TSS BULLET RESISTANT ALUMINUM DOOR & FRAME ASSEMBLY

PART 1 GENERAL

1.1 REFERENCE


1.2 SUBMITTALS

A. The following shall be submitted by the manufacturer in accordance with Sections 13070 and any Special Contract Requirements: Submit for approval prior to fabrication: samples, product data (including preparation, storage and installation methods), cuts & anchor spacing, reinforcement & location, product specifications, shop drawings, test reports (current UL Listing Verification & UL 752 Test Results as provided by Underwriters Laboratories), and printed data in sufficient detail to indicate compliance with the contract documents.

B. Provide manufacturer’s instructions for installation and cleaning of TSS Bullet Resistant Aluminum Door Assemblies. All required submittals shall be approved prior to installation.

1.3 DESIGN PERFORMANCE

A. Through the design, manufacturing techniques and material application the TSS Bullet Resistant Aluminum Door shall be constructed of an extruded aluminum in 6061-T6 alloy/tempered. With a UL Standard 752 Level 3 protection rating. Door and frame to have no exposed fasteners, corner joints shall consist of extruded and keyed aluminum spline with continuous 3/8” diameter steel tie rod at door top and bottom rails. All joints and connections shall be tight, providing hairline points and true alignment of adjacent members. Panels shall not be removable from threat side. Door system to be available in Right hand, left hand and reverse swings.

B. Standard door to defeat ballistic assaults from a .44 magnum superpower small arms handgun as tested with UL 752 Level 3 Standards at Underwriters Laboratories.

C. Door stiles, top rails and bottom rails will be lined with hardened steel to meet Level 4 and 5 UL standards

1.4 QUALITY ASSURANCE

A. Manufacturer shall be a Company that specializes in manufacturing products of the specified type with a minimum of five years experience. Installer shall be a Company that specializes in product type specified. Manufacturer shall provide a sample with color/finish to the Architect for approval prior to start of work.

1.5 DELIVERY, STORAGE & HANDLING

A. Delivery the materials to the project with the manufacturer’s UL Listed Labels intact and legible. Handle the materials with care to prevent damage. Store materials inside and under cover, stack flat and off floor. Project conditions (temperature, humidity, and ventilation) shall be within the maximum limit recommendations set by manufacturer. Do not install products that are under conditions outside these limits.

1.6 WARRANTY

A. All materials shall be warranted against defects for a period of 1 year for the date of receipt at the project site. Certificates of manufacturer’s standard limited warranty shall be provided at project completion.

PART 2 PRODUCTS

2.1 ACCEPTABLE MANUFACTURERS

A. Products shall be manufactured by: Total Security Solutions, Inc, 170 National Park Drive, Fowlerville, MI 48836, 800-513-1468, Attn: Sales Department, info@tssbulletproof.com, Web: www.tssbulletproof.com. No substitutions shall be accepted.
2.2 PRODUCT: BULLET RESISTANT STOREFRONT FRAMING LEVEL 3

A. Bullet Resistant Door System: Total Security Solutions Bullet Resistant Aluminum TSS-BL3-DR Bullet Resistant Door System. All joints and connections shall be tight, providing hairline joints and true alignment of adjacent members. Corner joinery shall consist of heavy duty extruded and keyed aluminum splines with continuous 3/8 inch diameter tie rod construction. Glazing must not be removable from the threat side of the door. Provide to dimension heights and widths indicated on the Drawings.

1. System shall be designed to defeat ballistic assaults from a .44 magnum handgun in accordance with UL 752, Level 3.
   a. Standard Aluminum Doors: Top rail and stile 2-3/4” (70 mm), Bottom rail 8-1/2” (216 mm) including glass stops. Note:  5 ¼” wide stile rails available upon request
   b. Aluminum Door and Sidelight Frames and Extrusions: 1 ¾” (44mm) x 4” (102mm), Structural section .125” thickness
   c. Standard Glazing: LP-1250 Polycarbonate/Acrylic Laminate, 1-1/4” thick, 7.7lbs/sf. UL 752, UL=3, 44 mag. Note: Door can be glazed to meet levels 1-5 as per UL standards
   d. Hardware: Select SL-11HD continuous aluminum gear hinge, Adams Rite MS1850 deadlock, with Adams Rite 4510 Series mortise thumb turn and or Keyed mortise cylinder, 9” aluminum pull handle and door width push bar as selected by architect. LCN 400 series heavy duty door closer.

2. Door Frame Construction: Frames shall provide equal UL protection level as door, non-ricochet type, Aluminum ballistic extruded aluminum in 6061-T6 alloy, aluminum finish. Door hardware includes: HD continuous hinge, push/pull handle, mortised lock, overhead closer. Optional hardware: exit devices, electric strike plate, and custom security hardware. Shipped fabricated and ready for field installation.

1) Sizes: 2 3/8” thick narrow stile door rails with 1 ¾” x 4” BR aluminum jamb __________ (specify color)

B. Finish: Clear Anodized Aluminum, Dark Bronze Anodized Aluminum or Custom painted surface (organic acrylic enamel or Kynar High Performance Coating, please specify color) (select one)

PART 3 EXECUTION

3.1 PREPARATION

A. Prior to installing the bullet resistive material, the contractor shall verify that all supports have been installed as required by the contract documents and architectural drawings, and approved shop/CAD drawings, if required. Installer shall notify architect of any unsatisfactory preparation that is responsibility of another installer.

B. Clean and prepare all surfaces per manufacturers recommendations for achieving the best results for the substrate under the project conditions.

3.2 INSTALLATION

A. Do not begin installation until openings have been verified and surfaces properly prepared in accordance with Drawings. Install in accordance with manufacturer’s instructions and UL 752. Set all equipment plumb.

B. TSS Bullet Resistant Aluminum Door shall be installed in accordance with manufacturer's instructions. Install plumb, level, square, true to line, and without warp or rack. Provide all fasteners required for installation. Anchor frames securely in place to supports. Use attachment methods permitting adjustment for construction tolerances, irregularities, alignment, and expansion and contraction. Separate aluminum from other metal surfaces with bituminous coatings or other means approved by Architect. Sheet Metal Flashing: Coordinate with sheet metal flashing as specified in Section 07620. Joint Sealants: Install joint sealants as specified in Section 07920.
3.3 POST APPLICATION

A. TSS Bullet Resistant Aluminum Door shall be installed in accordance with manufacturer’s printed recommendations, including adhering to anchoring and finishing details. Method of application shall maintain the bullet resistive rating at junctures with concrete floor slabs, the concrete roof slabs, the bullet resistive door frames, the bullet resistive window frames and all required penetrations.

B. Inspection and Cleaning: Verify installation is complete and complies with manufacturer’s requirements. Clean product and accessories, removing excess sealant, labels and protective covers.

C. Touch-up, repair or replace damaged products before Substantial Completion.

D. Product Warranty: Applicable warranty shall be issued to owner upon final release of completed project.

**end of section**