

The City of Bryant Fire Department will be taking sealed bids for Fire Turnout Gear. Complete specifications and submission information may be requested from Fire Chief J.P. Jordan at jpjordan@cityofbryant.com, 501-943-0390.

All bids must be received by the City of Bryant located at 210 SW Third Street, Bryant, AR 72022, Attn: Fire Department C/O: Fire Chief J.P. Jordan, **no later than 8:00 a.m., Thursday, August 4th, 2022.**

BID OPENING DATE: Thursday August 4th @ 9AM
LOCATION: Bryant City Hall Conference Room, 210 SW Third Street, Bryant, AR 72022

The City reserves the right to reject any or all bids, to waive irregularities and/or informalities of any bid, and to make an award in any manner consistent with the law, or deemed in the best interest of the City.

Evaluation of the bids will include compliance with bid specifications and pricing. Please note that price alone may not be the sole consideration in awarding this bid.



Bryant Fire Department Turnout Gear Specification 2022

For 50 sets (Coat and Pant)

COAT SPECIFICATION

NFPA Compliance

All materials and construction will meet or exceed the NFPA 1971 standard, current edition for structural fire fighters protective clothing. All components used in the construction of these garments shall be tested for compliance to NFPA 1971, current edition by Underwriters Laboratories (UL). UL shall certify compliance to that standard. All garments shall carry the UL certification label. The outer shell and liner of each protective garment shall have a garment label permanently and conspicuously attached to the outer shell and thermal liner upon which the following statement shall be printed legibly on the product label. All letters shall be at least 2.5 mm (0.10") high. The following label shall be sewn to the jacket outer shell: "THIS STRUCTURAL FIRE FIGHTING PROTECTIVE GARMENT MEETS THE GARMENT REQUIREMENTS OF NFPA 1971, 2018 EDITION."

COMPLY _____ **EXCEPTION** _____

Coat Construction

The coat shall be designed to provide maximum functionality and mobility and relieve

firefighter working stress. The Design shall incorporate an arms forward pattern designed to accommodate the firefighter in their real working position. The pattern shall include underarm gussets and darts in the elbows for unrestricted movement. The shoulder seams on shell and liner shall be graded by chest size so that the seam is placed close to the collar in a modified Raglan pattern to mimic the natural location of the shoulder joint and minimize coat rise and extend range of motion when wearing an air pack. The sleeves shall be two-panel construction. The coat sleeve shall be naturally tapered designed and manufactured to provide unrestricted movement while bending the arm. The outer shell shall include four darts at the elbow area - two above and two below the natural bend of the elbow along the sleeve seams. The thermal/moisture barrier liner shall be specially designed to work in conjunction with the shell with a fuller cut pattern. The body of the shell and liner shall be four-panel construction. The front two panels of shell and liner shall extend up to the top of the collar and be an integral part of the collar in a Shawl collar design.

All seams joining the main body panels shall be felled and double needle lock stitched. The stitch type shall be a 301, double needle lockstitch as defined by Federal Standard 751a and seam type LSC-2 as defined by Federal Standard 751a, ensuring that all stitches penetrate four layers of cloth at the joining. All seams shall be sewn with an average of nine stitches per inch. All thread shall be 100% Tex 80 Nomex thread. No chain stitching shall be allowed due to the chance of unraveling if one stitch is broken. Coat sizing shall be available in 2" increments in chest and 1" increments in sleeve. The length is measured from the collar seam to the bottom of the hem at the rear of the coat. Stock or Alpha sizing is unacceptable.

COMPLY _____ **EXCEPTION** _____

Standard Thermal Reinforcement

Shoulders and elbows shall include a fourth layer of protective thermal material in addition to the already present three layers of shell, thermal and moisture barriers. A patch of thermal lining material shall be sewn to the thermal liner at the top of the shoulders and at the elbows to provide enhanced thermal protection and to meet NFPA 1971 CCHR requirements for those areas. Additionally, thermal material shall be included on the liner behind all sewn trim, reinforcements and patches on the sleeves to meet requirements of Stored Energy test.

