HFRP Tail Coat
- ii. Morning Pride Tail Coat Vermont Fire Academy Spec
- iii. Price: \$2,640.00

#### h. VTVERT000XX

- i. HFRP Tail Pant
- ii. Morning Pride MPL Pant Vermont Fire Academy Spec
- iii. Price: \$1,735.00

### i. VTVERT000XX

- i. HFRP Tail Pant
- ii. Morning Pride MPL Pant Vermont Fire Academy Spec
- iii. Price: \$2,805.00

# j. VTVERT000XX

- i. HFRP Tail Pant
- ii. Morning Pride MPL Pant Vermont State Hazmat
- iii. Academy Spec
- iv. Price: \$1,800.00

## k. GSAVER000XX

- i. HFRP Tail Coat
- ii. Morning Pride Tail Coat VT Air National Guard Spec
- iii. GSAVER000XX
- iv. Price: \$2,600.00

#### I. GSAVER000XX

- i. HFRP Tail Pant
- ii. Morning Pride MPL Pant VT Air National Guard Spec
- iii. GSAVER000XX
- iv. Price: \$1,760.00

# m. Sizing

- i. No Charge
- 5. **DELIVERY:** Contractor shall provide all products F.O.B. delivery to the ordering facility at no additional cost to the State. No request for extra delivery cost will be honored. All equipment shall be delivered assembled, serviced, and ready for immediate use, unless otherwise requested by the State. No charge for packing, shipping, or for any other purpose will be allowed over and above the price quoted. Prices quoted for printing are to include printing, binding, wrapping, and packaging.
- 6. Following complete delivery of the items, each as specified in Attachment A, and the State's written confirmation to the Contractor of the State's acceptance of those items and that training, Contractor

Revised: April 19, 2023

will, within 30 business days, invoice the State in accordance with the rates specified in Attachment B.

- 7. Unless otherwise indicated in a manufacturer's return policy, unopened Products can be returned with no restocking fee up to 30 days from the date of receipt.
- 8. The State Purchasing Card may be used by State Purchasers for the payment of invoices. Use of the Purchasing Card requires all required documentation applicable to the purchase. The Purchasing Card is a payment mechanism, not a procurement approach and, therefore, does not relieve State Purchasers from adhering to all procurement laws, regulations, policies, procedures, and best practices.

Revised: April 19, 2023

Contractor: Municipal Emergency Services, Inc Contract #: 47016

# ATTACHMENT C: STANDARD STATE PROVISIONS FOR CONTRACTS AND GRANTS REVISED DECEMBER 15, 2017

"Attachment C: Standard State Provisions for Contracts and Grants" (revision version dated December 15, 2017) constitutes part of this Agreement and is hereby incorporated by reference as if fully set forth herein and shall apply to the purchase of all goods and/or services by the State under this Agreement. A copy of this document is available online at: <a href="https://bgs.vermont.gov/purchasing-contracting/forms">https://bgs.vermont.gov/purchasing-contracting/forms</a>.

Revised: April 19, 2023 Page **9** of **9** 

#### Attachment E

# STATE OF VERMONT- FEDERAL TERMS SUPPLEMENT (Non-Construction)

(Revision date: July 19, 2023)

#### PROCUREMENT OF RECOVERED MATERIALS

In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated Items unless the products cannot be acquired-

- 1. Competitively within a time frame providing for compliance with the contract performance schedule;
- 2. Meeting contract performance requirements; or
- 3. At a reasonable price

Information about this requirement, along with the list of EPA-designated items, is available at the EPA's Comprehensive Procurement Guidelines web site, <a href="https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program">https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program</a>.

The Contractor also agrees to comply with all other applicable requirements of section 6002 of the Solid Waste Disposal Act.

#### **CLEAN AIR ACT**

- 1. The contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. § 7401 et seq.
- 2. The contractor agrees to report each violation to the State of Vermont and understands and agrees that the State of Vermont will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- 3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA.

#### FEDERAL WATER POLLUTION CONTROL ACT

- 1. The contractor agrees to comply with all applicable standards, orders, or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq.
- 2. The contractor agrees to report each violation to the State of Vermont and understands and agrees that the State of Vermont will, in turn, report each violation as required to assure notification to the Federal Emergency Management Agency, and the appropriate Environmental Protection Agency Regional Office.
- 3. The contractor agrees to include these requirements in each subcontract exceeding \$150,000 financed in whole or in part with Federal assistance provided by FEMA. a. Standard. Non-Federal entities and contractors are subject to the debarment and suspension regulations implementing Executive Order 12549, *Debarment and Suspension* (1986) and Executive Order 12689, *Debarment and Suspension* (1989) at 2 C.F.R. Part 180 and the Department of Homeland Security's regulations at 2 C.F.R. Part 3000 (Nonprocurement Debarment and Suspension).

# CONTRACTOR BREACH, ERRORS AND OMISSIONS

- 1. Any breach of the terms of this contract, or material errors and omissions in the work product of the contractor must be corrected by the contractor at no cost to the State, and a contractor may be liable for the State's costs and other damages resulting from errors or deficiencies in its performance.
- 2. Neither the States' review, approval or acceptance of nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract.
- 3. The rights and remedies of the State provided for under this contract are in addition to any other rights and remedies provided by law or elsewhere in the contract.

## TERMINATION FOR CONVENIENCE

- 1. General
  - a. Any termination for convenience shall be effected by delivery to the Contractor an Order of Termination specifying the termination is for the convenience of the Agency, the extent to which performance of work under the Contract is terminated, and the effective date of the termination.

- b. In the event such termination occurs, without fault and for reasons beyond the control of the Contractor, all completed or partially completed items of work as of the date of termination will be paid for in accordance with the contract payment terms.
- c. No compensation will be allowed for items eliminated from the Contract.
- d. Termination of the Contract, or portion thereof, shall not relieve the Contractor of its contractual responsibilities for work completed and shall not relieve the Contractor's Surety of its obligation for and concerning any just claim arising out of the work performed.

