

SECTION 06200 - FINISH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 1. Interior standing and running trim and door and window frames for field finish.
- B. Related Sections include the following:
 1. Division 6 Section "Rough Carpentry" for furring, blocking, and other carpentry work not exposed to view.
 2. Division 6 Section "Interior Architectural Woodwork" for shop-fabricated interior woodwork.
 3. Division 9 Section "Painting" for priming, backpriming and finishing of finish carpentry.

1.3 DEFINITIONS

- A. Inspection agencies, and the abbreviations used to reference them, include the following:
 1. NELMA - Northeastern Lumber Manufacturers Association.
 2. NHLA - National Hardwood Lumber Association.
 3. NLGA - National Lumber Grades Authority.
 4. RIS - Redwood Inspection Service.
 5. SCMA - Southern Cypress Manufacturers Association.
 6. SPIB - Southern Pine Inspection Bureau.
 7. WCLIB - West Coast Lumber Inspection Bureau.
 8. WWPA - Western Wood Products Association.

1.4 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Include construction details, material descriptions, dimensions of individual components and profiles, textures, and colors.
 1. Include data for wood-preservative treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Indicate type of preservative used, net amount of preservative retained, and chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
 2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements.
 3. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
- B. Samples for Verification:
 1. For each species and cut of lumber and panel products with nonfactory-applied finish, with 1/2 of exposed surface finished, **50 sq. in. (300 sq. cm)** for lumber and **8 by 10 inches (203 by 250 mm)** for panels.

2. Doors: Provide sample, 24 inch x 24 inch of typical corner assembly for custom frame and glass panel door. Include glazing stops, setting compounds or gaskets and glass. Finish wood with specified finish system.
 3. Glazing framing system: Provide sample, 24 inches long, of typical profile for interior custom window framing system. Include glazing stops but no glass. Finish wood with specified finish system. Include fasteners proposed for attaching glazing stops to mullions.
- C. Research/Evaluation Reports: Showing that fire-retardant-treated wood complies with building code in effect for Project.
- D. Shop Drawings: For each type and product of site fabricated or assembled item or system.
1. For interior wood framing and glass system, indicate assembly details and installation details. Indicate incorporation of door operating hardware and accommodation of operating hardware requirements for profiles, clearances, tolerances and electrical requirements.

1.5 QUALITY ASSURANCE

- A. Installer Qualifications: A qualified installer.
- B. Fire-Test-Response Characteristics: Where fire-retardant materials are indicated, provide materials with specified fire-test-response characteristics as determined by a testing and inspecting agency acceptable to authorities having jurisdiction. Identify materials with appropriate markings of applicable testing and inspecting agency on surfaces of materials that will be concealed from view after installation.
- C. Mock-ups: Construct mock-up of interior custom wood glazing system and custom frame and glass panel doors of size and in location indicated on Drawings, or if not indicated, as directed by Architect. Include all components of finished system, including glazing and finishing of wood.
 - a. Mockup shall include 3 panels of the standard elevator vestibule sliding door assembly: 1 sliding door, 1 side panel knock-out door and the "5th" panel swing door. Mockup entire 5 panel assembly if easier. Include surrounding frame and soffit enclosing operator hardware. Coordinate with mockup requirements of Section 08461.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Protect materials against weather and contact with damp or wet surfaces. Stack lumber, plywood, and other panels. Provide for air circulation within and around stacks and under temporary coverings.
- B. Deliver interior finish carpentry only when environmental conditions meet requirements specified for installation areas. If finish carpentry must be stored in other than installation areas, store only where environmental conditions meet requirements specified for installation areas.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Do not deliver or install interior finish carpentry until building is enclosed and weatherproof, wet work in space is completed and nominally dry, and HVAC system is operating and maintaining temperature and relative humidity at occupancy levels during the remainder of the construction period.

PART 2 - PRODUCTS

2.1 MATERIALS, GENERAL

- A. Lumber: DOC PS 20 and applicable grading rules of inspection agencies certified by the American Lumber Standards' Committee Board of Review.

1. Factory mark each piece of lumber with grade stamp of inspection agency indicating grade, species, moisture content at time of surfacing, and mill.
2. For exposed lumber, omit grade stamp and provide certificates of grade compliance issued by inspection agency.

2.2 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Where fire-retardant-treated lumber and plywood are indicated, use materials impregnated with fire-retardant chemicals by a pressure process or other means acceptable to authorities having jurisdiction to produce products with the following fire-test-response characteristics:
 1. Flame-spread index of not greater than 25 when tested according to ASTM E 84.
- B. For exposed items indicated to receive transparent finish, do not use chemical formulations that contain colorants or that bleed through or otherwise adversely affect finishes.
- C. Interior, Low-Hygroscopic-Type, Fire-Retardant Treatment: Formulation that results in treated material with an apparent moisture content of not more than 28 percent when tested according to ASTM D 3201 at 92 percent relative humidity.
- D. Mill lumber before treatment and implement special procedures during treatment and drying processes that prevent lumber and plywood from warping and developing discolorations from drying sticks or other causes, marring, and other defects affecting appearance of treated woodwork.
- E. Kiln-dry material after treatment to levels required for untreated material. Do not use material that does not comply with requirements for untreated material or is warped or discolored.

