
PART 1 GENERAL**1.1 RELATED DOCUMENTS**

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

1.2 SUMMARY

- A. This Section includes:
 - 1. Access doors and frames for walls and ceilings.
 - 2. Floor access doors and frames.
- B. Related Requirements:
 - 1. Division 1 Section "Sustainable Design Requirements".
 - 2. Division 7 Section "Roof Accessories" for roof hatches.
 - 3. Division 23 Section "Air Duct Accessories" for heating and air-conditioning duct access doors.

1.3 QUALITY ASSURANCE

- A. The work of this section shall be performed by a company which specializes in the type of access doors and frames work required for this Project, with a minimum of 5 years of documented successful experience and shall be performed by skilled workmen thoroughly experienced in the necessary crafts.
 - 1. Work shall be performed in compliance with Owner's insurance underwriters' requirements and UL approvals and testing for materials, assemblies and procedures.
- B. Manufacturer shall specialize in manufacturing the type of access doors and frames specified in this section, with a minimum of 5 years of documented successful experience, and have the facilities capable of meeting all requirements of Contract Documents as a single-source responsibility and warranty.
- C. Manufacturer's identification tags or marks are not acceptable on surfaces which will remain exposed to view after installation.
 - 1. Evidence of "patching" after removal of tags or marks is not acceptable.

1.4 SUBMITTALS

- A. Submit the following according to Conditions of the Construction Contract and Division 1 Specification Sections.
- B. Product Data: For each type of product.
 - 1. Include construction details, fire ratings, materials, individual components and profiles, and finishes.
- C. Shop Drawings:
 - 1. Include plans, elevations, sections, details, and attachments to other work.
 - 2. Detail fabrication and installation of access doors and frames for each type of substrate.
- D. Samples: For each door face material, at least 3 by 5 inches (75 by 125 mm) in size, in specified finish.
- E. Product Schedule: Provide complete access door and frame schedule, including types, locations, sizes, latching or locking provisions, and other data pertinent to installation.
 - 1. All access doors to be submitted and approved by the Architect before any access panel installations occur.
- F. LEED Submittals:
 - 1. MRc4 – List all materials with recycled content indicating material cost broken out by post-industrial (pre-consumer) and post-consumer content. Only include data for materials permanently installed on the project site.
 - 2. MRc5 – List all materials with regional content indicated the cost and percentage of each material or fraction of each material (by weight) that is extracted, harvested or recovered as well as manufactured within 500 miles of the project site – 101 First Street, San Francisco, CA.
- G. Hazardous Materials Notification: In the event no product or material is available that does not contain asbestos, PCB or other hazardous materials as determined by the Owner, a "Material Safety Data Sheet" (MSDS) equivalent to OSHA Form 20 shall be submitted for that proposed product or material prior to installation.

- H. Asbestos and PCB Certification: After completion of installation, but prior to Substantial Completion, Contractor shall certify in writing that products and materials installed, and processes used, do not contain asbestos or polychlorinated biphenyls (PCB), using format in Article 3 of General Conditions.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Comply with General Conditions and Division 1 Section "Product Requirements".

1.6 WARRANTY

- A. Comply with General Conditions and Division 1 Section "Product Requirements".

PART 2 PRODUCTS

2.1 UNAUTHORIZED MATERIALS

- A. Materials and products required for work of this section shall not contain asbestos, polychlorinated biphenyls (PCB) or other hazardous materials identified by the Owner.

2.2 ACCEPTABLE MANUFACTURERS

- A. Products of the manufacturers specified in this section establish the minimum functional, aesthetic and quality standards required for work of this section.
- B. Substitutions: Comply with General Conditions using form in Division 1 Section "Substitution Request Form".

2.3 PERFORMANCE REQUIREMENTS

- A. Fire-Rated Access Doors and Frames: Units complying with NFPA 80 that are identical to access door and frame assemblies tested for fire-test-response characteristics according to the following test method and that are listed and labeled by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
1. NFPA 252 or UL 10B for fire-rated access door assemblies installed vertically.
 2. NFPA 288 for fire-rated access door assemblies installed horizontally.

2.4 ACCESS DOORS AND FRAMES FOR WALLS AND CEILINGS

- A. Basis-of-Design Product: Subject to compliance with requirements, provide product indicated or comparable product by one of the following:
1. Chicago Metallic Corporation, Chicago, IL 60638, 800-323-7164.
 2. J. L. Industries, Inc.; Div. of Activar Construction Products Group.
 3. Karp Associates, Inc.
 4. Larsen's Manufacturing Company.
 5. Milcor Inc.
- B. Source Limitations: Obtain each type of access door and frame from single source from single manufacturer.
- C. Recycled Content: For materials containing post-industrial (pre-consumer) and/or post-consumer recycled content, contractor shall document the cost and percentage (by weight) of each material broken out by post-industrial (pre-consumer) and post-consumer content.
- D. Regional Content: For material that is extracted, harvested or recovered as well as manufactured within 500 miles of the project site – 101 First Street, San Francisco, CA, contractor shall document the cost and percentage (by weight) of each material that is regional.