## Contractor Obligations

After receipt of the Notice of Termination and except as otherwise directed by the State, the Contractor shall immediately proceed to:

- a. To the extent specified in the Notice of Termination, stop work under the Contract on the date specified.
- b. Place no further orders or subcontracts for materials, services, and/or facilities except as may be necessary for completion of such portion(s) of the work under the Contract as is (are) not terminated.
- c. Terminate and cancel any orders or subcontracts for related to the services, except as may be necessary for completion of such portion(s) of the work under the Contract as is (are) not terminated.
- d. Transfer to the State all completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would be required to be furnished to the State.
- e. Take other action as may be necessary or as directed by the State for the protection and preservation of the property related to the contract which is in the possession of the contractor and in which the State has or may acquire any interest.
- f. Make available to the State all cost and other records relevant to a determination of an equitable settlement.

## 3. Claim by Contractor

After receipt of the Notice of Termination from the state, the Contractor shall submit any claim for additional costs not covered herein or elsewhere in the Contract within 60 days of the effective termination date, and not thereafter. Should the Contractor fail to submit a claim within the 60-day period, the State may, at its sole discretion, based on information available to it, determine what, if any, compensation is due the Contractor and pay the Contractor the determined amount.

#### 4. Negotiation

Negotiation to settle a timely claim shall be for the sole purpose of reaching a settlement equitable to both the Contractor and the State. To the extent settlement is properly based on Contractor costs, settlement shall be based on actual costs incurred by the Contractor, as reflected by the contract rates. Consequential damages, loss of overhead, loss of overhead contribution of any kind, and/or loss of anticipated profits on work not performed shall not be included in the Contractor's claim and will not be considered, allowed, or included as part of any settlement.

# <u>Attachment D – Specifications Sheet</u>

### PRODUCT COUNTRY OF ORIGIN

For liability reasons, garments must be manufactured in the United States of America or Canada by companies with their assets and incorporation within the United States of America or Canada.

## LABELING REQUIREMENTS

Labels shall be permanently and integrally printed onto materials that meet all the requirements for labels of NFPA 1971. The garment shall be clearly labeled to\_fully identify the material content of all three layers: outer shell, moisture barrier and thermal liner.

In addition, each separable outer shell component shall be labeled in an obvious location including the size, date of manufacturer and an individualized serial number and bar code that matches the corresponding garment liner.

## **CARE INSTRUCTIONS**

The manufacturer shall provide a user information guide for the garments, which complies with user information requirements of NFPA 1971. Topics shall include, but t necessarily be limited to: pre-use information, preparation for use, inspection frequency and details, don/doff, use consistent with NFPA 1500, maintenance and cleaning, and retirement and disposal criteria and considerations.

This document shall be packaged with each garment along with a specification summary sheet describing garment custom options, sizing and production details. This written information shall be in complete compliance with NFPA 1971 requirements, and shall reference same.

## TRACEABILITY PROGRAM

The manufacturer shall have in place a computer maintained traceability program that provides for the assignment of a production control number to each garment. The traceability program must be capable of tracing the garment through production, from the bolts of cloth used in all three layers of the garment composite construction, to the assignment of the garment to the individual firefighter. This production control number shall be visibly located on the garment label and on other protected areas of garment.

# <u>Attachment D – Specifications Sheet</u>

# **PATENT CONSIDERATIONS**

The Bidder, without exception, shall indemnify and save harmless the Purchaser and its employees from liability of any nature and kind, including cost and expenses for or on account of any copyrighted, patented or un-patented invention, process, or article manufactured or used in the performance of the contract, including its use by the Purchaser. If the Bidder uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the bid prices shall include all royalties or costs arising from the use of such design, device, or materials in any way involved in the work.

## **SIZING**

To ensure a perfect fit, sizing shall be determined by actual masurements taken of the firefighter by a trained measurement specialist, or sizing try-ons, or both. Sizing measurements shall be taken according to a schedule and location(s) mutually agreed between the manufacturer and the Vermont Fire Academy. There shall be more than five scheduled fitting sessions. The Vermont Fire Academy also reserves the option to order sizes at their own discretion.

Garments shall be available in custom sizing as follows: coat chest in 2-inch (5.1 cm) increments, coat sleeve in 0.5-inch (1.3 cm) increments, coat back length in 1-inch (2.5 cm) increments, pant waist in 2-inch (5.1 cm) increments and pant inseam in 1-inch (2.5 cm) increments. A full range of women's sizing, on women's patterns, must also be available. Each sleeve and inseam length shall provide 100% gradation from shoulder to wrist, and from hip to ankle, to provide proper fit for individual arm and leg lengths. Pattern tailoring to custom-fit neck, bicep, hip/seat and thigh circumferences must also be provided, when needed, at additional charge. Neither Small-Medium-Large-Extra Large sizing r women's garments cut to men's patterning are considered acceptable, since proper fit facilitates mobility and minimizes stress.

#### **SELF-BINDING**

Liner and moisture barrier shall be stitched together and turned, then topstitched, to create a self binding edge. The extra bulk of separate binding material is specifically prohibited.

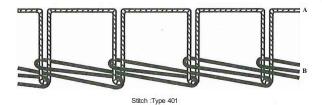
## **THREAD**

All thread used in structural seams shall be mex® of minimum Tex size T-70. Light colored garments and trim areas shall feature yellow thread. Black and dark garments shall feature black thread. Tan or bronze colored garments shall feature tan thread.

# STITCH METHODS

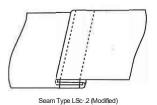
#### **MAJOR A & B SEAMS**

Except for the collar Major A seam, which is single-needle lock stitched three times, all Major A & B seams (as defined by NFPA 1971) shall be double stitched, double feld throughout all three layers (outer shell, moisture barrier and thermal liner), and shall be made with mex® thread, minimum Tex size T-90. Detailed stitch and seam type requirements are shown below.



