City of Rochester, New Hampshire
Invitation To Bid

The City of Rochester, New Hampshire is accepting sealed bids from qualified applicants to provide. Protective Jacket And Trousers For Structural Fire Fighting. All bids must be submitted in a sealed envelope plainly marked:

"Sealed Bid, Protective Jacket and Trousers for Structural Fire Fighting
"BID # 12-03"
City of Rochester, New Hampshire,
31 Wakefield St.
Rochester, NH 03867
Attn: Purchasing Agent

All bids must be received no later than Thursday, August 4, 2011 at **"2:15"** PM. Actual bid opening will begin at 2:30 pm. No late bids, telephone bids, or faxed bids will be accepted. Bid proposals and specifications may be obtained from the City of Rochester Website, www.rochesternh.net or by emailing purchasing@rochesternh.net, or by contacting the Purchasing Agent at 603-335-7602 or at the City of Rochester, Business Office, 31 Wakefield Street, Rochester NH. All bid questions must be submitted in writing (email preferred) to the Purchasing Agent. All bids must be made on the bid proposal forms supplied and the bid proposal form must be fully completed when submitted.

GENERAL SPECIFICATIONS
PROTECTIVE JACKET AND TROUSERS
FOR STRUCTURAL FIRE FIGHTING

Rochester Fire Department
July 2011

SCOPE

This specification details design and materials criteria to afford protection to the upper and lower body, excluding head, hands, and feet, against adverse environmental effects during structural fire fighting. All materials and construction will meet or exceed NFPA Standard #1971 (2007 revision) and OSHA for structural fire fighters protective clothing.

_____Comply _____Exception

SIZING

The jacket length shall be measured from the juncture of the collar and back panels to the hem of the jacket and shall measure 32 inches long.

The jacket shall be available in male and female patterns in even size chest measurements of two inch increments, and shall range from a small size of 30 to a large size of 68. Generalized sizing, such as small, medium, large, etc., will not be considered acceptable.

_____Comply _____Exception

OUTER SHELL MATERIAL - JACKETS AND TROUSERS

The outer shell shall be constructed of TENCATE "ADVANCE™" 60/40 Kevlar®/Nomex® blend material with an approximate weight of 7.0 oz. per square yard in a rip stop weave. The shell material must be treated with SST™ (SUPER SHELLTITE) which is a durable water-repellent finish that also enhances abrasion resistance. Color of garments to be gold. Bids offering this shell material without the SST™ will not be considered.

_____Comply _____Exception

THERMAL INSULATING LINER - JACKET AND TROUSERS

The thermal liner shall be constructed of 7.6 oz. per square yard TENCATE “CALDURA® SL2”; one layer of 1.5 oz. and one layer of 2.3 oz. per square yard E-89™ spunlaced Nomex®/Kevlar® aramid blend, quilt stitched to a 3.8 oz. per square yard combination spun/filament Caldura® face cloth with Wickwell™ Plus finish. A 7 inch by 9 inch pocket, constructed of self material and lined with moisture barrier material, shall be affixed to the inside of the jacket thermal liner on the left side by means of a lock stitch.. The thermal liner shall be attached to the moisture barrier and bound together by bias-cut Neoprene coated cotton/polyester around the perimeter. This provides superior

abrasion resistance to the less expensive, less durable "stitch and turn" method. Further mention of "Thermal Liner" in this specification shall refer to this section. NOTE: This thermal liner MUST be used exclusively with a minimum 7 oz. per square yard outer shell material.

_____Comply _____Exception

MOISTURE BARRIER - JACKETS AND TROUSERS

STEDFAST (STEDAIR® 3000) ePTFE moisture barrier is engineered using an E-89™ substrate and BHA Technologies ePTFE membrane, with an approximate weight of 5.5 oz. per square yard. The Stedair bi-component ePTFE membrane is a combination of microporous and monolithic technologies. The moisture barrier material shall meet all moisture barrier requirements of NFPA 1971-2007 edition, which includes water penetration resistance, viral penetration resistance, and common chemical penetration resistance. The moisture barrier shall be sewn to the thermal liner at the edges only and bound with bias-cut Neoprene-coated cotton/polyester binding. Further mention of "Specified Moisture Barrier" in this specification shall refer to this section.

_____Comply _____Exception

SEALED MOISTURE BARRIER SEAMS

All moisture barrier seams shall be sealed with a minimum 1 inch wide sealing tape. One side of the tape shall be coated with a heat activated glue adhesive. The adhesive side of the tape shall be oriented toward the moisture barrier seam. The adhesive shall be activated by heat and the sealing tape shall be applied to the moisture barrier seams by means of pressure exerted by rollers for that purpose.

_____Comply _____Exception

METHOD OF THERMAL LINER/MOISTURE BARRIER ATTACHMENT FOR JACKETS AND TROUSERS

The thermal liner and moisture barrier shall be completely removable from the jacket shell. Two strips of 5/8 inch wide flame resistant FR Velcro® fastener tape shall secure the thermal liner/moisture barrier to the outer shell along the length of the neck line under the collar (see Collar section). The remainder of the thermal liner/moisture barrier shall be secured with a minimum of four snap fasteners appropriately spaced on each jacket facing and four snap fasteners at each sleeve end.

The thermal liner and moisture barrier shall be completely removable from the trouser shell. Nine snap fasteners shall be spaced along the waistband to secure the thermal liner/moisture barrier to the shell. The legs of the thermal liner/moisture barrier shall be secured to the shell by means of two snap fasteners per leg.