2.5 ACCESS DOORS AND FRAMES FOR WALLS AND CEILINGS

- A. For Gypsum Board Walls/Non-Rated: **Type 1.**
1. Type: Milcor "Style DW", 16 gauge steel frame and 14 gauge steel door panel with galvanized steel drywall bead.
 2. Hinges: Concealed spring hinges allow opening to 175°.
 - a. Extracting pin from hinge leaf attached to panel permits panel removal.
 - b. Number of hinges varies with size of door.
 3. Locks: Flush, screwdriver operated with case-hardened steel cam.
 4. Finish: Chemically bonded prime coat of baked-on electrostatic powder and field-painted in color to match wall as specified in Division 9 Section "Painting."

5. Sizes: 12"x12" or as shown on drawings.
 6. Locations: As shown on drawings and as required.
- B. For Gypsum Board and Plaster Ceilings/Non-Rated: **Type 2.**
1. Type: Chicago Metallic Series 8500 Glass Reinforced Gypsum recessed door for suspended gypsum board ceiling.
 2. Shell Thickness: 1/8" to 3/16".
 3. Finish: Finish per adjacent gypsum board or plaster and field-painted in color to match ceiling as specified in Division 9 Section "Painting."
 4. Sizes: 18" x 18" or as shown on drawings.
 5. Locations: As shown on drawings and as required.
- C. For Gypsum Board Walls/Fire-Rated: **Type 3A.**
1. Type: Milcor "Fire-Rated Access Door" Model UFR/3218-024, 14 gauge steel frame and 20 gauge door panel with galvanized steel drywall bead.
 2. Rating: UL 1-1/2 hour "B" Label.
 3. Temperature Rise Rating: 250°F at the end of 30 minutes.
 4. Hinge: Continuous steel type with stainless steel pin.
 5. Automatic Panel Closer: To be furnished on each door.
 6. Locks: Self-latching, flush, key-operated cylinder type.
 - a. Number varies with size of door.
 - b. Plastic grommet furnished to protect the hole in wallboard for access to cam lock control.
 - c. All doors to be complete with interior latch release mechanisms.
 7. Finish: Chemically bonded prime coat of baked-on electrostatic powder.
 - a. The exposed edges to have a prime coat of white, rust-inhibitive paint and field-painted in color to match wall as specified in Division 9 Section "Painting."
 8. Sizes: 24" x 24" or as shown on drawings.
 9. Locations: As shown on drawings and as required.
- D. For Concrete Masonry Unit Walls/Fire-Rated: **Type 3B.**
1. Type: Milcor Fire-Rated Access Door Model UFR, 3218, 14 gauge steel frame and 20 gauge steel door panel.
 2. Rating: UL 1-1/2 hour "B" label.
 3. Hinge: Continuous steel type with stainless steel pin.
 4. Automatic Panel Closer: To be furnished on each door.
 5. Lock: Self-latching, flush, key-operated cylinder type.
 - a. Number varies with size of door.
 - b. All doors to be complete with interior latch release mechanisms.
 6. Finish: Chemically bonded prime coat of baked-on factory-applied electrostatic powder.
 - a. Exposed edges to have factory-applied prime coat of white, rust-inhibitive paint and field painted with color to match wall as specified in Division 9 Section "Painting."
 7. Size: 18" x 18" or as shown on drawings.
 8. Locations: As shown on drawings and as required.
- E. For Ceramic Tile Walls Non-Rated: **Type 4.**
1. Type: Milcor "Style MS - Standard", 16 gauge stainless steel frame and door panel.
 2. Hinges: One concealed spring hinge opens to 175°.
 - a. Extracting pin from hinge leaf attached to panel permits panel removal.
 3. Locks: Flush screwdriver operated with case-hardened steel cam.
 4. Finish: Satin Stainless Steel.
 5. Size: 8"x8" or as shown on drawings.
 6. Location: As shown on drawings and as required.
- F. For Concrete Masonry Unit Walls/Non-Rated: **Type 5.**
1. Type: Milcor "Style M - Standard", 14 gauge steel frame and door panel.
 2. Hinges: One concealed spring hinge opens to 175°.
 - a. Extracting pin from hinge leaf attached to panel permits panel removal.
 3. Locks: Flush screwdriver operated with case-hardened steel cam.

