



CHARLOTTESM

Department of General Services – City Procurement

Addendum # 3	Firefighting Turnout Gear ITB # 269-2020-031
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To: All Prospective Bidders

Date: March 11, 2020

Subject: Addendum 3 – ITB # 269-2020-031 – Firefighting Turnout Gear

Please note the specification changes/modifications below for the ITB.

Item #	Page #	Section #	Specification	Modifications and Questions
1	105	3	Specifications	Modification: Specifications added for Innotex Energy Turnout Coat and Pants
2	121	3	Barrier Hoods	Modification: Specifications added for Innotex Gray 35 Particulate Blocking Hood
3	112	Pricing Sheet	Form Five – Pricing Sheet	Modification: Innotex Energy Turnout Gear and Gray 35 Particulate Blocking Hoods added to Price Sheet

In order to constitute a complete bid response you must acknowledge receipt of this addendum with the Addenda Receipt Confirmation Form in Section 4 of the ITB in your Bid. **Any Bidder not acknowledging receipt of an issued addendum may not be considered.**

In the event additional changes or clarifications to this ITB are warranted, all Bidders are responsible for monitoring the City's [Contract Opportunities](http://www.contractopportunities.com) site or www.ips.state.nc.us or for additional addenda.

We appreciate your interest in doing business with the City and look forward to receiving a Bid from your company.

Sincerely,

Lenore Bishop
Procurement Officer

cc: ITB Team
ITB File

INNOTEX ENERGY TURNOUT COAT & PANTS	INSERT BIDDER'S PROPOSED ALTERNATE PRODUCT/BRAND/MODEL NUMBER: <hr/>		
REQUIREMENTS:			
SCOPE: This specification details design and materials criteria to afford protection to the upper and lower body, excluding head, hands, feet, against adverse environmental effects during structural firefighting. All materials and construction will meet or exceed NFPA Standard #1971 -current edition and OSHA for structural fire fighters protective clothing.	YES	NO	EXCEPTIONS:
OUTER SHELL MATERIAL JACKETS AND TROUSERS: Shall be TENCATE "KOMBAT™ FLEX" a para-aramid/PBI blend material with a nominal weight of 6.9 oz/yd ² . The material shall be a twill weave. The spun yarn shall be a blend of para-aramid and PBI fiber, reinforced with a 400-denier continuous filament para-aramid yarn wrapped with a 177-denier spun yarn consisting of para-aramid and PBI fibers. The material shall be treated with SST (SUPER SHELLTITE). The Color shall be "Gold/Natural".	YES	NO	EXCEPTIONS:
THERMAL INSULATING LINER - JACKET AND TROUSERS: The thermal barrier shall consist of a face cloth constructed from 61% Para-Aramid/34% FR Rayon/5% Nylon weighing approximately 3.8 oz/yd ² , quilted with meta-aramid threads to 1 layer of 0.6 oz/yd ² of NOMEX® NANO and 1 layer of 2.3 oz/yd ² 100% aramid non-woven spun lace. The thermal barrier shall have a total weight of approximately 6.7 oz/yd ² .	YES	NO	EXCEPTIONS:
MOISTURE BARRIER - GORE® CROSSTECH® black moisture barrier: The moisture barrier material shall be GORE® CROSSTECH® black moisture barrier - NOMEX® fabric woven from spun fibers (pajama check) substrate with Enhanced bi-component ePTFE membrane. GORE® CROSSTECH® black moisture barrier seams should be sealed with GORE-SEAM® tape using a Series 6000 (or higher) GORE-SEAM sealing machine to afford comparable viral penetration resistance performance.	YES	NO	EXCEPTIONS:
SEALED MOISTURE BARRIER SEAMS: All moisture barrier seams shall be sealed with minimum 1" wide seam sealing tape based on the specified moisture	YES	NO	EXCEPTIONS:

<p>barrier manufacturer recommendations. 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.</p>			
<p>METHOD OF THERMAL LINER/MOISTURE BARRIER ATTACHMENT FOR JACKETS AND TROUSERS: The jacket liner shall be attached to the outer shell by one zipper running along the front closure of the jacket and shall be protected with a breathable moisture barrier facing. The liner shall also attach by two color coded tabs with snaps at each sleeve end.</p> <p>The thermal liner and moisture barrier shall be completely removable from the pant shell. Nine snap fasteners shall be spaced along the waistband to secure the thermal liner to the shell. The legs of the thermal liner/moisture barrier shall be secured to the shell by means of Ara-Shield® snap fasteners, 2 per leg. The Ara-shield® snap tabs on the shell shall be color coded to corresponding color coded snap tabs in the liner for ease of matching the liner system to the outer shell after inspection or cleaning is completed. There shall be no hook and loop used to close the liner access opening.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>THERMAL PROTECTIVE PERFORMANCE / THERMAL TOTAL HEAT LOSS: The assembled garment, consisting of an outer shell, moisture barrier, and thermal liner, shall exhibit a TPP (Thermal Protective Performance) minimum rating of 40 and THL (Thermal Total Heat Loss) minimum rating of 240. The CFD's current gear is 43.8 TPP and 254 THL.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>STITCHING: All "Major A" seams shall be made of seam type LSbm-4, including stitch types #504, 401 and 301. The seaming process starts by aligning two pieces of fabric together and stitching them together with what is commonly referred to as a "5 thread overlock", using stitch type #516, consisting of stitch type 504 and 401. The seam is then folded over and top stitched with two (2) rows of lock stitch # 301. All seams shall be stitched with Nomex® thread and sewn to prevent stitches from coming apart by themselves if cut or worn. Stress points such as pockets, pocket flaps, collar, storm flap shall be bar-tacked for increased durability.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

