UNIFIED FACILITIES GUIDE SPECIFICATIONS

References are in agreement with UMRL dated July 2023
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SECTION TABLE OF CONTENTS

DIVISION 08 - OPENINGS

SECTION 08 31 00

ACCESS DOORS AND PANELS

05/17, CHG 1: 08/18

PART 1 GENERAL

1.1 REFERENCES
1.2 SUBMITTALS
1.3 MISCELLANEOUS REQUIREMENTS
1.3.1 Shop Drawings
1.3.2 Product Data
1.3.3 Finish Samples
1.3.4 Test Reports
1.4 PERFORMANCE REQUIREMENTS
1.4.1 Structural Requirements
1.4.2 Acoustical Requirements
1.4.3 Fire-Rating Requirements
1.4.4 Insulated Access Panels
1.4.5 Access Panels for Wet Areas
1.5 DELIVERY, STORAGE, AND PROTECTION

PART 2 PRODUCTS

2.1 RECYCLED CONTENT
2.2 MATERIALS
2.2.1 Steel Plates, Shapes, and Bars
2.2.2 Sheet Steel
2.2.3 Stainless Steel
2.2.4 Metallic Coated Steel Sheet
2.2.5 Hardware
2.2.6 Hinges
2.2.7 Locks
2.2.8 Accessories
2.3 FABRICATION
2.3.1 Thickness, Size, Edges
2.3.2 Welding
2.4 ACCESS ASSEMBLY TYPES
2.4.1 Recessed Doors

2.4.2 Fire-rated Doors
2.4.2.1 Door Construction
2.4.2.2 Labels
2.4.2.3 Door Panel and Frame
2.4.3 Acoustical Doors
2.4.4 Insulated Doors
2.5 FINISHES

PART 3 EXECUTION

3.1 PREPARATION
3.2 GENERAL INSTALLATION REQUIREMENTS
3.3 ACCESS LOCATIONS
3.4 ACCESS LOCATIONS IN WET AREAS
3.5 RECESSED ACCESS DOORS
3.6 FIELD PAINTING
3.7 DISSIMILAR MATERIALS
3.8 ADJUSTMENT
3.9 ENVIRONMENTAL CONDITIONS

-- End of Section Table of Contents --

UNIFIED FACILITIES GUIDE SPECIFICATIONS

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SECTION 08 31 00

ACCESS DOORS AND PANELS
05/17, CHG 1: 08/18

****
NOTE: This guide specification covers requirements for access doors and panels.

Adhere to UFC 1-300-02 Unified Facilities Guide Specifications (UFGS) Format Standard when editing this guide specification or preparing new project specification sections. Edit this guide specification for project specific requirements by adding, deleting, or revising text. For bracketed items, choose applicable item(s) or insert appropriate information.

Remove information and requirements not required in respective project, whether or not brackets are present.

Comments, suggestions and recommended changes for this guide specification are welcome and should be submitted as a Criteria Change Request (CCR).
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NOTE: Show the following on the drawings:

1. Locations and assemblies of each type of access door and panel.

2. Sizes and dimensions of doors and panels.

3. Materials, finishes, and types of doors and panel surfaces, for example, flush, recessed, louvered, decorative, security, type of surface finish to be matched.

4. Location of hinges and direction of swing. Indicate whether hatch must be detachable.

5. Required fire-ratings, acoustical ratings, level of security.

6. Required hardware including locking mechanisms. Indicate electrified hardware, if necessary.

7. Connection details, other than manufacturer's standard.

8. Provide a unique door number for each access door or panel. Coordinate with project door schedule.

****

PART 1 GENERAL

1.1 REFERENCES

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NOTE: This paragraph is used to list the publications cited in the text of the guide specification. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title.

Use the Reference Wizard's Check Reference feature when you add a Reference Identifier (RID) outside of the Section's Reference Article to automatically place the reference in the Reference Article. Also use the Reference Wizard's Check Reference feature to update the issue dates.

References not used in the text will automatically be deleted from this section of the project specification when you choose to reconcile references in the publish print process.

