

## SECTION 08 31 13 – ACCESS DOORS AND FRAMES

### PART 1 – GENERAL

#### 1.1 THE REQUIREMENT

- A. Work included: Furnishing and installing factory fabricated vault access doors.
- B. Related work:
  - 1. MASS Division 30 – Portland Concrete
  - 2. Mass Division 80 Art. 4.2 Cast-in-Place Concrete for installing anchor bolts, steel pipe sleeves, slotted-channel inserts, wedge-type inserts, and other items cast into concrete.
  - 3. Section 05 50 00 – Metal Fabrications.

#### 1.2 REFERENCES

- A. American Society for Testing and Materials (ASTM), 100 Bar Harbor Drive, West Conshocken, PA 19428-2959; Phone: (610) 832-9585, Fax: (610) 832-9555.
  - 1. ASTM A 36-93a: Standard Specification for Structural Steel.
- B. International Organization for Standardization (ISO), ISO Central Secretariat, 1, ch. de la Voie-Creuse, CP 56, CH-1211 Geneva 20, Switzerland, Phone: +41 22 749 01 11, Fax: +41 22 733 34 30.
  - 1. ISO 9001:2008 Certified.

#### 1.3 SUBMITTALS

- A. Product Data: Provide manufacturer's product data for all materials in this specification. Submit Product Data in accordance with MASS Section 10.05 Article 5.6.
- B. Shop Drawings: Show profiles, accessories, location, and dimensions. Submit Shop Drawings in accordance with MASS Section 10.05 Article 5.5.
- C. Samples: Manufacturer to provide upon request; sized to represent material adequately.
- D. Contract Closeout: Vault access door manufacturer shall provide the manufacturer's Warranty prior to the contract closeout.

#### 1.4 PRODUCT HANDLING

- A. All materials shall be delivered in manufacturer's original packaging.

- B. Store materials in a dry, protected, well-vented area. The contractor shall thoroughly inspect product upon receipt and report damaged material immediately to delivering carrier and note such damage on the carrier's freight bill of lading.
- C. Remove protective wrapping immediately after installation (if applicable).

## **1.5 JOB CONDITIONS**

- A. Verify that other trades with related work are complete before installing vault access door(s).
- B. Mounting surfaces shall be straight and secure; substrates shall be of proper width.
- C. Refer to the construction documents, shop drawings, and manufacturer's installation instructions.
- D. Observe all appropriate OSHA safety guidelines for this work.

## **1.6 WARRANTY/GUARANTEE**

- A. Manufacturer's standard warranty: Materials shall be free of defects in material and workmanship for a period of (25) twenty five years from the date of purchase. If a part fails to function in normal use within this period, manufacturer shall furnish a new part at no charge.
- B. Manufacturer's Quality System: Registered to ISO 9001:2008 Quality Standards including in-house engineering for product design activities.

## **PART 2 – PRODUCTS**

### **2.1 MANUFACTURER**

- A. The BILCO Company, P.O. Box 1203, New Haven, CT 06505; Phone: (203) 934-6363, Fax: (203) 933-8478, Web: [www.bilco.com](http://www.bilco.com).

### **2.2 ACCESS DOOR**

- A. Furnish and install, where indicated on Drawings, vault access door Bilco Type J-AL. The vault access door shall be single leaf. The vault access door shall be pre-assembled from the manufacturer.
- B. Sizes (length denotes hinge side):
  - 1. Width 48" x length 96".
- C. Performance characteristics:

1. Cover: Shall be reinforced to support a minimum live load of 300 psf with a maximum deflection of 1/150th of the span.
  2. Operation of the cover shall be smooth and easy with controlled operation throughout the entire arc of opening and closing.
  3. Operation of the cover shall not be affected by temperature.
  4. Entire door, including all hardware components, shall be highly corrosion resistant.
- D. Cover: Shall be 1/4" (6.3 mm) aluminum diamond pattern.
- E. Cover Insulation: Shall be 2" thick polyisocyanurate with an R-value of 12, fully covered and protected by an 18 gauge aluminum liner.
- F. Frame: Channel frame shall be extruded aluminum with bend down anchor tabs around the perimeter.
- G. Hinges: Shall be specifically designed for horizontal installation and shall be through bolted to the cover with tamperproof Type 316 stainless steel lock bolts and shall be through bolted to the frame with Type 316 stainless steel bolts and locknuts.
- H. Drain Coupling: Provide a 1-1/2" drain coupling located in the channel frame. Position drain as shown on the Drawings.
- I. Lifting mechanisms: Manufacturer shall provide the required number and size of compression spring operators enclosed in telescopic tubes to provide, smooth, easy, and controlled cover operation throughout the entire arc of opening and to act as a check in retarding downward motion of the cover when closing. The upper tube shall be the outer tube to prevent accumulation of moisture, grit, and debris inside the lower tube assembly. The lower tube shall interlock with a flanged support shoe fastened to a formed 1/4" gusset support plate.
- J. A removable exterior turn/lift handle with a spring loaded ball detent shall be provided to open the cover and the latch release shall be protected by a flush, gasketed, removable screw plug.
- K. Hardware:
1. Hinges: Heavy forged Type 316 stainless steel hinges, each having a minimum 1/4" (6.3 mm) diameter Type 316 stainless steel pin, shall be provided and shall pivot so the cover does not protrude into the channel frame.
  2. Cover shall be equipped with a hold open arm which automatically locks the cover in the open position.
  3. Cover shall be fitted with the required number and size of compression spring operators. Springs and spring tubes shall be Type 316 stainless steel.
  4. A Type 316 stainless steel snap lock with fixed handle shall be mounted on the underside of the cover.

- 5. Hardware: Shall be Type 316 stainless steel throughout.
- L. Finishes: Factory finish shall be mill finish aluminum with bituminous coating applied to the exterior of the frame.

## **PART 3 – EXECUTION**

### **3.1 INSTALLATION**

- A. Submit product design drawings for review and approval to the Engineer before fabrication.
- B. Verify the manufacturer's vault access door details for accuracy to fit the application prior to fabrication. Comply with the vault access door manufacturer's installation instructions.
- C. Furnish mechanical fasteners consistent with the vault access door manufacturer's instructions.
- D. Frame areas that come in contact with concrete shall be coated with bituminous paint.

**END OF SECTION 08 31 13**