COMPLY _____ **EXCEPTION** _____

Sleeves and Underarm Gussets

The set-in, two panel sleeves shall incorporate a tapered design shaped to follow the natural contour of the arm. Each coat shall incorporate an underarm gusset in all three layers between the underside of the sleeve and the body of the coat. This rounded shaped gusset shall measure approximately 7" wide X 12" long (graded to coat size).

The attachment point of the sleeves to the coat body panels at the top of the shoulder must be 2"- 4" from the outside of the shoulder when standing with the arms at rest at the side of the fire fighter. This moves the coat sleeve interface to the natural bend point of the body providing optimal mobility when donning an SCBA and minimizing coat rise. The sleeve panels shall be sewn together using seam type 301, double needle lock stitch. The outseam of the shell shall be felled and double needle lock stitched. The under seam and underarm gusset seams of the shell shall be double needle serged, then folded and top stitched with double needle lock stitching to reduce thread abrasion.

COMPLY _____ **EXCEPTION** _____

Inner sleeve

A liquid resistant water well shall be sewn into the sleeve end to prevent liquids and other hazardous materials from entering when the arms are raised. This water well shall be constructed of moisture barrier material with the film side facing out. It shall be double needle lock stitched to the outer shell approximately 5" from the sleeve cuff and continue down the inside of the outer shell to the cuff area. Two-layer Nomex wristlets shall be sewn to the water well inside the sleeve. Two 1" wide polymer-coated aramid (PCA) tabs will be sewn in at the union of the sleeve water well and the knit wrist on the underside of the sleeve. These tabs will be spaced equally from each other and incorporate female snap fasteners which accommodate corresponding male snaps attached to the thermal liner. A 6" wide layer of quilted Nomex thermal lining material shall be lock stitched to the underside of the shell, between shell and water well, to provide continuous thermal protection at the sleeve and reduce the risk of steam burns under the cuff trim.

COMPLY _____ **EXCEPTION** _____

Collar Construction

The Shawl collar design shall be constructed as an integral part of the body panels, inner shell facings and the liner to provide uninterrupted and continuous protection to the firefighter. The collar shall measure not less than 3" high measured from where the collar pleats are placed on the body panels at the base of the neck. The exterior of the collar shall be an extension of the front panels with a pleat placed for comfort and the upper rear collar panel shall be joined with a double needle serged seam that is double needle topstitched on the back of the wearer's neck. A panel of shell material shall join the two inner front facings creating the inside of the collar. The coat thermal/moisture barrier lining shall extend up to the top of the inside of the collar without seams and attach inside the collar via five pieces of hook and loop sewn with double needle lock stitching to the top of the thermal liner and inside the top of the collar. The storm flap shall extend to the mid-throat. This design shall meet the NFPA standard for overall liquid integrity while more effectively interfacing with the s.c.b.a.

face-piece when the collar is worn in the upright position. A shell material hang-up loop shall be lock stitched to the collar. The hang up loop shall be able to withstand a load of at least 80 pounds.

COMPLY _____ **EXCEPTION** _____

Moisture Barrier/Thermal Liner Construction

The moisture barrier shall be bound to the thermal liner around the perimeter of the liner using a 1" FR Neoprene coated binding tape double needle lock stitched. This method deters liquids from wicking into the liner and reinforces the edges of the liner from abrasion. Liners not equipped with this reinforcement will not be acceptable. Each liner shall have a 9" X 8" pocket sewn to the inside of the liner on the left side. This liner pocket shall be constructed from the specified thermal liner material and lined with moisture barrier material. All edges of the pocket shall be serged to prevent unraveling. The NFPA compliant labeling shall be applied to the thermal liner pocket. All moisture barrier seams shall be sealed to prevent moisture penetration as per the moisture barrier manufacturers' specifications. To ensure minimum seam abrasion, the moisture barrier seams shall be oriented with the stitching toward the inside of the thermal barrier.

COMPLY _____ **EXCEPTION** _____

Sealed Moisture Barrier Seams

All moisture barrier seams shall be sealed with a minimum 7/8-inch wide sealing tape. One side of the tape shall be coated with heat activated glue adhesive. The adhesive side of the tape shall be oriented toward the moisture barrier seam. The adhesive is to be activated by heat and the sealing tape shall be applied to the moisture barrier seams by means of pressure exerted by rollers designed for that purpose.