Stitch Type 401

Double lockstitch, as defined by ASTM D 6193-97



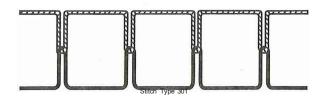
Modified Seam Type LSc-2

Double feld seam, modified only to ensure that both stitch lines penetrate all layers of cloth atjoining, otherwise as defined by ASTM D 6193-97

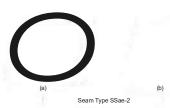
Also, all moisture barrier seams shall be tape-sealed to meet all requirements of the NFPA 1971 Liquid Penetration Resistance Test.

#### **MIR SEAMS**

Most Mir seams, such as storm shields and mated hems, shall also be stitched with the specified mex thread. Detailed stitch and seam type requirements are shown below.



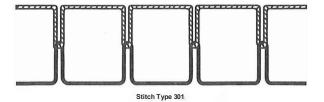
Stitch Type 301 Lockstitch as defined by ASTM D 6193-97



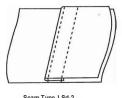
Seam Type SSae-2
As defined by ASTM D 6193-97, shown
(a) before and (b) after required turning

## **POCKETS**

<u>Flat</u> garment pockets shall be stitched with the specified mex® thread. Detailed stitch and seam type requirements are shown below.

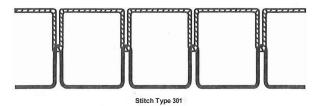


Stitch Type 301 Lockstitch as defined by ASTM D 6193-97

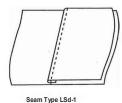


Seam Type LSd-2 As defined by ASTM D 6193-97

<u>3-Dimensional</u> pocketing shall feature these same construction details, but the reinforced single stitch Seam Type LSd-1 may be substituted for LSd-2. Detailed seam type requirements are shown below.



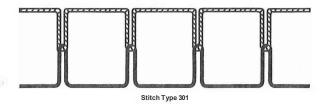
Stitch Type 301 Lockstitch as defined by ASTM D 6193-97



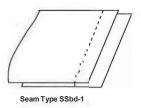
Seam Type LSd-1
As defined by ASTM D 6193-97

## TRIM AND DANGER LABELS

Trim and DANGER labels shall be stitched with the specified mex® thread. Detailed stitch and seam type requirements are shown below.



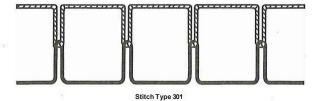
Stitch Type 301 Lockstitch as defined by ASTM D 6193-97



Seam Type SSbd-1
As defined by ASTM D 6193-97

#### SINGLE LAYER HEMMING AND FINISHING

Single layer hemming and finishing shall be stitched with the specified mex® thread. Detailed stitch and seam type requirements are shown below.



Stitch Type 301
Lockstitch as defined by ASTM D 6193-97



Seam Type EFb-1
As defined by ASTM D 6193-97

# **POCKETS**

When exterior pockets are specified, the following requirements shall apply to all such custom option specified exterior pockets:

All pockets and flaps shall be reinforced at the top comers with bar tack stitching.

All pocket shall be reinforced with an extra layer of NFPA-certified outer shell, moisture barrier, or other NFPA-certified reinforcement material for extra durability. The exact location of the reinforcements shall be identified in the custom options section(s).

All pockets shall have a means to drain water and shall have a means of closure.

All pocket closures shall be made either with hook and loop fastener tape a minimum of 1.5 inches (3.8 cm) wide, with a flap, or with snaps. The specific placement of the closure system shall be outlined in the custom options sections.

## TAILORED GRADING OF GARMENT LININGS

All garment layers and Cold Weather Accessory Linings shall be graduated in size to fit within in each other in the overall composite without causing bunching or binding when the garment is worn.

## **POINTS OF STRESS**

All points of stress shall be reinforced with sturdy bartacks. Rivets are t acceptable because of their potential for rust and electrical or heat conduction.

### **ASSET TRACKING SERVICES**

Upon request, the manufacturer shall be capable of providing a web based software to track care, cleaning and maintenance of PPE. The tracking software will include Inventory Assist and the Hot Spot Locator to help you analyze gaps in your inventory and pinpoint recurring repair problems. Records will be secured in a cloud based environment with 24/7 access.

This tracking program shall meet or exceed all record-keeping requirements of NFPA 1851, Standard on Selection, Care and Maintenance of Structural Fire Fighting Protective Ensembles, Latest Edition. Manufacturer shall have the ability to import records for gear purchased from them, upon request, providing all details required to meet NFPA 1851, and assist with training to assign all gear while importing.

Labels on each separable part of the garment shall include a standard style interleaved 2 of 5 barcode containing (at a minimum) an individualized serial number for asset tracking purposes.

The manufacturer shall be capable of providing training to department personnel who are involved in the daily use of this tracking program, as well as a built in interactive tutorial.

## **REPAIRS AND ALTERATION SUPPORT**

Honeywell Morning Pride cant provide materials for in house repairs without ensuring that they are certified in doing so. Per NFPA and other national standards gear repairs and alterations need to be done at the manufacture or a certifier gear repair location. MES currently uses 3 Gear repair facilities, Honeywell Manufacture, United Gear Repair and Gear Wash Minerva. Any repair is evaluated at the time as which facility would be best and quickest to get the end user back the garment in a timely manner.

## HIGH TEMPERATURES THERMAL INSULATING MATERIALS REQUIREMENT

Because thermally stable materials are essential to maximizing protective performance in firefighters' PPE, and because NFPA only states "minimum" performance requirements, all thermal liner or thermal enhancing materials used in the garments shall also meet the following criteria after the 500 degree F oven test:

- 1) Material shall remain intact and flexible
- 2) portion of the material shall crack, crumble or flake

# BREATHABILITY REQUIREMENT

Excluding where required by NFPA standard, necessary for functionality, or specifically called out in the custom option sections, all materials fabrics and reinforcements used in the construction of the garments shall be breathable and all moisture barrier material must be as specified in the Materials Section.

The breathability requirement includes but is t limited to: collar, chinstrap, storm shield, fly, water wells, front coat facings, and reinforcement cushioning where applicable.

Areas where n-breathability is allowed (absent Custom Option specifications): trim or other items placed externally on the arms that might need extra material to pass NFPA required Stored Energy Testing, hook and loop fastening, hardware or hardware backing, and pocket linings where used exterior to the outer shell.

