

Seaside Rehabilitation and Health Care Center
Portland, Maine

SECTION 081416 - WOOD DOORS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Solid-core doors with MDO faces.
2. Solid-core doors with embossed hardboard faces.
3. Shop priming wood doors.
4. Factory fitting wood doors to frames and factory machining for hardware.
5. Factory glazing of wood doors with glazed openings.

B. Related Requirements:

1. Division 08 Section "Hollow Metal Doors and Frames" for hollow metal frames receiving wood doors.
2. Division 08 Section "Door Hardware" for hardware and templates, and door hardware preinstallation conference.
3. Division 09 Section "Painting" for field finishing of wood doors.

1.3 PREINSTALLATION MEETINGS

- A. Preinstallation Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to door installation including, but not limited to, the following:

1. Meet with Owner, Architect, door installer, hardware installer, door supplier and door manufacturer's representative. Provide 7 business days minimum advance notice to participants prior to convening preinstallation conference. Door preinstallation conference shall run concurrently with door hardware preinstallation conference.
2. Review methods and procedures related to door installation, including manufacturer's written instructions.
3. Review installation of fire doors, including hinge screw application to fire rated doors and requirements for door removal from frame if required after installation.
4. Review door swing and closer installation to permit maximum swing without binding at frame opening.
5. Review floor covering requirements to provide proper door undercut clearance.
6. Review fire rated door requirements regarding no field modifications to labeled doors.
7. Document proceedings, including corrective measures and actions required, and furnish copy of record to each participant.

1.4 ACTION SUBMITTALS

- A. General: Submit in accordance with Division 01 Section "Submittal Procedures."

1. Submittals for Division 08 Sections "Hollow Metal Doors and Frames," "Wood Doors," and "Door Hardware" shall be made concurrently.

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- B. Product Data: For each type of door. Include details of core and edge construction and trim for openings. Include factory-finishing specifications.
 - C. Shop Drawings: Indicate location, size, thickness, and hand of each door; elevation of each kind of door; type of glass where required; and construction details not covered in Product Data; and the following:
 - 1. Dimensions and locations of blocking.
 - 2. Dimensions and locations of mortises and holes for hardware.
 - 3. Dimensions and locations of cutouts.
 - 4. Undercuts.
 - a. Verify ceramic tile locations for proper clearance of door bottoms and hardware.
 - 5. Fire-protection ratings for fire-rated doors.
 - 6. Fire-protection ratings for fire-rated glazing.
 - D. Door Schedule: Submit schedule of doors using same reference numbers for details and openings as those on Contract Drawings.
 - 1. Indicate coordination of glazing frames and stops with glass and glazing requirements.
 - E. Samples:
 - 1. Corner sections of doors, approximately 8 by 10 inches, with door faces and edges representing actual materials to be used.
 - 2. Louver blade and frame sections, 6 inches long, for each material and finish specified.
 - 3. Frames for light openings, 6 inches long, for each material, type, and finish required.
 - F. Preinstallation conference meeting notes.
- 1.5 INFORMATIONAL SUBMITTALS
- A. Sample Warranty: For special warranty.
- 1.6 DELIVERY, STORAGE, AND HANDLING
- A. Comply with requirements of referenced standard and manufacturer's written instructions.
 - B. Protect wood doors during transit, storage, and handling to prevent damage, soiling and deterioration. Comply with requirements of referenced standard, manufacturer's instructions, and recommendations of WDMA I.S.1, Appendix, "How to Store, Handle, Finish, Install and Maintain Wood Doors."
 - 1. Package doors at factory prior to shipping.
 - 2. Protect doors from extremes of heat and cold. Relative humidity shall not be less than 30 percent nor more than 60 percent.
 - 3. Compare prefinished doors to approved finish sample upon delivery. Notify Architect if sample does not match.
 - C. Mark each door on bottom rail with opening number used on Shop Drawings.
- 1.7 FIELD CONDITIONS
- A. Environmental Limitations: Do not deliver or install doors until spaces are enclosed and weathertight, wet work in spaces is complete and dry, and HVAC system is operating and maintaining ambient temperature and humidity conditions at occupancy levels during remainder of construction period.