JACKET CONSTRUCTION REQUIREMENTS:			
BODY: The base jacket shall be approximately 32 inches (grading) and cut to assure increased overlap with the pants. The collar line, the collar, the sleeve lengths and the gussets shall be cut in proportion with the chest size of the jacket. The coat design shall include a tapered fit, through an athletic cut and shall be 4 inches shorter in the front than back. The coat shall be constructed of 16 panels in order to provide optimal comfort and fit. The body of the shell and liner system shall be constructed such that there are no seams on top of the shoulder to prevent coat rise and unnecessary abrasion and pressure points. The body panels shall be shaped 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.	YES	NO	EXCEPTIONS:
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 29” in the front and 33” long in the back. 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., shall not be acceptable.	YES	NO	EXCEPTIONS:
DRAG RESCUE DEVICE (DRD): A drag harness shall be installed in the jacket between the outer shell and the liner. The drag harness shall be made of 1” wide supple Kevlar® webbing to limit the abrasion on the moisture barrier. The webbing shall loop around the shoulders starting horizontally below the shoulders at the back, wrap around both shoulders at the front and exit through the outer shell at the back of the neck, below the collar seam. This design increases comfort and reduces the overall coat weight by reducing the amount of webbing between the outer shell and the liner. A flap made of outer shell shall be installed on the back of the jacket at the collar seam. The flap shall be shaped like an irregular pentagon with a rectangular base of 6” wide by 1-1/2” long ending in a triangle. The length of the flap shall be 3”. The flap shall open to give access to the strap of the drag harness. The flap shall be secured in a closed position with the use of a hook and loop fastener 2” inches by 1-1/4” with rounded corners and a box and cross stitching. A piece of silver reflective trim shall be heat applied vertically on the center of drag rescue device flap to clearly identify the drag rescue device handle. The letters DRD shall be etched with	YES	NO	EXCEPTIONS:

a laser in the silver reflective material. The harness shall be held in place between the outer shell and the inner liner by strategically positioned loops under the arm, along the path of the harness to keep it in the optimal position.			
LINER ACCESS OPENING – JACKET: The liner shall be equipped with an inspection port allowing for visual inspection of all sealed seams of the moisture barrier. The inspection port shall use a zipper closure of minimally 16” long.	YES	NO	EXCEPTIONS:
RETROREFLECTIVE FLUORESCENT TRIM: The retro-reflective trim shall be the 3” wide Scotchlite™ Reflective Material - 5687, lime-yellow with silver center, from 3M™. This material is also commonly referred to as segmented triple trim. The trim shall be "NEW YORK" style; one (1) band around the lower portion of the jacket, one (1) band around the back and chest area below the armpit, two (2) bands on each arms, one (1) above and one (1) below the elbow.	YES	NO	EXCEPTIONS:
SEWN ON RETROREFLECTIVE LETTERING: Each Jacket shall have 3” lime/yellow 3M Scotchlite™ lettering on Row B, under neck, reading: CHARLOTTE, “CHARLOTTE” shall be sewn on in the shape of an arch, with the arch rising upwards from the left side, and then back down towards the right side, 3” lime/yellow 3M Scotchlite™ lettering on row C, under reflective trim, reading: FIRE DEPT.	YES	NO	EXCEPTIONS:
LETTER PATCH REQUIREMENTS:			
SEWN-ON LETTER PATCH: There shall be a sewn-on letter patch. This sewn-on letter patch shall be constructed of a layer of outer shell material measuring approximately 3” by 14”, which would accommodate eight 3” letters or a greater number of 2” letters on one line and uniformly sized for all coat sizes. This lettering will be heat-applied, sewn-on L/Y 3M Scotchlite™ material. This letter patch shall be sewn on the tail of the coat, between the bottom reflective trim band and the hem of the coat. Each letter patch will be made to order for the firefighter’s last name. Supplier will coordinate these orders with the Charlotte Fire Department separately from the turnout gear orders. There shall be no minimum order requirements and a reasonable turnaround time is expected.	YES	NO	EXCEPTIONS:

COLLAR & FREE HANGING THROAT TAB:	YES	NO	EXCEPTIONS:
<p>The collar shall consist of a minimum four-layer construction and be of one-piece design. The outer layers shall consist of one layer of specified outer shell material on the outside and a layer of PCA black Advance™ as standard on the inside and two layers of specified moisture barrier. The rear inside ply of aramid pajama check 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 a minimum of 3" 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 outer shell and moisture barrier shall be joined to the body panels with two rows of stitching. The collar's front layers of moisture barrier and outer shell shall have a strip of 5/8" wide FR hook fastener tape stitched to the inside lower edge and running the full length of the collar. The inside strip of 5/8" wide FR hook fastener tape sewn to the underside of the collar shall engage a corresponding piece of FR loop fastener tape on the neck extension of the liner system. A self-material fabric hanger loop shall be sewn at the top of collar.</p> <p>The throat tab shall consist of a minimum 4-layer construction and it shall be of 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 3½" wide at the center tapering to approximately 2" at each end with a total length of approximately 9". The throat tab will be attached to the right side of the collar by a 1" wide by 1½" long piece of Nomex® twill webbing. The throat tab shall be secured in the closed and stowed position with FR hook and loop fastener tape. The FR hook and loop fastener tape shall be oriented to prevent exposure to the environment when the throat tab is in the closed position. A 1½" by 3" piece of FR loop fastener tape shall be sewn horizontally to the end of the throat tab and a 1" by 3" piece of FR hook fastener tape shall be sewn horizontally to the throat tab. A corresponding piece of FR hook fastener tape measuring 1" by 3" shall be sewn horizontally to the leading outside edge of the collar on the left side, for attachment and adjustment when in the closed position and wearing a breathing apparatus mask. The collar closure strap shall</p>			

<p>fold in half for storage with the FR loop fastener tape engaging the FR hook fastener tape.</p>			
<p>JACKET FRONT: The positive closure system shall consist of a heavy-duty Vislon® zipper of approximately 20” long graded to the size of the jacket. The positive closure shall be covered by a one-piece storm flap extending from the bottom of the jacket to the top of the collar to prevent any gaps in the throat area. The one-piece flap shall measure approximately 3” wide and 24-3/4” long. The storm flap and throat closure shall be constructed of three (3) layers: two (2) layers of outer shell and one (1) layer of moisture barrier. The storm flap shall have a special grabber made of outer shell material and closed cell foam padding to help opening the flap with a gloved hand. The grabber shall be approximately 2” high by 3” wide at the widest point and shall be cut at an angle on the bottom. The grabber shall be located at the top of the storm flap. The flap shall be fastened to the front of the jacket by means of FR hook and loop fastener 1-1/2” wide for the full length of the flap and 1-1/2” on the front panel of the outer shell. The hook and loop fastener shall be sewn so that seams are at most 1” apart from one another in order to prevent damage with opening and closing the flap.</p> <p>The moisture barrier in storm flap shall be the SAME as the moisture barrier selected in the MOISTURE BARRIER section of this specification. Use of moisture barrier other than that specified in the MOISTURE BARRIER section are not considered acceptable by this department.</p> <p>Closures with separate throat tabs are not considered acceptable to this department.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>Jacket Back: The coat shall have two (2) extensible gusset installed in the center of the back. These gussets shall measure a minimum of 18” long and offer an extension of approximately 4”. The liner shall also include pleats that work together with the outer shell gussets to increase range of motion. The outer shell gussets shall have an elastic to ensure that the action back retracts when the arms are in the natural position. This feature is essential to help prevent accidentally getting caught in by the gusset. The extremities of these gussets shall be bartacked.</p> <p>The coats shall be equipped with a system allowing air circulation on the back while wearing an SCBA. The</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

<p>Airflow system shall consist of a three-dimensional padding system of heavy-duty and precisely shaped closed-cell foam pads. The pads shall be distributed in a pattern optimized for air circulation and increased thermal protection. The pads shall also have 1/2" diameter holes to enable breathability. An aramid blend mesh shall be used to secure the pads on the thermal barrier. The padding shall extend from below the neck line to the low back and shall help cushioning the SCBA while creating Airflow channels.</p>			
<p>STORM FLAP: A rectangular storm flap measuring 3¼" wide and a minimum 21" 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 backtacks.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>SEMI-EXPANSION (BELLOWS) POCKETS: The coats shall be provided with two (2) bellow pockets measuring approximately 6" high by 9" wide and 2" deep on all sides of the pockets. The pockets shall be fitted with a full width flap measuring approximately 3-1/2" high. The pocket flaps shall have one (1) hook fastener of 4" wide by 2" inch high. The pockets shall have one (1) loop fasteners measuring 4" wide by 2" high. The hook and loop fasteners shall be sewn with lock stitching in a box & cross pattern. The bottom of the pockets shall be provided with two (2) evacuation eyelets. Each pocket shall have two (2) bartack on each lower corner, one (1) bartack on each top corner and one (1) bartack on each side of the pocket flap for a total of eight (8) bartacks.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>RADIO POCKET: The radio pocket flap shall measure approximately 4" high by 3" wide. The radio pocket flap shall have a special grabber made of outer shell material and closed cell foam padding to help opening the pockets with a gloved hand. The grabber shall be approximately 1-1/4" high by 3-1/2" wide at the widest point and shall be cut at an angle on both sides. The grabber shall be located on the bottom edge of the flap. The flap shall close with the use of FR hook and loop fastener of 3" inches high by 2" wide and 2" by 2" on the face of the radio pocket. The radio pocket flap shall have one (1) bartack on each side for a total of two (2) bartacks.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