# **CONDUCTIVE AND COMPRESSIVE HEAT RESISTANCE (CCHR)**

Using breathable materials as outlined in the section titled Breathable Materials, there shall be: A minimum area of 4" x 4" (10.2 cm x 10.2 cm) at the shoulders <u>and elbows</u> that provide a minimum of 25 CCHR at 2 psi. with a minimum 6" x 6" (15.2 cm x 15.2 cm) area at the knees that provide 25 CCHR at 8 psi.

In all three of these compression areas at least a portion of the protective area shall be made from high temperature fiber based materials sewn to the thermal liner on the inside of the liner toward the moisture barrier.

## **SEAM PROTECTION AT CUFFS**

At the coat and pant cuff Major A seams, the reflective trim shall stop just before the folding of the full feld seam and for additional abrasion protection be covered by a sewn on strip of polymer coated Kevlar material laid on top of the Major A seam and covering each end of the trim.

## **APPLICABLE DOCUMENTS**

The following standards in their active versions on the date of invitation for bid shall form a part of this specification to the extent specified herein.

STANDARD TITLE

ASTM D 6193-97 Standard Practice for Stitches and Seams

NFPA 1500, Latest Edition Standard on Fire Department Occupational Safety and Health

Program

NFPA 1851, Latest Edition Standard on Selection, Care, and Maintenance of Structural Fire

Fighting Protective Ensembles

NFPA 1971, Latest Edition Standard on Protective Ensemble for Structural Fire Fighting

#### COAT

To avoid liability and interface problems, coats and pants shall be procured from the same manufacturer.

# **DESIGN CONCEPT (STYLING)**

The standard coat design shall be 6-inches (15.2 cm) longer at the rear hem than at the front hem and provide continuous and unbroken moisture barrier and thermal liner protection from the collar seam to the hem at the bottom of the coat tail. Each coat length shall be determined by each individual's torso length to provide the coat-to-pant interface as defined by NFPA 1500. Coat design must interface properly with standard waist high bunker pants. To facilitate various body types the front to rear length differential shall be made available in 3-inch (7.5cm), 4-inch (10.0cm), 5-inch (12.5cm and 6-inch (15.0cm) "Tail Drops".

# **PATTERNING CONCEPT**

Garments shall feature a tailored three-piece body (with one-piece back) and one-piece, set-in sleeve construction throughout the outer shell, mo isture barrier and thermal liner layers. One-piece garment body (either all layers or some layers) will t be considered acceptable since they cant be tailored to hard-to-fit personnel. Similarly, garments with seams in mid-back are t considered acceptable because of backbone, irritation that can occur with SCBA use. To facilitate individual tailoring needs, the major A & B seams joining the one-:-piece back to the right and the left front body panels (outer shell and all interior layers) shall be located at the most lateral position when the coat is laid flat for inspection.

### PATTERNING REQUIREMENTS

To assure maximum freedom of movement and reduce kinetic resistance with minimum garment weight and bulk, coat patterning shall include the following features:

- Degree of slope on shoulders shall be more than 20%.
- Hydraulic Butterfly sleeve patterning having built-in underarm bellow with 85-degree Lift Up Release Action shall be provided to minimize coat hem rise.
- Sleeve attachment shall minimize shoulder lift and allow a full 360 degrees freedom of movement.
- Coat hem rise with overhead reach of both arms t to exceed 4-inch (10.2-cm) maximal extension on properly fitted garments.
- Shell-and-liner retraction at the cuff shall t exceed 1 inch (2.5 cm) when both arms are raised overhead. This helps eliminate wrist exposure.
- 10-inch (25.4-cm) chest over-sizing shall be provided.
- Coat sweep measurements must be consistent with the chest over-size at the hem.
- Reach when measured from cuff to cuff, with coat lying flat, and standard length sleeves extended to each side, shall be provided as detailed below.
- An alteration point at the hem that during manufacture allows the sweep dimension to be adjustable in two-inch (5.0cm) increments

Chest Size	Standard Reach		
40 in (101.6 cm)			(167.6 cm)
42 in (106.7 cm)		67 in	(170.2 cm)
44 in (111.8 cm)		68 in	(172.7 cm)
46 in (116.8 cm)		68 in	(172.7 cm)

## DRAG RESCUE DEVICE (DRD)

Manufacturer shall supply an NFPA required and certified Drag Rescue Device with each coat. Each strap will be properly labeled with the chest size(s) the Rescue Strap is designed to fit.

Rescue Strap shall be designed in a fashion that it functionally provides a dynamic and articulated action and to eliminate excess strapping material hanging down the back when installed between the garment's liner and outer shell.

The device shall be constructed using two components: a 1.75" (4.45 cm) Kevlar webbing grab handle; and a free-floating loop of Kevlar rope to go around each of the wearer's arms/shoulder.

The grab loop shall extend upward and pass through a tunnel of outer shell and pass out through a reinforced slot in the coat outer shell just below the center rear of the collar seam. The protruding grab loop shall then fold back down and be stored by hook and loop fastener.

The end of the garb loop shall be covered with an outer shell flap sewn below the held in place with hook & loop fastener to reduce the chances of snagging the grab loop by accident.

# Attachment D - Specifications Sheet

The Grab Handle shall be constructed of soft and pliable Kevlar webbing meeting the following specifications:

Description 100% Kevlar Double Plain Weave

Width 1.75" (4.45 dm)

Thickness 0.064"± 0.010" (.163 cm± .0254 cm)

Tensile 5,000 lb minimum (22.24 kN)

To facilitate comfort and safety the free-floating loop shall be constructed of soft and pliable Kevlar rope meeting the following specifications:

Description 100% Kevlar Tubular Plain Weave - Natural

Width .038" (.097 cm)

Thickness 0.144"± 0.005" (.366 cm± .013 cm)

Tensile 3500 lb minimum (15.57 kN)

Rescue Strap shall be sewn with Kevlar thread

## LINER ATTACHMENT

The completed liner-moisture barrier assembly shall attach by means of five (5) evenly spaced glove snaps to each outer shell front facing to reduce weight, bulk and stiffness. To provide continuous moisture and pathogen protection at the front, the liner shall be positioned so it is sandwiched between the coat front facing and a breathable pathogen shield. The use of zippers or hook and loop fasteners in this area is t allowed due to their added weight, bulk and stiffness.

