SECTION 08 31 13 - ACCESS DOORS AND FRAMES

PART 1 - GENERAL

1.1 SUMMARY

A. Provide the work of this Section in accordance with requirements of the Contract Documents

B. This Section includes but is not limited to access doors and frames for walls and ceilings **AD-01**, **AD-02**, **AD-03**, **AD-04**.

C. Related Requirements:

1. Division 07, Section 07 72 00 "Roof Accessories" for roof hatches.
2. Division 09, Section 09 90 00 "Painting" for finish painting access doors primed in this section
3. Division 23, Section 23 33 00 "Air Duct Accessories" for heating and air-conditioning duct access doors.

1.2 ALLOWANCES

A. Access doors and frames are part of an access door and frame allowance.

1.3 COORDINATION

A. Verification: Determine specific locations and sizes for access doors needed to gain access to concealed equipment and indicate on schedule specified in "Action Submittals" Article.

B. Inserts and Anchoring Devices: Furnish inserts and anchoring devices that must be built into other work for installation of access doors. Coordinate delivery with other work to avoid delay.

1.4 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Include construction details, fire ratings, material descriptions, dimensions of individual components and profiles, and finishes.

B. Sustainable Design Submittals:

1. Building Product Disclosure and Optimization - Sourcing of Raw Materials:

a. Extended Producer Responsibility (EPR): Submit documentation indicating that manufacturers have a take back or recycling program for the product purchased.
b. Materials Reuse: For products that are salvaged, refurbished, or reused, include a statement indicating costs for each product.
c. Recycled Content: For products having recycled content, indicate percentages by weight of post-consumer and pre-consumer recycled content.

1) Include statement indicating costs for each product having recycled content.

d. Regional Materials: For products that are required to comply with requirements for regional materials, indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material.

1) Include statement indicating distance to Project, cost for each regional material and the fraction by weight that is considered regional.

2. Indoor Environmental Quality, Low Emitting Materials: Building Products must be tested and compliant with the California Department of Public-Health (CDPH) Standard Method V1.1-2010 or v1.2 2017, using the applicable exposure scenario.

a. For paints, and coatings, wet applied, include printed statement of VOC content, showing compliance with the applicable VOC limits of the California Air Resources Board (CARB) 2007, Suggested Control Measure for Architectural Coatings or the South Coast Air Quality Management District (SCAQMD) Rule 1113-2011.
b. Adhesives and Sealants: For wet applied on-site products, submit printed statement showing compliance with the applicable chemical content requirements of SCAQMD Rule 1168, effective July 1, 2005, and rule amendment date of January 7, 2005.

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 type of access door and frame and for each finish specified, complete assembly minimum 6 by 6 inches (150 by 150 mm) in size.

E. Product Schedule: For access doors and frames. Use same designations indicated on Drawings. Included types, ratings, locations, sizes, wall and ceiling construction details, finishes, latching or locking provisions and other date pertinent to installation.

1.5 INFORMATION SUBMITTALS

A. Ceiling Coordination Drawings: Reflected ceiling plans, drawn to scale, on which ceiling-mounted items including access doors and frames, lighting fixtures, diffusers, grilles, speakers, sprinklers, and special trim are shown and coordinated with each other.

B. Sustainable Design Submittals:

1. Building Product Disclosure and Optimization - Environmental Product Declarations

a. Submit product specific type III EPDs or Industry wide (generic) EPDs, USGBC approved program declaration or products with a publicly available, critically reviewed life-cycle assessment conforming to ISO 14044 that have at least a cradle to gate scope.

2. Building Product Disclosure and Optimization - Material Ingredients

a. Material Ingredient Reporting: Submit documentation confirming chemical inventory of products to at least 0.1 % (1000pm) with at least one of the following:

1) Submit published manufacturer inventory of ingredients identified by name and Chemical Abstract Service Registration Number (CASRN)
2) Submit documentation that product has been certified as Cradle-to-Cradle v3 at the Bronze Level or better
3) Submit Declare product label indicating that all ingredients have been disclosed down to 1000 ppm or designated as Red List Free or Declared

4) Living Product Challenge
5) Product Lens Certification
6) USGBC approved program.

b. Material Ingredient Optimization: Submit documentation confirming chemical inventory of products to at least 0.01 % (100pm) and/or that has a compliant material ingredient optimization report with at least one of the following:

1) Submit GreenScreen V1.2 Benchmark: Third party report prepared by a licensed GreenScreen List Translator, or a full GreenScreen Assessment.
2) Submit third-party verified documentation that product has been certified as Cradle-to-Cradle v3 at the Bronze Level or better
3) Submit third-party verified Cradle to Cradle v3 Material Health certificate at the Bronze Level or better
4) Submit third-party verified Declare product label indicating that all ingredients have been disclosed down to 100 ppm
5) Submit third-party verified documentation that product is Living Product Challenge certified with a Red List Free or LBC Red List Free Declare label.
6) Submit documentation that product has a manufacturer prepared action plan with material inventory to at least 1000 ppm.