_____Comply _____Exception

THERMAL PROTECTIVE PERFORMANCE

The assembled garment, consisting of an outer shell, moisture barrier, and thermal liner, shall exhibit a TPP (Thermal Protective Performance) rating of not less than 35.

_____Comply _____Exception

STITCHING

The outer shell shall be assembled using stitch type #301, #401, and #516. The thermal liners and moisture barriers shall be assembled using stitch type #301, #401, #504, #514, and #516. Stitching in all seams shall be continuous. There shall be no joined stitching in midseam. All major A outer shell structural seams, major B structural liner seams, shall have a minimum of 8 to 10 stitches per inch.

_____Comply _____Exception

JACKET CONSTRUCTION

BODY

The body of the shell and AXTION liner system shall be constructed of three separate panels consisting of two front panels and one back panel. The body panels shall be shaped so as to provide a tailored fit thereby enhancing body movement and shall be joined together by double stitching with Nomex® thread. One-piece outer shells shall not be acceptable.

_____Comply _____Exception

DRAG RESCUE DEVICE (DRD)

A Firefighter Drag Rescue Device shall be installed in each jacket. The ends of a 1½ inch wide strap, constructed of black Kevlar® with a red Nomex® center stripe, will be sewn together to form a continuous loop. The strap will be installed in the jacket between the liner system and outer shell such that when properly installed will loop around each arm. The strap will be accessed through a portal between the shoulders on the upper back where it is secured in place by a FR Velcro® strap. The access port will be covered by an outside flap of shell material, with beveled corners designed to fit between the shoulder straps of an SCBA. The flap will have a NFPA-compliant 3M Scotchlite™ reflective logo patch sewn to the outside to clearly identify the feature as the DRD (Drag Rescue Device). The DRD shall not extend beyond the outside flap. This device provides a quickly deployed means of rescuing a downed firefighter. Flimsy, rope-style DRD straps will not be considered.

_____Comply _____Exception

LINER ACCESS OPENING (JACKET)

The thermal liner and moisture barrier shall be completely removable from the jacket shell. Two strips of ⅝ inch wide flame resistant FR Velcro® fastener tape shall secure the thermal liner/moisture barrier to the outer shell along the length of the neckline under the collar. This opening shall run the full length of the collar for the purpose of inspecting the inner surfaces of the coat liner system. The remainder of the thermal liner/moisture barrier shall be secured with a minimum of four snap fasteners appropriately spaced on each jacket facing and four snap fasteners at each sleeve end. The outside perimeter of the AXTION liner moisture barrier and thermal liner layers shall be bound together along the side and bottom edges with a bias-cut Neoprene coated cotton/polyester binding for a finished appearance that prevents fraying and wicking of contaminants. Stitching used to secure the thermal liner and moisture barrier in place of the Neoprene shall not be considered since stitching is not able to provide the same level of abrasion resistance.

_____Comply _____Exception

RETROREFLECTIVE FLUORESCENT TRIM

The retroreflective fluorescent trim shall be either red/orange 3M Scotchlite™ Triple Trim (R/O borders with silver center).

Each jacket shall have an adequate amount of retroreflective fluorescent trim affixed to the outside of the outer shell to meet the requirements of NFPA #1971 (2007 edition) and OSHA. The trim shall be in the following widths and shall be NYC style; 3 inch wide 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.

_____Comply _____Exception

REINFORCED TRIM STITCHING

All reflective trim is secured to the outer shell with Nomex® thread, using a locking chainstitch protected by our exclusive TrimTrax™ system. This strip of 3/32-inch strong, durable, flame resistant black Kevlar cording provides a bed for the stitching along each edge of the retroreflective fluorescent trim surface and affords extra protection for the thread from abrasion. TrimTrax™ has been proven to be 5 to 7 times more durable than single or even double rows of stitching, significantly reducing maintenance costs and providing more value and a longer service life. Two rows of stitching used to attach the trim in place of the TrimTrax™ shall be considered an unacceptable alternative, since it has been proven that the two rows of stitching has insignificant impact on wear life. All trim ends shall be securely sewn into a seam for a clean finished appearance.

_____Comply _____Exception

SEWN ON RETROREFLECTIVE LETTERING

Each jacket shall have 3" red/orange 3M Scotchlite™ lettering on Row B reading: ROCHESTER

_____Comply _____Exception

COLLAR & FREE HANGING THROAT TAB

The collar shall consist of a four-layer construction and be of two-piece design. The collar shall have a minimum of 3 rows of quilting. The outer layers shall consist of outer shell material, with two-layers of specified moisture barrier sandwiched in between (see Moisture Barrier section). The rear inside ply of moisture barrier shall be sewn to the collar's back layer of outer shell at the edges only. The forward inside ply of moisture barrier shall be sewn to the inside of the collar at the edges only. The multi-layered configuration shall provide protection from water and other hazardous elements. The collar shall be of two piece design with the left and right halves of all component materials joined in the center by stitching, thereby permitting the collar to retain its proper shape and roll. The collar shall be minimum 3½ inches high and graded to size. The leading edges of the collar shall extend up evenly from the leading edges of the jacket front body panels so that no gap occurs at the throat area. The collar's back layers of outershell and moisture barrier shall be joined to the body panels with two rows of stitching. Inside the collar, above the rear seam where it is joined to the shell shall be a strip of ⅝ inch wide FR Velcro® hook fastener tape running the full length of the collar. The collar's front layers of moisture barrier and outershell shall have an additional strip of ⅝ inch wide hook fastener tape stitched to the inside lower edge and running the full length of the collar. These two inside strips of ⅝ inch wide FR Velcro® hook fastener tape sewn to the underside of the collar shall engage corresponding pieces of flame resistant loop fastener tape at the front and back neck area of the liner system.