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The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN WELDING SOCIETY (AWS)

AWS D1.1/D1.1M	(2020; Errata 1 2021) Structural Welding Code - Steel

ASTM INTERNATIONAL (ASTM)

ASTM A36/A36M	(2019) Standard Specification for Carbon Structural Steel
ASTM A653/A653M	(2023) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
ASTM A666	(2023) Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate and Flat Bar

ASTM A1008/A1008M	(2021a) Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable
ASTM E90	(2009; R2016) Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements
ASTM E119	(2022) Standard Test Methods for Fire Tests of Building Construction and Materials
ASTM E413	(2022) Classification for Rating Sound Insulation
ASTM E1332	(2016) Standard Classification for Rating Outdoor-Indoor Sound Attenuation

MASTER PAINTERS INSTITUTE (MPI)

MPI 79	(2016) Primer, Alkyd, Anti-Corrosive for Metal

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 80	(2022) Standard for Fire Doors and Other Opening Protectives
NFPA 252	(2022) Standard Methods of Fire Tests of Door Assemblies
NFPA 288	(2017) Standard Methods of Fire Tests of Horizontal Fire Door Assemblies Installed in Horizontal Fire Resistance-Rated Assemblies

UNDERWRITERS LABORATORIES (UL)

UL 10B	(2008; Reprint May 2020) Fire Tests of Door Assemblies
UL 263	(2011; Reprint Aug 2021) UL Standard for Safety Fire Tests of Building Construction and Materials

1.2 SUBMITTALS

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NOTE: Review Submittal Description (SD) definitions in Section 01 33 00 SUBMITTAL PROCEDURES and edit the following list, and corresponding submittal items in the text, to reflect only the submittals required for the project. The Guide Specification technical editors have classified those items that require Government approval, due to their complexity or criticality, with a "G." Generally, other

submittal items can be reviewed by the Contractor's Quality Control System. Only add a "G" to an item if the submittal is sufficiently important or complex in context of the project.

For Army projects, fill in the empty brackets following the "G" classification, with a code of up to three characters to indicate the approving authority. Codes for Army projects using the Resident Management System (RMS) are: "AE" for Architect-Engineer; "DO" for District Office (Engineering Division or other organization in the District Office); "AO" for Area Office; "RO" for Resident Office; and "PO" for Project Office. Codes following the "G" typically are not used for Navy, Air Force, and NASA projects.

The "S" classification indicates submittals required as proof of compliance for sustainability Guiding Principles Validation or Third Party Certification and as described in Section 01 33 00 SUBMITTAL PROCEDURES.

Choose the first bracketed item for Navy, Air Force, and NASA projects, or choose the second bracketed item for Army projects.

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Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are [for Contractor Quality Control approval.][for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government.] Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Access Doors And Panels; G[, [_____]]

SD-03 Product Data

Access Doors And Panels; G[, [_____]]

Hardware Including Locks and Keys; G[, [_____]]

Accessories; G[, [_____]]

[Power Transfer Components; G[, [_____]]

] Recycled Content; S

SD-04 Samples

Finishes; G[, [_____]]

[SD-06 Test Reports

Fire-rating(s) of Assemblies; G[, [_____]]

Acoustical Ratings of Assemblies; G[, [_____]]

]1.3 MISCELLANEOUS REQUIREMENTS

For access doors and panels provide the following:

1.3.1 Shop Drawings

For field assembled access doors and panels, provide plans, elevations, sections, and details for each type of access door and panel assembly. Indicate frame, surface and edge construction, materials, and accessories. Indicate types of finished surfaces and details for panel edge conditions. Provide a door schedule with a unique number for each access door and panel, specific location in the project, location of hinges and hardware for each door.[Indicate [acoustical ratings of assemblies as sound transmission class (STC) ratings][,][and][fire-rating(s) of assemblies][and][locations and power transfer components for electrified locks and alarms].]

1.3.2 Product Data

For shop assembled access doors and panels, provide literature indicating sizes, types, frame and edge construction, finishes, hardware, accessories such as gaskets, seals and weatherstripping, and location of each door and panel in the project. Indicate[acoustical ratings of assemblies,][fire-ratings of assemblies,][and][locations and power transfer components for electrified locks and alarms.]. Provide details of adjoining work for each condition indicated.

1.3.3 Finish Samples

Submit two color charts from manufacturer's standard color and finish options for each type of frame and panel assembly finish indicated.

[1.3.4 Test Reports

[Provide test reports for acoustical assemblies when tested in accordance with ASTM E90 and classified in accordance with ASTM E413 and ASTM E1332.][Provide test reports for fire-rated assemblies when tested in accordance with NFPA 252 or UL 10B for fire-rated access door assemblies installed vertically and NFPA 288 for fire-rated access door assemblies installed horizontally.]