COMPLY _____ **EXCEPTION** _____

Outer Shell/Liner Assembly Attachment

The coat liner shall be secured to the outer shell by means of nickel coated brass snap fasteners; five to be placed along the leading edges of the left and right facings, three to be on the neckline, and two along the bottom hem. The male snap portion on the liner shall be positioned to correspond to the female snap portion on the shell based on size of garment. Two male snaps shall be positioned at each liner sleeve cuff to align with two female snaps attached to fabric tabs bartacked inside the outer shell sleeves. Snaps shall be color coded to aide in the reassembly of the liner into the shell. 3/4" loop fastener tape shall be lock stitched along the top of the thermal liner inside the collar to match hook fastener tape lock stitched to the inside of the shell collar panels.

COMPLY _____ **EXCEPTION** _____

Drag Rescue Device

A completely removable Drag Rescue Device (DRD) meeting all requirements of NFPA 1971 shall be located between the liner and outer shell of each coat. The DRD design shall provide for easy removal, inspection and re-installation and a large easy-to-use surface area of DRD to grasp and deploy. The drag rescue device shall be made of 1-1/4" wide Kevlar webbing strap. Two 2" wide slits shall be cut on a diagonal 2" apart into the upper rear panel of the coat shell near bottom of the collar. The area around the slits shall be reinforced with a layer of polymer coated Kevlar material both inside and outside the shell. Additionally, slits shall be bartacked on all four corners. The Kevlar webbing strap shall be sewn with heavy duty Kevlar thread to form a circle. When the circle is folded in half and the ends inserted into the slits in the shell, they shall encircle the shoulders, while the remaining portion left outside the shell shall create a two layer handle of Kevlar webbing. The handle portion shall be wide enough to grasp with a large gloved hand. The DRD shall pull out from the shell approximately 18" extending beyond the helmet and S.C.B.A. A 4" X 7-1/2" flap of outer shell material with beveled corners and reflective trim is to be double needle lock stitched above the slits to cover the external DRD and slit openings. Reflective trim shall be double needle locked stitched to the flap to identify the DRD. A PCA pull tab shall be sewn to the bottom of the flap to allow for easier access with a gloved hand. The outer shell and flap will have mated hook and loop fastener tape lock stitched to it to close and secure the flap.

COMPLY _____ **EXCEPTION** _____

Hook & Loop

All hook & loop shall have a finished edge to prevent fraying and unraveling and shall be secured using double needle lock stitching.

COMPLY _____ **EXCEPTION** _____

Outer Shell

The outer shell shall be Armor AP, a twill weave fabric made of 80% Nomex®/Kevlar®/Teijinconex® blend spun yards with 400 denier filament Kevlar® filament. Armor AP uses producer dyed Nomex®/Kevlar® fibers with an approximate weight of 6.5 ounces per square yard. The outer shell shall be treated with Durable Water Repellent finish. Color shall be khaki.

COMPLY _____ **EXCEPTION** _____

Thermal Liner

The thermal liner shall be COREEXP™ 8001 constructed with 7.1 oz/yd², Face Cloth MPG

S000106138 Westex® Synergy® 3.3 osy 93% Nomex/5% Kevlar/2% P-140, plain weave with pure softener finish quilted to 1 inner layer of 2.3 osy of E89 spunlace and 1 Outer Layer of 1.5 osy E89 spunlace.

COMPLY _____ **EXCEPTION** _____

Moisture Barrier

The STEDAIR® 3000 moisture barrier material shall be a 5 oz/yd², two-layer laminate comprised of an enhanced bicomponent membrane and 2.7 oz/yd² Nomex E-89 nonwoven substrate. The moisture barrier shall meet and exceed all requirements of NFPA 1971-2018 edition, which includes water and viral penetration resistance and common chemical penetration resistance while providing excellent total heat loss (THL) and thermal protective performance (TPP). The moisture barrier shall have a three-year warranty for materials and labor.