The throat tab shall be a scoop type design and constructed of two plies of outer shell material with two center plies of moisture barrier material. The throat tab shall measure not less than 4 inches wide at the center tapering to 2 inches at each end with a total length of approximately 9 inches. The throat tab will be attached to the right side of the collar by a 1 inch wide by 1½ inch long piece of Nomex® twill webbing. The throat tab shall be secured in the closed and stowed position with flame resistant FR Velcro® fastener tape. The flame resistant FR Velcro® fastener tape shall be oriented to prevent exposure to the environment when the throat tab is in the closed position. Two 1½ inch by 3 inch pieces of FR Velcro® loop fastener tape shall be sewn vertically to the inside of each end of the throat tab. Corresponding pieces of FR Velcro® hook fastener tape measuring 1 inch by 3 inches shall be sewn horizontally to the leading outside edge of the collar on each side, for attachment and adjustment when in the closed position and wearing a breathing apparatus mask. In order to provide a means of storage for the throat tab when not in use, a 1 inch by 3 inch piece of FR Velcro® hook fastener tape shall be sewn horizontally to the inside of the throat tab immediately under the 1½ inch by 3 inch pieces of FR Velcro® loop fastener tape. The collar closure strap shall fold in half for storage with the FR Velcro® loop fastener tape engaging the FR Velcro® hook fastener tape. A hanger loop constructed of a double layer of outer shell material shall be sewn to the top of the collar at the center.

_____Comply _____Exception

AXTION BACK

The jackets shall include inverted pleats to afford enhanced mobility and freedom of movement in addition to that provided by the AXTION sleeves. The outer shell shall have two inverted pleats (one each side) installed on either side of the back body panel. The inverted pleats shall begin at the top of each shoulder and extend vertically down the sides of the jacket to the hem. Maximum expansion of the pleats shall occur at the shoulder area and taper toward the hem.

The thermal liner shall have a single inverted pleat located at the upper middle of the back, corresponding to the added length in the shell provided by the AXTION back pleats. It will be designed to expand with the outer shell pleats to provide maximum expansion.

The moisture barrier shall be designed with darts corresponding to the added length in the shell provided by the AXTION back pleats. The darts are positioned at the shoulder blades of the moisture barrier, outside of the SCBA straps, and work together with the outer shell and the thermal liner pleats in the AXTION back providing maximum expansion.

_____Comply ____Exception

JACKET FRONT

The jacket shall incorporate separate facings to ensure there is no interruption in thermal or moisture protection in the front closure area. The facings shall measure 2½ inches wide, extend from collar to hem, and be double stitched to the underside of the outer shell at the leading edges of the front body panels. A breathable moisture barrier material shall be sewn to the jacket facings and configured such that it is sandwiched between the jacket facing and the inside of the respective body panel. The breathable film side shall face inward to protect it. Jackets that use "false facings" shall be considered unacceptable. The thermal liner and moisture barrier assembly shall be attached to the jacket facings by means of snap fasteners.

_____Comply _____Exception

STORM FLAP

A rectangular storm flap measuring 3¼ inches wide and 24 inches long shall be centered over the left and right body panels to ensure there is no interruption in thermal or moisture protection in the front of the jacket. The outside storm flap shall be constructed of two plies of outer shell material with a center ply of breathable moisture barrier material. The outside storm flap shall be double stitched to the right side body panel and shall be reinforced at the top and bottom with bartacks.

_____Comply _____Exception

STORM FLAP AND JACKET FRONT CLOSURE SYSTEM

The jacket shall be closed by means of a 22 inch size #10 heavy duty high-temp smooth-gliding YKK Vislon™® zipper on the jacket fronts and flame resistant FR Velcro® fastener tape on the storm flap. The teeth of the zipper shall be mounted on black Nomex® tape and shall be sewn into the respective jacket facings. The storm flap shall close over the left and right jacket body panels and shall be secured with flame resistant FR Velcro® fastener tape. A 1½ inch by 24 inch piece of FR Velcro® loop fastener tape shall be installed along the leading edge of the storm flap on the underside with four rows of stitching. A corresponding 1½ inch by 23 inch piece of FR Velcro® hook fastener tape shall be sewn with four rows of stitching to the front body panel and positioned to engage the loop fastener tape when the storm flap is closed over the front of the jacket.

_____Comply _____Exception

CARGO/HANDWARMER EXPANSION (BELLOWS) POCKETS

Each jacket front body panel shall have a 2 inch deep by 8 inch wide by 8 inch high expansion pocket double stitched to it 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. Retroreflective trim shall run over the bottom of the pockets so as not to interrupt the trim stripe. Two rust resistant metal drain eyelets shall be installed in the bottom of each expansion pocket to facilitate drainage of water. The lower half of the pocket shall be reinforced with an extra layer of outer shell material on the inside. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material and shall measure 3 inches deeper than the pocket expansion and ½ inch wider than the pocket. The upper pocket corners shall be reinforced with proven backtacks, and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of flame resistant FR Velcro® fastener tape. Two pieces of 1 ½ inch by 3 inch FR Velcro® hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of 1 ½ inch by 3 inch FR Velcro® loop fastener tape shall be installed horizontally on the outside of each pocket near the top (one piece on each end) and positioned to engage the hook fastener tape.