Liner sleeves shall be attached at the cuff by means of snaps on two (2) sets of mex tabbing per liner cuff. The male and female snap parts shall both be located on mex tabbing that is sewn to the liner at the cuff. A separate piece of mex tabbing shall be sewn to the shell cuff and fashioned as a loop without any snap hardware.

To provide continuous moisture protection and pathogen protection at the neck, the liner shall be positioned so that it is sandwiched between an outer-facing pathogen shield and an inside facing of the specified outer shell material.

Attachment at the neck shall be by means of four (4) glove snaps that penetrate <u>only</u> the layer of the attachment strip facing towards the liner, so that metal contact at a wearer's neckline is completely eliminated.

# **COAT CERTIFICATION LABEL ON LINER**

The coat certification label on the liner shall be affixed to the inside right body panel of the liner in a fashion to provide an inside liner pocket.

## **COAT CERTIFICATION LABEL ON SHELL**

The coat label on the shell shall be affixed in a conspicuous location once the liner is removed.

## **COLLAR**

The collar shc:1II be of layered construction, consisting of a layer of waterproof moisture barrier and a layer of NFPA 1971-certified insulating material, sandwiched between two (2) layers of specified outer shell material. NFPA compliant collars shall be at least 3 inches (7.6 cm) high while CGSB compliant collars shall be at least 4 inches (10.2 cm) high. The design shall incorporate in its patterning a natural contour that will allow proper fit and performance in the standing (upright) or stowed position.

There shall be vertical or horizontal seams or stitching in the body of the collar. The left outside of the collar shall have a sewn piece of 2-inch x 2-inch (5.0-cm x 5.0-cm) hook fastener tape for chinstrap-to-collar closure. The fastener tape shall be located rear ward far eugh to allow for the location of a forward mounted microphone tab if so desired. Each collar shall be graded to individual coat sizes.

## **CHIN STRAP**

The chinstrap shall be of layered construction identical to that of the collar configuration described in the previous paragraphs. Chinstrap shall be of a cecent shaped design with *minimum dimensions of:* 9 inches (22.5 cm) long across the top corners, 10.5 inches (26 cm) long across the bottom corners, and 3.5 inches (8.75 cm) in vertical height, measured at the center. The leading underside edge of the chinstrap shall have a 4.0-inch-wide (3.8 cm-wide) horizontal strip of loop fastener tape to ensure an adequately adjustable closure and to ensure passage of the Whole Garment Liquid Penetration Test.

## HANG-UP LOOP

An 80-pound (36.3 kg) tear strength hang-up loop shall be provided at the interior collar seam. The loop shall be constructed of triple layers of the specified outer shell material, lockstitched to the coat. Webbing is t acceptable.

## **SLEEVES**

To prevent stove-piping the sleeves shall be individually graded by coat size and sleeve length. For maximum freedom, the sleeve design shall feature extra full cut one-piece set-in sleeves with built-in bellows. To reduce the chances of possible top seam failure in that high thermal exposure area, the sleeve Major seams shall follow the underside of the arm and shall t cross over the outside of the elbow joint. Sleeve seam and sleeve attachment to coat body in all layers shall be 100% double feld and double stitched for maximum.

## **INNER WRISTLET & WATERWELL**

Every coat shall feature a minimum 4.5-inch (11.4-cm) long, double-layer knit <u>inner</u> wristlets protected by a flame-resistant and moisture-resistant inner waterwell. The inner wristlet shall be sewn to the thermal liner sleeve end (t to the outer shell). The specified moisture barrier shall form an inner waterwell with an elastic gather sewn to the moisture barrier sleeve end.

## **EXTERNAL WRISTLET**

Every coat shall feature a 2.5-inch (6.4 cm) long knit <u>outer</u> wristlet, which shall be mounted to the end of each outer shell sleeve to prevent liquid and debris movement up the sleeve between the outer shell and the moisture barrier/ thermal liner assembly.

## FRONT CLOSURE PROTECTIVE OVERLAP

Two-inch-wide (5.1 cm-wide) panels of breathable moisture/ pathogen barrier and specified thermal liner materials shall be provided at coat front closure facings to preclude any type of break in the protective envelope. The entire circumference of a closed coat shall consist of specified shell, moisture barrier and thermal liner materials.

An additional layer of breathable moisture/ pathogen barrier material shall be sewn between the 2-inch-wide (5.1 cm-wide) panels and outer shell coat body for the entire length of coat front in a fashion to prevent liquid entry during the NFPA 1971 Whole Garment Liquid Penetration Test.

# **COMPOSITE MATERIALS**

The specifier has determined the ONLY acceptable combination of materials. Any substitution of materials shall be grounds for immediate disqualification of bid without further consideration.

### **OUTER SHELL**

Agility 6.6 osy Twill weave; - Gold

THERMAL LINING

QUANTUM 3D® SL2i; 7.7 oz.

**MOISTURE BARRIER** 

Crosstech Black Type 2F

## **COAT CUSTOM OPTIONS TO BE PROVIDED**

Instructions in this custom options section that contradict earlier specifications or statements supersede those earlier specifications or statements as long as the required certifications are t compromised.

**Trim** - Double-stitched New York Style - lime 2-tone Scotchlite 3" stripes around the bottom of the jacket within approximately 1 inch of the hem, around the back and chest area approximately 3 inches below the armpit, around each sleeve below the elbow, around each sleeve above the elbow.

