

SECTION 06200

FINISH CARPENTRY

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

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

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Interior standing and running trim for field finish, new and patching.
 - 2. Interior plywood paneling.
 - 3. Window sills .
 - 4. Cementitious acoustical wall panels.
 - 5. Reinforced fiberglass wall protection systems .
- 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 "Architectural Woodwork" for shop-fabricated interior woodwork.
 - 3. Division 8 Section "Wood Doors" for solid core wood doors.
 - 4. Division 9 Section "Painting" for priming and backpriming of finish carpentry.

1.03 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. SPIB - Southern Pine Inspection Bureau.
 - 5. WCLIB - West Coast Lumber Inspection Bureau.
 - 6. WWPA - Western Wood Products Association.

1.04 SUBMITTALS

- A. General: Submit in accordance with Section 01300.
- B. 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. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
- C. Shop Drawings: Show locations, extent, and installation details of fiberglass reinforced (FRP) wall panels. Show methods of attachment to adjoining construction.
- D. Samples:
 - 1. Color charts consisting of actual materials in small sections for FRP panels .

2. For each species and cut of lumber and panel products with nonfactory-applied finish, with 1/2 of exposed surface finished, 50 sq. in. for lumber and 8 by 10 inches for panels.

- E. Qualification Data: For firms and persons specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.
- F. Material Test Reports: From a qualified independent testing agency indicating and interpreting test results relative to compliance of fire-retardant products with requirements indicated.

1.05 QUALITY ASSURANCE

- A. Installer Qualifications: Engage an experienced Installer who has completed finish carpentry similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.
- 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. Materials shall meet the following requirements when tested in accordance with ASTM E 84:
 1. Flame Spread: 25 or less.
 2. Smoke Developed: 450 or less.

1.06 DELIVERY, STORAGE, AND HANDLING

- A. Keep materials under cover, off ground, and dry. 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. Store fiberglass reinforced wall protection materials in original undamaged packages and containers inside a well-ventilated area protected from weather, moisture, soiling, extreme temperatures, and out of direct sunlight.
- C. 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.

1.07 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 provisions are made to maintain temperature and relative humidity at occupancy levels during the remainder of the construction period.
 1. Fiberglass Reinforced Wall Protection Systems: Do not install until ambient temperature within the building is maintained at not less than **70 deg F (21 deg C)** for not less than 72 hours before, during and not less than 72 hours after installation.
- B. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit work to be performed according to manufacturer's written instructions and warranty requirements and at least one coat of specified finish to be applied without exposure to rain, snow, or dampness.

PART 2 - PRODUCTS

2.01 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, mark grade stamp on end or back of each piece.
- B. Softwood Plywood: DOC PS 1, "U.S. Product Standard for Construction and Industrial Plywood."
- C. Hardwood Plywood: HPVA HP-1, "Interim Voluntary Standard for Hardwood and Decorative Plywood", 7 ply core, no voids, Grade A veneers.
- D. Hardboard: AHA A135.4

2.02 INTERIOR STANDING AND RUNNING TRIM

- A. Hardwood Lumber Trim for Transparent Finish: Grade A finish, kiln-dried, finished lumber (S4S), selected for compatible grain and color, in the following species:
 - 1. Provide red oak with transparent stained finish, except as noted.
 - a. Provide maple with clear transparent finish for trim at plywood wall panels.
 - 2. Trim: Finish to shapes indicated for new trim; match profile for patching.

2.03 WINDOW TRIM

- A. Window Sills (Stools): Fabricate to Custom Grade, from hardwood veneer plywood, rotary-cut select red oak veneer, edged with solid red oak, plain sliced, in profile indicated; with transparent stained finish.

2.04 PANELING

- A. Hardwood Veneer Plywood Paneling: Manufacturer's stock hardwood plywood panels complying with applicable requirements in HPVA HP-1.
 - 1. Face Veneer Species: Plain sliced maple .
 - 2. Backing Veneer Species: Any hardwood compatible with face species.
 - 3. Construction: Veneer core.
 - 4. Thickness: 3/4 inch.
 - 5. Glue Bond: Type II (interior).
 - 6. Metal Reveal Trim: Extruded aluminum, alloy 6063-T5, 0.050 inch thick, 10 foot long; clear satin anodized finish.
 - a. Products:
 - 1) Final Forms II, Model RD-5812; Gordon, Inc.
 - 2) Channel Screed, No. DCS625-50; Pittcon Industries.