]1.4 PERFORMANCE REQUIREMENTS

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NOTE: Select access panels that will maintain the integrity of the surface in which they occur, for example, specify acoustical panels at acoustical wall and ceiling assemblies (if access cannot be eliminated); specify fire-rated panels at fire-rated wall and ceiling assemblies (and verify ratings in accordance with IBC 2015); specify security access panels at locations requiring forced entry resistance, access control, or intrusion detection.

NOTE: Access control and alarms require power to the access door; coordinate to avoid surface mounting of power transfer devices that are

unsightly and easy to defeat.

NOTE: Coordinate locations of access doors and panels with mechanical drawings and specifications.
****

1.4.1 Structural Requirements

Provide floor access assemblies to support live loads indicated for floors. Deflection must not exceed 1/180 of span.

[1.4.2 Acoustical Requirements

Provide access panels with a minimum sound transmission class (STC) of [_____][as indicated on the Drawings]. Provide gasketing in accordance with manufacturer's written recommendations.

][1.4.3 Fire-Rating Requirements

Provide access panels with a minimum fire-rating of [[_____]-Hour][as indicated on the Drawings].

][1.4.4 Insulated Access Panels

Provide panels in a thickness as necessary to achieve a minimum R-value of [_____][as indicated on the Drawings]. Provide gasketing as necessary for an airtight installation.

][1.4.5 Access Panels for Wet Areas

Provide panel assemblies that will be located in wet areas with corrosion resistant finishes and hardware and water resistant gasketing.

]1.5 DELIVERY, STORAGE, AND PROTECTION

Protect from corrosion, deformation, and other types of damage. Store items in an enclosed area free from contact with soil and weather. Remove and replace damaged items with new items.

PART 2 PRODUCTS

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NOTE: Select access panels for each type of surface in which panels occur. Consider the appearance of panels in relation to their locations. If the prominence of an access panel will not be aesthetically acceptable at gypsum wallboard locations, wood clad ceilings and walls, tile surfaces, specify recessed panels intended to receive and support such matching finishes. If the appearance of access panels is acceptable, provide cost effective flush steel panels, either factory painted or factory primed and field painted, and coordinate metal finishes or specify to match the surfaces in which they occur. Specify decorative access panels or louvered panels only when there is a compelling design reason to do so.
****

2.1 RECYCLED CONTENT

Provide products with recycled content. Provide data for each product with recycled content, identifying percentage of recycled content.

2.2 MATERIALS

2.2.1 Steel Plates, Shapes, and Bars

Provide in accordance with ASTM A36/A36M.

2.2.2 Sheet Steel

Provide cold rolled steel sheet substrate in accordance with ASTM A1008/A1008M, Commercial Steel (CS), exposed.

2.2.3 Stainless Steel

Provide in accordance with ASTM A666, type 302 or 304.

2.2.4 Metallic Coated Steel Sheet

Provide in accordance with ASTM A653/A653M, Commercial Steel (CS), Type B; with minimum G60 (Z180) or A60 (ZF180) metallic coating.

2.2.5 Hardware

Provide automatic closing devices. Provide latch releases operable from insides of doors.[Provide anchors in accordance with applicable fire test parameters.]

2.2.6 Hinges

Provide concealed spring hinges, 175 degrees of opening, with [non-]removable hinge pins[to allow removal of door panel from frame]. Provide hinges of same steel as door and frame or in accordance with manufacturer's written recommendations. If providing non-continuous hinges, provide in numbers required to maintain alignment of door panel with frame. Provide coatings as necessary to permanently protect dissimilar metals from contact with one another; see Part 3 herein for more information.

2.2.7 Locks

Unless otherwise indicated, provide flush [screwdriver operated cam lock. Provide plastic sleeve or stainless steel bushings to protect holes in surface finishes for screwdriver to access lock.][keyed lock][tamper proof screws (spanner head locks) for access panels in locations requiring such security.][Lock cylinders are specified in Section 08 71 00 DOOR HARDWARE.]

2.2.8 Accessories

Provide anchors in size, number and location on four sides to secure access door to substrate. Provide anchors in types as recommended by manufacturer's written installation instructions for each substrate indicated. Provide shims, bushings, clips, gaskets, and other devices as necessary for a complete installation.

2.3 FABRICATION

2.3.1 Thickness, Size, Edges

Fabricate frames for access doors of steel not lighter than 16 gage with welded joints and anchorage for securing to adjacent construction. Provide doors a minimum of 600 by 600 mm 24 by 24 inches and of not lighter than 16 gage steel, with stiffened edges and welded attachments. Provide with eased (lightly rounded) edges, without burrs, snags or sharpness and exposed welds ground smooth.