Additionally, a separate hand warmer pocket compartment will be provided under the expandable cargo pocket. This compartment will be accessed from the rear of the pocket and shall be lined with Nomex® Fleece for warmth and comfort.

_____Comply _____Exception

RADIO POCKET

Each jacket shall have a pocket designed for the storage of a portable radio. This pocket shall be of box type construction, double stitched to the coat, and shall have one drainage eyelet in the bottom of the pocket. The pocket flap shall be constructed of two layers of outer shell material measuring approximately 5 inches deep and ¼ inch wider than the pocket. The pocket flap shall be closed by means of flame resistant FR Velcro® fastener tape. A 1½ inch by 3 inch piece of FR Velcro® hook

fastener tape shall be installed vertically on the inside of the pocket flap beginning at the center of the bottom of the flap. A 1½ inch by 3 inch piece of FR Velcro® loop fastener tape shall be installed horizontally on the outside of the pocket near the top center and positioned to engage the hook fastener tape. In addition, the entire inside of the pocket shall be lined with neoprene coated cotton/polyester impermeable barrier material to ensure that the radio is protected from the elements. The impermeable barrier material shall also be sandwiched between the two layers of outer shell material in the pocket flap for added protection. The radio pocket shall measure approximately 3 inches deep by 2½ inches wide by 7 inches high and shall be installed on the left chest.

Note: (radio pocket over 6-inch in height requires trim)

_____Comply _____Exception

MICROPHONE STRAP

A strap shall be constructed to hold a microphone for a portable radio. It shall be sewn to the coat at the ends only. The microphone strap shall be centered two inches above the radio pocket and shall be constructed of double layer outer shell material.

_____Comply _____Exception

"COAT SNAP/MIC STRAP COMBO" UNIVERSAL HOLDER

Each jacket shall be equipped with a Coat Snap/Mic Strap Combo holder. An inward facing safety hook/coat snap shall be triple riveted in a vertical position to the upper chest. The inward facing metal snap hook will accommodate the clip portion of the flashlight. Below the snap hook will be a 1 inch by 3 inch Mic strap constructed of outer shell material sewn to the coat at both ends. Below the Mic Strap will be an additional strap measuring approximately 2½ inches high and 9 inches wide, and will hold the barrel of the flashlight. The lower strap will be equipped with a 1½ inch by 2½ -inch flame resistant FR Velcro® closure at the front of the strap to facilitate easy removal of the flashlight. The "Coat Snap/Mic Strap Combo" holder shall be sewn to the jacket on the right chest.

_____Comply _____Exception

AXTION SLEEVES

The sleeves shall be of two piece construction, having an upper and a lower sleeve. The sleeve seams shall be of a double needle seam construction and shall be contoured to follow the natural flex of the arm at rest. Both the under and upper sleeve shall be graded in proportion to the chest size. For unrestricted movement, on the underside of each sleeve there shall be two outward facing pleats located on the front and back portion of the sleeve on the shell and thermal liner. On the moisture barrier, the system will consist of two darts, rather than pleats, to allow added length in the under sleeve. The moisture barrier darts will be seam sealed to assure liquid resistance integrity

The pleats shall expand in response to upper arm movement, and shall fold in on themselves when the arms are at rest. This expansion shall allow for greater multi-directional mobility and flexibility in the shoulder and arm areas, with little restriction or coat rise. Neither stove-pipe nor raglan-style sleeve designs will be considered acceptable.

_____Comply _____Exception

SLEEVE CUFF REINFORCEMENTS

The sleeve cuffs shall be reinforced with an extra layer of outer shell material.

The cuff reinforcements shall not be less than 2 inches in width and folded in half, approximately one half inside and one half outside the sleeve end for greater strength and abrasion resistance. The cuff reinforcement shall be double stitched to the sleeve end for a total of four rows of stitching. This independent cuff provides an additional layer of protection over a turned and stitched cuff. Coats finished with a turned and stitched cuff do not provide the same level of abrasion resistance and will be considered unacceptable.

_____Comply _____Exception

WRISTLETS / ELASTICIZED ADJUSTABLE SLEEVE WELLS

Each jacket shall be equipped with Nomex® knit wristlets not less than 4 inches in length and of double thickness. Nomex® knit is constructed of 96% Nomex and 4% Spandex for shape retention.

Optional: Each jacket may be equipped with Nomex® hand and wrist guards (over the hand) not less than 7 inches in length and of double thickness. A separate thumbhole with an approximate diameter of 2 inches shall be recessed approximately 1 inch from the leading edge. Nomex® knit is constructed of 96% Nomex and 4% Spandex for shape retention.

The wristlets shall be sewn to the end of the liner sleeves. Flame resistant neoprene coated cotton/polyester impermeable barrier material shall be sewn to the inside of the sleeve shell approximately 5 inches from the sleeve end and extending toward the cuff forming the sleeve well. The neoprene sleeve well shall form an elasticized cuff end with an FR Velcro® tab providing a snug fit at the wrist and covering the knit wristlet. This sleeve well configuration serves to prevent water and other hazardous elements from entering the sleeves when the arms are raised. The neoprene barrier material shall also line the inside of the sleeve shell from the cuff to a point approximately 5 inches back, where it joins the sleeve well and is double stitched to the shell. Four Nomex® snap tabs will be sewn into the juncture of the sleeve well and wristlet. The tabs will be spaced equidistant from each other and shall be fitted with female snap fasteners to accommodate corresponding male snaps in the liner sleeves. This configuration will ensure there is no interruption in protection between the sleeve liner and wristlet.

