SECTION 08 32 13

ALUMINUM SLIDING GLASS DOORS
08/20

PART 1 GENERAL

1.1 REFERENCES

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 ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

AAMA/WDMA/CSA 101/I.S.2/A440	(2017) North American Fenestration Standard/Specification for Windows, Doors, and Skylights

ASTM INTERNATIONAL (ASTM)

ASTM F842	(2017) Standard Test Methods for Measuring the Forced Entry Resistance of Sliding Door Assemblies, Excluding Glazing Impact

JAPANESE STANDARDS ASSOCIATION (JSA)

JIS A 1514	(2015) Test Method of Dew Condensation for Windows and Doorsets
JIS H 4040	(2015) Aluminum and Aluminum Alloy Bars and Wires
JIS A 4702	(2021) Doorsets
JIS H 8601	(1999) Anodic Oxide Coatings on Aluminum and Aluminum Alloys
JIS R 3222	(2003) Heat-Strengthened Glass

MINISTRY OF LAND, INFRASTRUCTURE, TRANSPORT AND TOURISM (MLIT)

MLIT SS Chapter 16	(2019) Building Construction Standard Specifications - Chapter 16 Opening Construction

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.][for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.] Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance to Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Aluminum sliding glass doors

SD-10 Operation and Maintenance Data

Aluminum sliding glass doors, Data Package 1; ; G[, [_____]]

1.2.1 Shop Drawing Information

Submit drawings for aluminum sliding glass doors[, screens,] and accessories that indicate elevations of each door type, full size sections, thickness, nominal gages of metal, fastenings, proposed method of installation and anchoring, the size and spacing and method of glazing, details of operating hardware, method and material for weatherstripping, type of finish, and screen details.

1.2.2 Samples Information

Submit color chart of factory color coatings when factory-finished color coating is to be provided.

1.3 TEMPORARY PROTECTIVE COVERING

Prior to shipment from the factory, finished surfaces of aluminum sliding glass doors shall receive a protective covering of waterproof tape, strippable plastic, or cardboard to protect against discoloration and surface damage that may occur during transportation, storage, and construction activities. Also, no coatings or lacquers shall be applied to surfaces to which caulking and glazing compounds must adhere. Covering shall be readily removable after installation.

1.4 DELIVERY AND STORAGE

Inspect aluminum sliding glass doors, [including screens,] hardware and accessories, for damage and unload and store doors upright on platforms in accessible spaces with a minimum of handling. The storage spaces must be dry, adequately ventilated, free from heavy dust and not subject to combustion products, sources of water or other conditions that could damage the door. Storage spaces must have easy access for inspection and handling of doors.

1.5 EXTRA STOCK

[Deliver an extra stock of markings for glass panels to the Government for use in future replacement of original markings. The extra stock shall be of the same designs, colors, and materials as the markings installed on this project. Furnish markings in original containers or packages in a quantity not less than [_____] percent of the amount of markings to be installed.]

PART 2 PRODUCTS

2.1 ALUMINUM SLIDING GLASS DOORS

Provide aluminum sliding glass doors with sliding panels and fixed panels in the sizes and arrangements indicated and conforming [except frame must be equipped with thermal barrier]. [Mark panels identically and permanently to visibly interrupt the span of glass. Use markings [of the design and color indicated] [approximately 2500 square millimeters] of

opaque, pressure-sensitive vinyl film with precoated adhesive.] Sliding door glazing must be set in aluminum frames and roller assemblies of sufficient strength to withstand lateral live stresses and static load or weight requirements.

2.1.1 Hardware

Sliding door panel must have a manually operated adjustable latch [operable by latch handle or slide bar from inside only] [operable by a five-pin tumbler cylinder lock on outside and thumb-turn on the inside] [operable by a five-pin tumbler cylinder lock from either side]. Fit sliding screen door panel with a self-latching hook or rotary-type latch operable from [inside only] [both sides]. [Provide pulls for both inside and outside of sliding panel and the sliding screen panel]. [Provide a pull on the inside of the sliding door panel and the sliding screen panel only]. [Provide auxiliary pin lock [bottom] [top and bottom] on inner side of sliding glass door panel opposite manually operated adjustable latch.] Exposed hardware is to be aluminum or stainless steel, color finished to match door color finish.