1.6 QUALITY ASSURANCE

A. Qualified Installer: The access doors and panels work shall be performed by a firm having 5 years' experience in the installation of specified materials on comparable projects. The firm shall have the approval of the access doors and panels manufacturer. The applicator shall provide evidence of successful completion of work of similar scope to that shown and specified for this Project using similar access doors and panels systems.

B. Manufacturer Qualifications: Provide access doors and panels manufactured by a firm specializing in the production of access door work for not less than 5 years. Fabricate access doors and panels as a single integral unit with frame, anchors, hardware, accessory parts, fittings and fastenings. Units are to be the standard products, or modifications if required, of one of the listed manufacturers.

1.7 DELIVERY STORAGE AND HANDLING

A. General: Store access door and panel items and accessories under cover and off the ground. Handle in such a manner so as to protect surfaces and to prevent distortion of, and other type of damage to, fabricated pieces.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

A. Fire-Rated Access Doors and Frames: Assemblies complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, according to NFPA 252 or UL 10B.

B. Source Limitations: Obtain each type of access door and frame from single source from single manufacturer.

C. Size Variations: Obtain Architect's acceptance of manufacturer's standard-size units, which may vary slightly from sizes indicated.

D. Low-Emitting Materials:

1. Architectural paints and coatings wet-applied inside the weather-proofing system must meet the VOC general emissions testing criteria of CDPH Standard Method v1.2.
2. All paints and coatings wet-applied inside the weather-proofing system must have VOC content in compliance with the applicable VOC limits (g/L) found in tables in Division 01 Section 01 81 13 "Sustainable Design Requirements - LEED v4 BD+C."
3. Adhesives and Sealants wet-applied inside the weather-proofing system must meet the VOC general emissions testing criteria of CDPH Standard Method v1.2.
4. All adhesives and sealants wet-applied inside the weather-proofing system must have VOC content in compliance with the applicable VOC limits (g/L) found in tables in Division 01 Section 01 81 13.14 "Sustainable Design Requirements - LEED v4 BD+C."

2.2 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Acudor Products, Inc.
2. Babcock-Davis.
3. JL Industries, Inc.; a division of the Activar Construction Products Group.
4. Karp Associates, Inc.
5. Larsens Manufacturing Company.
6. Milcor; Commercial Products Group of Hart & Cooley, Inc.
7. Nystrom, Inc.

B. Basis of Design:

1. Fire-Rated, Flush Access Doors with Exposed Flanges **AD-01**: FD Series by JL Industries, Inc.
2. Flush Gypsum Board Access Doors with Concealed Flanges **AD-02**: TM Series, Model TMW by JL Industries, Inc.
3. Flush GFRG Access Doors with Concealed Flanges **AD-03**: GF Series, Model 9GF by JL Industries, Inc.
4. Flush Access Insert Panel Doors with Concealed Flanges **AD-04**: CTWB Series by JL Industries, Inc.

2.3 NON FIRE-RATED ACCESS DOORS AND FRAMES

A. Flush Gypsum Board Access Doors with Concealed Flanges **AD-02**:

1. Description: Face of door flush with frame; with concealed flange for gypsum board installation and concealed hinge for horizontal or vertical conditions.
2. Uncoated Steel Sheet for Door: Nominal 0.060 inch (1.52 mm), 16 gage, factory primed.
3. Frame Material: Same material and minimum metal thickness as door.
4. Latch and Lock: Cam latch, screwdriver operated.

B. Flush GFRG Access Doors with Concealed Flanges **AD-03**:

1. Description: Face of door flush with frame; glass fiber reinforced gypsum, edges of frame tapered to receive tape and joint compounds, concealed hinge.
2. Door: Glass fiber reinforced gypsum, product manufacturer’s standard thickness.

3. Frame Material: Same material as door, drops into frame.

C. Flush Access Insert Panel Doors with Concealed Flanges **AD-04**:

1. Description: Recessed insert panel door with narrow frame edges. Edges of frame tapered to receive tape and joint compounds, concealed hinge. For vertical conditions.
2. Door: Recessed minimum 16 gauge steel inset panel to receive up to 1 inch thick installed panel material.
3. Frame Material: Same material and minimum metal thickness as door.
4. Latch and Lock: Cam latch, screwdriver operated.

2.4 FIRE-RATED ACCESS DOORS AND FRAMES

A. Fire-Rated, Flush Access Doors with Exposed Flanges **AD-01**:

1. Description: Door face flush with frame, with a core of mineral-fiber insulation enclosed in sheet metal; with exposed flange, self-closing door, and concealed hinge.
2. Fire-Resistance Rating: 2 hours, rated for horizontal or vertical conditions.
3. Uncoated Steel Sheet for Door: Nominal 0.036 inch (0.91 mm), 20 gage, factory primed.
4. Metallic-Coated Steel Sheet for Door: Nominal 0.040 inch (1.02 mm), 20 gage, factory primed.
5. Stainless-Steel Sheet for Door: Nominal 0.038 inch (0.95 mm), 20 gage, No. 4 finish.
6. Frame Material: Same material, thickness, and finish as door.
7. Latch and Lock: Self-latching door hardware, operated by key.