2.3.2 Welding

Provide in accordance with AWS D1.1/D1.1M.

2.4 ACCESS ASSEMBLY TYPES

Unless indicated otherwise, provide flush-face steel access doors and panels with steel frames and flanges.

[2.4.1 Recessed Doors

Provide recessed access doors[with gypsum wallboard bead flanges]. Depth of door panel recess must accommodate the installed thickness of the finish material of the wall assembly for a flush finished condition of the wall and the access panel face. Reinforce panel and frame to prevent sagging.

][2.4.2 Fire-rated Doors

2.4.2.1 Door Construction

Provide ceiling access door construction in accordance with ASTM E119 or UL 263. Provide wall access doors in accordance with NFPA 252 or UL 10B.

2.4.2.2 Labels

Provide class B opening according to UL 10B or test by another nationally recognized laboratory, approved by the Contracting Officer. Provide fire-rating as indicated herein, with a maximum temperature rise of 120 degrees C 216 degrees F.

2.4.2.3 Door Panel and Frame

[Steel][Stainless steel] sheet, with mineral fiber insulation core, insulated sandwich type construction.

][2.4.3 Acoustical Doors

Manufacturer's standard assembly rated in accordance with STC requirements indicated herein. Acoustical insulating materials must have a flame spread rating of no more than 25.

][2.4.4 Insulated Doors

Provide access door panels with [172 kPa25 pounds per square inch density polystyrene][80 kg per cubic meter5 pound per cubic foot density, chlorofluorocarbon (CFC) free, foamed urethane] with a flame spread rating of no more than 25.

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NOTE: For BEQ projects which have terminal air blenders, add the bracketed item.
****

[Provide ceiling access panels for terminal air blenders as indicated. Provide pin-tumbler cylinder locks with appropriate cams in lieu of screwdriver-operated latches.]

]2.5 FINISHES

[Provide steel frames and panel surfaces with a [baked enamel][powder coated finish.]Provide manufacturer's standard two coat finish system consisting of one coat primer and one thermoset topcoat. Provide dry film thickness in 0.05 mm 2 mils minimum.][Provide steel frame and panel surfaces with a shop applied prime coat. [Field paint frames and panels to match wall and ceiling surfaces in which they occur.]][Provide stainless steel frames and panels.][Provide brushed aluminum frames and panels.] Provide exposed fastenings that approximately match the color and finish of the each material to which fastenings are applied.

PART 3 EXECUTION

3.1 PREPARATION

Field verify all measurements prior to fabrication. Verify access door locations and sizes provide required maintenance access to installed building services components. Protect existing construction and completed work from damage during installation.

3.2 GENERAL INSTALLATION REQUIREMENTS

Install items at locations indicated, in accordance with manufacturer's written instructions. Include materials and parts as necessary for a complete installation of each item. Conceal fastenings where practicable. Poor matching of holes to fasteners is cause for rejection of the work.

3.3 ACCESS LOCATIONS

Install removable access panels directly below each valve, flow indicator, damper, air splitter or other utility requiring access that is located above ceilings, other than at acoustical panel ceilings, and that would otherwise not be accessible. Install access doors and panels permitting access to service valves, traps, dampers, cleanouts, and other mechanical, electrical and conveyor control items concealed in walls and partitions.

3.4 ACCESS LOCATIONS IN WET AREAS

When possible, avoid locating access panels in wet areas. When such locations cannot be avoided, provide moisture resistant assemblies as indicated in Part I herein.

[3.5 RECESSED ACCESS DOORS

Install fire-rated access doors in fire-rated partitions and ceilings in accordance with NFPA 80.

]3.6 FIELD PAINTING

Field painting primed access doors in accordance with the requirements of Section 09 90 00 PAINTS AND COATINGS.

3.7 DISSIMILAR MATERIALS

Where dissimilar metals are in contact, protect surfaces with a coating in accordance with MPI 79 to prevent galvanic or corrosive action.

3.8 ADJUSTMENT

Adjust hardware so that door panel opens freely. Adjust door when closed center door panel in frame.

3.9 ENVIRONMENTAL CONDITIONS

Do not paint surfaces when damp or exposed to weather, when surface temperature is below 7 degrees C or over 35 degrees C 45 degrees F or over 95 degrees F, unless approved by the Contracting Officer.

-- End of Section --