THE CITY OF EDINBURG

INVITATION TO BID

BID #2009-59 SOFT BODY ARMOR

The City of Edinburg, Texas is soliciting sealed separate bids for the above referenced as requested by the Police Department. The bid shall be received no later than **3:00 p.m., Monday, July 27, 2009.** Any bid received after the time set for opening will be returned to bidder unopened. Bidder(s) must provide an original and shall be addressed to:

CITY OF EDINBURG
C/O CITY SECRETARY
415 W. UNIVERSITY DRIVE
P.O. BOX 1079
EDINBURG, TEXAS 78540-1079

Bids must be submitted in an envelope sealed with tape and prominently marked on the lower left hand corner of the bid envelope with corresponding bid number and title. All bids will be opened and publicly read aloud at the above designated time at the City of Edinburg (New City Hall) Conference Room, 1st Floor, located at 415 W. University Drive, Edinburg, Texas. Bids sent via facsimile shall not be accepted.

The City of Edinburg reserves the right to accept or reject bids submitted, waive formalities in bidding, accept the bid deemed most advantageous to the City of Edinburg, and to hold the bids for a period of ninety (90) days without taking action thereon. If you have any questions or require additional information regarding this bid, please contact Mr. Octavio Reyes, Lieutenant, at (956) 289-7788.

If you choose not to submit a bid and would like to remain on the City of Edinburg bidder's list for future bids, you must respond in writing.

Sincerely,

Pedro Garza III

Pedro Garza III, Asst. Director of Finance

GENERAL CONDITIONS & INSTRUCTIONS – READ CAREFULLY

1. The bids must be submitted on this form only.
2. The City reserves the right to accept or reject any or all bids, waive formalities, and accept the bid deemed most advantageous to the City.
3. The City reserves the right to award the bid to the lowest responsible bidder.
4. Prices must be itemized.
5. All quotations must be F.O.B. Edinburg and include all costs for delivery and packaging.

   Delivery time shall be specified by the bidder. Failure to state a firm delivery date will make an incomplete bid. Delivery time will be one of the determining factors in selecting the best bid. However, if the delivery time is not met when stated, upon notification of the same, the City may allow a ten-day grace period for delivery. If delivery is not met after the ten-day grace period allowed, the City of Edinburg reserves the right to completely cancel order and to revoke and render void the purchase order previously issued for same.

6. In cases of discrepancy between the unit price and the extension, the unit price will be taken.
7. All bids must be signed by an authorized representative.
8. Envelope containing this bid **must** be marked with **Bid No. and Bid Title** from Page 1 and sealed with tape.
9. Bid guarantee (if applicable) must be submitted with bid.
10. Any bid received after the time set for opening will be returned to bidder unopened.
11. This bid tabulation shall constitute a binding contract subject to acceptance by the City.
12. Special reference is made to bid specifications (if attached) for other conditions and instructions.
13. Failure to adhere or comply with the above general conditions and instructions will cause the bid to be rejected.

In compliance with the invitation for bid, and subject to all conditions thereof, the undersigned offers, and agrees, if this bid be accepted within 90 days from **time of closing**, to furnish any or all of the items or render such services upon which prices are quoted in accordance with the bid specifications applying, and at the price set opposite each item.

For bid inquiries, please call the Purchasing Agent at (956) 388-8204, Extension 8970.

DATE:_____

BID PRICE:_____

DELIVERY DATE:_____

BIDDER NAME:_____

AUTHORIZED SIGNATURE:_____

TITLE:_____

MAILING ADDRESS:_____

TELEPHONE NO.:_____

E-MAIL ADDRESS:_____

FEDERAL ID #:_____

INVITATION TO BID

ASSIGNED BID NO.: **2009-59**

BID TITLE: **Soft Body Armor**

CLOSED DATE & TIME: **July 27, 2009 @ 3:00 PM**

SPECIFICATIONS ATTACHED XX

DELIVER SEALED BID TO: **CITY OF EDINBURG**
C/O CITY SECRETARY
415 W. UNIVERSITY DRIVE
P.O. BOX 1079
EDINBURG, TEXAS 78540

ADDENDUM ONLY _____

Quotations are requested for furnishing materials or services described below in accordance with terms set forth herein.

ITEM	QUANTITY	DESCRIPTION OF GOODS OR SERVICES	UNIT PRICE	AMOUNT
1	23	Soft Body Armor as per attached specifications	$_____	$_____
2	23	Additional VISION™ SFT™ (Smart Fabric Technology™) Carrier System with ThorShield™ Technology	$_____	$_____
3	23	Optional Tactical Outer Carrier	$_____	$_____
4		Shipping	$_____	$_____
		GRAND TOTAL		$_____
		Note: The City reserves the right to accept or reject bids submitted, waive formalities in bidding, consider each item submitted as a separate bid, award all or individually, whichever may be more advantageous to the City, and to hold the bids for a period of ninety (90) days without taking action thereon. The City reserves the right to increase or decrease quantities, depending on availability of funds.		