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1.8 WARRANTY

- A. Special Warranty: Manufacturer agrees to repair or replace doors that fail in materials or workmanship within specified warranty period.
 - 1. Failures include, but are not limited to, the following:
 - a. Warping (bow, cup, or twist) more than 1/4 inch in a 42-by-84-inch section.
 - b. Telegraphing of core construction in face veneers exceeding 0.01 inch in a 3-inch span.
 - 2. Warranty shall also include installation and finishing that may be required due to repair or replacement of defective doors.
 - 3. Warranty Period for Solid-Core Interior Doors: 5 years.
 - 4. Warranty Period for Embossed Solid-Core Interior Doors: 5 years.

PART 2 - PRODUCTS

2.1 WOOD DOORS, GENERAL

- A. Quality Standard: In addition to requirements specified, comply with WDMA I.S.1-A, "Architectural Wood Flush Doors."
- B. WDMA I.S.1-A Performance Grade: Heavy Duty.
- C. Fire-Rated Wood Doors: Doors complying with NFPA 80 that are listed and labeled by a qualified testing agency, for fire-protection ratings indicated, based on testing at positive pressure according to NFPA 252 or UL 10C (positive pressure), Category A.
 - 1. Edge Construction: Provide edge construction with intumescent seals concealed by outer stile. Comply with specified requirements for exposed edges.
 - 2. Pairs: Provide fire-retardant stiles that are listed and labeled for applications indicated without formed-steel edges and astragals. Provide stiles with concealed intumescent seals. Comply with specified requirements for exposed edges.
 - 3. Acceptable Fire-Rating Label: Underwriters' Laboratories, Inc. (UL) or Warnock Hersey.
- D. Smoke-Control Door Assemblies: Listed and labeled for smoke control, based on testing according to UL 1784.
- E. Particleboard-Core Doors:
 - 1. Particleboard: ANSI A208.1, Grade LD-2.
 - 2. Blocking: Provide wood blocking in particleboard-core doors as needed to eliminate through-bolting hardware.
 - a. Screw-Holding Capability: 550 lbf per WDMA T.M.-10.
- F. Mineral-Core Doors:
 - 1. Core: Noncombustible mineral product complying with requirements of referenced quality standard and testing and inspecting agency for fire-protection rating indicated.
 - 2. Blocking: Provide composite blocking with improved screw-holding capability approved for use in doors of fire-protection ratings indicated as needed to eliminate through-bolting hardware.
 - 3. Edge Construction: At hinge stiles, provide laminated-edge construction with improved screw-holding capability and split resistance. Comply with specified requirements for exposed edges.
 - a. Screw-Holding Capability: 550 lbf per WDMA T.M.-10.

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2.2 DOORS FOR OPAQUE FINISH

- A. Flush Interior Solid-Core Doors, Rated:
 - 1. Grade: Custom.
 - 2. Faces: MDO.
 - 3. Exposed Vertical Edges: Any closed-grain hardwood.
 - 4. Core: Mineral core.
 - 5. Construction: Three plies. Stiles and rails are bonded to core, then entire unit is abrasive planed before veneering.
 - 6. WDMA I.S.1-A Performance Grade: Heavy Duty.
 - 7. Product: Mohawk Flush Doors; Commercial Series.

- B. Embossed Interior Solid-Core Doors:
 - 1. Grade: Custom.
 - 2. Faces: Molded hardboard.
 - 3. Exposed Vertical Edges: Any closed-grain hardwood.
 - 4. Core: Particleboard.
 - 5. WDMA I.S.1-A Performance Grade: Heavy Duty.
 - 6. Product: Mohawk Flush Doors; Commercial Series, Two Panel Roman.

2.3 LIGHT FRAMES

- A. Wood-Veneered Beads for Light Openings in Fire-Rated Doors: Manufacturer's standard noncombustible beads approved for use in doors of fire-protection rating indicated. Include concealed metal glazing clips where required for opening size and fire-protection rating indicated.

