



**Bullistic Barriers LLC** provides Bullet Resistant products that provide aesthetically pleasing ballistic protection that eliminates ricochet, is non-combustible, and is practically unscalable.

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## BULLET RESISTANT FENCE

**MasterFormat 2020:**

**Section 32 31 00    Fences and Gates**

### **Notes to Specifier:**

1. Where several alternative parameters or specifications exist, or where, the specifier has the option of inserting text, such choices are presented in **<bold text>**.
2. Explanatory notes and comments are presented in *italicized colored* text.

## Level 8 BULLET RESISTANT FENCE

### PART 1 GENERAL

#### 1.01 SUMMARY

1. Section includes an aluminum fence, furnished with all components, and designed and tested to provide bullet resistance per UL-752, Standard for Bullet-Resisting Equipment, levels 1, 2, 3, 4, 5, 6, 7, and 8. It also covers all three classifications outlined in the National Institute of Justice (NIJ), and MIL-SAMIT Ballistic Standards.

#### B Related Requirements

1. Division 03 Concrete
  - a. 03 00 00 Concrete
2. Division 08 Openings
  - a. 08 34 56 Security Gates
3. Division 28 Electronic Safety and Security
  - a. 28 10 00 Access Control
4. Division 31 Earthwork
  - a. 31 60 00 Special Foundations and Load Bearing Elements

#### 1.02 REFERENCES

##### A Reference Standards

1. Underwriters' Laboratories (UL)
  - a. UL 752 - Standard for Bullet-Resisting Equipment
    - 1) Level 1: 9 mm, 124 grain, full metal copper jacket with lead core; 1175 -1293 ft/sec;  
3 shots
    - 2) Level 2: .357 Magnum, 158 grain, jacketed lead soft point; 1250 - 1375 ft/sec;  
3 shots
    - 3) Level 3: .357 Magnum, 240 grain, lead semi-wadcutter gas checked; 1350 - 1485 ft/sec;  
3 shots
    - 4) Level 4: 30 30-06, 180 grain, lead semi-wadcutter gas checked; 2540 to 2794 ft/sec;  
1 shot
    - 5) Level 5: .30 7.62, 150 grain, full metal copper jacket with lead core; 2750 to 3025 ft/sec.  
1 shot
    - 6) Level 6: 9 mm, 124 grain, full metal copper jacket with lead core; 0400 - 1540 ft/sec;  
5 shots
    - 7) Level 7: .223 5.56, 55 grain, full metal copper jacket with lead core; 3080 to 3388 ft/sec.  
5 shots
    - 8) Level 8: .30 7.62, 150 grain, full metal copper jacket with lead core; 2750 to 3025 ft/sec  
5 shots
    - 9) Level 1: Thru 3 SG 12 gauge 2 3/4"

1 shot

10) Level 1: Thru 3 SG 12 gauge Buckshot

1 shot

2. National Institute of Justice (NIJ)
  - a. NIJ Standard 0108.01 Ballistic Resistant Protective Materials, Armor Types I , II, III
3. MIL-SAMIT Ballistic Standards
  - a. MIL-SAMIT .30 7.62 NATO, 147 grain M80; 2750 to 2850 ft/sec  
25 shots
4. ASTM International
  - a. ASTM B117 - Practice for Operating Salt-Spray (Fog) Apparatus
  - b. ASTM B221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles and Tubes
  - c. ASTM D822 - Practice for Conducting Tests on Paint and Related Coatings and Materials using Filtered Open-Flame Carbon-Arc Light and Water Exposure Apparatus

### 1.03 SUBMITTALS

- A Product Data
  1. Manufacturer's printed or electronic data sheets
  2. Manufacturer's installation and operation manuals
  3. Independent testing agency certification of product performance satisfactory to Owner's representative.

### 1.04 QUALIFICATIONS

- A Manufacturer's products shall be manufactured in the United States of America.

## END OF SECTION

## PART 2 PRODUCTS

### 2.01 EQUIPMENT

- A Manufacturer: Bullistic Barriers, LLC  
1406 West Kings Highway  
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- B Models: Level 8 Fence
- C Alternates: None

### 2.02 DESCRIPTION

- A The Level 8 bullet-resistant fence ("fence") shall be an aluminum fence skeleton, furnished with all components required to provide a complete structure including panels, panel tops, posts, post caps, and gates.

### 2.03 MATERIAL

- A Material for the fence structure, to include posts, panel skins and panel tops, shall be aluminum conforming to ASTM B221.
  - 1. Aluminum extrusions shall conform to Alloy and Temper Designation 6063 T6 or 6061 T6.
- B The engineered panel shall be processed through a 7 step, blasting, multi-stage pretreatment, prime and powder-coat topcoat. Topcoat shall be Tiger Drylac AAMA 2604 Super Durable Series 38 Argento 314 38/90018.
- C Aluminum castings shall be used for post caps.  
*In a coastal environment, specify Alloy 535 for maximum corrosion resistance.*

### 2.04 CONSTRUCTION

- A Posts to accept the fence panels shall be 6"x 8" H-posts.
- B Post spacing shall be 10 feet on-center unless otherwise noted in drawings.  
*10 foot is typical spacing value for a 119 inch wide panel with a 2 foot louver top. Consult factory for additional height options and spacing requirements.*
- C The fence panel shall be 2 ½ inch nominal thickness in a tongue and groove design.
- D Footing as specified is calculated to 90mph wind load.

### 2.05 PERFORMANCE

- A The fence shall meet the following ballistic requirements:
  - a. UL-752 Levels 1, 2, 3, 4, 5, 6, 7 and 8
  - b. NIJ-I, NIJ-II, NIJ-III, 2 levels of ammo, 5 shots
  - c. 12 GA. shotgun, 2 ¾ slug and buck shot
  - d. MIL-SAMIT .30 7.62 NATO

### 2.06 AESTHETIC

- 1. The Manufacturer shall offer as a minimum the following appearance options:
  - a. Cascade
  - b. Classic
  - c. Contemporary
  - d. Louvre
    - d1. Louvre can be placed at a 45-degree angle for wind to pass through but engineered to provide Level 3 Bullet Resistance on a horizontal plane.
    - d2. Louvre can be placed at a 45-degree angle for wind to pass through but engineered to provide Level 8 Bullet Resistance on a horizontal plane.
  - e. Modern
  - f. Villanova

**END OF SECTION**

## **PART 3 EXECUTION**

### **3.01 INSTALLERS**

- A Installers will be pre-accredited by Bullistic Barriers LLC.
- B Contractor personnel shall comply with all applicable state and local licensing requirements.

### **3.02 PRODUCT HANDLING AND STORAGE**

- A Upon receipt at the job site, all materials shall be verified to ensure that no damage occurred during shipping or handling. Materials shall be stored in such a way that will ensure protection from damage, weather, vandalism and theft.

### **3.03 PREPARATION**

- A All new installation shall be laid out by the contractor in accordance with the construction plans.

### **3.04 INSTALLATION**

- A Contractor shall follow Manufacturers recommended installation guidelines.
- B Fence Installation
  - 1. Post holes shall be dug, and posts shall be installed in accordance with engineered specifications. Details include rebar location/ diameter/ number, hole depth/ width, and properly concreted.
  - 2. Drilling holes, cutting open, or otherwise tampering with the ballistic integrity of the manufactured Level 8 panel shall be prohibited without the clear written consent of the Manufacturer.
- C Gate Installation
  - 1. Gate posts shall be spaced according to the manufacturers' gate drawings. Manufacturer's provided hinges and hardware shall be installed in conformance with intended application.

**END OF SECTION**