<p>MICROPHONE STRAP: A loop for a microphone or P.A.S.S. alarm shall be installed above the radio pocket. The loop shall be 1” high and have an opening of approximately 1-3/4” of usable space and be made of the specified outer shell. The loop shall be bartacked at each end to the front of the jacket.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>FLASHLIGHT RETAINER HOOKS: The coat shall have an adjustable loop made of outer shell. The loop shall measure 11” long and be attached to the outer shell with bartacks leaving an opening of approximately 1-1/2”. The loop shall close onto itself with the use of hook and loop fastener. The coat shall also have a metal clip installed so the bottom of the clip is 1-1/2” above the loop. The clip shall be installed on the outer shell with the use of a piece of outer shell folded back onto itself.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>SLEEVES: The sleeves shall be cut full length in proportion with the chest sizes. The sleeve pattern shall include the top of the shoulder in order to avoid having a seam on top of the shoulder and limit coat rise. The sleeve shall consist of four (4) pieces, including one (1) single piece on the side of the body and three (3) on the opposite side. The sleeves shall be shaped like the natural bend of the arm. The elbow seams shall incorporate retro-reflective piping for additional night time and confined space visibility. The sleeve seams shall be positioned so that they do not come in contact with the coat body when the arms are on the sides.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>SLEEVE CUFF REINFORCEMENTS: The sleeve cuffs shall be reinforced with black polymer coated aramid. The cuff reinforcements shall not be less than 2” 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.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>WRISTLETS / SLEEVE WELLS: The glove interface shall be sewn to a waterwell which in turn shall be sewn the outer shell to avoid water penetration in the sleeve and prevent debris from entering the sleeve. The waterwell shall be made of Flame-Resistant Neoprene coated polycotton. The waterwell shall have a shallow design including a WATER EVACUATION SYSTEM to prevent accumulation of water when the arms are raised. This water evacuation system shall consist of two (2) water evacuation eyelets installed on each sleeve. The eyelets shall be positioned so that liquids draining from the eyelets</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

are aiming away from the firefighter's face. This simple design is very light and allows liquids to drain quickly, helping to lower the risks associated with water infiltration and steam burn. A black Nomex® knit wristlet with a thumb hole shall be attached to the waterwell.			
ELBOW REINFORCEMENT: The elbows of the outer shell sleeve shall be reinforced with an extra layer of outer shell material. The overall dimensions of the elbow reinforcement shall measure approximately 7" wide and 9" high.	YES	NO	EXCEPTIONS:
PADDED ELBOWS: Padding for the elbows shall be accomplished with one layer of neoprene-coated aramid batt or similar padding material. The padding shall be sandwiched between the shell and the elbow reinforcement layer. The neoprene shall face outward.	YES	NO	EXCEPTIONS:
ELBOW THERMAL ENHANCEMENT: An additional layer of specified thermal liner material (Aralite NP, #82) 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. All edges shall be finished. Thermal scraps shall not be substituted for full-cut fabric padding.	YES	NO	EXCEPTIONS:
FULL UPPER TORSO THERMAL ENHANCEMENT: An additional layer of specified thermal liner material (Defender M NP, #74) shall be used to increase thermal insulation in the shoulder, upper torso, and upper sleeve areas of the liner system, in addition to the standard shoulder thermal enhancements. This thermal enhancement layer shall drape over the top of each shoulder extending from the collar to the sleeve/shoulder seam and continuing on to meet the elbow thermal enhancements. The 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.	YES	NO	EXCEPTIONS:
PANT CONSTRUCTION REQUIREMENTS:			
BODY: The pant shall be made of ten (10) panels to provide complete range of motion. The pant shall be of regular waist design. The circumference of the waist shall allow the wearer to pull the pants up without restriction.	YES	NO	EXCEPTIONS:

<p>The front to the pant shall measure between 9-3/4” and 12-7/16” from the “Complete Motion Crotch” seam to the top of the waist line and shall be graded with the waist size to provide appropriate overlap with the coat. The back to the pant shall measure between 15-3/8” and 17-7/8” from the “Complete Motion Crotch” seam to the top of the waist line and shall be graded with the waist size to provide appropriate overlap with the coat.</p>			
<p>CONTOURED SADDLE: The rise of the rear pant center back seam, including gusset, 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 pant by approximately 8”. The longer rear center back seam provides added length in the seat for mobility without restriction when stepping up, kneeling, or crawling and maintains proper alignment of the knee, without twisting, directly over the kneepads when kneeling and crawling.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>LINER SYSTEM (PANTS): All “Major B” seams shall be made of seam type SSa-2, including stitch types #504 and #401. The seaming process shall start by aligning two pieces of fabric together and stitching them together with what is commonly referred to as a “5 thread overlock”, using stitch type #516, consisting of stitch types #504 and #401. In addition, the moisture barrier seams shall be sealed. The moisture barrier and thermal barrier component of the liner shall be sewn together at the edges using a piece of bias-cut neoprene and sewn together with one row of lock stitch, consisting of stitch type 301. All moisture barrier seams shall be stitched with Nomex® thread using 12 ± 1 stitches per inch. All thermal barrier seams shall be stitched with Nomex® thread using 10 ± 1 stitches per inch. All seams shall be oriented so that the edges of the thermal barrier and the moisture barrier sealing tape are inside the inner liner.</p> <p>The liner shall be cut a maximum of 3” shorter for the outer shell. A waist band shall be sewn to the inside of the outer shell. A 2” waist band made of thermal barrier and moisture barrier shall be sewn to the inside of the outer shell. The liner shall be attached between the outer shell and the waist band with the use of one (1) full length zipper. The liner shall also be attached to the shell with two (2) tabs with snaps at each leg. The waist band shall be kept in position with the use of five (5) snaps positioned around the waist, further securing the liner to the outer</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