2.3 INTERIOR STANDING AND RUNNING TRIM

- A. Softwood Lumber Trim for Transparent Finish (Stain or Clear Finish): Kiln-dried finished lumber (S4S) of the following species and grades:
 1. Vertical grain, Douglas fir; NLGA, WCLIB, or WWPA.

2.4 MISCELLANEOUS MATERIALS

- A. Fasteners for Interior Finish Carpentry: Nails, screws, and other anchoring devices of type, size, material, and finish required for application indicated to provide secure attachment, concealed where possible.
 1. Where finish carpentry materials are exposed in areas of high humidity, provide fasteners and anchorages with hot-dip galvanized coating complying with ASTM A 153/A 153M.
- B. Glue: Aliphatic- or phenolic-resin wood glue recommended by manufacturer for general carpentry use.

2.5 FABRICATION

- A. Wood Moisture Content: Comply with requirements of specified inspection agencies and with manufacturer's written recommendations for moisture content of finish carpentry at relative humidity conditions existing during time of fabrication and in installation areas.
- B. Back out or kerf backs of the following members, except members with ends exposed in finished work:
 1. Interior standing and running trim, except shoe and crown molds.
- C. Ease edges of lumber to **1/16-inch (1.5-mm)** radius.
- D. Fabricate custom window framing system and frame and glass panel doors to profiles and sizes indicated. Adapt wood details to accommodate door operating hardware requirements.

2.6 SHOP FINISHING

- A. Quality Standard: Comply with AWI Section 1500, unless otherwise indicated. Where indicated on Drawings as "SE" or "Sealer", required finish system is full finish system specified herein.
 - 1. Grade: Provide finishes of same grades as items to be finished.
- B. General: Finish finish carpentry at fabrication shop as specified in this Section to as large of extent as practicable. Defer only final touchup, cleaning, and polishing until after installation.
- C. Preparations for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations for finishing architectural woodwork, as applicable to each unit of work.
 - 1. Backpriming: Apply one coat of sealer or primer, compatible with finish coats, to concealed surfaces of woodwork. Apply two coats to back of paneling and to end-grain surfaces. Concealed surfaces of plastic-laminate-clad woodwork do not require backpriming when surfaced with plastic laminate, backing paper, or thermoset decorative overlay.
- D. Transparent Finish: Comply with requirements indicated below for grade, finish system, staining, and sheen, with sheen measured on 60-degree gloss meter per ASTM D 523:
 - 1. Grade: Premium.
 - 2. Product: "Varathane" by Flecto.
 - 3. Staining: None required.
 - 4. Sheen: Flat, 10-25 gloss units.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Before installing finish carpentry, condition materials to average prevailing humidity in installation areas for a minimum of 24 hours, unless longer conditioning is recommended by manufacturer.

3.3 INSTALLATION, GENERAL

- A. Do not use materials that are unsound, warped, improperly treated or finished, inadequately seasoned, or too small to fabricate with proper jointing arrangements.
- B. Install finish carpentry level, plumb, true, and aligned with adjacent materials. Use concealed shims where necessary for alignment.
 - 1. Scribe and cut finish carpentry to fit adjoining work. Refinish and seal cuts as recommended by manufacturer.
 - 2. Countersink fasteners, fill surface flush, and sand where face fastening is unavoidable.
 - 3. Install to tolerance of **1/8 inch in 96 inches (3 mm in 2438 mm)** for level and plumb. Install adjoining finish carpentry with **1/32-inch (0.8-mm)** maximum offset for flush installation and **1/16-inch (1.5-mm)** maximum offset for reveal installation.

4. Coordinate finish carpentry with materials and systems in or adjacent to it. Provide cutouts for mechanical and electrical items that penetrate finish carpentry.

3.4 STANDING AND RUNNING TRIM INSTALLATION

- A. Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Do not use pieces less than **24 inches (610 mm)** long, except where necessary. Stagger joints in adjacent and related standing and running trim. Cope at returns and miter at corners to produce tight-fitting joints with full-surface contact throughout length of joint. Use scarf joints for end-to-end joints. Plane backs of casings to provide uniform thickness across joints, where necessary for alignment.
 1. Match color and grain pattern across joints.
 2. Install trim after gypsum board joint finishing operations are completed.
 3. Drill pilot holes in hardwood before fastening to prevent splitting. Fasten to prevent movement or warping. Countersink fastener heads on exposed carpentry work and fill holes.

3.5 ADJUSTING

- A. Replace finish carpentry that is damaged or does not comply with requirements. Finish carpentry may be repaired or refinished if work complies with requirements and shows no evidence of repair or refinishing. Adjust joinery for uniform appearance.

3.6 CLEANING

- A. Clean finish carpentry on exposed and semiexposed surfaces.

END OF SECTION 06200