SPECIFICATIONS
For Purchase of Soft Body Armor
VISION™ Armor Series
Model FX-IIIA
NIJ 0101.04 / NIJ 2005 Interim Requirements
Level IIIA

1. SCOPE

This product specification details the style and quality of soft body armor system intended for use by male or female members of this agency. The soft body armor system can be worn comfortably under a shirt as concealed armor or as the ballistic inserts in a tactical outer garment. All soft body armor system shall provide penetration resistance against labeled projectile penetration while reducing resultant blunt trauma and vest distortion to acceptable levels. The successful vendor shall be required to supply the individual vests with applicable options and colors as ordered for male or female personnel.

The soft body armor system shall be the Point Blank Body Armor Model FX-IIIA for NIJ 0101.04 / NIJ 2005 Interim Requirements, for Threat Level IIIA. Bids based on body armor models made by manufacturers other than Point Blank Body Armor must be clearly identified as such, and bidders must include full product description, a complete bid sample, male and female, drawings and/or photographs, technical specifications.

Where the apparent low bidder has proposed an alternate product, that bidder shall demonstrate product equivalency to the satisfaction of the department. Evidence of equivalency shall be presented for each requirement of this specification, and the burden of such equivalency in entirely on the vendor. Any bidder may be required, at any time during the procurement process, to provide documentation proving compliance with any or all the terms of this specification.

Only body armor models, which have been tested by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC), and found to comply with NIJ Standard 0101.04, Ballistic Resistance of Police Body Armor and NIJ 2005 Interim Requirements for Type IIIA armor, shall be submitted under this specification. No exceptions.

Bids with multiple models, as alternates will be rejected.

2. SILENCE OF SPECIFICATIONS

Commercially accepted practices shall apply to any detail not covered in this specification and to any omission of this specification. Any omission or question of interpretation of the specification which affects the ballistic performance or integrity of the soft body armor being offered shall be addressed in writing and submitted with the bid.

3. PROTEST

Any protest based on the selection and performance criteria of this specification will be disregarded.

4. APPLICABLE DOCUMENTS

The following list of standards and specifications in effect on the date of this solicitation shall form a part of this specification.

1. National Institute of Justice, Standard NIJ-STD-0101.04, Ballistic Resistance of Police Body Armor / NIJ 2005 Interim Requirements

2. MIL-STD-662F, V50 Ballistic Test for Armor

3. ASTM D 6193, Standard Practices for Stitches and Seams.

5. ANSI/ISO/ ASQ Q9001-2000 Certification

Requirements of this specification shall take precedence over the above referenced standards and specifications.

5. PURCHASE REQUIREMENTS

The successful bidder must be a recognized wholesaler/retailer, which maintains a convenient location for measurement, fitting and service during regular business hours Monday through Friday. Any manufacturers, which bid direct, must include a service proposal as to how measuring, re-works, and customer service will be maintained without local distribution. Direct bids from manufacturers, which do not contain a detailed service proposal, will be rejected.

6. SPECIFIC QUANTITY

The agency has the right to determine quantity, if not otherwise specified in the procurement document. Of the total quantity purchased, both male and female products will be represented. The department retains the right to adjust the total quantities, while maintaining the accepted bid price, without notification to vendor. The term of the contract, including extensions, and/or escalation clauses, shall be stated in the bid document.

7. DESIGN REQUIREMENTS

The Intended use of the soft body armor system detailed herein is intended to be standard issue armor. It is intended for routine daily wear as an undergarment or as the ballistic inserts in a tactical outer garment.

The soft body armor shall be designed to provide:

1. Light and thin NIJ certified armor in Level IIIA.
2. A high degree of concealment and comfort.
3. Minimum restriction of motion or mobility.
4. Optional carriers to allow for laundering and color changes.
5. Provide resistance against the labeled projectiles in accordance with the NIJ Standard 0101.04. / NIJ 2005

8. GENERAL DESIGN

The ballistic panels of soft body armor system meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor system shall be designed for regular daily wear as an undergarment or in a tactical garment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level IIIA, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and mobility.

8a. CONCEALABLE DESIGN

The ballistic panels of soft body armor meeting this specification shall provide thin, flexible, lightweight comfort utilizing high performance ballistic materials. The soft body armor shall be designed for regular daily wear as an undergarment. Therefore, vests shall be designed and constructed to provide (1) light and thin NIJ certified armor in Level IIIA, (2) durability, (3) ease of cleaning, (4) minimum restriction of motion or mobility, and (5) the greatest amount of ballistic coverage consistent with comfort and concealment
The general configuration shall be the slipover vest type that covers the majority of the upper torso, including side coverage. Two removable/replaceable elastic Breathe-O-Prene® shoulder straps and four removable/replaceable elastic waist straps with hook and pile fasteners shall provide proper positioning and comfort. The entire vest perimeter shall be curved. No sharp corners or straight edges shall be allowed.