## Lettering applied directly to coat back

< AGENCY NAME LINE 1 >

< AGENCY NAME LINE 2 >

Bidders shall provide as part of their bid all available letter color and size options (represented in inches):

Colors: Lime Yellow and Orange

Sizes Standard 2 to 3 inch depending on Coat Size

# **Lettering Applied Directly to coattail**

< TITLE AND/OR NAME >

Bidders shall provide as part of their bid all available letter color and size options (represented in inches):

Colors: Lime Yellow and Orange

Sizes Standard 2 to 3 inch depending on Name Size





# Attachment D – Specifications Sheet

Reinforced sleeve cuffs - Reinforced sleeve cuffs made with Arashield - Black

**Dead Air insulation panels** - Extended air panels through shoulders and sleeves to add increased thermal protection. Panels shall be lightweight and t hinder flexibility.

D-Ring on a Patch - Agility - Gold - left chest

**Bellows Pockets** - 2 7" x 9" x 1.5" with 3 Vertical Strips hook and loop on Flap / Full Hook and Loop on Pocket, and shall be located such that the bottom of the pockets are at the bottom of the jacket for full functionality when used with an SCBA. Reflective trim shall run over the bottom of the pockets so as t to interrupt the trim. -Agility -Gold

Handwarmers - behind Bellows Pockets -Fleece

Chinstrap - 1 glove snap added to strap and 3 added for connection on collar

Mic Tab on right chest - Millenia XT -Bronze

**Thumb Tab** -Wristlets shall be long with a mex thumb tab

Front Closure - Hooks and dees with zipper interior

### **PANTS**

To avoid liability and interface problems, coats and pants shall be procured from the same manufacturer.

## **DESIGN CONCEPT (STYLING)**

The pant shall be of a traditional waist-high design to facilitate full torso ventilation of front, rear and sides of trunk for maximum body cooling effect to help minimize firefighter heat stress. For this reason, other than waist-high pants shall t be considered acceptable or "equal," since additional trunk wrapping traps heat and moisture, increasing heat stress buildup while also creating mechanical resistance when covering the natural torso flexion point of the waist.

## PATTERNING CONCEPT

Garments shall feature a tailored four-piece body plus a one-piece, over-sized crotch diamond pattern in the outer shell, moisture barrier and thermal liner.

#### PATTERNING REQUIREMENTS

# Attachment D – Specifications Sheet

To assure maximum freedom of movement and reduced kinetic resistance with minimum garment weight and bulk, the pants patterning shall:

- Incorporate hydraulic, swivel action leg-to-torso interfaces.
- Incorporate an oversized diamond-shaped crotch insert, graded per size, for maximum action stride, optimum stepping reach and "in-crotch" seaming.
- In the outer seam hip area, in all three layers shall, incorporate convex seam techlogy to provide for generous seat expansion when squatting and crawling without creating unsightly bagginess.
- That the diamond extends from just above the left knee to just above the right knee, and be centered equally from front to rear. Width of diamond at top of crotch shall be approximately proportionally graded to waist size and inseam length.
- Ensure that pants rest in rmal body line balance of 22 inches (55.9 cm) center distance at the cuff for 42 waist, 30 inseam pants.
- Provide for an alteration point at the hips so that during manufacture the hip dimension can be adjustable in two-inch (5.0cm) increments

## **SUSPENDER ATTACHMENT**

8 snap style suspender loops shall be positioned on the internal waist facing. Suspender loops shall be mounted through top of waistband with triple later outershell material, thermal and moisture barrier.

### LINER ATTACHMENT

The moisture barrier and thermal liner assembly shall be attached to the outer shell at the waistband with seven (7) evenly-spaced glove snaps. Liners shall be attached at the cuff by means of snaps on two (2) sets Hypolan coated Kevlar tabbing per liner cuff. The male and female snap parts shall both be located on Hypalon coated Kevlar tabbing that is sewn to the liner at the cuff. A separate piece of Hypalon coated Kevlar tabbing shall be sewn to the shell cuff.

#### PANT CERTIFICATION LABEL ON LINER

The pant certification label on the liner shall be affixed to the inner left hip area of the liner.

## PANT CERTIFICATION LABEL ON SHELL

The pant label on the shell shall be affixed to the facing at the fly.

# **FLY FRONT**

The outer shell fly shall be lockstitched to the left side of the front opening and shall be in proportion to waist size and crotch rise in both length and width. Fly inner lining shall extend at least 2 inches (5.1 cm) to the left of the outer shell fly attachment seam and shall be constructed of certified breathable moisture barrier and thermal liner. The right front pant opening shall have an internal facing extending at least 2 inches (5.1 cm) to the right and constructed of specified fabric. In combination with the liner, the system shall offer 360-degree protection without gaps during movement of the outer shell moisture barrier and thermal liner. Closure shall be by means of a minimum 1.5-inch-wide (3.8-cm-wide) hook and loop fastener, and all construction techniques used shall provide liquid penetration protection under the NFPA 1971 Whole Garment Liquid Penetration Test. The fly shall be graded to the waist size of garments and crotch rise.

# **COMPOSITE MATERIALS**

The specifier has determined the ONLY acceptable combination of materials. Any substitution of materials shall be grounds for immediate disqualification of bid without further consideration.

## **OUTER SHELL**

Agility 6.6 osy Twill weave; - Gold

#### THERMAL LINING

QUANTUM 3D<sup>®</sup> SL2i; 7.7 oz.

## **MOISTURE BARRIER**

Crosstech Black Type 2F

## PANT CUSTOM OPTIONS TO BE PROVIDED

Instructions in this custom options section that contradict earlier specifications or statements supersede those earlier specifications or statements if the required certifications are t compromised.

**Trim** - shall be double-stitched NFPA 2-tone Scotchlite (3") stripe with lime border and silver center. Bottom of the trim shall be located 3" above cuff.

# Attachment D - Specifications Sheet





Actual appearance may vary

**Steam Protection** - encompassing barrier in each pant leg that goes from the pant cuff to 6" up the pant leg and provides steam burn protection to the leg.

**Angled Reinforced Cuffs** - Cuffs shall be reinforced with Arashield (black) around the entire cuff and have an angled cutout ori the back to prevent wear due to walking on the cuff. Cutout shall be 1.5 inches high from the front of the pant cuff.

