# PART 1 - GENERAL

## 1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

## 1.2 SUMMARY

A. Section includes floor doors.

B. Related Requirements:
1. Section 018113 Section “Sustainable Design Requirements.”
2. Section 083113 "Access Doors and Frames" for wall- and ceiling-mounted access doors and frames.

## 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product.
1. Include construction details, materials, individual components and profiles, and finishes.

B. LEED Submittals: Credits MRc4, MRc5 and EQc4.2. Refer to Section 018113 “Sustainable Design Requirements” for additional submittal requirements.

C. Product Schedule: For floor doors.

# PART 2 - PRODUCTS

## 2.1 PERFORMANCE REQUIREMENTS

A. Slip Resistance: Floor door finish shall be slip resistant. Floor door finish shall meet Dynamic COF value of 0.42 when measured per the DCOF AcuTest in accordance with ANSI A137.1-12.

B. Cover shall be reinforced to support a minimum live load of 150 psf with a maximum deflection of 1/150$^{th}$ of the span.

## 2.2 ALUMINUM FLOOR DOORS

A. Angle Frame Aluminum Floor Door:
1. Products: Subject to compliance with requirements, provide one of the following:
a. Type K Series Floor Access Door by Bilco Company. (Basis-of-Design)
b. Or comparable product by one of the following:
1) Nystrom Inc.

2) JL Industries.
3) Or Equal.

2. Frame: Mill finish aluminum.
3. Door: Single leaf; 1/4-inch-thick, diamond-pattern mill-finish aluminum plate.
4. Lifting mechanisms: Cam-action hinges shall pivot on torsion bars 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.
5. Hardware:
   a. Hinges: Cast steel cam-action hinges which pivot on torsion bars.
   b. Cover shall be equipped with a steel hold open arm that automatically locks the cover in the open position.
   c. Cover shall be fitted with the required number and size of torsion bars.
   d. Type 316 stainless steel snap lock with fixed handle shall be mounted on the underside of the cover.
   e. Lock: Latch with removable handle.
      1) Removable Exterior Turn/Lift Handle: Provide handle with spring loaded ball detent to open the cover.

B. LEED Material Credits MRc4, MRc5 and EQc4.2. Refer to Section 018113 “Sustainable Design Requirements” for additional product requirements.

## 2.3 MATERIALS

A. Aluminum Extrusions: ASTM B 221, Alloy 6063-T6.

B. Aluminum-Alloy Rolled Tread Plate: ASTM B 632/B 632M, Alloy 6061-T6.

C. Aluminum Sheet: ASTM B 209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.

D. Frame Anchors: Same material as door face.

E. Inserts, Bolts, and Anchor Fasteners: Hot-dip galvanized steel according to ASTM A 153/A 153M or ASTM F 2329.

## 2.4 FABRICATION

A. General: Provide floor doors manufactured as integral units ready for installation.

B. Metal Surfaces: For metal surfaces exposed to view in the completed Work, provide materials with smooth, flat surfaces without blemishes. Do not use materials with exposed pitting, seam marks, roller marks, rolled trade names, or roughness.

C. Grind exposed welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure floor doors to types of supports indicated.

D. Latching Mechanisms: Furnish number required to hold doors in flush, smooth plane when closed.
   1. For cylinder locks, furnish two keys per lock and key all locks alike.
   2. For recessed panel doors, provide access sleeves for each locking device. Furnish plastic grommets and install in holes cut through finish.

E. Aluminum: After fabrication, apply manufacturer's standard protective coating on aluminum that comes in contact with concrete.

2.5 FINISHES

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: Noticeable variations in same piece are not acceptable. Variations in appearance of adjoining components are acceptable if they are within the range of approved Samples and are assembled or installed to minimize contrast.

D. Hot-dip galvanize items as indicated to comply with ASTM A 153/A 153M for steel and iron hardware and with ASTM A 123/A 123M for other steel and iron products.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.

B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

A. Comply with manufacturer's written instructions for installing floor doors.

3.3 ADJUSTING

A. Adjust doors and hardware, after installation, for proper operation.

END OF SECTION