The front ballistic panel shall cover the chest approximately up to the collar bone, have a scooped neck sufficient to maintain conceal ability when wearing an open collar shirt, extend downward to the waist but not far enough to "push up into the throat" when the wearer is seated, and extend around the sides to provide side protection. The biceps/chest region shall be cut with sufficient space to minimize irritation and restriction of arm movement during common duties such as the operation of motor vehicles. The outer shell carriers shall include front and rear 5" x 8" / 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts.

The rear ballistic panel shall cover the back of the torso from just above the shoulder blades down to a position above the waist belt. In addition, unless otherwise stated, the maximum gap at each side shall be two inches.

Female models shall be designed specifically for the female torso and shall have allowances for bust configuration.

Panels shall be equipped with an integral self suspending ballistic system (SSBS). The SSBS must provide direct support to the ballistic panels to keep them sagging and creasing at the bottom of the carrier.

Each piece of soft body armor shall include the following:

1. One (1) set of ballistic panels.
2. Integral self suspending ballistic system (SSBS).

3. Removable 4 point 2" elastic waist straps
4. One (1) complete VISION™ SFT™ (Smart Fabric Technology) washable Carrier System with ThorShield™ technology.
5. Front and Rear 5" x 8" / 8" x 10" Combo pockets.
6. One (1) Trauma Reduction insert.

9. OPTIONS

1. Additional **VISION™ SFT™** (Smart Fabric Technology™) Carrier System with ThorShield™ technology.
2. Removable & Replaceable 6 point 2" elastic adjustable straps.
3. Removable & Replaceable 4 point 4" elastic adjustable straps.
4. Removable & Replaceable 4" Elastic Cummerbund.
5. X-Static® Tee Shirt.
6. Quilted outer carrier.
7. R20-D tactical outer carrier.
8. Additional removable & Replaceable Breathe-O-Prene® shoulder straps.

9a. TACTICAL OUTER GARMENT OPTIONS

1. **Dragon Fire** Tactical Vest.
2. **Dragon Fire** Tactical Vest with ***ThorShield***™ EMD, TASER® device resistant technology.
3. **Swat Cert Plus** Tactical Vest.
4. **Swat Cert Plus** Tactical Vest with ***ThorShield***™ EMD, TASER® device resistant technology.
5. **Nato Swat** Tactical Vest.
6. **Nato Swat** Tactical Vest with ***ThorShield***™ EMD, TASER® device resistant technology.

*** For tactical applications, this specification must be accompanied by a separate Tactical Outer Garment Specification. Refer to the Tactical Outer Garment Specification for specific details and options.*

10. BALLISTIC PANEL MATERIALS

All materials shall be new, unused and without flaws that affect appearance, durability and function.
The ballistic panels shall be constructed of a matrix of Aramid UD, Woven Para-Aramid fabric, and Polyethylene UD. No other ballistic material shall be used.

As the department has selected these materials, any bids, which represent products manufactured from other materials, shall be rejected. Accordingly, all bidders shall include a letter from the manufacturer stating that the products being submitted for consideration are manufactured from 100% first quality Aramid UD, Woven Para-Aramid fabric, and Polyethylene UD.

11. PANEL CONSTRUCTION

All vests, which are submitted, shall represent armor, which in layer count, is uniform throughout the ballistic panel. Accordingly, any ballistic panel, which is not uniform, in layer count, throughout the entire ballistic package, shall be rejected.

It is the intent of the agency to procure the lightest weight, best performing personal armor available in relation to Areal density, therefore, a vest section of 12" x 12" (one square foot), must not exceed 14.0 oz. (.88 lbs.) per square foot for NIJ level IIIA. Sample weights are (+/- 5%).

12. BALLISTIC PANEL PERFORMANCE

V50 Performance
Each bidder shall submit V50 test reports for the vest being offered. The V50 test shall be performed in accordance with MIL-STD-662F using NIJ Standard 0101.04 test projectiles. The test must be performed by an independent laboratory approved by the National Institute of Justice (NIJ) National Law Enforcement Technology Center (NLETC) for testing in accordance with NIJ Standard 0101.04. The V 50 test shall be against clay backing. V 50 reports, which represent testing without clay backing, shall be rejected. Vendor shall provide written certification that all V 50 testing is accomplished with clay backing; failure to provide certification shall be cause for rejection. Test reports submitted by the bidder shall reflect the following minimum test results for a 14.0 oz. (.88 lbs.) per square foot test sample. Blunt trauma reduction is an important aspect of armor design. Sample weights are (+/- 5%). Blunt trauma reduction is also an important aspect of armor design.

