

SECTION 08211 - FLUSH WOOD DOORS

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
1. Solid-core doors with wood-veneer faces.
 2. Factory finishing flush wood doors.
 3. Solid-core doors with hardboard

1.2 SUBMITTALS

- A. Product Data: For each type of door. Include details of core and edge construction, trim for openings, and louvers.
1. Include factory-finishing specifications.
- B. Shop Drawings: Indicate location, size, and hand of each door; elevation of each kind of door; construction details not covered in Product Data; location and extent of hardware blocking; and other pertinent data.
1. Indicate dimensions and locations of mortises and holes for hardware.
 2. Indicate dimensions and locations of cutouts.
 3. Indicate doors to be factory finished and finish requirements.
 4. Indicate fire ratings for fire doors.

1.3 QUALITY ASSURANCE

- A. Source Limitations: Obtain flush wood doors through one source from a single manufacturer.
- B. Quality Standard: Comply with the following standard:
1. AWI Quality Standard: AWI's "Architectural Woodwork Quality Standards" for grade of door, core, construction, finish, and other requirements.
- C. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a testing and inspecting agency acceptable to authorities having jurisdiction, for fire ratings indicated, based on testing according to NFPA 252.
1. Test Pressure: Test at atmospheric pressure.
 2. Temperature-Rise Rating: Where indicated, provide doors that have a temperature-rise rating of 450 deg F maximum in 30 minutes of fire exposure.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect doors during transit, storage, and handling to prevent damage, soiling, and deterioration. Comply with requirements of referenced standard and manufacturer's written instructions.
 - 1. Individually package doors in plastic bags or cardboard cartons.
- B. Mark each door with individual opening numbers used on Shop Drawings. Use removable tags or concealed markings.

1.5 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install doors until conditions for temperature and relative humidity have been stabilized and will be maintained in storage and installation areas during the remainder of the construction period to comply with requirements of the referenced quality standard for Project's geographical location.

1.6 WARRANTY

- A. General Warranty: Door manufacturer's warranty specified in this Article shall not deprive the Owner of other rights the Owner may have under other provisions of the Contract Documents and shall be in addition to, and run concurrent with, other warranties made by the Sub-contractor under requirements of the Contract Documents.
- B. Door Manufacturer's Warranty: Provide manufacturer's standard warranty.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Flush Wood Solid Core Doors at main building corridors and/or fire rated::
 - a. Algoma Hardwoods Inc.
 - b. Graham Doors
 - c. Eggers Industries; Architectural Door Division.
 - d. Weyerhaeuser Co.
 - e. Mohawk Flush Doors, Inc.
 - f. Vancouver Door Company, Inc.
 - g. Buell Door Company
 - h. Eagle Plywood & Door Manufacturing, Inc.
 - i. Lambton Doors
 - j. Or approved quality substitution by Architect.

2.2 DOOR CONSTRUCTION, GENERAL

- A. Doors for Transparent Finish: Comply with the following requirements:
1. Grade: Grade A faces.
 2. Faces: Birch, rotary cut.
 3. Match within Door Faces: Center balance match.
 4. Pair and Set Match: Provide for pairs of doors and for doors hung in adjacent sets.
- B. Doors for Opaque Finish:
1. Grade: Economy
 2. Faces for interior suite doors: hardboard

2.3 SOLID-CORE DOORS

- A. Particleboard Cores: Comply with the following requirements:
1. Particleboard: ANSI A208.1, Grade LD-2.
 2. Blocking: Provide wood blocking at particleboard-core doors as standard with the manufacturer.
- B. Interior Veneer-Faced Doors: Comply with the following requirements:
1. Core: Particleboard core.
 2. Construction: Five-ply.
- C. Fire-Rated Doors: Comply with the following requirements:
1. Construction: Construction and core specified above for type of face indicated or manufacturer's standard mineral-core construction as required to provide fire rating indicated.
 2. Blocking: For mineral-core doors, provide composite blocking with improved screw-holding capability approved for use in doors of fire ratings indicated.
 - a. As necessary to eliminate need for through-bolting hardware.
 3. Edge Construction: At hinge stiles, provide manufacturer's standard laminated-edge construction with improved screw-holding capability and split resistance and with outer stile matching face veneer.
 4. Pairs: Provide fire-rated pairs with fire-retardant stiles that are labeled and listed for kinds of applications indicated without formed-steel edges and astragals.
- D. Interior Hardboard-faced solid core doors. Interior doors within the suite: comply with the following:
1. Core: particleboard.
 2. Construction: Three plies with stiles and rails bonded to core, then entire unit abrasive planed before faces are applied.

- E. Interior Hollow Core Doors. Closet and bi-fold storage doors: comply with the following:
1. Core: expanded corrugated construction core.
 2. Manufacturer's standard.
 3. Subject to compliance with requirements, provide products by one of the following for the Interior Doors only:
 - a. Mohawk Flush Doors, Inc.
 - b. Graham Doors
 - c. VT Industries.
 - d. Buell Door Company.
 - e. All European Design.
 - f. Ampco Architectural Flush Wood Doors.
 - g. Or approved quality substitution by Architect.
 4. All interior pre-finished doors shall be "paint" grade premium grades for opaque paint finish.

2.4 LIGHT FRAMES

- A. Wood Frames for Light Openings: As follows:
1. Wood Species: Same species as door faces.
 2. Profile: To be selected by the Architect from the manufacturer's standard shapes.
 3. Frames for Openings in Fire Doors: Wood frames and metal glazing clips approved for use in 20-minute fire-rated wood-core doors.

2.5 FABRICATION

- A. Fabricate flush wood doors in sizes indicated for Project site fitting.
- B. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels, unless otherwise indicated:
1. Comply with clearance requirements of referenced quality standard for fitting. Comply with requirements of NFPA 80 for fire-rated doors.
- C. Factory machine doors for hardware that is not surface applied. Locate hardware to comply with DHI-WDHS-3. Comply with final hardware schedules, door frame Shop Drawings, DHI A115-W series standards, and hardware templates.
1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.
- D. Openings: Cut and trim openings through doors to comply with applicable requirements of referenced standards for kind(s) of door(s) required.
1. Light Openings: Trim openings with moldings of material and profile indicated.

2.6 FACTORY FINISHING

- A. General: Comply with referenced quality standard's requirements for factory finishing.
 - 1. Finish wood doors at factory.
- B. Transparent Finish: Comply with requirements indicated for grade, finish system, staining effect, and sheen.
 - 1. Grade: Premium.
 - 2. Finish: Manufacturer's standard finish with performance requirements comparable to AWI System TR-6 catalyzed polyurethane.
 - 3. Staining and Sheen: As selected by Architect from manufacturer's full range of colors.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine installed door frames before hanging doors.
 - 1. Verify that frames comply with indicated requirements for type, size, location, and swing characteristics and have been installed with plumb jambs and level heads.
 - 2. Reject doors with defects.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 8 Section "Door Hardware."
- B. Manufacturer's Written Instructions: Install wood doors to comply with manufacturer's written instructions, referenced quality standard, and as indicated.
 - 1. Install fire-rated doors in corresponding fire-rated frames according to NFPA 80.
- C. Factory-Finished Doors: Restore finish before installation, if fitting or machining is required at Project site.
- D.

3.3 ADJUSTING AND PROTECTING

- A. Operation: Re-hang or replace doors that do not swing or operate freely.
- B. Finished Doors: Refinish or replace doors damaged during installation.
- C. Protection: Protect doors as recommended by door manufacturer to ensure that wood doors are without damage or deterioration at the time of Substantial Completion.

END OF SECTION 08211