

## SECTION 08210

## WOOD DOORS

## PART 1 - GENERAL

## 1.01 SECTION INCLUDES

- A. Solid core flush wood doors
- B. Mineral core fire rated wood doors
- C. Lead lined solid core wood doors
- D. Sound retardant wood doors

## 1.02 REFERENCES AND REGULATORY REQUIREMENTS

- A. ASTM E152 - Methods of Fire Tests and Door Assemblies.
- B. NFPA 252 - Standard Methods for Fire Assemblies.
- C. IBC 2003
- D. UL 10 (c) - Fire Tests for Door Assemblies - Positive Pressure
- E. NFPA 80 - Fire Doors and Windows.
- F. Quality Standards:
  - 1. WDMA Industry Standard I.S. 1A-04
  - 2. ANSI A115. W Series, Wood Door Hardware Standards. (American National Standard Institute)
  - 3. LEED Standards as noted
  - 4. Labeling Agencies
  - 5. Intertek Testing Services-Warnock Hersey (ITS-WH)

## 1.03 SUBMITTALS

- A. Shop drawings: Indicate location, size, and hand of each door; elevation of each kind of door; 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 requirements for veneer matching.
  - 4. Indicate doors to be factory finished and finish requirements.
  - 5. Indicate fire ratings for fire doors.

- B. Samples for Initial Selection: Color charts consisting of actual materials in small sections for the following:
  - 1. Faces for Factory Finished doors: Show the full range of colors available for stained finishes.
- C. Samples for Verification:
  - 1. Factory finishes applied to actual door face materials, approximately 8 by 10 inches, for each material and finish. For each wood species and transparent finish, provide one piece of the expected finished work.
- D. All information relative to LEED point certification.

#### 1.04 QUALITY ASSURANCE

- A. Source limitations: Obtain flush wood doors through one source from a single manufacturer.
- B. Quality standard: Comply with WDMA I.S.1-A 04
- C. Fire-rated 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 and UBC 7-2-1997 (Positive Pressure).

#### 1.05 DELIVERY STORAGE AND HANDLING AND SITE CONDITIONS

- A. Deliver, store, protect and handle products under provisions of WDMA.
- B. Package doors individually and wrap bundles of doors. Inspect for damage. Do not store in damp or wet areas. HVAC systems should be operating and balanced prior to arrival of doors. Acceptable humidity shall be no less than 25% nor greater than 55%.
- C. Certain wood species are light sensitive. Protect doors from exposure to natural and artificial light after delivery.

#### 1.06 WARRANTY

- A. Provide manufacturer's warranty for Interior Solid Core Doors:
  - 1. Full Lifetime Warranty

### PART 2 - PRODUCTS

#### 2.01 MANUFACTURERS

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

1. Flush wood doors:
  - a. Marshfield DoorSystems
  - b. Algoma Hardwoods, Inc.
  - c. Eggers Industries
  - d. Maiman fine Architectural Doors

B. Substitutions allowed only with written approval by architect prior to bid date.

## 2.02 DOOR CONSTRUCTION, GENERAL

### A. WORKMANSHIP

1. Comply with WDMA I.S. 1A-04

### B. PERFORMANCE STANDARD

1. Comply with WDMA I.S. 1A-04 Extra Heavy Duty

### C. DOORS FOR TRANSPARENT FINISH:

1. Grade: **Custom, with A Grade Faces**
2. Wood veneer Species and Cut: As selected by Architect
3. Match between veneer leaves: **Running match** as selected by Architect.
4. Assembly of spliced veneers: Running (standard unless otherwise noted), Balance match, or Center balance match as selected by Architect.
5. Pair and Set match: Provide for doors hung in same opening or separated only by mullions.
6. Door with Transom: Continuous match (standard unless otherwise noted) or End Match as selected by Architect.

D. Stiles and Rails: Hard wood same species as face, veneer matching is not acceptable.

### E. Interior Veneer-faced doors:

1. Stiles and rails bonded to core, and then entire unit abrasive planed before veneering.
2. Rating: Positive pressure Category A (concealed intumescent).

## 2.03 SOLID-CORE DOORS

### A. NON-FIRE RATED WOOD DOORS

1. Non-rated and 20-minute rated
  - a. LD-2 Particleboard, PC-5
  - b. Doors to utilize SCS certified particle core to assist in achieving LEED credit for recycled content, or doors to utilize FSC certified stave core to assist in achieving credit for certified wood.
2. Provide manufacturers standard laminated-edge construction with improved screw-

holding capability and split resistance.

3. 20-minute rated pairs:

- a. Provide with fire-retardant stiles matching face veneer that are labeled and listed for kinds of applications indicated without formed-steel edges and astragals.
- b. As required by manufacturer to permit positive pressure "S" label per Category H.

B. FIRE RATED WOOD DOORS

1. Manufacturer's standard mineral-core construction as needed to provide fire rating indicated.
2. Blocking: provide composite blocking with improved screw-holding capability approved for use in doors of fire ratings indicated as needed to eliminate through-bolting hardware for surface applied hardware.
3. Provide manufacturers standard laminated-edge construction with improved screw-holding capability and split resistance that are labeled and listed to provide fire rating indicated.
4. Pairs: Metal edges.

C. SOUND RETARDANT WOOD DOORS

1. Core shall be high-density particleboard, hardboard and insulation or acoustic pan
2. STC ratings(s) shall be: STC-41, STC-44, STC-45, STC-46, and STC-47 as required.

## 2.04 FABRICATION

A. Factory fit doors to suit frame-opening sizes indicated, with the following uniform clearances and bevels, unless otherwise indicated:

1. WDMA prefit clearances for factory fit doors
2. NFPA 80 for fire rated doors
3. Manufacturers hardware templates

B. Factory machine doors for hardware that is not surface applied. Comply with final hardware schedules, door frame Shop Drawings, and hardware templates.

1. Coordinate measurements of hardware mortises in metal frames to verify dimensions and alignment before factory machining.

C. Openings: Cut and trim openings through doors to comply with applicable requirements of referenced standard for kind(s) of doors(s) required.

1. Light openings: Trim openings with moldings of material and profile indicated.
2. Louvers: Factory install louvers in prepared openings.

D. Apply appropriate labels.

## 2.05 FACTORY FINISH

A. General: Comply with WDMA finish requirements.

- B. Finish doors at factory.
- C. Transparent Finish:
  - 1. Finish: WDMA TR-6 catalyzed polyurethane.
  - 2. Staining: As selected from manufacturers standard colors [or] Custom color in accordance with approved sample.
- D. Factory finished doors to be installed just prior to substantial completion.

## 2.06 ACCESSORIES

### A. LOUVERS

- 1. Wood louvers as detailed on the elevations.
- 2. Louvers to be furnished by the door manufacturer.
- 3. Metal Louvers: Specified in Division 10.

### B. GLAZING STOPS

- 1. Non-Rated:
  - a. Wood, of the same species/compatible with door species.
- 2. Fire-Rated:
  - a. Flush, wood veneer clad PVC, of same species as door facing [or]
  - b. Veneer wrapped rolled steel, of same species as door facing as selected by Architect.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

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

### 3.02 INSTALLATION

- A. Hardware: For installation, see Division 8 Section "Door Hardware."
- B. Manufacturer's written instructions: Install 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. Align all doors for uniform clearance at each edge.

D. Factory finished doors: Restore finish before installation if fitting or machining is required at Project site.

### 3.03 ADJUSTING

A. Operation: Adjust all doors to swing and operate freely.

**END OF SECTION**