	9mm	44 Mag
V50 (fps)	1822	1690
V50 (m/s)	555	515
BFS (mm)	28	42
BFS (in)	1.10	1.65

Special Threat Performance

In addition, each bidder shall submit V50 test reports for the vest being offered for the Special Threats listed below and shall reflect the following minimum test results.

9mm 115gr S&B	9mm 127gr SXT	357sig 125gr	2gr RCC	4gr RCC	16gr RCC	17gr FSP	64gr RCC
1799	na	1744	2567	2319	2012	1882	1696

Bid submissions, which do not meet these ballistic performance requirement, will be rejected.

13. LABELING

Label material shall withstand normal wear and cleaning and remain readable during the entire warranted life of the armor or carrier.

All soft body armor shall be labeled in strict adherence to the labeling requirement set forth in NIJ Standard 0101.04 / NIJ 2005 Interim Requirements. The ballistic panel labeling shall include, but not be limited to the following:

1. Name of Manufacture
2. Level of Protection
3. NIJ 2005 Interim Requirements
4. Date of Manufacture
5. Size
6. Serial Number
7. Model of Vest
8. Care Instructions

14. BALLISTIC PANEL COVER MATERIAL

This department recognizes the importance of protecting the ballistic panel from exposure to environmental elements. Also, the department is aware that high degrees of "moisture Vapor Transmission" (WVT) through the ballistic panel cover may allow moisture to migrate into the fibrous structure of the ballistic panel thus causing a reduction in ballistic performance. **Therefore, potential bidders who offer ballistic panel covers that claim to "Breathe" or allow high levels of "Moisture Vapor Transmission" to pass through them will not be considered.** This department will only consider armor systems that incorporate a Ballistic Panel Barrier System. The Barrier System must exhibit a high degree of water repellency and resistance to MVT. The Barrier system will have a water repellant treatment on its exposed surface that resists moisture and staining. In addition, the Barrier System will incorporate a Nano-Technology, Anti-Microbial/Anti-Fungal treatment that inhibits the growth of mold and bacteria. The interior of the Barrier System will incorporate an all weather film laminate technology to further enhance resistance to moisture migration and MVT. This department will only accept offers from potential suppliers who can provide laboratory test reports indicating that the ballistic panel Barrier System being offered provides the following minimum protection on a per lot basis:

Characteristic	Requirement	Test Method
Determination of resistance to water penetration - Hydrostatic pressure test (mm)	> 10,000	ISO-811
Water Vapor Transmission (gms/sq mtr / 24 hrs)	< 550	ASTM E96 D (inverted)
Wet-flex after 24 hours	No delamination	BWW –24H
Resistance to water penetration after	>90 1/	ASTM D751

exposure to diesel fuel (psi)		
Resistance to water penetration after exposure to sea water (psi)	>100 1/	ASTM D751
Resistance to water penetration after exposure to alcohol (psi)	>100 1/	**ASTM D751**

*** Each fabric shall be completely submerged in particular fluid for a period of 24 hours and line-dried.*

15. CONCEALABLE VEST OUTER CARRIER MATERIAL

Removable Carrier- VISION SFT with ThorShield™

The machine washable carrier shall be removable from the ballistic panels for laundering. The carrier systems body side fabric shall consist of smooth fit SFT™ micro-fiber with Nano Technology micro-encapsulated phase change temperature regulation and Anti-Microbial bacteria, mold and mildew deterrent. To eliminate uncomfortable body side seams and bulges, there shall be no zippers or hook & loop closures against the body. The exterior of the outer-shell will utilize Super-Suede Micro-Fiber with a mid-torso horizontal zipper for improved insertion and removal of the ballistic panel cover. Low profile loop will be used for strap attachment points to reduced bunching and pulling of the uniform shirt. The interior of the carrier at the shoulders shall have attachment points made of low profile loop to allow for internal suspension of the ballistic panel via tabs of hook. This enables the wearer to utilize separate external shoulder straps. In addition, the carrier shall be designed so that it can accommodate the Self Suspending Ballistic System (SSBS). The outer shell carriers shall include front and rear 5" x 8" / 8" x 10" combination plate pockets designed to accommodate trauma, ballistic or blade inserts. ***The outer-shell shall incorporate ThorShield™ technology to provide protection against TASER® devices and other similar types of Electro-Muscular Disruption (EMD) shock weapons. Outer shells that do not incorporate ThorShield™ technology will not be accepted.***

Carrier shall be manufactured from a dimensionally stable first quality material with less than 5% shrinkage. The outer side of the carrier shall be manufactured from first quality Super-Suede Micro-Fiber, and have a Soil Resistant Finish (SRF). All fabrics shall have no visible fabric or color flaws.

