

## **SECTION 085659 - SERVICE AND TELLER WINDOW UNITS**

### **PART 1 GENERAL**

#### **1.1 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### **1.2 SUMMARY**

- A. This Section includes:
  - 1. Transaction and observation windows.
  - 2. Glazing.
  - 3. Intercom and talk through.

#### **1.3 COORDINATION**

- A. Coordinate installation of anchorages for windows. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in masonry. Deliver such items to Project site in time for installation.

#### **1.4 ACTION SUBMITTALS**

- A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for transaction windows.
- B. Shop Drawings: Include plans, elevations, sections, details, attachments to other Work, and the following:
  - 1. Full-size section details of framing members, including internal armoring, reinforcement, and stiffeners.
  - 2. Glazing details.

#### **1.5 QUALITY ASSURANCE**

- A. Installer Qualifications: An authorized representative of window manufacturer for installation of units required for this Project.
- B. Source Limitations: Obtain windows through one source from a single manufacturer.
- C. Product Options: Drawings indicate size, profiles, and dimensional requirements of transaction windows and are based on the specific system indicated.
  - 1. Do not modify intended aesthetic effects, as judged solely by Architect, except with Architect's approval. If modifications are proposed, submit comprehensive explanatory data to Architect for review.

#### **1.6 DELIVERY, STORAGE, AND HANDLING**

- A. Pack window units and accessories in manufacturer's standard shipping containers and protective packaging. Deliver units in manufacturer's original packaging and unopened containers with identification labels intact.
- B. Label window packaging with Drawing designation.
- C. Store window units and accessories on raised blocks to prevent moisture damage protected from exposure to weather and vandalism.

#### **1.7 FIELD CONDITIONS**

- A. Field Measurements: Verify window openings by field measurements before fabrication and indicate measurements on Shop Drawings.
  - 1. Established Dimensions: Where field measurements cannot be made without delaying the Work, establish opening dimensions and proceed with fabricating security windows without field measurements. Coordinate wall construction to ensure that actual opening dimensions correspond to established dimensions.

## **1.8 WARRANTY**

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace components of windows that fail in materials or workmanship within specified warranty period. Failures include, but are not limited to, the following:
  - 1. Structural failures including deflections exceeding 1/4 inch (6.35 mm).
  - 2. Failure of welds.
  - 3. Deterioration of metals, metal finishes, and other materials beyond normal weathering and use.
- B. Warranty Period: One year from date of Substantial Completion.

## **PART 2 PRODUCTS**

### **2.1 MANUFACTURERS**

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply for product selection:
  - 1. Basis-of-Design Product: The design for each security window is based on the product named. Subject to compliance with requirements, provide either the named product or a comparable product by one of the other manufacturers specified.

### **2.2 MATERIALS**

- A. Aluminum Extrusions: ASTM B221/B221M. Provide alloy and temper recommended by manufacturer for strength, corrosion resistance, and application of required finish, but not less than 22,000-psi (150-MPa) ultimate tensile strength and not less than 0.125 inch (3.2 mm) thick at any location for main frame and sash members.
- B. Steel Plates, Shapes, and Bars: ASTM A36/A36M.
- C. Stainless Steel Sheet, Strip, Plate, and Flat Bars:
  - 1. ASTM A666, austenitic stainless steel, Type 304, stretcher-leveled standard of flatness.
  - 2. ASME SA-240/SA-240M, chromium and chromium-nickel stainless steel plate, sheet, and strip for general applications.
- D. Concealed Bolts: ASTM A307, Grade A unless otherwise indicated.
- E. Embedded Plate Anchors: Fabricated from steel shapes and plates, minimum 3/16 inch (4.8 mm) thick; with minimum 1/2-inch- (12.7-mm-) diameter, headed studs welded to back of plate.
- F. Welding Rods and Bare Electrodes: Select according to AWS specifications for metal alloy welded.
- G. Fasteners: Manufacturer's standard non-exposed fasteners of material compatible with window frame and wall construction.
- H. Sealants: For sealants required within fabricated security windows, provide type recommended by the manufacturer for joint size and movement. Sealant shall remain permanently elastic, nonshrinking, and nonmigrating.
- I. Gaskets: For gaskets required within fabricated security windows, provide type recommended by manufacturer for joint size and movement. Gaskets shall remain permanently elastic, nonshrinking, and nonmigrating.