COMPLY _____ **EXCEPTION** _____

Thermal Liner Inspection Opening

A 14" wide inspection opening shall be placed on the back of the coat liner 3" above the bottom hem or rear coat extension. The edges of the opening shall overlap and be reinforced with a moisture barrier binding tape. The corners of the opening shall be bartacked to deter tearing. The opening shall be covered with a thermal material flap measuring 14" x 2". The full length of the opening shall be closed with hook and loop to prevent debris from entering the opening.

COMPLY _____ **EXCEPTION** _____

Coat Wristlet with Thumbloop

Nomex Knit wrist w/ Cotton Thumb loop – 7" long, two-layer Nomex wristlets shall be sewn to the water well. Each wristlet shall have a cotton thumb loop with an approximate opening of 2" in diameter properly set as to align with the wearer's thumb. Color shall be black.

COMPLY _____ **EXCEPTION** _____

Coat Closure

The coat front closure shall consist of a zipper on the coat fronts and hook and loop fastener tape on the storm flap. The teeth of the zipper shall be mounted on Nomex cloth and shall be sewn to the right front body panel and left jacket facings. The zipper parts shall be bartacked at the top and bottom for strength. Shell material shall be threaded through the zipper pull and sewn to finish at ½" x 2 ½". The storm flap shall close over the left and right body panels and is secured by hook and loop fastener tape. A 1-1/2" X 24" strip of loop fastener tape shall be sewn to the underside of the

storm flap and correspond to a 1-1/2" piece of hook fastener tape sewn to the left front body panel of the coat. Both pieces of hook and loop shall be sewn using double needle lock stitching. The coat shall also have front facings that extend from the collar to the hem area. These facings shall be 2" wide and be comprised of outer shell material and corresponding moisture barrier material. The outer shell material shall face the wearer's body when the jacket is in the closed position. The moisture barrier shall be sewn to the back of the outer shell portion and face the inside of the coat body panel. A 4" piece of moisture barrier material shall be sewn into the coat facing and extend the length of the coat opening. This additional moisture barrier material shall ensure that there is no gap in coverage between the coat closure system and the wearer's body. The thermal liner/moisture barrier assembly shall be attached to these facings by means of snap fasteners. The interior edges of the facing shall be serged and finished leaving no raw edges.

COMPLY _____ **EXCEPTION** _____

Coat Trim Style

The coat trim configuration shall be 3" NYC and be placed as follows: One 3" strip shall be sewn horizontally around the chest area and one 3" strip shall be sewn around the hem of the coat. One 3" strip shall be sewn around each sleeve end and one 3" strip above the elbow. Each coat shall have an adequate amount of trim sewn to the outside of the outer shell to meet the requirements of NFPA 1971, current edition. All trim shall be secured to the shell with four rows of lock stitching no exceptions.

COMPLY _____ **EXCEPTION** _____

Trim Material

The trim material shall be 3M™ Scotchlite™ Reflective Material - 9587 Fluorescent limeyellow with silver Stripe Fire Coat Trim. All 3M™ Scotchlite™ 9500 Series Reflective Materials are compliant to NFPA 1971, 1951, and 1977, current editions.

COMPLY _____ **EXCEPTION** _____

Radio pocket

A radio pocket constructed of outer shell material and measuring approximately 7"x3"x2" shall be sewn with lock stitching to the left chest of each fire fighter's coat. The pocket shall have a flap measuring approximately 3" x 4" with a small notch removed on each side to accommodate the radio antenna, and shall close by means of hook and loop fastener tape. Hook and loop shall be sewn with a double needle lock stitch around the perimeter. Each radio pocket and flap shall be lined with a layer of FR Neoprene coated polyester/cotton moisture barrier. Per NFPA requirements, all trim must be continuous; therefore, if the pocket placement interferes reflective trim must be sewn to the pocket.

