

## **SECTION 07 70 00 – ROOF SPECIALTIES AND ACCESSORIES**

### **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. Section includes furnishing and installing:
  - 1. Prefabricated roof hatch with safety railing.
  - 2. Prefabricated roof equipment curbs.
  - 3. Prefabricated pipe and conduit supports.

#### **1.3 RELATED WORK**

- A. Related Work of Other Sections:
  - 1. Division 06 Section – Miscellaneous Rough Carpentry; treated nailers and blocking.
  - 2. Division 07 Section – SBS Modified Bitumen Membrane Roofing.
  - 3. Division 07 Section – Flashing and Sheet Metal.
  - 4. Division 07 Section – Joint Sealants.
  - 5. Division 22, 23 Sections: Mechanical and Plumbing Work.
  - 6. Division 26 Sections: Electrical Work.

#### **1.4 SUBMITTALS**

- A. Submit product data for each type and size of roof accessory unit, and details showing size, fastening and flashing details. Include product specifications showing compliance with requirements.

### **PART 2 - PRODUCTS**

#### **2.1 PRODUCTS AND MANUFACTURERS**

- A. Prefabricated Roof Hatch: Single leaf for ladder access, galvanized steel; Bilco Type "SS," size 3'-0" x 3'-0," with adjustable torsion springs and padlock, or equivalent by Dur-Red Products.
- B. Prefabricated Ladder Safety Extension: "Model 1 Ladder UP" safety posts as manufactured by The Bilco Company. Provide units with fasteners for securing to ladder rungs.
- C. Ladder Hatch Safety Railing System: Manufacturer's standard complete system including rails, clamps, fasteners, safety barrier at railing opening, and all accessories required for a complete installation.
  - 1. Provide railing systems capable of withstanding a concentrated static load of 250 lbf (113 kg-f) applied at any point and in any direction and a uniform static load of 50 lbf/LF (78.8 kg-f/m) applied horizontally and concurrently with uniform static load of 100 lbf/LF (147.6 kg-f) per linear ft. applied vertically downward. Deflection of rail with the above static loads shall not exceed  $h/24 + l/96$ , where h

- is the rail height and  $l$  is the rail length. Deflection of rail posts shall not exceed  $h/12$ , where  $h$  is the rail height.
2. Height: 42 inches (1060 mm) above finished roof deck.
  3. Pipe or Tube: 1-1/4-inch (31-mm) ID galvanized pipe or 1-5/8-inch (41-mm) OD galvanized tube.
  4. Chain Passway Enclosure: Galvanized proof coil chain with quick link on fixed end.
  5. Pipe Ends and Tops: Covered or plugged with weather-resistant material.
  6. Provide weep holes or another means to drain entrapped water in hollow sections of handrail and railing members that are exposed to exterior or to moisture from condensation or other sources.
  7. Fabricate joints that will be exposed to weather in a watertight manner.
  8. Close exposed ends of handrail and railing members with prefabricated end fittings.
  9. Fasteners: Manufacturer's standard corrosion resistant type.
- D. Prefabricated Equipment Curbs: Custom Curb Inc., Chattanooga, TN, (Tel) 615-629-6241, Model CRC-2 prefabricated insulated roof curbs in sizes required and with cant configuration to accommodate roof deck insulation thickness at location of each curb, complete with pressure treated wood nailer, or equivalent by ThyCurb, Carrollton, TX, (Tel) 214-416-6220. Construct curbs from welded, hot-dipped galvanized steel, minimum 0.0428" (1.0 mm) thick, with framing and stiffeners to support mechanical unit dead loads in combination with a 20-psf live load.
- E. Prefabricated Pipe and Conduit Supports: Portable Pipe Hangers, Inc., Houston, TX, (Tel) 713-672-5088 or 800-797-6585, Model PS-E Custom.

### **PART 3 - EXECUTION**

#### **3.1 PREPARATION**

- A. Layout roof specialties and accessories aligned to units and work to be supported, framed penetrations, and installed plumb, level, and true to line.

#### **3.2 INSTALLATION**

- A. Anchor roof specialties and accessories permanently to structural deck substrate, by methods that are adequate for the sizes, weight, and locations of units.
- B. Install roof accessories level, plumb, true to line and elevation, and without warping, jogs in alignment, excessive oil canning, buckling, or tool marks.
- C. Coordinate installation with structural openings, rough carpentry work and roofing work to provide roof specialty and accessory installations that will permit durable, weatherproof installation of roofing and flashing work.
- D. Install surface mounted specialties and accessories with flanges bedded in mastic or compound that is compatible with roofing and flashing.

**END OF SECTION 07 70 00**