_____Comply _____Exception

LINER ELBOW THERMAL ENHANCEMENT

An additional layer of thermal liner material shall be sewn to the elbow area of the liner system for added protection at contact points and increased thermal insulation in this high compression area. The elbow thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only. Finished dimension shall be 5" x 7". All edges shall be finished. Thermal scraps shall not be substituted for full-cut fabric padding.

_____Comply _____Exception

LINER SHOULDER AND UPPER BACK THERMAL ENHANCEMENT

An additional layer of thermal liner material shall be used to increase thermal insulation in the upper back, front and shoulder area of the liner system. This full-cut thermal enhancement layer shall drape over the top of each shoulder extending from the collar to the sleeve/shoulder seam, down the front approximately 5 inches from the juncture of the collar down the back to a depth of 7½ inches to provide greater CCHR protection in this high compression area. The upper back, front and shoulder thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only. The thermal enhancement layer shall have finished edges. Thermal scraps shall not be substituted for full-cut fabric padding. Smaller CCHR reinforcements shall not be considered acceptable since they provide far less area of coverage.

_____Comply _____Exception

EMBROIDERED AMERICAN FLAG
Each jacket shall have a Nomex® embroidered American flag that measures approximately 2½ inches by 3½ inches installed on the left sleeve.

Flags made of fabric other than Nomex® shall be considered unacceptable.

_____Comply _____Exception

TROUSER CONSTRUCTION

BODY

The body of the shell shall be constructed of four separate body panels consisting of two front panels and two back panels. The body panels shall be shaped so as to provide a tailored fit, thereby enhancing body movement, and shall be joined together by double stitching with Nomex® thread.

The body panels and seam lengths shall be graded to size to assure accurate fit in a broad range of sizes.

The front body panels will be wider than the rear body panels to provide more fullness over the knee area. This is accomplished by rolling the side leg seams (inside and outside) to the rear of the pant leg beginning at the knee. The slight taper will prevent premature wear of the side seams by pushing them back and away from the primary high abrasion areas encountered on the sides of the lower legs.

_____Comply _____Exception

LINER ACCESS OPENING (TROUSER)

The thermal liner and moisture barrier layers of the trouser liner system shall be constructed in such a way as to allow an access opening for interior inspection, service and replacement. The thermal liner and moisture barrier layers shall be stitched together at the front fly for security and prevention of inadvertent use of one layer without the other. The liner system shall have a reinforcement of black Nomex® Twill webbing sewn to the bottom of the fly opening. This reinforcement will serve to prevent the liner from tearing in that area from the constant donning and doffing of the trousers.

The liner system of the trouser shall incorporate an opening at the right side of the waist, a minimum of 11 inches, for the purpose of inspecting the integrity of the trouser liner system.

_____Comply _____Exception

SIZING

The trousers shall be available in even size waist measurements of two inch increments and shall be available in a range of sizes from 24 to 68. The trouser inseam measurement shall be available in two inch increments. Generalized sizing, such as small, medium, large, etc., will not be considered acceptable. Sizing specifically for women shall also be available.

_____Comply _____Exception

RETROREFLECTIVE FLUORESCENT TRIM

The trousers shall have a stripe of retroreflective fluorescent trim encircling each leg below the knee to comply with the requirements of NFPA #1971 (2007 revision) in 3 inch red/orange 3M Scotchlite™ Triple Trim (R/O borders with silver center).

Bottom of trim band shall be located approximately 3” above cuff.

_____Comply _____Exception

REINFORCED TRIM STITCHING

All reflective trim is secured to the outer shell with Nomex® thread, using a locking chainstitch protected by our exclusive TrimTrax™ system. This strip of 3/32-inch strong, durable, flame resistant black Kevlar cording provides a bed for the stitching along each edge of the retroreflective fluorescent trim surface and affords extra protection for the thread from abrasion. TrimTrax™ has been proven to be 5 to 7 times more durable than single or even double rows of stitching, significantly reducing maintenance costs and providing more value and a longer service life. Two rows of stitching used to attach the trim in place of the TrimTrax™ shall be considered an unacceptable alternative, since it has been proven that the two rows of stitching has insignificant impact on wear life. All trim ends shall be securely sewn into a seam for a clean finished appearance.

_____Comply _____Exception

ELASTICIZED WAISTBAND

The trouser design facilitates the transfer of the weight of the trouser to the hips instead of the shoulders and suspenders. The two rear outer-shell body panels, beginning at the trouser side seams, shall incorporate an elasticized waistband. The rear elasticized waistband shall be integral to the shell of the pant and the elasticized portion shall be covered in an aramid fabric.

The waist area of the trousers shall incorporate an independent stretch waistband on the inside with a separate piece of black aramid outer shell material cut on the bias (diagonally) measuring not less than two inches in width. Neoprene coated cotton/polyester shall be sewn to the back of the waistband as a reinforcement to create a three-layer protection. The top edge of the waistband reinforcement shall be double stitched to the outer shell at the top of the trousers. The lower edge of the waistband shall be serged and unattached to the shell to accept the thermal liner and moisture barrier. The top of the thermal liner and moisture barrier shall be secured to the underside of the waistband reinforcement so as to be sandwiched between the waistband reinforcement and outer shell to reduce the possibility of liner detachment while donning and to avoid pass through of snaps from the outer shell to the inner liner. The independent waistband construction affords greater comfort and fit than a turned and stitched method. Trousers that do not include an independent waistband only serve to save the manufacturer both money and labor and shall be considered unacceptable.

