

**SECTION 06200 - FINISH CARPENTRY****PART 1 - GENERAL**

## 1.01 DESCRIPTION:

- A. Work of this section is subject to requirements of the Contract Documents including the General Conditions and Supplementary Conditions and applicable portions of Division 1 - General Requirements.
- B. The work consists of all labor, materials and equipment necessary and required to complete all finish carpentry as shown on the drawings and specified herein.

## 1.02 RELATED WORK SPECIFIED ELSEWHERE:

- A. Rough Carpentry: Section 06100.
- B. Finish Hardware: Section 08710.
- C. Sinks and Fixtures: Division 15.
- D. Flush Wood Doors: Section 08211.
- E. Painting and Finishing: Section 09900.
- F. Wood Doors: Section 08210.

## 1.03 QUALITY ASSURANCE:

- A. The "Quality Standards" of the AWI shall apply and by reference are hereby made a part of this specification. All finish carpentry shall be Custom Grade, as defined in the latest edition of the AWI "Quality Standards Illustrated".
- B. The approved woodwork manufacturer must have a reputation for doing satisfactory work on time and shall have successfully complete comparable work. The Architect reserves the right to approve the woodwork manufacturer selected to furnish all of the woodwork.
- C. Codes: All work specified in this Section shall be in accordance with Local and State Building Codes and specified provisions of other regulatory agencies including the following:

- 1. NFPA "Life Safety Code": 101, Latest edition.

## 1.04 SUBMITTALS:

- A. Shop Drawings: Submit drawings and cuts showing all

information necessary for the fabrication and erection of mill-fabricated millwork for approval.

- B. Show all details and erection data, and indicate the materials and species, arrangements, thickness, sizes of parts, construction, fastenings, clearances, assembly and erection details, and necessary connections to work of other trades.
  - C. Do not deliver materials to site until shop drawings and cuts have been approved and returned to contractor. Be responsible for all errors in detailing and fabrication and for correct fitting of mill-fabricated items.
  - D. Samples: Submit 3 samples of each type of plastic laminate; color selection will be made by the Architect. Submit 3 samples of each wood specie which is to receive transparent finish. Submit 3 samples of painted wood finish for each color paint selected.
- 1.05 DELIVERY, STORAGE AND HANDLING:
- A. The woodwork manufacturer and the Contractor shall be jointly responsible to make certain that woodwork is not delivered until the building and storage areas are sufficiently dry so that the woodwork will not be damaged by excessive changes in moisture content.
- 1.06 MOISTURE CONTENT OF WOOD PRODUCTS:
- A. Lumber shall be air-dried, or kiln-dried. The maximum moisture content of wood products at time of delivery to the job-site shall be as follows:
    - 1. Interior finish lumber, trim and millwork: 12 percent.
    - 2. Moisture content of other materials shall be in accordance with the standards under which the products are produced.
- 1.07 FIELD DIMENSIONS:
- A. The woodwork manufacturer is responsible for details and dimensions not controlled by job conditions and shall show on his shop drawings all required field measurements.

## **PART 2 - PRODUCTS**

### 2.01 PRODUCT QUALITY STANDARDS:

- A. Plywood Standard: Comply with PS-1.

- B. Hardwood Lumber Standard: Comply with National Hardwood Lumber Association (NHLA) rules.
- C. Hardwood Plywood: Comply with PS 51.
- D. Particleboard: Shall be mat-formed wood complying with Commercial Standard CS236; shall be Type 1, Grade B, medium density.
- E. Plastic Laminate: Comply with NEMA LD-3. Shall be of types and thickness indicated for each application. Plastic laminate shall be of colors, patterns and finishes as selected by the Architect based on solid color prices. Plastic laminate shall be Nevamar, Formica, or Wilson Art.
- F. Glued-Up Lumber Standard: Comply with PS 56.
- G. Formaldehyde Emission Levels: Comply with formaldehyde emission requirements of each voluntary standard referenced below:
  - 1. Particleboard: NPA 8.
  - 2. Medium-Density Fiberboard: NPA 9.
  - 3. Hardwood Plywood: HPMA FE.

## 2.02 MATERIALS:

- A. General: Nominal sizes are indicated, except as shown by detailed dimensions. Provide dressed or worked and dressed lumber, as applicable, manufactured to the actual sizes as required by PS 20 or to actual sizes and pattern as shown, unless otherwise indicated.
- B. Moisture content of hardwood lumber: Provide kiln-dried (KD) lumber having a moisture content from time of manufacture until time of installation within the ranges required in the referenced woodworking standard.
- C. Quality standards: For following types of woodwork; comply with indicated standards as applicable:
  - 1. Casework and countertops: AWI Section 400.
  - 2. Shelving: AWI Section 600.
  - 3. Standing and running trim: AWI Section 300.
- D. Fasteners and Anchorages: Provide nails, screws and other anchoring devices of the proper type, size, material and finish for application indicated to provide secure attachment, concealed where possible.
- E. Exposed to view interior wood, solid stock or veneer, indicated to have a "Paint" finish, shall be unselect birch or pine.