COMPLY _____ **EXCEPTION** _____

Coat Hand Pockets

Semi-Bellows Pocket - A semi-bellows pocket measuring approximately 2" deep in the rear by 8" wide by 8" high shall be double stitched to each front panel to provide accessibility. A layer of FR Fleece shall be sewn to the inside front of each hand warmer pocket to provide thermal protection and warmth to the hands. A rust resistant brass drainage eyelets shall be installed in the bottom of each pocket to provide the drainage of water. The full inside dimensions, not just the bottom half, of the pocket shall be reinforced with a layer of 8.0 oz. Kevlar® twill material to provide optimal strength when carrying small tools. The pocket flaps shall be constructed of outer shell material and measure approximately 4" X 8". The pocket flaps shall be closed by means of hook and loop fastener tape. The upper corners of each pocket shall be bartacked for reinforcement.

COMPLY _____ **EXCEPTION** _____

Foam Enhanced Pocket Flap

Cargo pocket will have 2 layers of 1/2" wide foam, the width of the pocket at the end of the pocket flap so that a gloved hand can easily grip the flap and open pocket.

COMPLY _____ **EXCEPTION** _____

Full Hook and Loop Closure

Bellows pockets shall close by means of loop fastener that runs the length of the pocket body and attaches to three 1-1/2" x 3" hook fastener squares on the pocket flap.

COMPLY _____ **EXCEPTION** _____

Coat Reinforcement Cuff

Each cuff end shall be reinforced with a 2" wide piece of black PCA folded in half, approximately one half inside and one half outside and sewn to the shell with two rows of lock stitching.

COMPLY _____ **EXCEPTION** _____

Coat Accessory Clip

A 1" X 3" strap made of two layers of outer shell material shall be bartacked at each end to the shell. The clip will be used to house a portable radio external microphone. Shall be placed horizontally, in line with the top of the radio pocket flap.

COMPLY _____ **EXCEPTION** _____

Coat Flashlight Options

A reverse oriented metal hook with shell material attachment strap shall be bar tacked to the outer shell 2¾" above a 3" X 8-3/4" shell material strap. The shell material strap shall have hook and loop fastener tape lock stitched to each end such that the strap can wrap around the barrel of the flashlight, overlap and close, holding the light in place. The strap shall be long enough to accommodate the "Survivor" model flashlight. Placement shall be centered on upper part of the right chest.

COMPLY _____ **EXCEPTION** _____

United States Flag

A 2.5" x 3.5" US Flag following Military Stars forward protocol shall be sewn to the right arm. The flag must be embroidered to a 7.5 osy Nomex plain weave cloth utilizing Nomex thread for the embroidered stitches.

COMPLY _____ **EXCEPTION** _____

Identification

For purposes of department identification jackets shall have "BRYANT FD" sewn in position 2. All letters shall be 3" Scotchlite lime.

COMPLY _____ **EXCEPTION** _____

Tapered Hem

Shell and liner shall have a tapered hem that extends 5" lower than the hem of the garment at the center back and shall taper to zero at the side seam hem. An outer shell patch 4" x 14" shall be attached in position 9 by means of hook and loop to the back of the extended hem for purposes of department identification. Each patch shall have the wearers name using 3" Scotchlite lime letters.

COMPLY _____ **EXCEPTION** _____

PANT SPECIFICATION

NFPA Compliance

All materials and construction will meet or exceed the NFPA 1971 standard, current edition for structural fire fighters protective clothing. All components used in the construction of these garments shall be tested for compliance to NFPA 1971, current edition by Underwriters Laboratories (UL). UL shall certify compliance to that standard. All garments shall carry the UL certification label. The outer shell and liner of each protective garment shall have a garment label permanently and conspicuously

attached to the outer shell and thermal liner upon which the following statement shall be printed legibly on the product label. All letters shall be at least 2.5 mm (0.10") high. The following label shall be sewn to the jacket outer shell: "THIS STRUCTURAL FIRE FIGHTING PROTECTIVE GARMENT MEETS THE GARMENT REQUIREMENTS OF NFPA 1971, 2018 EDITION."