2.1.2 Glazing

Factory glazed sliding glass doors, including fixed panel, with [double-glazed] glass conforming to JIS R 3222 not less than [6] [_____] mm thick. [Double glazing must have a minimum condensation resistance factor of [_____] in accordance with JIS A 1514.] Glazing material must be certified by independent testing agency. Set glazing unit in polyvinyl-chloride or synthetic rubber glazing channels. Channels must be reusable when replacing glass and have mitered or continuous corners. Channels exposed to view must blend in color with the aluminum frame finish.

2.1.3 Weatherstripping

Provide four sides of each sliding panel and interlocking stiles and jambs with weatherstripping. Weatherstripping must conform to JIS A 4702 and must provide maximum protection against the elements and be designed for ease of replacement.

2.1.4 Screens

Provide horizontal sliding aluminum screens in combination with aluminum sliding glass doors. Provide screen frames shall consist of aluminum shapes of size and design standard with the door manufacturer. Frames must have removable splines of aluminum or vinyl and must permit screening fabric replacement. Screening shall be [18 by 16 mesh aluminum conforming to JIS H 4040,] [_____ color] [selected color to match doors]. Install screening with weave parallel with frames and sufficiently tight to present a smooth appearance. Conceal edges of screening in the spline channel. Screens must be complete with rollers, hardware, and accessories and must slide on or within tracks provided in the door frame members. Design and assemble doors so that aluminum-to-aluminum contact of moving members will not occur. Provide insect-proofing, formed of wool pile or other suitable material, at interlocking stiles and jambs. Finish on screen frames must be as specified for doors.

2.1.5 Finish

Before fabrication, clean sliding glass door units and give a [clear

(natural) anodized finish] [_____] (color) anodized finish in accordance with the requirements of the JIS H 8601. The finish thickness must be [0.01 mm or greater.] [0.0175 mm or greater.]

2.2 CAULKING AND SEALING

As specified under Section 07 92 00 JOINT SEALANTS.

2.3 FORCED ENTRY RESISTANT DOORS (U.S. PRODUCT ONLY)

In addition to meeting AAMA/WDMA/CSA 101/I.S.2/A440, doors designated forced entry resistant must conform to ASTM F842.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Doors, Frames, and Accessories

Install doors, frames, framing members, hardware, and accessories in accordance with approved shop drawings and the requirements specified herein. Set frames securely anchored in place to straight, plumb, square, level condition without distortion and in alignment. Install door panels to retain proper weathering contact with frames. Caulk metal-to-metal joints between frame members and remove excess material. Caulking around perimeter of door frame and wall openings to provide weathertight installation must be accomplished in accordance with MLIT SS Chapter 16 and manufacturer's recommendations. Finished work shall be rigid, neat in appearance, and free from defects. Upon completion, adjust sliding doors to operate properly. Thoroughly clean aluminum frames and glass in accordance with manufacturer's recommendation. Doors damaged prior to completion and acceptance must be restored to original manufactured condition or replaced with new doors as directed.

3.1.2 Protection of Aluminum from Dissimilar Materials

3.1.2.1 Aluminum to Dissimilar Metals

Prevent aluminum surfaces from contacting dissimilar metals other than stainless steel, zinc, or white bronze by one or a combination of the following:

a. Paint dissimilar metal with one coat of heavy-bodied bituminous paint.

b. Apply caulking between aluminum and dissimilar metal.

c. Paint dissimilar metal with primer, followed by one coat of aluminum paint or other suitable lead-free coating.

d. Use nonabsorptive tape or gasket in permanently dry locations.

3.1.2.2 Drainage from Dissimilar Metals

Paint dissimilar metals located in areas where their drainage washes over aluminum to prevent the staining of aluminum.

3.1.2.3 Aluminum to Masonry and Concrete

Prevent aluminum surfaces from coming into contact with mortar, concrete,

or other masonry materials by applying one coat of heavy-bodied bituminous paint to the aluminum surfaces.

3.1.2.4 Aluminum to Wood

Prevent aluminum surfaces from coming into contact with wood, treated wood, or similarly absorptive materials by one or a combination of the following methods:

a. Paint aluminum surfaces with two coats of aluminum paint or one coat of heavy-bodied bituminous paint.

b. Paint the wood, treated wood, or other absorptive surfaces with two coats of aluminum paint and seal contiguous joints with caulking compound.

-- End of Section --