2.05 CEMENTITIOUS WALL PANELS

- A. Wall Panels: Acoustical panels consisting of wood fibers, bonded with inorganic hydraulic cement binder, formed in a continuous process under heat and pressure. Provide panels with natural finish, beveled edge, 1-inch (25-mm) thick panels, 4 foot wide by length to produce minimum waste. Full-length vertical pieces with no horizontal end joints.
 - 1. Product: Tectum Wall Panels; Tectum, Inc.
- B. Rigid Fiberglass Insulation: Owens Corning Fiberglass, 703 unfaced insulation board, 1-inch (25-mm) thick.

2.06 WALL PROTECTION SYSTEM

- A. Fiberglass Reinforced Wall Panel (FRP): Kemlite Fire-X Glasboard with surfaseal, 0.090" x 4 foot x full height panels. PVC inside and outside corners, and 1-inch wide, minimum, H-molding. Use adhesive and caulking as specified by manufacturer. Color for panel and molding shall match.
 - 1. Color: As selected by Architect from manufacturer's full range of colors.
- B. Adhesive: Comply with paneling manufacturer's recommendations for adhesives.

2.07 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. Paneling Adhesives: Comply with paneling manufacturer's written recommendations for adhesives.
- C. Glue: Aliphatic- or phenolic -resin wood glue recommended by manufacturer for general carpentry use.
- D. Sealants: Comply with requirements in Division 7 Section "Joint Sealants" for materials required for sealing siding work.

2.08 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
- C. Ease edges of lumber less than 1 inch in nominal thickness to 1/16-inch radius and edges of lumber 1 inch or more in nominal thickness to 1/8-inch radius.

PART 3 - EXECUTION

3.01 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.

3.02 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.

3.03 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.
 - 1. Do not use manufactured units with defective surfaces, sizes, or patterns.

- 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** for level and plumb. Install adjoining finish carpentry with 1/32-inch maximum offset for flush installation and **1/16-inch** 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 exposed surfaces of finish carpentry.
 - 5. Finish according to specified requirements.

3.04 STANDING AND RUNNING WOOD 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** 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.

3.05 PANELING INSTALLATION

- A. Plywood Paneling: Select and arrange panels on each wall to minimize noticeable variations in grain character and color between adjacent panels.
 - 1. Attach reveal trim to wall in accordance with manufacturer's instructions for substrate. Miter reveal trim at intersections with hairline joint.
 - 2. Install plywood panel into reveal trim and attach panels to supports with manufacturer's recommended panel adhesive and fasteners. Space fasteners as recommended by panel manufacturer.
 - 3. Conceal fasteners to greatest practical extent.

3.06 INSTALLATION OF CEMENTITIOUS ACOUSTICAL WALL PANELS

- A. Wall Mounting: Face screw mount to wood strapping with drywall screws spaced 12 inches on center. Layout of panels is shown on the reflective ceiling plans and interior elevations. Verify that rigid fiberglass insulation has been installed behind wall panels.
- B. Fill screw holes with a mixture of panel sawdust and white glue to conceal. Do not smear across face of panel.

3.07 FRP INSTALLATION

- A. Install according to manufacturer's recommendations. Set fiberglass reinforced panel edges in silicone sealant. Perimeter and H-moldings shall be fastened through the wallboard to studs or blocking back-up. Provide continuous cove base molding at the bottom of fiberglass panels, set in sealant. Apply wall panels with adhesive, allowing proper clearance for expansion and contraction. Brace wall panels to assure even contact to wall until adhesive has cured.

3.08 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.

3.09 CLEANING

- A. Clean finish carpentry on exposed and semiexposed surfaces. Touch up factory-applied finishes to restore damaged or soiled areas.

3.10 PROTECTION

- A. Provide final protection and maintain conditions that ensure finish carpentry is without damage or deterioration at time of Substantial Completion.

END OF SECTION