16. QUALITY CONTROL

The manufacturer must maintain a ANSI/ISO/ ASQ Q9001-2000 Certification quality program. The documented quality control system must be designed to insure the integrity and quality of the manufactured products. The quality control system shall control all manufacturing process and incoming raw materials. The manufacturer must have an in-house ballistic laboratory capable of performing ballistic testing of incoming raw materials and in-process samples. The manufacturer must have the capability of performing testing in accordance with MIL-STD-662F and NIJ Standard 0101.04. Procedures for lot testing of incoming raw materials and in-process samples must be incorporated into the quality control system.

All incoming ballistic material shall undergo V50 ballistic lot tests in accordance with MIL-STD-662F with exception of using a clay backing conditioned in accordance with the requirements of NIJ 0101.04.

Every vest panel manufactured shall be inspected for material defects, proper ply counts, and for proper ballistic panel stitching. Covers and accessories shall be re-inspected during manufacturing for defects at selected points during manufacturing to assure the absence of hidden defects in the final item.

In addition, each vest shall receive a final inspection prior to shipment. This inspection shall include a review of the quality control check sheet and confirm the product against the customer's order.

17. SERIAL NUMBERS

Each unit of soft body armor delivered shall have an individual serial number. Each serialized soft body armor shall be traceable to its original ballistic material lot number and ballistic material mill roll number. Additionally the soft body armor serial number shall be traceable to an incoming material lot test and ballistic panel lay-up lot test.

18. LOT TESTING

All incoming ballistic material shall undergo V50 ballistic lot test in accordance with MIL-STD-662F except that the test will be conducted on clay backing which meets the requirements of NIJ Standard 0101.04 for backing material.

19. MEASUREMENTS AND FITTING:

Concealable Custom Measuring
Unless otherwise stated, individual measurements will be taken of each user. Each delivered vest shall fit in accordance with

the following guidelines:

1. The side edges of the front and back ballistic panels shall be fit for within a two-inch (2") gap between panels during the initial custom fitting.

2. The bottom edge of the front ballistic panel shall be within inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in a relaxed seated position.

3. The bottom edge of the back panel shall be within one-inch (1") of the highest waist belt (usually the duty belt) measurement when the wearer is in the standing position.

Female sizes are determined based on individual measurements, including bust size.

20. FIT AND ALTERATION POLICY

The manufacturer shall perform all required alterations of more than one inch within 30 days after original shipment of the product at no charge. Adjustments of an inch or less than an inch can be accomplished by utilizing the adjustable strap feature on the vest.

21. POST CERTIFICATION RETEST POLICY
USED VEST EVALUATION RECOMMENDATIONS

The release of the NIJ August 24, 2005 Special Report entitled ***Third Status Report to the Attorney General on Body Armor Safety Initiatives Testing and Activities*** and the ***NIJ 2005 Interim Requirements for Bullet-Resistant Body Armor*** has created some confusion in the law enforcement community regarding the expectations of performance of new and used vests. In order to provide our customers with guidance in this area we offer the following recommendations that we hope will help in providing them with the tools that will help them make informed decisions in buying new armor as well as replacing used armor.

The Point Blank Solutions Inc. (PBSINC) encourages valid body armor testing for the purpose of acceptance testing of new vests, and to be used as an administrative tool for the evaluation of used body armors as an indicator for replacement cycles. For these purposes PBSINC, which includes Point Blank Body Armor and Protective Apparel Corporation of America (PACA), only recognize and recommend properly, performed V-50 Ballistic Limit Testing in strict accordance with MIL-STD-662F and Section 5.22 of the NIJ 0101.04 Standard. All testing will be performed at an NIJ approved ballistic test laboratory. For the purposes of acceptance testing on new armors the 9mm 124 grain projectile, as specified in the NIJ Standard 0101.04, will be utilized.

Each Probable Ballistic Limit (V50) test shall be conducted on a complete vest. The V50 shall be calculated on ten fair hits, with five shots on the front panel and five shots on the back panel. If required, up to 12 shots, 6 in each panel may be used to obtain the V50 value. If the range of mixed results exceeds 125 feet per second (38 meters per second) or if the V50 cannot be determined in 12 shots, the test will be considered invalid. Shot placement shall be in accordance with MIL-STD-662F except that no shot may be within three (3) inches of any edge or two (2) inches from any other ballistic impact. Panels shall be shot against clay armor backing material, which has been conditioned in accordance with NIJ Standard 0101.04.

Prior to each shot, the panel will be placed flat against the clay backing material. The sample size shall be size 46/48 or larger for male and female vests. For acceptance testing, vest samples shall be new and in unused condition.

Minimum Representative Sample. In order to have valid test data, a minimum representative sample must be tested. For new vests acceptance testing the minimum representative sample should be 3 vests (6 panels). In the case of used vest evaluation testing, the minimum representative sample size should be 5 vests (10 panels). Representative samples should be of the same model and in the case of used vests, the same Wear Rating category.