COMPLY _____ **EXCEPTION** _____

Pant Construction

The pant outer shell and liner system shall be constructed of seven body panels consisting of two front panels, four back panels and a large seamless crotch panel. The pant rise shall be approximately 14" (graded according to size). The body panels shall have an Active Posture design with a noticeable natural bend at the knee. The outer shell and liner shall have four darts - two above and two below the natural bend of the knee along the side seams to permit an unrestricted range of motion when the knee is bent. All seams joining the body panels shall be felled and double needle lock stitched. The stitch type shall be 301, double lock stitch, as defined by Federal Standard 751a and seam type LSC-2 as defined by Federal Standard 751a, ensuring that all stitches penetrate four layers of cloth at the joining. All seams shall be sewn with an average of nine stitches per inch. All thread shall be 100% Nomex® Tex 80 thread. No chain stitching shall be allowed due to the chance of unraveling if one stitch is broken.

COMPLY _____ **EXCEPTION** _____

Waistband

Each pant shall have a separate waistband of shell and moisture barrier material bound together by Neoprene coated poly-cotton binding tape. The waistband shall be lock stitched to the shell along the top of the waistline. The liner shall be secured under the waistband by means of nickel coated brass snap fasteners. The position of the male snap portion on the liner shall be in exactly the same location on similar liner sizes as the female snap portion on the waistband of similar shell sizes. The use of a waistband is necessary to deter the wearer from accidentally placing the foot between the shell and liner when donning the pants and it does not allow foreign objects that could cause damage to enter the pants between shell and liner.

COMPLY _____ **EXCEPTION** _____

Sealed Moisture Barrier Seams

All moisture barrier seams shall be sealed with a minimum 7/8-inch wide sealing tape. One side of the tape shall be coated with heat activated glue adhesive. The adhesive side of the tape shall be oriented toward the moisture barrier seam. The adhesive is to be activated by heat and the sealing tape shall be applied to the moisture barrier seams by means of pressure exerted by rollers designed for that purpose.

COMPLY _____ **EXCEPTION** _____

Outer Shell/Liner Assembly Attachment

The pant liner shall be secured to the outer shell by means of nickel coated brass snap fasteners; snaps to be placed on waistband around waist of pant. The male snap portion on the liner shall be positioned to correspond to the female snap portion on the shell based on the size of the garment. Two male snaps shall be positioned at each liner pant cuff to align with the two female snaps attached to fabric tabs bartacked inside the outer shell pant cuffs. Snaps shall be color coded to aide in the reassembly of the liner into the shell.

COMPLY _____ **EXCEPTION** _____

Standard Knee Enhancements

The knee area shall be thermally enhanced with a fourth and fifth layer of protective material in addition to the already present three layers of shell, thermal and moisture barriers. 7" X 9" patches of Neoprene coated poly cotton and thermal lining materials shall be sewn to the thermal liner at the knee area to provide padding and enhanced thermal protection as necessary exceed NFPA 1971 CCHR requirements.

COMPLY _____ **EXCEPTION** _____

Hook & Loop

All hook & loop shall have a finished edge to prevent fraying and unraveling and shall be secured using double needle lock stitching.

COMPLY _____ **EXCEPTION** _____

Outer Shell

The outer shell shall be Armor AP, a twill weave fabric made of 80% Nomex®/Kevlar®/Teijinconex® blend spun yards with 400 denier filament Kevlar® filament. Armor AP uses producer dyed Nomex®/Kevlar® fibers with an approximate weight of 6.5 ounces per square yard. The outer shell shall be treated with Durable Water Repellent finish. Color shall be khaki.

COMPLY _____ **EXCEPTION** _____

Thermal Liner

The thermal liner shall be COREEXP™ 8001 constructed with 7.1 oz/yd2, Face Cloth MPG S000106138 Westex® Synergy® 3.3 osy 93% Nomex/5% Kevlar/2% P-140, plain weave with pure softener finish quilted to 1 inner layer of 2.3 osy of E89 spunlace and 1 Outer Layer of 1.5 osy E89 spunlace.

COMPLY _____ **EXCEPTION** _____

Moisture Barrier

The STEDAIR® 3000 moisture barrier material shall be a 5 oz/yd2, two-layer laminate comprised of an enhanced bicomponent membrane and 2.7 oz/yd2 Nomex E-89 nonwoven substrate. The moisture barrier shall meet and exceed all requirements of NFPA 1971-2018 edition, which includes water and viral penetration resistance and common chemical penetration resistance while providing excellent total heat loss (THL) and thermal protective performance (TPP). The moisture barrier shall have a three-year warranty for materials and labor.

