



Total Security Solutions  
935 Garden Lane  
Fowlerville, MI 48836  
866 734-6277  
[www.tssbulletproof.com](http://www.tssbulletproof.com)

## SECTION 08 56 53

### TSS BR TRANSACTION WINDOW - HORIZONTAL SLIDER

**(Specifier Note:** The purpose of this guide specification is to assist the Specifier in correctly specifying bullet resistant aluminum framing assemblies with their installation as security windows.

The Specifier must edit this guide specification to fit the needs of each specific project. References have been made within the text of the specification to MasterFormat section numbers and titles. The Specifier must coordinate these numbers and titles with sections included for the specific project.

Throughout the guide specification, there are Specifier Notes to assist in the editing of the file. Brackets have been used to indicate when a selection is required. Contact a TSS representative for further assistance with appropriate product selections.)

#### PART 1 - GENERAL

##### 1.1 SECTION INCLUDES

- A. Prefabricated bullet resistant horizontal sliding aluminum frame windows with cash transaction tray.

##### 1.2 REFERENCES

- A. Underwriters Laboratory UL 752-Standard for Bullet Resisting Equipment.
- B. ASTM E119-98- Standard Test Methods for Fire Tests of Building Construction and Materials.
- C. ASTM B 209/B 209M- Standard Specification for Aluminum and Aluminum Alloy Sheet and Plate.
- D. ASTM A 666-Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate and Flat Bar.

##### 1.2 ACTION SUBMITTALS

- A. Refer to Section **[01 33 00 Submittal Procedures]** **[Insert section number and title]**.
- B. Product Data: For each type of framing **[and glass]** including manufacturer recommended installation instructions.

- C. Shop Drawings: Include plans, elevations, sections, details, attachment to other work **[and glazing details]**.
- D. Samples: For each exposed finish.

### 1.3 INFORMATION SUBMITTALS

- A. Manufacturer's Instructions: for installation and cleaning of TSS Bullet Transaction Window Assemblies. All required submittals shall be approved prior to installation.
- B. Product Test Reports: Indicating compliance with requirements
- C. Warranty: Sample of finish warranty

### 1.4 CLOSEOUT SUBMITTALS

- A. Refer to Section **[01 78 00 Closeout Submittals]** **[Insert section number and title]**.
- B. Maintenance data.

### 1.5 DELIVERY, STORAGE AND HANDLING

- A. Refer to Section **[01 60 00 Product Requirements]** **[Insert section number and title]**.
- B. Protect windows and accessories in accordance with AAMA CW-10 "Care and Handling of Architectural Aluminum from Shop to Site" until Substantial Completion.
- C. Deliver materials to the project site 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 provided by manufacturer. Do not install products stored in conditions outside manufacturer's recommended limits.

### 1.6 WARRANTY

**(Specifier Note: The 5 year finish warranty applies to the Class I anodic finishes and the 10 year applies to the 70% PVDF coating finish.)**

- A. Workmanship Warranty: All materials shall be warranted against defects for a period of **[1]** year for the date of receipt at the project site. Provide certificates of manufacturer's standard limited warranty with closeout documents.
- B. Finish Warranty: Manufacturer's warranty against deterioration of factory finishes for the period of **[5]** **[10]** years from the date of Substantial Completion.



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(**Specifier Note:** Product information is proprietary to TSS. If additional products are required for competitive procurement, contact TSS for assistance in listing competitive products that may be available.)

## PART 2 - PRODUCTS

### 2.1 MANUFACTURED UNITS

#### A. Basis of Design:

1. Subject to compliance with requirements, provide products by the following:
  - a. Total Security Solutions, Inc., 935 Garden Lane, Fowlerville, MI 48836, 866 734-6277. Attn: Sales Department, [sales@tssbulletproof.com](mailto:sales@tssbulletproof.com). Web: [www.tssbulletproof.com](http://www.tssbulletproof.com).
2. Subject to compliance with requirements and approval by Architect, manufacturers of products of equivalent design may be acceptable if approved in accordance with **[Section 01 25 00 Substitution Procedures] [Insert section number and title]**.

#### B. Design Performance:

1. Through the design, manufacturing techniques and material application, the TSS Horizontal Sliding Transaction Window shall be of the "non-ricochet" type. This design is intended to permit the capture and retention of an attacking projectile lessening the potential of a random injury or lateral penetration.
2. This assembly shall provide single transaction positions utilizing the "horizontal sliding" configuration. This design shall employ horizontal sliding track to allow for physical movement on transaction window. Each transaction position may have a stainless steel dip tray as shown on the drawings.
3. Components must be manufactured in strict accordance with the specifications, design and details. All vision panels shall be cut to size with all exposed edges polished. Necessary holes shall be pre drilled and tapped where required.
4. Stainless Steel assembly screws and acrylic spacers shall be provided. Clear anodized angles and channels shall be provided. Anchor screws shall be provided by the installer.
5. No field alterations to the construction of the units fabricated under the acceptable standards shall be allowed unless approved by the manufacturer and the Architect.
6. Standard manufacturing tolerances +/- 1/16" shall be maintained.

### 2.2 PERFORMANCE CRITERIA

(**Specifier Note:** DELETE Ballistic and Blast resistance requirements that are not project specific.)

## A. Ballistic Resistant:

1. Level **[1] [2] [3]** in accordance with UL 752 – Testing for Ballistic Resistance for the complete assembly including framing, glazing and panels.