New Vest Requirements

For acceptance testing of new, unused vests, the armor should be expected to have a 9mm 124 grain FMJ V-50 average that is above the NIJ Reference test velocity for that class of armor. In addition, the Low Complete (LC) average for the representative sample should not be below the NIJ Reference velocity and within 3σ of the model's Certification Baseline V50. If a representative sample V-50 or LC average results are below NIJ Reference test velocity, then three additional representative samples sets will be tested to verify the results of the initial testing. For acceptance, the V-50 and LC average results of <u>all three</u> additional representative samples sets must be no lower than the NIJ Reference test velocity for that class of armor.

<u>NIJ 0101.04 Reference Velocities</u>

Armor Class	Bullet	Reference Velocity
Level IIA	9mm 124 grain FMJ	1120 fps (+- 30)
Level II	9mm 124 grain FMJ	1205 fps (+- 30)

Level IIIA	9mm 124 grain FMJ	1430 fps (+- 30)

Used Vest Evaluation
Used body armor evaluations are necessary and will help the consumer or organizational administrator in determining when to replace armor that is past its practical service life. The following information and recommendations are offered and may be useful in making these determinations.

Vests that are in service will experience some loss of ballistic performance as a result of normal wear. The amount of wear or lack of proper care is closely related to the amount of performance lost. Therefore it is critical that body armor is cared for and stored as recommended by the manufacturer.

Armor should be inspected on a regular basis for signs of unusual wear and/or improper care. Armors that are found to be in poor condition or have breaks in the ballistic cover should be replaced as soon as practical.

It should be clearly understood that wear rates are not directly related to time in service or length of the manufacturers warranty. Armor wear is similar to automobile tire wear. Some drivers wear out tires faster than others. Similarly, some officers wear out their vests sooner than others. Vests that are worn out should be replaced regardless of the time it has been service or the length of the manufacturer's warranty.

Used Vest Inspection and Rating
Due to the potential wear condition variability of used vest samples each vest sample must be inspected on a regular basis for wear condition and any indications of abuse or improper care. After inspection the samples should be Wear Rated according to their condition and samples grouped accordingly. Recommended Wear Ratings categories are listed below:

Wear Rating #1 - Good condition. Light wear, no set wrinkles or stains, ballistic cover intact.

Wear Rating # 2 - Fair condition. Moderate wear, some set wrinkles at edges, light staining, and ballistic cover intact.

Wear Rating # 3 - Poor condition. Heavy wear, set wrinkles, staining of ballistic the cover, No breaks in the ballistic cover or open seams. ***Replacement should be considered.***

Wear Rating # 4 - Very poor condition. Very heavy wear, creases, folds, set wrinkles. Staining or signs of mildew or chemical contact. Breaks in the ballistic cover or open seams. Ballistic cover very worn or worn through. ***Should be replaced.***

If ballistic testing is conducted, it should be expected that used vest samples will show some performance degradation over new unused vest samples. It should also be expected that some *Wear Rated #3 and #4* vests will show performance degradation that may be below the NIJ 0101.04 reference velocity. Although this may be the case in some *Wear Rated #3 and #4* vests, it should be understood that the actual street velocity is lower than the NIJ 0101.04 reference velocity.

Used Vest Evaluation Testing
Wear Ratings of #1, # 2 or #3 - Good Fair and Poor condition. When testing representative sample groups with *Wear Ratings of #1, # 2or #3,* the V50 Ballistic Limit average from the representative sample set should be ***no lower than the actual street velocity for that bullet as posted by the bullet manufacturers***. In addition, the LC average for the representative sample should ***not be below the actual street velocity for that bullet as posted by the bullet manufacturers.*** If a vest representative sample set V-50 or LC average is below the ***actual street velocity for that bullet as posted by the bullet manufacturers***, then three additional representative samples sets should be tested to verify the initial testing. If any of the additional representative samples sets V-50 or L C results fall below ***the actual street velocity for that bullet as posted by the bullet manufacturers***, then it is recommended that the representative group be replaced.

Wear Rating # 4 - Very poor condition. Since vests in this category should be replaced, there should be ***no specific expectation of ballistic performance***. Although some vests in this category may still provide ballistic protection, tests results will not be consistent and therefore cannot be relied upon.