2.5 MATERIALS

A. Recycled Content of Steel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than 25 percent.

B. Metal Surfaces, General: For fabrication of access door and panel metal work which will be exposed to view in the finished work, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness. Remove such blemishes by grinding, or by welding and grinding, prior to cleaning, treating, and applying surface finishes.

C. Steel Plates, Shapes, and Bars: ASTM A36 (A 36M).

D. Steel Sheet: Uncoated or electrolytic zinc coated, ASTM A879 (A879M), with cold-rolled steel sheet substrate complying with ASTM A1008 (A1008M), Commercial Steel (CS), exposed.

E. Metallic-Coated Steel Sheet: ASTM A 653 (A653M), Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

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. Aluminum Extrusions: ASTM B221 (ASTM B221M), Alloy 6063.

H. Aluminum Sheet: ASTM B209 (ASTM B209M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated.

I. Drywall Beads: Edge trim formed from 0.0299-inch zinc-coated steel sheet formed to receive joint compound and in size to suit thickness of gypsum board.

J. Frame Anchors: Same material as door face.

K. Inserts, Bolts, and Anchor Fasteners: Hot-dip galvanized steel according to ASTM A153 (A153M) or ASTM F 2329.

2.6 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 mounting holes, 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 exposed flanges, provide nominal 1 to 1-1/2 inches (25 to 37 mm) wide trim around perimeter of frame.
3. Provide mounting holes in frames for attachment of units to metal framing.
4. Provide mounting holes in frame for attachment of masonry anchors.
5. For installation in masonry construction, furnish frames with adjustable metal 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. Provide access sleeves for each latch operator and install in holes cut through finish.

1. For recessed doors with plaster infill, provide self-furring expanded-metal lath attached to door panel.

E. Latch and Lock Hardware:

1. Quantity: Furnish number of latches and locks required to hold doors tightly closed.
2. Keys: Furnish two keys per lock and key all locks alike.
3. Mortise Cylinder Preparation: Where indicated, prepare door panel to accept cylinder specified in Division 08, Section 08 71 00 "Door Hardware."

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

2.7 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. Painted Finishes: Comply with coating manufacturer's written instructions for cleaning, conversion coating, and applying and baking finish.

1. Factory Primed: Apply manufacturer's standard, lead- and chromate-free, universal primer immediately after surface preparation and pretreatment.
2. Factory Finished: Apply manufacturer's standard baked-enamel or powder-coat finish immediately after cleaning and pretreating, with minimum dry-film thickness of 1 mil (0.025 mm) for topcoat.

a. Color: Match Architect's sample.

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. Verify dimensions of openings by field measurements so that access doors and related items will be accurately designed, fabricated, and fitted to the substrate.

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

3.2 PREPARATION

A. Advise Installers of other work about specific requirements relating to access door installation, including sizes of openings to receive access door and frame, as well as locations of supports, inserts, and anchoring devices.

B. Furnish inserts and anchoring devices for access doors that must be built into other construction. Coordinate delivery with other work to avoid delay.

3.3 INSTALLATION

A. Comply with manufacturer's written instructions for installing access doors and frames.

B. Set frames accurately in position and attach securely to supports with plane of face panels aligned with adjacent finish surfaces.

C. Install doors plumb, level, flush with adjacent finish surfaces or recessed to receive finish material.

D. Do not install fire rated doors in a manner that may compromise ratings of substrates.

3.4 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.

3.5 SCHEDULE

A. Wall and ceiling access doors shall be installed at the following locations:

1. Where specifically scheduled or noted on Drawings.
2. Where service access is required by local Building Code.
3. Where service access is required for serviceable, operable, adjustable, or re-settable fire suppression, plumbing, mechanical, electrical, life safety, security, or communications systems.
4. And as follows:

a. Non Fire-Rated Access Doors:

1) Uncoated Steel Access Doors:
a) Walls and ceilings in non-public, back-of-house spaces.
b) Concealed valves and controls for plumbing and HVAC.
c) Fire dampers above non-accessible ceilings.
d) Motor operated doors and grilles above non-accessible ceilings.

2) Metallic-Coated (Galvanized) Steel Access Doors:
a) Exterior walls and soffits.

3) Stainless Steel Access Doors:
a) Tiled walls.
b) Other damp locations.

4) Glass-Fiber-Reinforced Gypsum Access Doors:
a) Ceilings of public spaces.

5) Gypsum Board Access Doors:
a) Walls of public spaces.

b. Fire-Rated Access Doors:

1) Uncoated Steel Access Doors:
a) Fire-rated walls and ceilings in non-public, back-of-house spaces.

B. Sizes: To suit service access.

END OF SECTION