<p>shell. Two additional layers of thermal barrier shall be sewn in the knee area for increased CCHR protection.</p> <p>The liner shall be equipped with an inspection port allowing for visual inspection of all sealed seams of the moisture barrier. The inspection port shall use a zipper closure of minimally 16" long.</p>			
<p>PANT CLOSURE SYSTEM: The positive closure system shall consist of a heavy duty VISLON® zipper of approximately 10" long. The storm flap shall be approximately 2-1/4" wide and 11" long and constructed of two (2) layers of outer shell material. The pant fly flap shall have a special grabber made of outer shell material and closed cell foam padding to help opening the flap with a gloved hand. The grabber shall be approximately 1-1/4" high by 3" wide at the widest point and shall be cut at an angle on one side. The grabber shall be located on the top the flap. The flap shall be fastened to the front of the pants by means of FR hook and loop fastener 2" by 10-3/4" on the flap and 2" by 10-1/2" on the right front panel of the outer shell. 360-degree moisture and thermal protection shall be afforded by overlapping the left and right side of the liner.</p> <p>The pant shall have a removable Nomex® belt shall be made of 2" wide webbing. The webbing shall be passed through six (6) belt loops fixed on the pants. The belt shall include an adjustable high-temp plastic buckle. The belt loops shall be made of outer shell and shall be installed at the waist area of the pants. Each belt loop shall have an opening of 2-1/2" and shall be secured to the pant with lock stitching and bartacks.</p>	YES	NO	EXCEPTIONS:
<p>BIG BOOT CALF: The pant leg shall be adjusted to fit boots with a large shaft and collar.</p>	YES	NO	EXCEPTIONS:
<p>EXTRA WIDE BELT TUNNELS: The pant shall be outfitted to accommodate a Sterling Bolt Escape Belt, Part # SWFBBLA. The pant shall be equipped with a minimum of six (6) belt loops made of outer shell and shall be installed equally spaced around the waist area of the pant. Each belt loop shall be 2" wide, have an opening of 3-1/4" and shall be secured to the pant with lock stitching and bartacks.</p>	YES	NO	EXCEPTIONS:
<p>EXTERNAL/INTERNAL FLY FLAP: The pants will have a vertical outside fly flap constructed of two layers of outer shell material, with a layer of moisture barrier</p>	YES	NO	EXCEPTIONS:

<p>material sandwiched between. The fly flap shall be double stitched to the left front body panel and shall measure approximately 2½” wide by 10” 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” wide by 10” 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.</p> <p>The underside of the outside fly flap shall have a 1½” 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” wide by 9” 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 pants in the closed position.</p>			
<p>PADDED RIP-CORD SUSPENDERS AND ATTACHMENT: The pants shall be equipped with Deluxe H-style removable suspenders. The suspenders shall be constructed of 2” inch wide heavy-duty cotton webbing. The horizontal component of the suspenders forming the H-back shall be made of elastic material to increase comfort when bending forward. The suspenders shall be attached to the pant by passing the ends through high-temp sliders in the belt loops around the waist of the pant and folding each end over onto itself while securing the Hook and Loop fasteners 1-1/2” x 2” sewn with a box and cross pattern. A quick adjust metal “ladderlock” buckle shall be installed on the front of the suspender to tighten or release the suspenders quickly. In addition, a shoulder padding made of neoprene shall be sewn to the shoulder area of the suspenders. The padding shall measure a minimum of 8” long by the width of the webbing. The suspenders shall be cut in proportion to the size of the fire fighter measurements and completely removable for ease of cleaning.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>EXPANSION (BELLOWS) POCKETS (LEFT LEG): The pants shall be provided with two (2) bellow pockets measuring approximately 10” by 10” and 2” deep on all sides of the pockets. The pockets shall be fitted with a full</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