4. Finish: Chemically bonded prime coat of baked-on electrostatic powder and field-painted to match wall as specified in Division 9 Section "Painting."
 5. Size: 8"x8" or as shown on drawings.
 6. Location: As shown on drawings and as required.
- G. Type: Bilco's "J-AL Series" floor access doors of aluminum construction, complete with accessories required for complete installation: **Type 6.**
1. Sizes: 2'-6" x 2'-6".
 2. Door: Single leaf designed to withstand 300 lbs. psf, equipped with heavy-forged stainless steel hinges, stainless steel pins, compression spring operators for easy operation and automatic hold-open arm with release handle.
 3. Door Lock: Snap lock with removable handle, with removable plug.
 4. Channel Frame: 1/4" aluminum with anchorage flange continuous around perimeter.
 5. Finish for Door and Frame Assembly: Mill finish aluminum.
 6. Locations: Garage levels P1 and P2, for access to water storage tanks.
- H. For Plaster Walls/Non-Rated: **Type 7.**
1. Type: Milcor "Style AP" recessed panel door, 16 gauge steel frame and 18 gauge steel door panel.
 2. Hinge: Continuous steel type with stainless steel pin mounted on long side.
 3. Locks: Flush, screwdriver operated with case-hardened steel cam.
 4. Finish: Chemically bonded prime coat of baked-on electrostatic powder and field-painted in color to match ceiling as specified in Division 9 Section "Painting."
 5. Sizes: 12" x 12" or as shown on drawings.
 6. Locations: As shown on drawings and as required.

2.6 MATERIALS

- A. Steel Plates, Shapes, and Bars: ASTM A36/A 36M.
- B. Rolled-Steel Floor Plate: ASTM A786/A 786M, rolled from plate complying with ASTM A36/A 36M or ASTM A283/A 283M, Grade C or D.
- C. Steel Sheet: Uncoated or electrolytic zinc coated, ASTM A879/A 879M, with cold-rolled steel sheet substrate complying with ASTM A1008/A 1008M, Commercial Steel (CS), exposed.
- D. Metallic-Coated Steel Sheet: ASTM A653/A 653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.
- E. Rolled-Stainless-Steel Floor Plate: ASTM A793, manufacturer's standard finish.
- F. Stainless-Steel Sheet, Strip, Plate, and Flat Bars: ASTM A666, Type 304. Remove tool and die marks and stretch lines or blend into finish.
- G. Frame Anchors: Same type as door face.
- H. Inserts, Bolts, and Anchor Fasteners: Hot-dip galvanized steel according to ASTM A153/A 153M or ASTM F2329.

2.7 FABRICATION

- A. General: Provide access door and frame assemblies 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. Doors and Frames: Grind exposed welds smooth and flush with adjacent surfaces. Furnish attachment devices and fasteners of type required to secure access doors to types of supports indicated.
 1. For concealed flanges with drywall bead, provide edge trim for gypsum board securely attached to perimeter of frames.
 2. For concealed flanges with plaster bead for full-bed plaster applications, provide zinc-coated expanded metal lath and exposed casing bead welded to perimeter of frames.

3. Provide mounting holes in frames for attachment of units to metal framing.
 4. Provide mounting holes in frame for attachment of masonry anchors.
- D. Recessed Access Doors: Form face of panel to provide recess for application of applied finish. Reinforce panel as required to prevent buckling.
- E. 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.

2.8 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. Steel and Metallic-Coated-Steel Finishes:
1. Factory Prime: Apply manufacturer's standard, fast-curing, lead- and chromate-free, universal primer immediately after surface preparation and pretreatment.
 2. Factory Finish: Immediately after cleaning and pretreating, apply manufacturer's standard two-coat, baked-on finish consisting of prime coat and thermosetting topcoat, with a minimum dry-film thickness of 1 mil (0.025 mm) for topcoat.
- E. Stainless-Steel Finishes:
1. Surface Preparation: Remove tool and die marks and stretch lines, or blend into finish.
 2. Polished Finishes: Grind and polish surfaces to produce uniform finish, free of cross scratches.
 - a. Run grain of directional finishes with long dimension of each piece.
 - b. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.
 - c. Directional Satin Finish: No. 4.

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 access doors and frames.
- B. Install doors flush with adjacent finish surfaces or recessed to receive finish material.

3.3 ADJUSTING

- A. Adjust doors and hardware, after installation, for proper operation.
- B. Remove and replace doors and frames that are warped, bowed, or otherwise damaged.

END OF SECTION