

## **SECTION 08516 - HEAVY VANDALISM WINDOW SCREEN**

### **PART 1 GENERAL**

#### **1.01 SECTION INCLUDES**

- A. Operable steel narrowline window screens with emergency egress release and hardware.

#### **1.02 RELATED REQUIREMENTS**

- A. Section 01 3000 - Administrative Requirements: Submittal procedures, project meetings, progress schedules and documentation, reports, coordination.

#### **1.03 REFERENCE STANDARDS**

- A. AAMA 2603 - Voluntary Specification, Performance Requirements and Test Procedures for Pigmented Organic Coatings on Aluminum Extrusions and Panels; 2002.
- B. AAMA CW-10 - Care and Handling of Architectural Aluminum From Shop to Site; American Architectural Manufacturers Association; 2004.
- C. ANSI/SMA 6001-90 - American National Standard Specifications for Metal Protection Screens.
- D. ASTM A 123/A 123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products; 2002.
- E. ASTM B 209 - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2007.
- F. ASTM B 209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate [Metric]; 2007.

#### **1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Preinstallation Meeting: Conduct a preinstallation meeting one week prior to the start of the work of this section; require attendance by all affected installers.

#### **1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.
- B. Product Data: Provide component dimensions, information on wire cloth, emergency egress release, descriptions of hardware, and manufacturer's letter of compliance with American Recovery and Reinvestment Act .
- C. Shop Drawings: Indicate opening dimensions, framed opening tolerances, details of attachment to surround materials and elevations showing scope of project.
- D. Samples: Submit two samples, 6 x 6 inch (153 x 153 mm) minimum in size, illustrating typical corner construction, wire cloth, accessories and finish.
- E. Manufacturer's Installation Instructions: Include complete preparation, installation and cleaning requirements.
- F. Operation Data: Provide instructions on the use of the emergency egress release.
- G. Warranty: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

## **1.06 QUALITY ASSURANCE**

- A. Comply with requirements of ANSI/SMA 6001-90 Designation.
- B. Manufacturer's Qualifications: Company must be actively engaged in the fabrication of the specified item with minimum 5 years of experience.

## **1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Comply with requirements of AAMA CW-10.
- B. Protect finished surfaces with wrapping paper or strippable coating during installation. Do not use adhesive papers or sprayed coatings that bond to substrate when exposed to sunlight or weather.

## **1.08 FIELD CONDITIONS**

- A. Existing Conditions: Verify existing surrounding materials are sound and ready to receive work. Notify Carlisle Associates surrounding materials are not acceptable.

## **1.09 WARRANTY**

- A. See Section 01 7800 - Closeout Submittals, for additional warranty requirements.
- B. Provide one year manufacturer warranty against any proven defective material or parts. Warranty does not cover abuse by others.

## **PART 2 PRODUCTS**

### **2.01 MANUFACTURED UNITS**

- A. Basis of Design Manufacturer: Kane Manufacturing Corporation; Kane, PA.  
(814) 837-6464 Fax: (814) 837-6230
  - 1. Model S-NR5-O; Operable Steel Narrowline Security Screen - Level 5
- B. Substitutions: See Section 01 6000 - Product Requirements.

### **2.02 COMPONENTS**

- A. Main Frame
  - 1. Rails shall not be less than 16-gauge 1" x 1" seamless welded galvanized steel tubing with high strength die cast metal corners which are pneumatically inserted into the frame ends with an interference fit.
  - 2. A removable concealment plate, extruded from 6063-T6 aluminum alloy, .062-inch thick, 0.212 lbs/ft., shall be attached to the main frame using square drive Tek screws. The faceplate corner bead shall integrate with the sub-frame to conceal the hardware and fasteners.
- B. Sub-Frame
  - 1. Sub-frame shall be of channel design, extruded from 6063-T6 aluminum alloy. Weight shall be 0.515 lbs/ft. Wall thickness be 0.090 inches. The corners of the subframe shall be mitered, secured by an internal tension coupling assembly and shall be resistant to both torsion and flexural failure.
  - 2. Sub-frame shall have a continuous groove retaining a combination cushioning strip/insect shield. The depth of the subframe shall be no more than 1-3/4".

- C. Infill
  - 1. Wire Cloth: 12-mesh 0.028-inch diameter stainless steel.
  - 2. Attachment
    - a. Wire cloth shall be hemmed 180 degrees and retained by hex-head Tek screws.
    - b. Hex-head Tek screws shall penetrate the infill and main frame approximately 4-inches on center.
- D. Emergency Egress Release: Manufacturer's level 5 release, "Roto-Lift" series.
  - 1. Each screen shall have two steel latches, which operate simultaneously from an emergency release.
  - 2. Release mechanism shall be contained within the tubular mainframe.
  - 3. Release mechanism shall have a secure spring-loaded activator to rotate the inhibitor, which allows the steel latches to open. When activated the latches are simultaneously released and the screen opens for instant egress.
  - 4. No plastic parts will be accepted.
  - 5. Screen shall have a tamper shield installed at the emergency release to protect the screen hardware from exterior tampering.
- E. Hardware
  - 1. Provide two or more concealed 13-gauge, electroplated steel hinges with ¼" diameter hardened, loose stainless steel pins and integral compression guards.
  - 2. Provide, if required, a 0.062-inch thick, ¾" x 1" aluminum scribes at the head and jambs.
- F. Screen shall come fully assembled and tested from factory.

### **2.03 ACCESSORIES**

- A. Fasteners: Provide Tek screws as acceptable to the manufacturer.
- B. Sealants: As acceptable with the screen manufacturer.

### **2.04 SHOP FINISH**

- A. Coating shall meet or exceed AAMA 2603.
- B. Steel mainframe, and aluminum sub-frame, faceplates and scribe angles shall be thoroughly cleaned in a five-step bonderizing process.
- C. Electrostatically apply a thermoplastic, polyester powder coating at factory.
  - 1. Color: Dark Bronze

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Verification of Conditions: Verify that openings fit allowable tolerance, are plumb, level, provide solid anchoring surface and comply with approved shop drawings.

### **3.02 INSTALLATION**

- A. Install in accordance with manufacturer's instructions, shop drawings and specifications.
- B. Plumb and align faces in a single plane and erect screens square and true, adequately anchored.

### **3.03 ADJUSTING**

- A. Adjust emergency release mechanism for smooth operation.

### **3.04 PROTECTION**

- A. Protect installed screens from subsequent construction operations.

**END OF SECTION**

2019