Manufacturers Bullet/Cartridge Muzzle Velocities for NIJ Bullets

Caliber	Bullet	Muzzle Velocity	Manufacturer
40 S&W	180 Gr. FMJ	985 FPS	Remington
40 S&W	180 Gr. FMJ	**990 FPS**	Winchester
40 S&W	180 Gr. FMJ	985 FPS	American Eagle
9MM	124 Gr. FMJ	1100 FPS	Remington
9MM	124 Gr. FMJ	**1140 FPS**	Winchester
9MM	124 Gr. FMJ	1120 FPS	American Eagle

357 Mag.	158 Gr. JSP	1235 FPS	Remington
357 Mag.	158 Gr. JSP	1235 FPS	Winchester
357 Mag.	158 Gr. JSP	**1240 FPS**	American Eagle
44 Mag.	240 Gr. SJHP	1180 FPS	Remington
44 Mag.	240 Gr. SJHP	**1180 FPS**	Winchester
44 Mag.	240 Gr. SJHP	1180 FPS	American Eagle

22. PRODUCT LIABILITY INSURANCE

Vest manufacturer shall agree to provide a minimum of $26,000,000 product liability insurance coverage on delivered vests.

23. WARRANTY

THIS WARRANTY IS EXPRESSLY IN LIEU OF OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND OTHER WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OR TRADE. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, THAT EXTEND BEYOND THE WARRANTY PERIOD SET FORTH HEREIN. The warranty herein shall be void if the product has been altered, abused, or misused, stored improperly or not cleaned in accordance with cleaning instructions.

The ballistic or stab elements are warranted to be of the same construction and design as the original N.I.J. certified model listed on the label. The design of the bullet or stab resistant elements of this system have been tested and certified by the National Institute of Justice and passed the compliance requirements of the NIJ Standard for Ballistic or Stab Resistance of Personal Body Armor for the level stated on the label. These bullet or stab resistant elements are warranted for five years from date of purchase to be free from manufacturing defects. Upon timely notice, Point Blank will repair or replace any vest / plate in which, after examination by Point Blank, Point Blank determines there is a manufacturing defect. Should the soft body armor ballistic or stab panel cover be compromised (cut, torn or worn through), it should not be worn and immediately returned to Point Blank for inspection and repair. If the damage is the result of normal wear and tear, the damage will be repaired free of charge. If however, the damage is the result of improper care, storage or abuse, determined solely by Point Blank, then Point blank will advise the owner of recommended repair or replacement costs. In any event, the owner will be responsible for the cost of returning the vest to the factory.

The ballistic or stab resistant elements of this system will reduce the possibility of serious physical injury to the wearer in the areas covered by the ballistic or stab elements. There is NO protection where there is no ballistic or stab resistant element. **When worn**, the ballistic or stab element is warranted to be bullet or stab resistant for the life of the warranty under normal wear conditions and proper maintenance. ***There should be no expectation of bullet or stab resistance in areas not covered by the ballistic or stab element.*** **The ballistic or stab element is not warranted to be bulletproof or stab proof.**

This warranty does not cover and is void as to:

- Any ballistic or stab element that has been altered or modified in any way other than Point Blank authorized factory alterations.
- Any ballistic or stab element not in a Point Blank outer shell carrier.
- Damage as a result of abuse or misuse.
- Damage as a result of improper storage or maintenance.
- Penetrations as a result of ballistic or stab testing.
- The results of any specific ballistic or stab testing.
- Injury as a result of bullets or other projectiles or instruments not impacting the ballistic or stab element.

The outer shell carrier is warranted to be free from manufacturing defects for 24 months from the date of purchase.

The above warranty is the only warranty in effect on this product, **THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, THAT ARE IN EFFECT.**

Rev. March 5, 2008

24. PACKAGING

All soft body armor shall be packaged and shipped consistent with good commercial practices.
Shipping Cartons: The soft body armor shall be packed into suitable corrugated cardboard box. The box shall allow for normal shipping without damage to the soft body armor.

25. DOCUMENTATION

The following documents, certifications, test-reports and samples must be included with the vendor's bid. Where one manufacturer is bidding through multiple vendors, the manufacturer may submit the appropriate paperwork on behalf of all vendors. Failure to submit the following shall be cause for rejection:

1. Models made by manufacturers other than Point Blank Body Armor must be clearly identified and shall include the following:
   a. Full product description.
   b. Complete bid sample, male and female.
   c. Drawings and/or photographs.
   d. Technical specifications.

2. Manufacturers bidding direct must include a service proposal as to how measuring, alterations and customer service will be maintained without local distribution.

3. NIJ 0101.04 / NIJ 2005 Interim Requirements certification and test reports from an accredited laboratory for the vest being certified.

4. V50 test reports performed in accordance with MIL-STD-662F. V50 testing must be accomplished with clay backing.

   a. V50 test reports must be submitted for the ballistic package for both NIJ calibers for that class.