## 2.3 FABRICATION

- A. Aluminum sections to be manufactured in accordance with ASTM B209, Extruded aluminum alloy 6063 T5 Anodized to match the existing décor and be free of sharp edges or burrs when in place.
- B. Glazing Channel: U-Channel specifically designed for securing transparencies tightly in place. Angles and stops are only acceptable for top attachment.
- C. Tolerances: All joints and connections shall be tight, providing hairline joints and true alignment of adjacent members

## 2.4 FRAMING FINISH

## A. Factory-applied finish:

**(Specifier Note: SELECT the project specific finish from the following. Baked Enamel may also be available but may require minimum quantities.)**

1. **[Clear Anodic Finish]:** Architectural Class I, clear coating AA-M10C22A41 Mechanical Finish Chemical Finish: etched, medium matte; 0.70 mils minimum complying with AAMA 611 "Voluntary Specification for Anodized Architectural Aluminum"
2. **[Color Anodic Finish]:** Architectural Class I, color coating AA-M10C22A42/A44 Mechanical Finish Chemical Finish: etched, medium matte; 0.70 mils minimum complying with AAMA 611 "Voluntary Specification for Anodized Architectural Aluminum".
  - a. Color: Dark Bronze.
3. **[Powder Coated Finish]:** Provide a baked enamel finish in accordance with AAMA 2603 with total dry film thickness not less than 0.8 mil.
4. **[Custom Painted Finish]:** Provide paint finish on 18 gauge primed steel in accordance with Section **[09 923 Interior Painting]** in type and color as selected by Architect.

- B. Cap the bottom of glazing with the corresponding finish material selected for frame.



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## 2.5 GLAZING

- A. Glazing shall be \_\_\_\_\_ as shown on the drawings or as specified separately in **[08 88 53 Security Glazing] [Insert section number and title]**.

(**Specifier Note:** SELECT glazing based on threat level and architect's preferences from the following Bullet-Resisting Glazing Material Options. Remove glazing levels not used.)

1. **Bullet Resistant Level 1**  
3/4" LP 750 Laminated  
3/4" LP 750 All Polycarbonate  
1 1/4" Uncoated Acrylic  
GCP 750
2. **Bullet Resistant Level 2**  
1" LP 1000 Laminated  
1" LP 1000 All Polycarbonate  
1 3/8" Uncoated Acrylic  
TSS 002 L/S
3. **Bullet Resistant Level 31**  
1/4" LP 1250 Laminated  
1 1/4" TSS-003 L/S Glass Clad  
1 1/4" LP 1250 Laminated  
1 1/4" LP 1250 All Polycarbonate  
TSS 003 L/S
4. **Bullet Resistant Level 4-5**  
TSS 004 L/S & TSS 005 L/S

- B. Acrylic: All acrylic pieces shall meet or exceed UL 752 testing for ballistic integrity. All edges of acrylic shall be filed, sanded after cutting to remove rough edges and then polished until "water clear" transparent. All through holes for fasteners shall be 3/8" in diameter and be drilled clean. Chipped edges at through-hole exit points are not acceptable. All acrylic pieces shall be supported in the proper glazing channel designed for this purpose (see aluminum, Section D).

- C. Glazing gaskets:

1. Interior: Closed cell neoprene.
2. Exterior: Solid neoprene.
3. **[Manufacturer's standard glazing gaskets.]**

## 2.6 ACCESSORIES

- A. Anchors: Fully concealed manufacturer recommended.



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- B. Mounting plates and connecting clips shall be fabricated from 1/8" thick clear polycarbonate.

(Specifier Note: SELECT Cash Tray options.)

- C. Cash Tray:
  - 1. Location: **[Counter Mounted] [Recessed].**
  - 2. Finish: Brushed Stainless Steel #4 finish.
  - 3. Material: 18 gauge stainless steel.
  - 4. Dimensions: 16" x 8" from the outside edge of flanges with a clear opening.
  - 5. Provide a shelf 1 1/2" thick by full width of window to accommodate recessed cash tray. The countertop shall be 1'-6" deep and centered under the window. Countertop material shall be:
    - a. **[Black high pressure laminate.]**
    - b. **[Stainless steel 18 gauge #4 finish.]**

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Prior to beginning installation, verify that all supports have been installed as required by the Contract Documents and architectural drawings, and Shop Drawings have been approved.
- B. Notify Architect of any unsatisfactory preparation that is responsibility of others.
- C. Clean and prepare all surfaces per manufacturers recommendations as required for achieving the best results for the substrate under the project conditions.
- D. Verify field dimensions of openings prior to fabrication of framing.
- E. Coordinate structural requirements to ensure proper attachment and support.
- F. Do not begin installation of material until all unsatisfactory conditions have been resolved and approved by Architect.

### 3.2 INSTALLATION

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

- C. All products shall be installed per installation instructions provided by manufacturer.
- D. Security window units shall arrive on site completely pre-fabricated to field dimensions approved by Shop Drawings.
- E. Install framing and secure to structure in accordance with manufacturer's recommendations and approved shop drawings.
- F. Provide required support and securely fasten and set windows plumb, square, and level without twist or bow.
- G. Apply sealant in accordance with window and sealant manufacturer's recommendations as indicated in installation instructions.
- H. Remove excess sealant and leave exposed surfaces clean and smooth

### 3.3 PROTECTION

- A. Clean and protect windows from damage during ongoing construction operations. If damage occurs, remove and replace as required to provide windows in their original, undamaged condition.
- B. Inspection and Cleaning: Verify installation is complete and complies with manufacturer's requirements.
- C. Provide final cleaning of product and accessories, removing excess sealant, labels and protective covers.
- D. Touch-up, repair or replace damaged products prior to Substantial Completion.

**END OF SECTION**