_____Comply _____Exception

EXTERNAL / INTERNAL FLY FLAP

The trousers will have a vertical outside fly flap constructed of two layers of outer shell material,

with a layer of moisture barrier material sandwiched between. The fly flap shall be double stitched to the left front body panel and shall measure approximately 2 ½ inches wide by 10 inches long and reinforced with bartacks at the base. An internal fly flap constructed of one layer of outer shell material, thermal liner and specified moisture barrier, measuring approximately 2 inches wide by 10 inches long, shall be sewn to the leading edge of the right front body panel. The inside of the right front body panel shall be thermally enhanced directly under the outside fly with a layer of moisture barrier and thermal liner material.

The underside of the outside fly flap shall have a 1½ inch wide piece of FR Velcro® loop fastener tape quadruple stitched along the full length and through the shell material only; stitching shall not penetrate the moisture barrier insert between the two layers to insure greater thermal protection and reduced water penetration. A corresponding strip of 1½ inch wide by 9 inch long FR Velcro® hook fastener tape shall be quadruple stitched to the outside right front body panel securing the fly in a closed position.

Appropriate male and female snap fastener halves shall be installed at the leading edge of the waistband for the purpose of further securing the trousers in the closed position.

_____Comply _____Exception

BELT

Each trouser shall include a 2" wide black Nomex® belt with an adjustable hi-temp thermoplastic buckle serving as the exterior primary positive locking closure. Sizing adjustments shall be provided by a self locking 2" thermoplastic buckle; this buckle shall also provide a quick-release mechanism for donning and doffing. The belt shall be attached to the two front body panels of the trouser beginning at the side seams. The belt shall run through tunnels constructed of black 7½ oz Nomex® outer shell material protecting it from damage. The tunnels will begin at the side seams and terminate at the front of the trouser exposing the buckle. A single belt loop constructed of a double layer of black 7½ oz Nomex® measuring approximately ½ inch by 3 inches shall be attached to the topside of the right side tunnel. The belt loop will be located approximately 2 inches from the tunnel opening for storage of the belt tab.

_____Comply _____Exception

AXTION KNEE

The outer shell of the trouser legs shall be constructed with horizontal expansion pleats in the knee area with corresponding darts in the liner to provide added fullness for increased freedom of movement and maximum flexibility. Two expansion pleats measuring approximately 1 inch deep, shall be installed along both the inseam and outseam on each leg in the knee area. The pleats shall be folded to open outwardly towards the side seams to insure no restriction of movement. The AXTION knee will be installed proportionate to the trouser inseam, in such a manner that it falls in an anatomically correct knee location.

The liner system shall be constructed with four darts per leg in the front of the knee. Two will be located above the knee (one on each side) and two will be located below the knee (one on each side). Each dart will be approximately 2 inches long. The darts in the liner provide a natural bend at the knee. The darts in the liner work in conjunction with the expansion panels in the outer shell to increase freedom of movement when kneeling, crawling, climbing stairs or ladders, etc.

_____Comply _____Exception

LINER KNEE THERMAL ENHANCEMENT

An additional layer of specified thermal liner and moisture barrier material, measuring a minimum of 7" x 10", will be sewn to the knee area of the liner system for added CCHR protection and increased thermal insulation in this high compression area. The knee thermal enhancement layers shall be sandwiched between the thermal liner and moisture barrier layers of the liner system and shall be stitched to the thermal liner layer only. Thermal scraps shall not be substituted for full-cut fabric padding. Smaller CCHR reinforcements shall not be considered acceptable since they provide far less area of coverage.

_____Comply _____Exception

KNEE REINFORCEMENTS

The knee area shall be reinforced with an extra layer of outer shell material.

The knee reinforcement shall be slightly offset to the outside of the leg to insure proper coverage when bending, kneeling and crawling. The knee reinforcements shall measure 10 inches wide by 12 inches high and shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance. Knee reinforcements of a smaller size do not provide the same protective coverage and shall be considered unacceptable.

_____Comply _____Exception

PADDING UNDER KNEE REINFORCEMENTS

Padding for the knees shall be accomplished with one layer of SILIZONE™ foam sandwiched between the shell and the knee reinforcement layers.

_____Comply _____Exception

EXPANSION (BELLOWS) POCKETS

An expansion pocket, measuring approximately 2 inches deep by 10 inches wide by 10 inches high shall be double stitched to the side of each leg straddling the outseam above the knee and positioned to provide accessibility. The lower half of each expansion pocket shall be reinforced with an additional layer of outer shell material on the inside. Two rust resistant metal drain eyelets shall be installed on the underside of each expansion pocket to facilitate drainage of water. The pocket flaps shall be rectangular in shape, constructed of two layers of outer shell material and shall measure 3 inches deeper than the pocket expansion and ½ inch wider than the pocket. The upper pocket corners shall be reinforced with proven backtacks, and pocket flaps shall be reinforced with bartacks. The pocket flaps shall be closed by means of flame resistant FR Velcro® fastener tape. Two pieces of 1½ inch by 3 inch FR Velcro® hook fastener tape shall be installed vertically on the inside of each pocket flap (one piece on each end). Two corresponding pieces of 1½ inch by 3 inch FR Velcro® loop fastener tape shall be installed horizontally on the outside of each pocket near the top (one piece on each end) and positioned to engage the hook fastener tape.