2.4 GLAZING IN DOORS

- A. Laminated Ceramic Glazing for Fire-Rated Doors: Laminated glass made from 2 plies of clear, ceramic flat glass; not less than 5/16-inch total nominal thickness; complying with testing requirements in 16 CFR 1201 for Category II materials.
 - 1. Fire-Protection Rating: As indicated for the assembly in which glazing material is installed.
 - 2. Fire-Protection-Rated Glazing: Listed and labeled by Underwriters Laboratories (UL), for fire-protection ratings indicated, based on testing according to NFPA 252 for door assemblies.
 - a. Labeling: Permanently mark fire-protection-rated glazing with certification label of a testing agency. Label shall indicate manufacturer's name, test standard, whether glazing is for use in fire doors or other openings, whether or not glazing passes hose-stream test, whether or not glazing has a temperature rise rating of 450 deg F, and the fire-resistance rating in minutes.
 - 3. Products:
 - a. Nippon Electric Glass Co., Ltd. (distributed by Technical Glass Products); FireLite Plus.
 - b. Schott North America, Inc.; Laminated Pyran Platinum L.
 - c. Vetrotech Saint-Gobain; SGG Keralite FR-L.

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2.5 FABRICATION

- A. Factory fit doors to suit frame-opening sizes indicated. Comply with clearance requirements of referenced quality standard for fitting unless otherwise indicated.
 - 1. Comply with NFPA 80 requirements for fire-rated doors.
 - 2. Coordinate sizing of pairs of doors to provide the following maximum gap between leaves to permit proper functioning of dead latching feature:
 - a. Rated Doors: Maximum 1/8-inch gap.
 - b. Non-Rated Doors: Maximum 3/16-inch gap.
- B. 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, BHMA-156.115-W, and hardware templates.
 - 1. Coordinate with hardware mortises in metal frames to verify dimensions and alignment before factory machining.
- C. Openings: Factory cut and trim openings through doors.
 - 1. Light Openings: Trim openings with moldings of material and profile indicated.
 - 2. Glazing: Factory install glazing in doors indicated to be factory finished. Comply with applicable installation requirements in Division 08 Section "Glazing."

2.6 SHOP PRIMING

- A. Doors for Opaque Finish: Shop prime faces, all four edges, edges of cutouts, and mortises with one coat of manufacturer's standard wood primer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine doors and installed door frames, with Installer present, before hanging doors.
 - 1. Verify that installed 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.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Hardware: For installation, see Division 08 Section "Door Hardware."
 - 1. Hinges shall be shimmed with metal shims at each door to provide equal clearance at each jamb.
 - a. After hinges have been fastened to fire rated doors, do not permit removal and reinstallation of screws to fire rated door edge material.
 - 2. Locks, exit devices, door closers and other hardware shall be installed in accordance with the manufacturer's instructions. Pilot holes of recommended size, for wood screws required to fasten hardware, shall be drilled by installing Contractor before screws are fastened to wood doors.

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- B. Installation Instructions: Install doors to comply with manufacturer's written instructions and referenced quality standard, and as indicated.
 - 1. Install fire-rated doors according to NFPA 80.
 - 2. Install smoke-control doors according to NFPA 105.

- C. Factory-Fitted Doors: Align in frames for uniform clearance at each edge. Coordinate pairs of doors to provide the following maximum gap between leafs and accurate alignment of strike to permit proper functioning of dead latching feature:
 - 1. Rated Doors: Maximum 1/8-inch gap.
 - 2. Non-Rated Doors: Maximum 3/16-inch gap.

- D. Factory-Finished Doors: Restore finish before installation if fitting or machining is required at Project site.

3.3 ADJUSTING

- A. Operation: Rehang or replace doors that do not swing or operate freely.

- B. Finished Doors: Replace doors that are damaged or that do not comply with requirements. Doors may be repaired or refinished if Work complies with requirements and shows no evidence of repair or refinishing.

END OF SECTION 081416