5. Quality Control Procedures.

   a. Incoming materials
   b. Lay-up configuration
   c. In-process configuration
   d. Testing verification
   e. Inspection of ballistic panel stitching
   f. Random final product inspection and continuous in-process surveillance
   g. Quality Assurance training and indoctrination

6. Product Liability Insurance providing a minimum coverage of $26,000,000.

7. Documentation stating the coverage and limitations of the 5-year ballistic package warranty.

8. Documentation stating the coverage and limitations of the 24-month outer-shell cover warranty.

Technical Specifications
FX-IIIA
Level IIIA
Concealable / Tactical Armor System

Model	***FX-IIIA***
Ballistic Material	Aramid UD - Woven Aramid - Polyethylene UD
NIJ Level	IIIA
Weight	14.0 Oz. / .88 lbs. Sq. Ft. (+/- 5%) / .39 Kilograms Sq. Ft (+/- 5%)
Thinness	.19 inches (+/- 5%) / 4.8 mm (+/-5%)
Outer Shell	VISION SFT with ThorShield™

	9mm	**44 Mag**
V50 (fps)	1822	1690
V50 (m/s)	555	515
BFS (mm)	28	42
BFS (in)	1.10	1.65

Special Threats

	9mm 115gr S&B	9mm 127gr SXT	357sig 125gr	2gr RCC	4gr RCC	16gr RCC	17gr FSP	64gr RCC
V50 (fps)	1799	na	1744	2567	2319	2012	1882	1696
V50 (m/s)	**548**	**na**	**532**	**783**	**707**	**613**	**574**	**517**

SPECIFICATIONS
FOR THE PURCHASE OF TACTICAL CARRIER

1. Scope

This purchase description document establishes the design and configuration requirements for the R 20 D Outer shell. It describes a lightweight carrier, which will accommodate ballistic panels while providing load-carrying capabilities.

2. Configuration

This carrier is designed to be worn externally to other clothing and shall not only provide a means of wearing armor but also provide load-carrying capabilities. The exterior of the garment shall provide removable identity both front and rear. Identity shall be three (3) inches high and read "POLICE" in white lettering. The front of the carrier shall provide five pockets to carry equipment such as, but not limited to, the following: mini-flashlights, side arm magazines, handcuffs, long arm magazines, communications equipment and general utility items. Two web straps, one on each shoulder, shall provide a location to attach communications equipment or badges. The interior shall provide a means to hold the ballistic panels within the carrier. A cummerbund shall be adjustable and close at the front. Side closure shall be accomplished with a combination elastic and Velcro® system.

With the optional lightweight ***ThorShield***™ technology integrated into the garment, it will resist TASER® device EMD shock and protect the wearer from these types of weapons.

3. Options

- ***ThorShield***™ TASER® device, EMD resistant technology.
- Yellow "POLICE" identity
- White "SHERIFF" identity
- Yellow "SHERIFF" identity
- Nomex® Fire Retardant Outer shell
- Firearms instructor configuration
- Emergency Medical Technician (EMT) Configuration
- Front and rear 8" x 10" ballistic plate pockets

4. Sizes

Measurements shall be taken at locations to be advised by the Department.

Standard sizes:

38-40

42-44

46-48

50-52

54-56

5. **Caution:** Length of ballistic panel must be specified for proper fit. Failure to do so may result in vest sitting too low in liner resulting in inadequate protection in critical areas.

Size, Identification & Instruction Label

Each carrier shall be labeled in accordance with the requirements of NIJ Standard 0101.04.

6. **Materials**

Fastener Tape, Hook and Pile

The hook and pile fastener tapes shall conform to the requirements of the Velcro® manufacturer, Style H88 and L1000.

7. **Cloth Nylon**

The outer shell material shall be a 500/1000 -denier Nylon® Cordura® with a water-repellant urethane coating. Color shall be Navy, ACU Camouflage or O.D. Green as specified. Special colors available upon request.

8. **Elastic**

The elastic for the side closure straps shall be approximately eight (8) inches wide and of good commercial quality.

9. WARRANTY GARMENT

THIS WARRANTY IS EXPRESSLY IN LIEU OF OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR PARTICULAR PURPOSE AND OTHER WARRANTIES ARISING FROM A COURSE OF DEALING, USAGE OR TRADE.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, THAT EXTEND BEYOND THE WARRANTY PERIOD SET FORTH HEREIN.

The warranty herein shall be void if the product has been altered, abused, or misused, stored improperly or not cleaned in accordance with cleaning instructions.

These garments are warranted for two years from date of purchase to be free from manufacturing defects. Upon timely notice, Point Blank will repair or replace any garment in which, after examination by Point Blank, Point Blank determines there is a manufacturing defect.

This warranty does not cover and is void as to:

- Any garment that has been altered or modified in any way other than Point Blank authorized factory alterations.

- Any ballistic element not a Point Blank NIJ Certified model.
- Damage as a result of abuse or misuse.
- Damage as a result of improper storage or maintenance.

The outer shell carrier is warranted to be free from manufacturing defects for 24 months from the date of purchase.

The above warranty is the only warranty in effect on this product, **THERE ARE NO OTHER WARRANTIES, EXPRESSED OR IMPLIED, THAT ARE IN EFFECT.**
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