COMPLY _____ **EXCEPTION** _____

Thermal Liner Inspection Opening

A 14” wide inspection opening shall be placed on the right hip of the pant thermal liner at the side seam. The edges of the opening shall overlap and be reinforced with a moisture barrier binding tape. The corners of the opening shall be bartacked to deter tearing. The opening shall be covered with a thermal material flap measuring 14” x 2”. The full length of the opening shall be closed with hook and loop to prevent debris from entering the opening.

COMPLY _____ **EXCEPTION** _____

Pant Closure

Each pant shall have an external fly flap constructed of one layer of quilted Nomex® batt and one layer of moisture barrier sandwiched between two layers of outer shell material. The fly flap shall be a continuous part of the left front body panel beginning at the waist and extending down to a depth of approximately 12". The flap shall be approximately 3-1/2" wide at the top, tapering down to width of approximately 2" at the bottom where it shall be triple bar tacked to the outer shell for strength and durability. The flap shall be a part of the pant closure system, which shall be: Inner Woven Hook & Loop/Outer Hook & Dee - A strip of pile fastener tape sewn to underside of the fly flap shall correspond to a strip of hook fastener tape sewn to the right front panel of the outer shell. Both pieces of hook and loop shall be sewn with double needle lock stitching. A D-ring shall be installed with leather backed rivets at the top of the fly flap to engage a leather-backed 3-point snap hook that is attached to the top right front panel.

COMPLY _____ **EXCEPTION** _____

Pant Trim Style

Retro-reflective trim shall encircle the pant leg sewn to the shell 3” above the cuff with four rows of lock stitching.

COMPLY _____ **EXCEPTION** _____

Trim Material

The trim material shall be 3M™ Scotchlite™ Reflective Material - Fluorescent lime-yellow with silver stripe. All 3M™ Scotchlite™ 9500 Series Reflective Materials are compliant to NFPA 1971, 1951, and 1977, current editions. All trim shall be secured to the shell with four rows of lock stitching – no exceptions.

COMPLY _____ **EXCEPTION** _____

Pant Pocket (Left)

A full bellows pocket, measuring approximately 10" X 10" X 2", shall be double stitched to the garment. Two rust resistant brass drainage eyelets shall be installed in the bottom of each pocket to provide the drainage of water. The pocket flaps shall be constructed of outer shell material and measure approximately 4" wide X 10" long. The pocket flaps shall be closed by means of hook and loop fastener tape. The upper corners of each pocket shall be bartacked for reinforcement.

COMPLY _____ **EXCEPTION** _____

Foam Enhanced Pocket Flap

Flap will have 2 layers of 1/2" wide foam, the width of the pocket at the end of the pocket flap so that a gloved hand can easily grip the flap and open pocket.

COMPLY _____ **EXCEPTION** _____

Full Hook and Loop Closure

Bellows pockets shall close by means of loop fastener that runs the length of the pocket body and attaches to three 1-1/2" x 3" hook fastener squares on the pocket flap.

COMPLY _____ **EXCEPTION** _____

Full Kevlar Reinforced Pocket

The full inside dimensions, not just the bottom half, of the pocket shall be reinforced with a layer of 8.0 oz. Kevlar® twill material to provide optimal strength when carrying small tools.

COMPLY _____ **EXCEPTION** _____

Pant Pocket (Right)

A full bellows pocket, measuring approximately 10" X 10" X 2", shall be double stitched

to the garment. Two rust resistant brass drainage eyelets shall be installed in the bottom of each pocket to provide the drainage of water. The pocket flaps shall be constructed of outer shell material and measure approximately 4" wide X 10" long. The pocket flaps shall be closed by means of hook and loop fastener tape. The upper corners of each pocket shall be bartacked for reinforcement.

COMPLY _____ **EXCEPTION** _____

Foam Enhanced Pocket Flap

Flap will have 2 layers of 1/2" wide foam, the width of the pocket at the end of the pocket flap so that a gloved hand can easily grip the flap and open pocket.

