

SPECIFICATIONS

Ballistic Resistant Windows

Part 1 - General

1.1 Scope

- a) **Scope of work:** Furnish all ballistic resistant security windows as required.
- b) **Ballistic Safety Requirements:** The Deansteel Manufacturing or equal window assembly must meet a Bullet Resistant level of protection that will comply with UL 752 ____ (specify level 1-8), NIJ 0108.01 Bullet Resistant Standards, or ASTM F1233.
- c) **UL Fire Rating Requirements:** The Window assembly by Deansteel Manufacturing or equivalent manufacturer can be UL rated from a 45 minute to a 90 minute rating.
Level 1 rated for $\frac{3}{4}$ hour. The max height and width shall not exceed 95" with the total glass area not exceeding 5,605 square inches.
Level 2 rated for 1 $\frac{1}{2}$ hour. The max height and width shall not exceed 95" with the total glass area not exceeding 3,724 square inches.

1.2 Quality Assurance

- a) **Experience:** Work provided for this section shall be designed and furnished by one manufacturer. The manufacturer must have been engaged in the manufacture of the product specified in this section for at least (5) years immediately prior to the start of work.
- b) **Test Requirements:** The window assembly shall be tested and must meet the level of protection specified in section 1.1.b Ballistic Safety Requirements by an independent laboratory to applicable ASTM F1233, NIJ and UL 752 Standards.
- c) **Fire Rating Test Requirements:** Window assemblies shall be tested and must meet the level of protection specified in section 1.1.c UL Fire Rating Requirements by an independent laboratory to UL 10b and UL 10C.

1.3 Submittals

- a) **Shop Drawings:** Shall include a Window Opening Schedule identifying the location of each opening in relation to the floor plan/layout provided. Elevation drawings shall illustrate the frame profiles, sizes, anchor type, glass thickness and glass type. The Shop Drawings must be submitted to the architect/owner for approval prior to fabrication of the window assembly.
- b) **Ballistic Safety Compliance:** The manufacturer of the windows assembly shall submit the independent test report from an accredited licensed agency. The test report information must specify compliance with the protection level specified under section 1.1.b Ballistic Safety Requirements.
- c) **Installation Manuals:** One (1) copy will be sent with first shipment.

1.4 Steel Standards

- a) **ASTM A1008:** Steel Sheet, Cold Rolled, Commercial Quality.
- b) **ASTM A653:** Galvanealed Steel
- c) **ASTM A666:** Stainless Steel Type 304 or 316

1.5 Warranty

All materials and workmanship shall be warranted by Deansteel Manufacturing or acceptable manufacturer against any defects for a period of one (1) year from date of delivery to the job site.

Part 2 – Products

2.1 Materials: Bullet resistant window assemblies shall be manufactured with materials consistent with the ballistic threat level specified by the architect or the end user.

2.2 Construction:

- a) Products shall comply with applicable ASTM F1233, NIJ 0108.01 or UL 752 standards.
- b) All work shall be strong, rigid, and neat in appearance; square, true, and free of defects, warp, or buckle.
- c) Windows shall have trim faces welded and finished smooth.
- d) All windows are to be thoroughly cleaned and phosphatized to inhibit corrosion.
- e) Windows are to receive one coat of gray rust inhibiting primer.
- f) There will be no exposed fasteners on the threat side of the opening. Glazing will be mounted from the secure side of the opening.
- g) Window assemblies will be manufactured in strict accordance with designs and specifications used to fabricate units tested by

an independent laboratory as required under the Quality Assurance portion of this section.

2.3 Glazing:

- a) Bullet resistant glazing shall be specified by the architect or end user and shall be consistent with the ballistic threat level.
- b) Glazing material shall comply with applicable ASTM F1233, NIJ 0108.01 or UL 752 standards.
- c) Glazing sealants, neoprene or silicone, and setting blocks shall be provided by the supplier of the bullet resistant glazing.

Part 3 – Shipping and Handling

- a) Windows will be crated for shipment as per standard domestic shipping procedures.
- b) Windows shall be received by the contractor at the job site and handled in a manner so as not to be damaged.
- c) Windows shall be stored upright in a protected area on wood runners or skids in a cool dry place.
 - o Wood runners must be a minimum of 4" in height in case of any standing water.
 - o Place a 1/4" spacer between stacked doors and frames to allow for proper air circulation.
 - o Doors and frames must be protected from weather and humidity by well ventilated canvas or plastic covering.
 - o Please remove any cardboard wrapper that has become wet or humid.
- d) Window assemblies shall be F.O.B. Deansteel Manufacturing - San Antonio, Texas or other manufacturer's location.