<p>width flap measuring approximately 3-1/2” high. The pant pocket flaps shall have a special grabber made of outer shell material and closed cell foam padding to help opening the pockets with a gloved hand. The grabbers shall be approximately 1-1/4” high by 5-1/2” wide at the widest point and shall be cut at an angle on both sides. The grabbers shall be located on the bottom edge of the flap in the center of the flap. The pocket flaps shall have two (2) hook fasteners of 2” by 2”. The pockets shall have two (2) loop fasteners measuring 2” wide by 1-1/2” high. The hook and loop fasteners shall be sewn with locks stitching in a box & cross pattern. The bottom of the pockets shall be provided with two (2) evacuation eyelets. Each pocket shall have two (2) bartacks on each lower corner, one (1) bartack on each top corner and one (1) bartack on each side of the pocket flap for a total of eight (8) bartacks.</p> <p>The bottom of the pockets shall be reinforced with one (1) layer of Kevlar® from the bottom of the pocket extending to the top of the pockets.</p>			
<p>BAIL OUT / EGRESS POCKET (RIGHT LEG): The pants shall be equipped with one (1) bellow tool pocket replacing the standard pocket. This pocket shall measure approximately 9” by 9” and 2-1/2” deep on all sides of the pocket. The pocket flap shall have a special grabber made of outer shell material and closed cell foam padding to help opening the pocket with a gloved hand. The grabbers shall be approximately 1-1/4” high by 5-1/2” wide at the widest point and shall be cut at an angle on both sides. The grabbers shall be located on the bottom edge of the flap in the center of the flap. The pockets shall be fully reinforced on all sides with one (1) layer of Kevlar® twill from the bottom of the pocket extending to the top of the pockets. The outside of the pocket shall also be reinforced with Polymer coated aramid on the lower portion. There shall also be a pocket divider of Kevlar® twill splitting the pocket horizontally in two compartments. The divider shall be sewn on the inner most side of the pocket and attached to the outer most side of the pocket with FR hook and loop fastener. The pocket flap shall be made of Polymer coated aramid. The pockets shall be fitted with a full width flap and shall be long enough to cover the entire length of the pocket. The pocket flap shall also be cut with a tab extending past the bottom of the pocket to make it easier to grab with a gloved hand. The flap shall close with the use of FR hook and loop fastener. There shall be a loop made of Polymer coated aramid on the face of the pocket to attach a self-rescue carabiner for easy deployment. Two</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

<p>(2) water evacuation eyelets shall be installed at the bottom of each pocket. Each pocket shall two (2) bartacks on each lower corner, one (1) bartacks on each top corner and one (1) bartacks on each side of the pocket flap for a total of eight (8) bartacks.</p>			
<p>ARTICULATED KNEE: The outer shell of the pant legs shall be constructed with horizontal pleats in the knee area with corresponding darts in the liner. In order to provide increased freedom of movement and maximum flexibility, extra material is built into the knee area and this additional fullness is contained by stitching down the pleats on the inside of the shell. The knee reinforcement shall be installed proportionate to the pant inseam, in such a manner that it falls in an anatomically correct knee location. The thermal liner shall be constructed with four darts per leg in the front of the knee. Two shall be located above the knee (one on each side) and two shall be located below the knee (one on each side). On the moisture barrier, the system shall consist of two darts, rather than pleats, to allow added length in the under knee. 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.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>LINER KNEE THERMAL ENHANCEMENT: The knee area shall be designed to enhance mobility with the use of darts and pleats in the outer shell. The knee area shall be molded and articulated to better shape the knee in order to increase flexibility, mobility and comfort. The knee area shall be reinforced by a rectangular piece of polymer coated aramid graded in length in proportion with the pant size and shall be double stitched to the outer shell. A padding made of two (2) layers of thermally stable FR closed cell foam shall be inserted between the polymer coated aramid knee reinforcement and the pant outer shell.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>CATHEDRAL KNEE REINFORCEMENTS: The knee area shall be reinforced with black suede leather. The cathedral shaped knee reinforcement shall be centered on the leg to ensure proper coverage when bending, kneeling and crawling. The knee reinforcements shall measure a minimum of approximately 7” by 12” high at the highest point and shall be double stitched to the outside of the outer shell in the knee area for greater strength and abrasion resistance. The articulated cathedral knee reinforcement shall be constructed by means of two (2) horizontal full-length darts, spaced equidistance over the</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

height of the knee reinforcement and cut and stitched to the shell in such a way that there shall be an arch at the top of the reinforcement, tapering down the sides of the reinforcement with a squared off bottom. Knee reinforcements of a smaller size do not provide the same protective coverage and shall be considered unacceptable.			
PADDING UNDER KNEE REINFORCEMENTS: Padding for the knees shall be accomplished with one layer of Silizone® foam, sandwiched between the thermal liner and moisture barrier.	YES	NO	EXCEPTIONS:
KNEE PAD POCKET: The pants shall have replaceable padding on the inside of the outer shell in the knee area contained in a pocket. The pocket shall be constructed of black outer shell material measuring approximately 7” wide by 10” high. The knee pad pocket shall be sewn to the inside of the outer shell in the knee area on the bottom and two sides. The top of the pocket shall be open to accept the padding material, which will be inserted into the pocket. The padding shall consist of one layer of Silizone® foam.	YES	NO	EXCEPTIONS:
PANT CUFF REINFORCEMENTS: The pant cuffs shall be reinforced with polymer coated aramid. The reinforcement shall include a Nomex® cording to prevent stress points on the reinforcement material and reduce abrasion and repairs. The reinforcement material shall be sewn inside the outer shell to prevent thread abrasion and repairs. The reinforcement material shall be sewn with two (2) rows of locked stitches.	YES	NO	EXCEPTIONS:
REVERSE BOOT CUT: The outer shell pant leg cuffs will be constructed such that the back of the leg is approximately 1” shorter than the front. The liner will also have a reverse boot cut at the rear of the cuff 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 pant cuffs.	YES	NO	EXCEPTIONS:
RETROREFLECTIVE FLUORESCENT TRIM: The retro-reflective trim shall be the 3” wide Scotchlite™ Reflective Material - 5687, lime-yellow with silver center, from 3M™. This material is also commonly referred to as segmented triple trim. The trim shall be "NFPA" style; one (1) band around the lower portion of each leg.	YES	NO	EXCEPTIONS:

<p>SIZING: In order to ensure that every member of the department can safely perform to the maximum of their ability without extra bulk and without restriction, Pants shall be available in all sizes and dimensions as follows:</p> <p>Gender: Gender specific Men’s and Women’s patterns Waist: Even sizes</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>THIRD PARTY TESTING AND LISTING PROGRAM: All components used in the construction of these garments shall be tested for compliance to NFPA Standard #1971 (2018) 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.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>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 - 2018 edition, Underwriters Laboratories classified mark, Manufacturer's name, Manufacturer's address, Manufacturer's garment identification number, Date of manufacture, Size, and Fiber contents.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>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 certified and registered by entering "Yes" or "No" in the space provided.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>DELIVERY: Turnout Gear orders for recruit classes shall be delivered within 4 weeks of a purchase order being delivered, approximately 3 times during the year. Advance notice will be provided on the estimated order and delivery dates for these priority orders. Standard Delivery 45-55 Days</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>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.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>COUNTRY OF ORIGIN: The Garments shall be manufactured in the United States.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

SIZING BY VENDOR: Both male and female sizing samples shall be available.	YES	NO	EXCEPTIONS:
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INNOTEX	INSERT BIDDER'S PROPOSED ALTERNATE PRODUCT/BRAND/MODEL NUMBER: _____		
REQUIREMENTS:			
NFPA COMPLIANCE / REQUIRED CERTIFICATIONS: Design, materials, workmanship, construction and performance shall meet or exceed all NFPA requirements as specified in NFPA 1971, Standard on Protective Ensembles for Structural Fire Fighting and Proximity Fire Fighting 1971, 2018 Edition. The hood shall comply with the Requirements for Optional Structural Fire Fighting Protective Hood Interface Components Providing Particulate Protection (NFPA 1971, Section 7.14).	YES	NO	EXCEPTIONS:
PARTICULATE (CARCINOGEN) BLOCKING: The Particulate Blocking Barrier shall be air permeable and block particulates from .1 to 1.0 microns by greater than 99% (NFPA 1971 requirement is a minimum of 90%) and over 99% after two hundred (200) wash cycles. The particulate Blocking Barrier shall be made using ePTFE barrier and be laminated in between a Nomex Lenzing knit facing outward and a multifilament FR Viscose knit which is in contact with the skin for optimal comfort and moisture wicking properties. The Particulate Blocking Barrier shall provide protection throughout the entire hood.	YES	NO	EXCEPTIONS:
CONSTRUCTION: The hood shall be designed using eight (8) panels for optimal fit and comfort with a full drape coverage around the shoulders. All exposed areas of the head shall use a three-layer construction which has two layers of an outer layer and one inner layer of the particulate barrier / inner layer. A two-layer construction shall be used on areas that are covered by the coat when a firefighter is fully dressed, which reduces bulk effect at the shoulder area. These two layers shall be as following: one layer of outer layer and one inner layer of the particulate barrier / inner layer. All hood panels shall be assembled using Blue TEX 40 Spun Nomex threads using a flat lock seam type FSa-1 with stitch type 607. When measured from top of head to bottom of front and back bib, the hood shall measure 24" long. The bottom hem of the hood shall be finished	YES	NO	EXCEPTIONS:

<p>using a self-material bias binding. This binding is sewn with bottom cover-stitch, stitch type 406.</p> <p>The face opening shall be circular in shape and have a heavy 1/2" wide by 1/16" thick Elastic serged using stitch type 504 around the face opening. The elastic shall not stretch out when worn around the neck and shall offer proper seal on face mask. The elastic shall be wrapped by both the outer layer and particulate blocking barrier and secured in place by a bottom cover stitch, stitch type 406.</p>			
<p>DESIGN: The design of the hood shall guarantee proper seal on the face mask, no matter the head movement, including when head is fully leaning backward, ensuring no exposure of chin and neck skin when the firefighter is fully dressed. The composite of outer layer and inner layer shall meet or exceed the minimum Total Heat Loss (THL) requirement (325W/m²) of the latest edition of NFPA 1971. Minimum THL shall be 328.9. The composite of outer layer and inner layer shall meet or exceed the minimum Thermal Protective Performance (TPP) requirement (20) of the latest edition of NFPA 1971. Minimum TPP shall be 38.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>MATERIALS: The outer layer of the hood shall be a 1x1 rib knit of approximately 8.0 oz/yd², constructed of a blend of 20% DuPont Nomex spun yards, with 80% Viscose (Lenzing) spun yards. The inner layer shall consist of a trilaminate of approximately 4.1 oz/yd² containing the Stedair Prevent Particulate Blocking Barrier and shall be sewn to the interior of the hood. The color of the hood shall be gray.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>COVERAGE: The protection offered by the hood covers the head and neck section and portion of the upper torso of the body.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>
<p>LABELING AND USER INFORMATION: The hoods shall be labeled according to the applicable standards and regulations. An identification label as well as a warning label about use and protection of the hood shall be sewn to the bottom hem of the back bib of the hood. A human readable serial number shall be assigned to the hoods.</p> <p>The hood shall be individually put in a bag that protects them from external elements. The individual bags shall</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

