

**CARPENTRY****SECTION 06100****PART 1 - GENERAL**

## 1.01 SECTION INCLUDES

- A. Blocking in walls and roofs for miscellaneous nailers and supports.
- B. Telephone and electrical panel backboards.
- C. Preservative and fire retardant treatment of wood.
- D. Hardware and attachment accessories.

## 1.02 REFERENCES

- A. ALSC - American Lumber Standards Committee: Softwood Lumber Standards.
- B. ANSI A208.1 - Mat Formed Wood Particleboard.
- C. APA: American Plywood Association.
- D. ASTM E84 - Test Method for Surface Burning Characteristics of Building Materials.
- E. AWWA (American Wood Preservers Association) C1 - All Timber Products Preservative Treatment by Pressure Process.
- F. AWWA (American Wood Preservers Association) C20 - Structural Lumber Fire Retardant Treatment by Pressure Process.
- G. NHLA (National Hardwood Lumber Association).
- H. NWWDA (National Wood Window and Door Association) I.S.4 - Water Repellant Preservative Treatment for Millwork.
- I. NFPA: National Forest Products Association.
- J. PS 1 - Construction and Industrial Plywood.
- K. PS 20 - American Softwood Lumber Standard.
- L. SPIB: Southern Pine Inspection Bureau.

## 1.03 SUBMITTALS

- A. Submit under provisions of Section 01300.

- B. Shop Drawings: Indicate materials, component profiles, fastening methods, jointing details, and accessories to a minimum scale of 1-1/2 inch to 1 ft
- C. Product Data: Provide technical data on wood preservative materials and application instructions.
- D. Certification of Treating Plant: Wood Preservatives: Submit certificate stating water-borne chemical and process used, net amount of preservative retained, and compliance with applicable standards. Include statement that moisture content of treated lumber was reduced to a maximum of 15% prior to shipment to site.

#### 1.04 QUALITY ASSURANCE

- A. Rough Carpentry Lumber: Visible grade stamp, of agency certified by National Forest Products Association (NFPA).
- B. Lumber Standard: Comply with PS 20, except as otherwise indicated.
- C. Plywood Standard: Comply with PS 1, and APA grade trademarks.
- D. Factory mark each piece of lumber and plywood with type, grade, mill and grading agency, except omit marking from surfaces to be exposed with transparent finish or without finish.
- E. Shop fabricate carpentry work to the extent feasible and where shop fabrication will result in better workmanship than feasible for on-site fabrication.
- F. Pressure-treated lumber shall conform to AWPA requirements for preservative or fire-retardant treated materials. Treatment plant shall be licensed by manufacturer of treated material.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products to site under provisions of Section 01600.
- B. Keep materials dry at all times. Protect against exposure to weather and contact with damp or wet surfaces.
- C. Stack lumber and plywood in a way to provide air circulation with stacks.

#### 1.06 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.

#### 1.07 COORDINATION

- A. Coordinate the work with plumbing and electrical rough-in, installation of associated and adjacent components.

## **PART 2 - PRODUCTS**

### **2.01 MATERIALS**

- A. Lumber shall be sound, thoroughly seasoned and well manufactured in compliance with NFPA "National Design Specifications" for Stress Grade Lumber and its Fastenings.
  - 1. Each piece of lumber shall bear an identification stamp of the accredited test agency. Maximum moisture content: 19%.
- B. Softwood Plywood: Comply with PS1.
  - 1. Plywood Backing Panels (for mounting electrical or telephone equipment): Fire-retardant, C-D - plugged with exterior glue, Exposure 1, 3/4" thick, each piece bearing U.L. label.
- C. Miscellaneous Blocking: No. 2 Southern Yellow Pine, 15 percent maximum moisture content.

### **2.02 ACCESSORIES**

- A. Fasteners and Anchors:
  - 1. Fasteners: Hot-dipped galvanized steel for treated wood locations, unfinished steel elsewhere. Screw fasteners at the roof sheathing shall be long enough to penetrate the roof decking.
  - 2. Anchors: Expansion shield and lag bolt type for anchorage to solid masonry or concrete. Bolt or ballistic fastener for anchorages to steel.

### **2.03 FACTORY WOOD TREATMENT**

- A. Fire retardant: AWWA Treatment C20, Interior Type, chemically treated and pressure impregnated; capable of providing a maximum flame spread/smoke development rating of 25 /450.
  - 1. Provide at telephone and electrical backboards.
- B. Wood Preservative : AWWA Treatment C2, ACQ (Alkaline Copper Quat) preservative, with a minimum of 0.40 lb/cu./ft. retainage. After treatment, kiln-dry lumber to a maximum moisture content of 19% .
  - 1. To prevent deterioration of fasteners and anchors, all anchors and fasteners in contact with the treated wood shall be hot-dip galvanized or stainless steel.
  - 2. Complete fabrication of treated items before treatment, where possible. If cut after treatment, apply field treatment complying with AWWA M4 to cut surfaces.