- F. All exposed to view interior wood, solid stock or veneer, shall be plain slice Red Oak for transparent finish in the field, unless otherwise noted or specified.

#### 2.03 WOOD TREATMENT:

- A. Preservative Treatment: Following basic fabrication provide 3-minute dip treatment of finish carpentry items in 5 percent solution of pentachlorophenol, with vehicle which will not interfere with finish application and will produce minimum effect upon appearance. Apply brush coat on surfaces cut after treatment.

#### 2.04 INTERIOR WOODWORK:

- A. Plastic Laminate Finish Casework: Fabricate exposed edges of casework, including edges of doors when open, with matching plastic laminate, except as otherwise indicated; shall be flush overlay construction.

1. Plastic Laminate for Horizontal Surfaces: 0.050 inch thick , general-purpose type (high-pressure).
2. Plastic Laminate for External Vertical Surfaces: 0.028 inch thick, general-purpose type (high-pressure).
3. Plastic Laminate for Cabinet Linings: 0.020 inch thick, backer type (high-pressure).
4. Plastic Laminate for Concealed Panel Backing: 0.020 inch thick, backer type (high-pressure).

- B. Plastic Laminate Countertops: Provide plastic laminate countertops to comply with requirements for casework for plastic laminate finish. Provide metal supports and anchors for counters where shown or required. Make cutouts for sinks, water supply fixtures, etc. Core for plastic laminated countertops shall be resin impregnated hardwood plywood.

1. Provide plastic grommets in counters where shown or required.

- C. Standing and Running Trim: Fabricate to dimensions, profiles and details shown. Rout or groove reverse side (backed-out) of trim members to be applied on flat surfaces, except for members with ends exposed in finished work.

1. Interior trim applied to wall surfaces.
2. Chair rails.

3. Interior frames for wood doors.
  4. 6 inches high wood base.
- D. Wood Paneling and Wainscot: Panels shall be of sizes indicated on drawings; shall be 3/4 inch thick, unless shown otherwise. Veneers shall be of species hereinbefore specified, unless noted otherwise. Paneling shall be finished as specified in Section 09900.
1. Veneer Matching: Match and assemble for continuous sequential use of veneer sheets from each flitch across each separate expanse of panel.
    - a. Match: Slip match.
    - b. Assembly: Balance each assembly; use equal width pieces of veneer to make up panel width.
- E. Shelving: Wood shelving shall be minimum 3/4 inch thick plywood with hardwood edge banding all sides. Provide 1 inch o.d. chrome plated brass rods at closets and where else shown, with cup type supports finished same as rod. Provide shelf and rod supports at 4 feet o.c. maximum.
- F. Wall Mounted Coat Hooks: Coat hooks shall be mounted on 1 inch by 6 inch nominal red oak board, of length indicated, where shown on drawings. Hooks shall be spaced 5 inches o.c.; shall be #9643 spring loaded, dull chrome finish, manufactured by Webber-Knapp. Provide a coat hook on room side of all office doors, centered on door, 5 feet 6 inches above finish floor.
- G. Stainless Steel Laminate Countertops: Provide 0.050 satin finish stainless steel laminate with phenolic backing countertops complying with requirements of AWI Section 400. Provide supports and anchors for countertops, as detailed. Make cutout for sinks and water supply fixtures.
- H. Directory: Provide directory where shown in Lobby. Directory shall be Model G, of size indicated on drawings, manufactured by Poblocki Sign Co., complete with 2 sliding glass doors with track and lock, 3/8 inch clear tempered glass adjustable shelves with polished edges, recessed overlapping standards and regular brackets, T-12 fluorescent light, 3/4 inch aluminum angle trim (6063-T5 alloy conforming to ASTM B-221) with clear anodized finish, wood trim, and all accessories and appurtenances required for installation indicated.

- I. Cast Epoxy Resin Tops: Factory molded tops of modified epoxy resin formulation, uniform mixture throughout full thickness. Color non-glare black.
1. Provide smooth, clean, exposed tops and edges, in uniform plane free of defects. Make exposed edges and corners uniformly rounded. Furnish tops in maximum practicable lengths.
  2. Maintain 1-1/4 inch thickness with tolerance not exceeding plus or minus 1/32 inch. Provide front and end overhang of 1 inch over base cabinets, formed with continuous drip groove on under-surface 1/2 inch from edge.
  3. Physical Properties: Flexural strength, 4,000 psi; compressive strength 14,000 psi; hardness Rockwell M, 197; water absorption in 24 hours, 0.05 percent; heat distortion point, 400 degrees F.; highly resistant to thermal shock.
  4. Chemical Resistance: Spot test of following reagents in standard laboratory concentrations, in contact with finished top for 24 hours, entirely unaffected or slight dulling of finish; glacial acetic acid, hydrochloric acid, nitric acid, phosphoric acid, sulfuric acid, chromic acid, ammonium hydroxide, calcium hypochlorite, sodium hydroxide, acetone, amyl acetate, aqua regia, benzene, butyl alcohol, ethyl acetate, ethyl alcohol, ethyl ether, formaldehyde, hydrogen peroxide, methyl alcohol, methyl ethyl ketone, kerosene, phenol, silver nitrate, trichloroethylene, xylene, zinc chloride.
  5. Workmanship: Cast surfaces very smooth, with factory cut-outs for sinks and drip grooves. Plain butt joints assembled with epoxy adhesive and pre-fitted, concealed metal spline.
  6. Sinks: Sizes shall be as indicated or manufacturer's closest stock size of equal or greater volume, as acceptable to the Architect.
    - a. Outlets: 1-1/2 inch diameter, 6 inches minimum length, fabricated of same material as sink, or as otherwise acceptable to Architect.
    - b. Overflows: Furnish for sinks, of standard beehive or open type with separate strainer. Height 2 inches less than sink depth. Of same material

as sink.