<p>have a label that includes the hood identification number. A user guide shall be included in the bag with each hood.</p>			
<p>WORKMANSHIP AND QUALITY CONTROL: The manufacturer shall ISO 9001:2015 certified, thus assuring quality control procedures in the manufacturing of the fire fighters protective clothing.</p>	<p>YES</p>	<p>NO</p>	<p>EXCEPTIONS:</p>

PRICING SHEET

ITB # 269-2020-031

FIREFIGHTING TURNOUT GEAR

The undersigned proposes to furnish the following items in strict conformance to the bid specifications and bid invitation issued by the City of Charlotte for this Bid. Any exceptions are clearly marked in the attached copy of bid specifications. Please do not include taxes in your Bid.

BIDS ARE DUE NO LATER THAN 11:00 A.M., on MARCH 26, 2020

ITEM	DESCRIPTION	BRAND NAME	STYLE NUMBER	UOM	EST ANNUAL QTY	UNIT PRICE	EXTENDED PRICE	BIDDER'S EQUIVALENT	EQUIVALENT UNIT PRICE	EQUIVALENT EXTENDED PRICE
1	Kombat Flex Turnout Coat	Globe	D2257G	EA	250					
2	Athletix Turnout Coat	Globe	A42NG10	EA	250					
3	Nomex Coat	Globe	D0757G	EA	10					
4	GPS Turnout Pants	Globe	F2257G	EA	250					
5	PBI Max 7oz. Turnout Coat	FireDex	FXRCTPBI7EF	EA	250					
6	PBI Max 7oz. Turnout Pants	FireDex	FXRPTPBI7EF	EA	250					
7	Tecgen 71 Turnout Coat	FireDex	FXRCTTG71EF	EA	250					
8	Tecgen 71 Turnout Pants	FireDex	FXRPTTG71EF	EA	250					
9	Tecgen 51 Technical Rescue Coat	FireDex	TECGEN 51	EA	100					

Section 4 - Required Forms
Form Five

10	Tecgen 51 Technical Rescue Pants	FireDex	TECGEN 51	EA	100					
11	Energy Turnout Coat	Innotex	Energy	EA	250					
12	Energy Turnout Pant	Innotex	Energy	EA	250					
13	Particulate Barrier Hood	FireDex	H-41	EA	1200					
14	Particulate Barrier Hood	PGI	BarriAire Gold	EA	1200					
15	Particulate Blocking Hood	Innotex	Gray 35	EA	1200					
16	Asheville - Turnout Gear Coat	Morning Pride	LTO-4li3TB	EA	50					
17	Asheville - Turnout Gear Pant	Morning Pride	LTO-4li3PB	EA	50					
						TOTAL:			TOTAL:	
PRICING OPTIONS:										
18	Guard Jacket Component	Globe								
19	Guard Pant Fly Component	Globe								
20	Guard Pant Cuff Component	Globe								

Total Bid Price must include all equipment, labor, delivery, installation, consultation, vendor profit and all other costs associated with this project. No additional costs will be allowed.

Section 4 - Required Forms
Form Five

1. Administrative Fees:

The Company **shall** submit a **minimum** of one (1) percent of overall CCPA Program spend by the City and Participating Public Agencies during the term of the Contract to the City as an Administrative Fee. The Administrative Fee shall be paid no later than thirty (30) days after both parties mutually agree to the quarterly report outlining the CCPA spend. The Company shall indicate their Administrative Fee below:

_____ %

2. Non-Core Items – Fixed Percentage Discount

The Company **shall** provide a fixed percentage discount from the List Price (list price less discount) included in the Company’s most current full line catalog identified in the Specifications for all other items (Non-Core) included in the catalog for the life of the Contract.

- a. Insert the verifiable catalog name/edition: _____
- b. Insert the fixed percentage discount for Non-Core Items: _____

3. Pricing Incentives and Rebates:

Please identify any incentive and rebates offered based on volume, dollar amounts, core credits or other criteria below:

Rebate Description	Amount or Percentage

Payment Terms: _____

Delivery After Receipt of Order: _____ The undersigned hereby certifies the Bidder has read the terms of this Bid document, including the sample Contract (Section 5) and is authorized to bind the firm to the information herein set forth.

Date: _____

Company: _____

By: _____
Print name and title of signatory

Signature: _____