**Reinforced padded Knees** - Heat Channeled padded knees with lateral panels for improved flexibility and wear with lateral panels on the sides. Horizontal material shall be made of Arashield (black) and the later panels shall be made of Agility - Gold. Reinforced padded knees shall be replaceable.

**Take Up Straps** - 2 Postman straps at the waist with one located on each hip. Straps shall have 3" of take-up on each side. - Agility - Gold

**Bellows Pockets** Kevlar lined 9" x 9" x 1.5" with 3 Vertical Strips Velcro on Flap/Full on Pocket, with EZ grip flaps - Agility - Gold

Front Closure - L/R 2" velco fly with hook and Dee with fly zipper

Suspenders - H-Back Suspenders w/ Snap Attach & Quick Adjust

# Attachment D – Specifications Sheet

#### **UNITS OF MEASURE**

Current NFPA standards applicable to this product specification express values for measurement requirements in SI (metric-based) units, followed by US (inch-pound) approximate equivalents in parentheses. For the convenience of the fire department, this product specification *reverses the order* and presents the more familiar US approximation first, followed by the SI requirement in parentheses.

## **CERTIFICATION**

The manufacturer must certify that the garments proposed in its bid meet or exceed all requirements of NFPA 1971. The manufacturer must also list and label this product with Underwriters Laboratories Inc. (UL) or Safety Equipment Institute (SEI), as the third-party certification organization prescribed in NFPA 1971. All certification testing and test preconditioning must have been performed by an ISO 17025-certified laboratory. UL, SEI or a UL Authorized Client Test Data Program laboratory will fulfill this requirement.

The manufacturer shall be registered to ISO 9001, *Quality Management Systems - Requirements*, 2000.

# <u>Attachment D – Specifications Sheet</u>

# LTO 75I3 Tails Black Page 1 of 2

REV1 \*\*\* Revision 1 \*\*\*

LTOTOS75B LTO-Tails Outer Shell -6.6 oz Pioneer W/FREEFAS Black

LTOTTLI LTO Tail Thermal Liner -7.1 osy Synergy II 2 Layer

LTOTMB3 LTO Tail Moisture Barrier -4.7 osy Type 2F Crosstech Black

IPLC (O20) Std -Inspection Port Liner

LNDC Std-Liner detachable

LNSETTE Std -SET Thermal Enhancement

PKTLSTD Std -Liner Label Pocket

RS-RRSAC (R01) Std-Articulating Rapid Rescue Strap

OPTLDRP-5 \*\*\* TAIL DROP - 5" \*\*\*
TR-DSS Std -Trim Double-Stitched

TRC304M-OTL Trim -(4) New York - lime 2-tone Oralite Brilliance (3")
LTHEMV-75B Hem Patch w/Velcro - Pioneer W/FREEFAS -Black

- FF LAST NAME (1st INITIAL when specified)

- Avg. 7 letters

- OK to use 2" letters to fit

LT307-RSL 7 -3" sewn letters-lime Reflexite Brilliance

LTSTC Lettering Applied Directly to Back

< VTANG > \* straight

LT305-RSL 5 -3" sewn letters -lime Brilliance

PO-EUS-R (O17) Embroidered American Flag - stars towards front

-- right sleeve

CLZV2-75B (E10) 2" Velcro/Zipper Coat Closure CL-TAB (O162) pull tab - Arashield - Black

CCLTO-75B (Q02) LTO Comfort Chinstrap

CCBLK Black Knit Material on Chinstrap

CCLTO-NF No Fold Chinstrap

# Attachment D - Specifications Sheet

# LTO 75I3 Tails Black Page 2 of 2

LN05 (S03) Liner within 1" of Hem

LNDAPC (O50) Dead Air Panels

LNTL-EMLIB (S44) Easy Move Liner Combo - TL I & -TLB

CFCC-ARB Coat Cuffs - Arashield - Black

ELRN-ARB (M07) Elbows Reinforced - Arashield - Black RNSC-ARB (M04) Shoulder Caps - Arashield - Black

SATU-NONE Delete Standard Take Up Straps

PKDRPT-75B D-Ring on a Patch - Pioneer W/FREEFAS -Black

-- On Right Pocket - Coat

- Centered on bellows pocket flap

PKHBLN-75B Half Hi Bellows Pockets

-- 8 x 8 x 2

PKGF-75B E Z Grip Flaps - Pioneer W/FREEFAS Black
PKBLCHW-FLC Handwarmers behind Bellows Pockets - Fleece

PKRCFF-KV Full Kevlar Lined

PKMT-75B Mic Tab

-- right chest -- 1 x 3

- Centered vertical between large hook on patch and shield

PKMT-75B Mic Tab

-- left chest -- 1 x 3

PKRCPT-75B Large Hook on a Patch - Pioneer W/FREEFAS 6.6 oz - Black

-- right chest

- Placed 1" below top of shield

PKRD-75B Radio Pocket Pioneer w/FREEFAS - Black

-- left chest -- 7 x 3 x 2

PKRDGF-75B E Z Grip Flap - Pioneer Freefas - Black

PKRD-FNL Notch Flap -Left

PKSLC-75B SL-90 Flashlight Clip

-- right chest

- Place top of SL-90 holder 1/2" below bottom of large hook on

patch

- Velcro strap to be placed 1" below top part of SL-90

- Velcro strap to be 2" wide

WWSTLNH-BLK (W50) Sub Wristlets -Long Hybrid with tabs -Nomex - black

5" Tail Drop & Liner within 1" of Hem

<sup>\*\*26</sup> FRONT LENGTH & LONGER

# MPL 75I3 Pants Black Page 1 of 1

PROFIT \*\*\*\*\*\*PRO FIT DESIGN \*\*\*\*\*\*

REV2 \*\*\* Revision 2 \*\*\*

MPLPOS75B MPL PRO FIT -Pants OS- 6.6 oz Pioneer W/FREEFAS Black
MPLPTLI MPLPMB3 MPL PRO FIT -Pants Thermal Liner -7.0oz Synergy II 2 Layer
MPLPMB3 MPL PRO FIT Pants Moisture Barrier -4.7 osy Type 2F Crosstech