_____Comply _____Exception

TROUSER CUFF REINFORCEMENTS

The cuff area of the trousers shall be reinforced with an extra layer of outer shell material.

The cuff reinforcement shall not be less than 3 inches in width and folded in half, approximately one half inside and one half outside the end of the legs for greater strength and abrasion resistance. The cuff reinforcement shall be double stitched to the outer shell for a total of four rows of stitching. This independent cuff provides an additional layer of protection over a hemmed cuff. Trousers that are turned and stitched at the cuff, as opposed to an independent cuff reinforcement, do not provide the same level of abrasion resistance and shall be considered unacceptable.

_____Comply _____Exception

PADDED RIP-CORD SUSPENDERS & ATTACHMENT

On the inside waistband shall be attachments for the standard "H" style "Padded Rip-Cord" suspenders. There will be four attachments total – 2 front, 2 back. The suspender attachments shall be constructed of a double layer of black Nomex® measuring approximately ½ inch wide by 3-inches long. They shall be sewn in a horizontal position on the ends only to form a loop. The appearance will be much like a horizontal belt loop to capture the suspender ends.

A pair of "H" style "Padded Rip-Cord" suspenders shall be specially configured for use with the trousers. The main body of the suspenders shall be constructed of 2 inch wide black webbing straps. The suspenders shall run over each shoulder to a point approximately shoulder blade high on the back, where they shall be joined by a 2 inch wide horizontal piece of webbing measuring

approximately 8-inches long, forming the “H”. This shall prevent the suspenders from slipping off the shoulders. The shoulder area of the suspenders will be padded for comfort by fully encasing the webbing with aramid batting and wrap-around black Nomex®..

The rear ends of the suspenders will be sewn to 2-inch wide elasticized webbing extensions measuring approximately 8-inches in length and terminating with thermoplastic loops. The forward ends of the suspender straps shall be equipped with specially configured black powder coat non-slip metal slides with teeth. Through the metal slides will be the 9 inch lengths of strap webbing "Rip-Cords" terminating with thermoplastic loops on each end. Pulling on the "Rip-Cords" shall allow for quick adjustment of the suspenders.

Threaded through and attached to the thermoplastic loops on the forward and rear ends of the suspenders will be black Nomex® suspender attachments incorporating two snap fasteners. The Nomex® suspender attachments are to be threaded through the suspender attachment loops on the inside waistband of the trousers. The Nomex® suspender attachments will then fold over and attach to themselves securing the suspender to the trousers.

_____Comply _____Exception

AXTION SEAT

The rise of the rear trouser center back seam, from the top back of the waistband to where it intersects the inside leg seams at the crotch, shall exceed the rise at the front of the trouser by 8-inches. The longer rear center back seam provides added fullness to the seat area for extreme mobility without restriction when stepping up or crouching and will be graded to size. This feature in combination with other design elements will maintain alignment of the knee directly over the knee pads when kneeling and crawling.

_____Comply _____Exception

REVERSE BOOT CUT

The outer shell trouser leg cuffs will be constructed such that the back of the leg is approximately 1 inch shorter than the front. The liner will also have a reverse boot cut at the rear of the cuff and a concave cut at the front to keep the liner from hanging below the shell. This construction feature will minimize the chance of premature wear of the cuffs and injuries due to falls as a result of "walking" on the trouser cuffs. Trousers that have “cut-outs” in the back panel rather than a contoured boot cut shall be considered unacceptable.

_____Comply _____Exception

THIRD PARTY TESTING AND LISTING PROGRAM

All components used in the construction of these garments shall be tested for compliance to

NFPA Standard #1971 (2007 revision) by Underwriters Laboratories (UL). Underwriters Laboratories shall certify and list compliance to that standard. Such certification shall be denoted by the Underwriters Laboratories certification label.

_____Comply _____Exception

LABELS

Appropriate warning label(s) shall be permanently affixed to each garment. Additionally, the label(s) shall include the following information.

Compliance to NFPA Standard #1971 - 2007 edition
Underwriters Laboratories classified mark
Manufacturer's name
Manufacturer's address
Manufacturer's garment identification number
Date of manufacture
Size
Fiber contents

_____Comply _____Exception

ISO CERTIFICATION / REGISTRATION

The protective clothing manufacturer shall be certified and registered to ISO Standard 9001 to assure a satisfactory level of quality. Indicate below whether the manufacturer is so certified and registered by checking either "Yes" or "No" in the space provided.

_____Yes _____No

BETTER BUSINESS BUREAU:

The manufacturer is accredited by the Better Business Bureau, showing a commitment to ethical and principled business practices.

_____Comply _____Exception

WARRANTY:

The manufacturer shall warrant these jackets and trousers to be free from defects in materials and workmanship for their serviceable life when properly used and cared for.

_____Comply _____Exception

COUNTRY OF ORIGIN

The Garments shall be manufactured in the United States.

SIZING BY VENDOR:

Both male and female sizing samples shall be available. The sizing must take place at the Rochester Central Fire Station.

REPAIRS

It is required that the bidder have a separate local certified 1851 repair facility, within 100 miles of Rochester.

