SECTION: 10 26 41
BULLET RESISTANT PANELS

PART 1 – GENERAL

1.1 SUMMARY

A. Section includes bullet resistant fiberglass panels.

1.2 REFERENCES

A. American Society for Testing and Materials:
   1. ASTM E119-98 Standard Test for One-Hour Fire-Rating of Building Construction and Materials
   2. ASTM F1233-98 Standard Test Method for Forced Entry Testing of Materials/Assemblies, body passage requirement, Class IV
   3. ASTM E 90-97 Standard Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions, STC 35
   4. ASTM E 413-87 Classification for Sound Insulation Rating
   5. ASTM E 1332-90 Classification for Determination of Outdoor-Indoor Transmission Class, OITC 34
B. International Organization for Standardization:
   1. ISO 9001:2008 Quality Management System
C. National Institute of Justice Ballistic Standards:
   1. NIJ Standard 0108.01 – Type III
D. Small Business Administration:
   1. SBA Small Business Size Standard
E. Underwriters Laboratories:
   1. UL 752 Specifications and Ammunition, 11th Edition, Standard for Bullet Resisting Equipment published September 9, 2005, revised December 21, 2006, Level 8
F. The United States Department of State:
   1. The International Traffic in Arms Regulations (ITAR)

1.3 SUBMITTALS

A. Submittals for Review: Submit for approval prior to fabrication.
   1. Product Data: Include specifications, brochures, and samples.
   2. Recommendations for installation of Bullet Resistant Fiberglass Panels available in print document and video link.
B. Certificates: Submit printed data to indicate compliance with following requirements.
   1. **UL LISTING Verification** and **UL752 Current Test Results** as provided by Underwriters Laboratories.
   2. ASTM E119-98 One-Hour Fire Rating of Building Construction and Materials.
   3. ASTM F1233-98 Standard Test Method for Forced Entry Testing of Materials/Assemblies.
   4. ASTM E 90-97, E 413-87, E 13320-90 Classifications for Sound Transmission Loss.
   5. Manufacturer's third party certificate of registration with ISO 9001:2008.
   6. Manufacturer's U.S. Dept. of State ITAR Statement of Registration.
   7. Manufacturer's SBA Profile verifying small business status by the SBA.

1.4 DELIVERY, HANDLING, AND STORAGE

A. Deliver materials to project with manufacturer's **UL LISTED Labels** intact and legible.
B. Handle material with care to prevent damage. Store materials inside under cover, stack flat and off the floor.

1.5 WARRANTY

A. Warrant all materials and workmanship against defects for a period of ten (10) years from the date of Substantial Completion.

PART 2 – PRODUCTS

2.1 MANUFACTURER

A. Design Basis: Contract Documents are based on ArmorCore by **Waco Composites**, (Waco, TX 76710, phone: 254-752-3622, toll free: 866-688-3088, email: sales@armorcore.com, web: www.armorcore.com)

2.2 PERFORMANCE CRITERIA

A. Bullet Resistant Fiberglass Panels shall be "non ricochet type" to permit the encapture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration.
B. Panel Rating: UL752 Level 8.
C. Bullet resistance of joints: equal to that of the panel.

2.3 MATERIALS

A. Panels fabricated of multiple layers of woven roving ballistic grade fiberglass cloth impregnated with a thermoset polyester resin and compressed into flat rigid sheets.
B. Thickness: 1 7/16" nominal thickness
C. Nominal Weight: 15.2 lbs. per sq. ft.
D. Available Panel Sizes: [3' x 8'] [3' x 9'] [3' x 10'] [4' x 8'] [4' x 9'] [4' x 10'] [5' x 8'] [5' x 9'] [5' x 10'] [Custom]
E. Panels manufactured in the United States of America with raw materials sourced from the U.S.A. for quality assurance purposes and to comply with any applicable "Buy American" provisions.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to starting installation, verify work of related trades required in contract documents and architectural drawings is complete to the point where work of this Section may properly commence.

3.2 JOINTS

A. Reinforce joints with a back-up layer of bullet resistive material. Minimum width of reinforcing layer at joint shall be 4-inches, centered on panel joints.

3.3 APPLICATION

A. Install armor in accordance with manufacturer's printed recommendations and as required by contract documents.
B. Secure armor panels using screws, bolts, or an industrial adhesive.
   1. Method of application shall install panels minimizing vulnerabilities by fitting tightly to adjacent surfaces including concrete floor slab, concrete roof slab, bullet resistive door frames, bullet resistive window frames, and the like.

END OF SECTION 10 26 41