IPLP (O21) Std -Inspection Port Liner

LNDP Std -Liner Detachable

TR-DSSP Std -Trim Double-Stitched

TRP307M-OTL Trim -(7) NFPA -lime 2-tone Oralite Brilliance (3")

CLNFV2ZJ130-75B (J130) R/LNarrow 2" Velcro/Zip Fly -1 Snap

CL-TAPF pull tab - Arashield - Black

CFANPF-ARB (O03) Angled Cuffs - Arashield - Black

CFPCPF-ARB Pant Cuffs - Arashield - Black

KNBFS-75B

KNBFHVS-ARB

(K05) BiFlex Heat Channel Knees - Pioneer w/FREEFAS - Black

(K53) Both center sections in BiFlex Knee to be Arashield - Blac

(C01) State Language (EDEFEAG Plant

SATUP2PF-75B (O01) Std Take Up Straps - 2 Postman -Pioneer -w/FREEFAS Black

SATUPPF2-BHA Take Ups with Belt Loops or Harness

PKBLPS-75B Std Bellows Pockets -Pants - Pioneer w/FREEFAS Black

-- 9 x 9 x 1.5

PKGFPF-ARB E Z Grip Flaps - Arashield - Black PKRP5PF-ARB Reinforced 5" Ext. - Arashield - Black

PKBLPS-V1 Std 3 Strips Velcro on flap/full Velcro on pocket

PKRPFFS-KEV Std Full Kevlar Lined

OPSSAS (X02) Std Snap Style Suspender Attachment

RSLADLOWRPF (H16) R/L Life Grip Ladder/Escape Pant Adapt Lower Placement

RSSFLIFEG2D (H53)Set & Forget Life Grip Belt w/2 Drings

SPDFSQPFI Dyna-Fit Suspenders w/ Snap Attach & Quick Adjust Installed

SPPPF Suspender Padding

<sup>\*30</sup> WAIST & LARGER

# Attachment D - Specifications Sheet

# LTO 56I3 Tails Natural Page 1 of 2

REFRESH \*\*REENGINEERED\*\*

REV1 \*\*\* Revision 1 \*\*\*

LTOTOS56N LTO Tail Outer Shell- Brigade 750FREEFAS7.5osy- Nat LTOTTLI LTO Tail Thermal Liner -7.1 osy Synergy II 2 Layer

LTOTMB3 LTO Tail Moisture Barrier -4.7 osy Type 2F Crosstech Black

IPLC (O20) Std -Inspection Port Liner

LNDC Std-Liner detachable

LNSETTE Std -SET Thermal Enhancement

PKTLSTD Std -Liner Label Pocket

RS-RRSAC (R01) Std-Articulating Rapid Rescue Strap

OPTLDRP-5 \*\*\* TAIL DROP - 5" \*\*\*
TR-DSS Std -Trim Double-Stitched

TRC304M-OTL Trim -(4) New York - lime 2-tone Oralite Brilliance (3") LTHEMV-56N Hem Patch w/Velcro - Brigade 750FREEFAS - Natural

- FF LAST NAME (1st INITIAL when specified)

- Avg. 7 letters

- OK to use 2" letters to fit

LT307-RSL 7 -3" sewn letters-lime Reflexite Brilliance

LTSTC Lettering Applied Directly to Back

< VTANG > \* straight

**RANK** 

Avg 9 letters for RankOK to use 2" letters to fit

LT314-RSL 14 -3" sewn letters -lime Brilliance

PO-EUS-R (O17) Embroidered American Flag - stars towards front

-- right sleeve

CLZV2-56N (E10) 2" Velcro/Zipper Coat Closure CL-TAB (O162) pull tab - Arashield - Black

# Attachment D - Specifications Sheet

# LTO 56I3 Tails Natural Page 2 of 2

CCLTO-56N (Q02) LTO Comfort Chinstrap

CCBLK Black Knit Material on Chinstrap

CCLTO-NF No Fold Chinstrap

LN05 (S03) Liner within 1" of Hem

LNDAPC (O50) Dead Air Panels

LNTL-EMLIB (S44) Easy Move Liner Combo - TL I & -TLB

CFCC-ARB Coat Cuffs - Arashield - Black

ELRN-ARB (M07) Elbows Reinforced - Arashield - Black RNSC-ARB (M04) Shoulder Caps - Arashield - Black

SATU-NONE Delete Standard Take Up Straps

PKDRPT-56N D-Ring on a Patch - Brigade 750FREEFAS7.5osy Natural

-- On Right Pocket - Coat

- Centered on bellows pocket flap

PKHBLN-56N Half Hi Bellows Pockets -Brigade 750FREEFAS -Na

-- 8 x 8 x 2

PKGF-56N E Z Grip Flaps -Brigade 750FREEFAS7.5osy Natural

PKBLCHW-FLC Handwarmers behind Bellows Pockets - Fleece

PKRCFF-KV Full Kevlar Lined

PKMT-56N Mic Tab - Nomex- Brigade 750FREEFAS-Nat

-- right chest

-- 1 x 3

- Centered vertical between large hook on patch and shield

PKMT-56N Mic Tab - Nomex- Brigade 750FREEFAS-Nat

-- left chest

-- 1 x 3

PKRCPT-56N Large Hook on a Patch -Brigade 750FREEFAS -Natural

-- right chest

- Placed 1" below top of shield

PKRD-56N Radio Pocket -Brigade 750FREEFAS -Natural

-- left chest

-- 7 x 3 x 2

PKRDGF-56N E Z Grip Flap - Nomex - Natural

PKRD-FNL Notch Flap -Left

PKSLC-56N SL-90 Flashlight Clip - Brigade 750FREEFAS7.5osy Natural

-- right chest

- Place top of SL-90 holder 1/2" below bottom of large hook on

patch

- Velcro strap to be placed 1" below top part of SL-90

- Velcro strap to be 2" wide

WWSTLNH-BLK (W50) Sub Wristlets -Long Hybrid with tabs -Nomex - black

5" Tail Drop & Liner within 1" of Hem