Deleted: ¶

_____Comply _____Exception

EXCEPTIONS TO SPECIFICATIONS

Any and all exceptions to the above specifications must be clearly stated for each heading. Detail how you do not meet the specification and what you propose as an alternate substitution. Tell us why we should consider accepting your alternate. Use additional pages for exceptions, if necessary.

INSTRUCTIONS TO BIDDERS

I. Preparation of Bid Proposal

A. The Bidder shall submit her/his proposal upon the forms furnished by the City (attached). The Bidder shall specify the unit price or lump sum bid, both in words and figures for each pay item listed. All words and figures shall be in ink or typed.

B. If an amount entered by the bidder on the proposal form is to be altered it should be crossed out with ink, the new unit price or lump sum bid entered above or below it, and initialed by the bidder, also with ink. In a case of discrepancy between the prices written in words and those written in figures, the prices written in words shall govern.

C. The Bidder's proposal must be signed with ink by the individual, by one or more members of the partnership, by one or more members or officers of each firm representing a joint venture, by one or more officers of a corporation, or by an agent of the contractor legally qualified and acceptable to the owner. If the proposal is made by an individual, his name and post office address must be shown; as a joint venture, the name and post office address of each must be shown; by a corporation, the name of the corporation and it's business address must be shown, together with the name of the state in which it is incorporated, and the names, titles, and business address of the President, Secretary, Treasurer.

D. All questions shall be submitted in writing to the Purchasing Agent. The Purchasing Agent will then forward both the question and the City's response to the question to all prospective bidders.

II. Irregular Proposals

Bid proposals will be considered irregular and may be rejected for any of the following reasons:
A. If the proposal is on a form other than furnished by the Owner, or if the form is altered or any thereof is detached.

B. If there are unauthorized additions, conditional or alternated bids, or irregularities of any kind which may tend to make the proposal incomplete, indefinite, or ambiguous as to its meaning.

C. If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

D. If the proposal does not contain a unit price for each pay item listed, except in the case of authorized alter pay items.

III. Interpretations

No oral interpretations will be made to any vendor as to the meaning of the specifications or terms and conditions of this sealed proposal invitation.

IV. Withdrawal of Bid Proposals

A bidder will be permitted to withdraw his proposal unopened after it has been deposited if such request is received in writing prior to the time specified for opening the proposals.
No bid may be withdrawn, for a period of (60) sixty days subsequent to the opening of bids, without express written consent of the City of Rochester, NH.

V. Public Opening of Proposals

Proposals will be opened and read publicly at the time and place indicated in the invitation for bids. Bidders, their authorized agents, and other interested parties are invited to be present. All bid results will be posted within 48 hrs of the bid opening on the City of Rochester's website.

VI. Disqualification of Bidders

Either of the following reason may be considered as being sufficient for the disqualification of a bidder and the rejection of his proposal of proposals:
A. Evidence of collusion among bidders.

B. Failure to supply complete information as requested by bid specifications.

AWARD AND EXECUTION OF CONTRACT

I. Consideration of Proposals

A. Bids will be made public at the time of opening and may be reviewed only after they have been properly recorded. In case of discrepancy between the prices written in words and those written figures, the written in words shall govern. In case of discrepancy between the total shown in the proposal and that obtained by adding the products of the quantities of items and bid prices, the latter shall govern.

B. The right is reserved to reject any or all proposals, to waive technicalities or to advertise for new proposals, if in the judgment of the City, the best interest of the City of Rochester will be promoted thereby.

II. Award of Contract

If a contract is to be awarded, the award will be made to the lowest responsible and qualified bidder whose proposal complies with all the requirements prescribed as soon as practical after the bid opening. No bid shall be withdrawn for a period of (60) sixty days subsequent to the opening of bids, without the consent of the city of Rochester. The successful bidder will be notified, by the form being mailed to the address on his proposal, that his bid has been accepted and that he has been awarded the contract.

III. Cancellation of Award

The City reserves the right to cancel the award of any contract at any time before the execution of such contract by all parties without any liability against the City.

BID EVALUATION

In addition to the bid amount, additional factors will be considered as an integral part of the bid evaluation process including, but not limited to:

A. The bidder's ability, capacity, and skill to perform within specified time limits.

B. The bidder's experience, reputation, efficiency, judgment, and integrity.

C. The quality, availability and adaptability of the supplies and materials sold.

D. Bidder's last performance.

E. Sufficiency of bidder's financial resources to fulfill the contract.

F. Bidder's ability to provide future maintenance and/or services.

G. Other applicable factors as the City determines necessary or appropriate (such as compatibility with existing equipment).

Protective Jacket and Trousers for Structural Fire Fighting

Vendor Name _____
Address _____
_____
_____
Phone _____
Signature _____
Title _____
Date _____
BID PRICE FOR SERVICE _____ (in figures)
(in words)
HISTORY/PROFILE_____
_____
_____
_____
_____
QUALIFICATIONS_____
_____
_____
_____
_____
LIST OF PREVIOUS RELEVANT PROJECTS
Summary of Project:_____
_____
_____
Start up and completion dates:_____
Project Cost:_____
Name and telephone number of reference for the listed project:_____
_____

All Bids are to be submitted on this form and in a sealed envelope, plainly marked on the outside with the Bidder's name and address and the Project name as it appears at the top of the Proposal Form. All bid results will be posted on the City of Rochester website within 48 hrs of the bid opening.