- c. Cast Epoxy Resin Sinks: Non-glare black, molded in one piece with surfaces smooth, corners coved and bottom sloped to outlet. Minimum physical properties and chemical resistance as specified for cast epoxy resin tops. Thickness, 1/2 inch minimum.

## 2.05 CABINET HARDWARE AND ACCESSORY MATERIAL:

- A. General: Provide cabinet hardware and accessory materials associated with woodwork except for units which are specified as "Door Hardware" in other sections of these specifications.
- B. Hardware Standards: Except as otherwise indicated, comply with ANSI A156.9 "American National Standard for Cabinet Hardware".
  - 1. Quality Level: Type 2, unless otherwise indicated.
- C. Cabinet Hardware: Provide hinges, catches, drawer slides and pulls, to properly accommodate each door and drawer size and style.
  - 1. Hinges shall be 2-1/2 inches x 2-1/2 inches, 5 knuckle, button tip; shall be Institutional Type. Provide one pair for each door 42 inches and under in height and 1-1/2 pair for each door over 42 inches in height.
  - 2. Pulls shall be bar type of plain design, steel, brass, or aluminum, approximately 4-1/2 inches overall length. Provide one pull for each door, one pull for each drawer less than 24 inches wide and two pulls for each drawer 24 inches wide and wider.
  - 3. Catches shall be magnetic type, of size recommended by manufacturer, except that catches for doors 48 inches and higher shall be GJ-21A.
  - 4. Drawer Hardware: Provide slides and pulls (of types specified above), to properly accommodate each drawer size and style. Equip each drawer with heavy duty side-mounted, full-extension, ball-bearing, nylon roller drawer slides.
  - 5. Locks: Where indicated, provide standard pin-type or disc-type (7 pins or discs) tumbler

locks, keyed individually.

- D. Shelf Supports: Where shelving is indicated as "Adjustable", provide slotted-type standards and brackets of type needed to properly support shelves with uniform 40 pounds per square foot loading.
- E. Exposed Hardware Finish: Provide exposed hardware with BHMA code 626.

### **PART 3 - EXECUTION**

#### 3.01 PREPARATION:

- A. Condition wood materials to average prevailing humidity conditions in installation areas prior to installing.
- B. Examine substrates for compliance with requirements for installation tolerances and other conditions affecting installation and performance of finish carpentry. Do not proceed with installation until unsatisfactory conditions have been corrected.
- C. Clean substrates of projections and substances detrimental to application.

#### 3.02 INSTALLATION:

- A. Discard units of material which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with minimum of joints of optimum jointing arrangement, or which are of defective manufacture with respect to surfaces, sizes or patterns.
- B. Install the work plumb, level, true and straight with no distortion. Shim as required using concealed shims. Install to a tolerance of 1/8 inch in 8 feet for plumb and level countertops; and with 1/16 inch maximum offset in flush adjoining 1/8 inch maximum offsets in revealed adjoining surfaces.
- C. Scribe and cut work to fit adjoining work, and refinish cut surfaces or repair damaged finish at cuts.
- D. Anchor finish carpentry work to anchorage devices or blocking built-in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fastener and blind nailing as required for a complete installation. Use fine finishing nail for exposed nailings, countersunk and filled flush with finished surface.
- E. Casework: Install without distortion so that doors



will fit openings properly and be accurately aligned. Adjust hardware to center doors in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated. Scribe and route to fit all adjacent wall surfaces.

- F. Countertops: Anchor securely to base unit and other support systems as indicated. Scribe and route to fit all adjacent wall surfaces.
- G. Standing and Running Trim: Install with minimum number of joints practical, using full-length pieces from maximum lengths of lumber available. Stagger joints in adjacent and related standing and running trim and rails. Cope at returns with 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 back of casings to provide uniform thickness across joints if required.

3.03 ADJUSTMENT, CLEANING, FINISHING AND PROTECTION:

- A. Repair damaged and defective finish carpentry work wherever possible to eliminate defects functionally and visually, where not possible to repair properly, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean finish carpentry work on exposed and semi-exposed surfaces. Touch up shop-applied finishes to restore damaged or soiled areas.
- C. Clean hardware, lubricate and make final adjustments for proper operation.
- D. Protection: Installer of finish carpentry work shall advise Contractor of final protection and maintained conditions necessary to ensure that work will be without damage or deterioration at time of acceptance.

**END OF SECTION 06200**