COMPLY _____ **EXCEPTION** _____

Full Hook and Loop Closure

Bellows pockets shall close by means of loop fastener that runs the length of the pocket body and attaches to three 1-1/2" x 3" hook fastener squares on the pocket flap.

COMPLY _____ **EXCEPTION** _____

Full Kevlar Reinforced Pocket

The full inside dimensions, not just the bottom half, of the pocket shall be reinforced with a layer of 8.0 oz. Kevlar® twill material to provide optimal strength when carrying small tools.

COMPLY _____ **EXCEPTION** _____

Six Tool Compartments

Inside the pocket, on the back (leg) side of the pocket shall be sewn two additional shell material pieces to create 6 compartments. The pocket divider closest to the leg shall measure approximately 6 inches high. A separate row of stitching shall divide the material into three tall equal compartments measuring approximately 3 inches wide and set side-by-side. A second piece of shell material shall be sewn to that piece in such a way to create three short compartments measuring approximately 3 inches wide and set side-by-side.

COMPLY _____ **EXCEPTION** _____

Pant Knee Reinforcements

The knee area shall have an exterior reinforcement of one layer of black polymer coated aramid and be padded behind the reinforcement with one layer of FR closed cell foam that is encased between layers of moisture barrier - providing a minimum

CCHR rating of 200 seconds. The reinforced knee pad shall be sewn into the side seams of the pant thus graded in width according to pant waist size and be approximately 11" high. The bottom seam of the pad shall not have an exposed seam. The pad shall be pre-bent to the natural contour of the knee through incorporation into darts in pant design.

COMPLY _____ **EXCEPTION** _____

Tapered Pant Cuff

The pant leg cuffs shall be tapered approximately 1" shorter in the rear than in the front to reduce the chance of wear.

COMPLY _____ **EXCEPTION** _____

Cuff Reinforcement

Each cuff end shall be reinforced with a 2" wide piece of black Arashield material folded in half, approximately one half inside and one half outside the cuff end for greater strength and abrasion resistance. This Arashield reinforcement shall be sewn to the cuff end with two rows of lock stitching.

COMPLY _____ **EXCEPTION** _____

Belt

Each pant shall receive an adjustable belt made of 2" wide Kevlar® webbing, sized to fit each pair of pants. The belt shall be secured by a two-piece, quick release thermoplastic coupling.

COMPLY _____ **EXCEPTION** _____

Extra Wide Belt Tunnels

There shall be six belt tunnels approximately 4" tall x 5" long made of outer shell material evenly placed around the waistband.

COMPLY _____ **EXCEPTION** _____

Suspender Attachment

Each pant shall receive 1" wide X 4" long, shell material loops bar tacked to the outer shell along the waistline with Nomex® thread. There shall be two horizontal loops on the front of the pant and two horizontal loops on the rear.

COMPLY _____ **EXCEPTION** _____

Suspenders

Each pant will be supplied with suspenders attached. The H-back style black padded suspender shall be made of 2" non-stretch webbing. The padding shall have a piece of anti-slip tape sewn to the padding. The suspender shall be equipped with a Cyberian Cam lock. This thermoplastic buckle has a cam mechanism that allows the suspender length to be adjusted when open. The suspender webbing is thread through the cam lock in a means to open and adjust the suspender length. A 2.5" wide thermoplastic "D" is sewn to the end of the webbing for ease of adjustment. When in the closed position the cam lock shall lock firmly into position to prevent slippage on the adjusted suspender. The suspender shall be affixed with hook and loop fastener tape allowing for removal and replacement. No suspender rivets or metal clip ends shall be permitted.

COMPLY _____ **EXCEPTION** _____

Asset Tracking

Vendor shall supply a web-based service that allows departments to have trained department staff perform Advanced Cleanings and Advanced inspections with on-line help menus per NFPA 1851, section 6.4.2. Customer shall have a dedicated database on-line that will allow Firefighters and Administrative Personnel to obtain service records of gear and elements, print reports on serviced garments and also generate Exception Reports on gear coming near to their due date or past due for service.

The web-based service also allows designated personnel the ability to add garments into the system automatically assigning them new asset tracking numbers. System will also track retired garments.

COMPLY _____ **EXCEPTION** _____