### **2.3 WINDOW COMPONENTS**

- A. Glazing: 5/8" clear tempered insulated glazing.
- B. Miscellaneous Glazing Materials: Provide material, size, and shape complying with requirements of glass manufacturers, and with a proven record of compatibility with surfaces contacted in installation:
  - 1. Cleaners, Primers, and Sealers: Type recommended by sealant or gasket manufacturer.
  - 2. Setting Blocks: Elastomeric material with a Type A Shore durometer hardness of 85, plus or minus 5.

3. Spacers: Elastomeric blocks or continuous extrusions with a Type A Shore durometer hardness required by glass manufacturer to maintain glass lites in place for installation indicated.
4. Edge Blocks: Elastomeric material of hardness needed to limit glass lateral movement (side walking).
- C. Welding Materials.
- D. Anchors, Clips, and Window Accessories: Stainless steel, hot-dip zinc-coated steel or iron complying with ASTM B633.

## **2.4 TRANSACTION WINDOWS**

- A. Basis-of-Design Product: Covenant Security Equipment, Quikserv T2 Ticket Teller Window With Amplified Speak Thru and Slide Up Pass Thru (Item #CSE-QS-TW2-Custom Size-CX) or a comparable product of one of the following:
- B. Manufacturers:
  1. Covenant Security Equipment
  2. Creative Industries, Inc.
  3. Laurence, C. R. Company of North America.
  4. Quikserv Corporation
  5. Wausau
- C. Configuration: Provide as shown on Drawings.
- D. Framing: Fabricate perimeter framing from metal sheet as follows:
  1. Material: Extruded aluminum with Class I, clear anodized finish.
  2. Profile: Narrow with face dimension indicated.
  3. Minimum Face Dimension: 5/8".
  4. Framing Depth:
    - a. Manufacturer's standard. (1 3/8" design base)
- E. Head and Jamb Framing: Designed for gasket glazing.
- F. Sill: No sill.
  1. Sliding Window Hardware: Nylon runners over coiled compression springs. Window shall hold in open position. Provide manufacturer's standard pull and lock for each vertical sliding glazed panel.

## **2.5 FABRICATION**

- A. General: Fabricate transaction windows to comply with indicated standards. Include a complete system for assembly of components and anchorage of windows.
- B. Framing: Miter or cope corners the full depth of framing; weld, and dress smooth.
- C. Welding: Weld components to comply with referenced AWS standard. To greatest extent possible weld before finishing and in concealed locations to minimize distortion or discoloration of finish. Remove weld spatter and welding oxides from exposed surfaces by descaling or grinding.
- D. Metal Protection: Separate dissimilar metals to protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended by manufacturer for this purpose.
- E. Preglazed Fabrication: Preglaze windows at the factory where possible and practical for applications indicated.

## **2.6 FINISHES, GENERAL**

- A. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.

- B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
- C. Appearance of Finished Work: Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved Samples. Noticeable variations in the same piece are not acceptable. Variations in appearance of other components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

## **2.7 ALUMINUM FINISHES**

- A. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
- B. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0 inch (0.01 mm) or thicker) complying with AAMA 611.

## **PART 3 EXECUTION**

### **3.1 EXAMINATION**

- A. Examine substrates, areas, and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of security windows.
  - 1. Examine roughing-in for embedded and built-in anchors to verify actual locations of security window connections before security window installation.
  - 2. For the record, prepare written report, endorsed by Installer, listing conditions detrimental to performance of security windows.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

### **3.2 INSTALLATION**

- A. Fastening to In-Place Construction: Provide anchorage devices and fasteners where necessary for securing windows to in-place construction. Include threaded fasteners for masonry and other connectors.
- B. Sealants: Comply with requirements in Division 7 Section "Joint Sealants" for installing sealants, fillers, and gaskets.
  - 1. Seal frame perimeter with sealant, unless otherwise indicated.
- C. Metal Protection: Where dissimilar metals will contact each other, protect against galvanic action by painting contact surfaces with primer or by applying sealant or tape recommended in writing by manufacturer for this purpose. Where aluminum will contact concrete or masonry, protect against corrosion by painting contact surfaces with bituminous paint.

### **3.3 ADJUSTING**

- A. Adjust windows to provide a tight fit at contact points, for smooth operation and a secure enclosure.
- B. Remove and replace defective work, including windows that are warped, bowed, or otherwise unacceptable.

### **3.4 CLEANING**

- A. Clean surfaces promptly after installation of windows. Exercise care to avoid damaging the finish. Remove excess glazing and sealant compounds, dirt, and other substances.
  - 1. Lubricate sliding window hardware.
- B. Clean glass of preglazed windows promptly after installation.

## **END OF SECTION 085659**