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. Erect wood stripping and nailing members true to lines and levels with closure strips at all edges and openings. Do not deviate from true alignment more than 1/4 inch.
- B. Install telephone and electrical panel boards with fire retardant treated plywood sheathing. Oversize the panels by 12 inches on all sides.
- C. Carefully scribe work abutting over components, with maximum gaps of 1/32 inch. Do not use additional overlay trim to conceal larger gaps.
- D. Construct members of continuous pieces of longest possible lengths.
- E. Place miscellaneous blocking true to lines and levels. Secure rigidly in place.
- F. Locations of Use for Decay and Insect Resistant Pressure Treated Lumber:
  - 1. Use pressure-treated decay and insect resistant lumber for blockings and nailing strips in contact with masonry, concrete, roofing, steel, framing setting on and in contact with concrete and blocking in contact with exterior wall openings.
  - 2. Apply two (2) drenching coats of preservative compatible with treatment to job cut edges of lumber.

### **3.02 INSTALLATION OF PLYWOOD**

- A. Comply with recommendations of the American Plywood Association (APA), for the installation of plywood.

**END OF SECTION**

**ARCHITECTURAL WOODWORK****SECTION 06410****PART 1 - GENERAL****1.01 SECTION INCLUDES**

- A. Plastic laminate finished casework.
- B. Plastic laminate finished countertops.
- C. Provide all wood blocking required for attachment of architectural woodwork, complying with Section 06100.

**1.02 RELATED SECTIONS**

- A. Section 06100 - Rough Carpentry: Grounds and support framing.
- B. Division 15: Plumbing fixtures and trims.

**1.03 REFERENCES**

- A. ANSI/BHMA A1156.9 - Cabinet Hardware
- B. AWI - Quality Standards
- C. FS MM-L-736 - Lumber, Hardwood
- D. FS MMM-A-130 - Adhesive, Contact
- E. National Electrical Manufacturers Association (NEMA) LD3 - High Pressure Decorative Laminates
- F. PS-1 - Construction and Industrial Plywood
- G. PS-20 - American Softwood Lumber Standard

**1.04 SUBMITTALS**

- A. Submit under provision of Section 01300.
- B. Product data for each type of product and process specified and incorporated into items of architectural woodwork during fabrication, finishing, and installation.
- C. Shop Drawings: Include plans, indicate materials, component profiles and elevations, assembly methods, joint details, fastening methods, accessory listings, hardware location, schedule of finishes and as follows:

1. Show details full size.
  2. Show locations and sizes of furring, blocking and hanging strips, including concealed blocking and reinforcing specified in other sections.
  3. Show locations and sizes of cutouts and holes for plumbing fixtures, faucets, soap dispensers, and other items installed in architectural woodwork.
- D. Samples for initial selection of the following in the form of manufacturer's color charts consisting of actual units or sections of units showing the full range of colors, textures, and patterns available for each type of material indicated.
1. Plastic laminates.

#### 1.05 QUALITY ASSURANCE

- A. Quality Standard: "Architectural Woodwork Quality Standards" of the Architectural Woodwork Institute for grades of interior architectural woodwork, construction, finishes, and other requirements.
- B. Prior to installation of custom casework, examine shop fabricated work for completion, and complete work as required, including back priming and removal of packing.
- C. Provide custom casework and trim conforming to the following Architectural Woodwork Institute (AWI) Quality Standards as a minimum requirement:
1. Plastic Laminate Finished Casework:
    - a. AWI Section 400B - Custom Grade
  2. Plastic Laminate Finished Countertops:
    - a. AWI Section 400C - Custom Grade

#### 1.06 QUALIFICATIONS

- A. Fabricator: Company specializing in manufacturing the products specified in this section with minimum three (3) years documented experience.
- B. Installer Qualifications: Arrange for architectural woodwork installation by a firm that can demonstrate successful experience in installing architectural woodwork items similar in type and quality to those required for this Project.

#### 1.07 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store and handle products to site under provisions of Section 01600.
- B. Protect units from moisture damage.

1.08 FIELD MEASUREMENTS

- A. Verify that field measurements are as indicated on shop drawings.

1.9 COORDINATION

- A. Coordinate the work with plumbing and electrical rough-in.

**PART 2 - PRODUCTS**

2.01 SHEET MATERIALS

- A. Wood Particleboard: PS 1; or AWI Standard, composed of wood chips, medium density, made with water resistant adhesive; of grade to suit application; sanded faces

2.02 LAMINATE MATERIALS

- A. Plastic Laminate: AWI 0.050 inch General Purpose quality, color, pattern, and surface texture as selected, high pressure application.
- B. Laminate Backing Sheet: 0.020 inch Backing Sheet grade, undecorated plastic laminate.
- C. External Vertical Surfaces: 0.028 inch thick General Purpose quality (high-pressure), color, pattern, and surface texture as selected.
- D. Cabinet Linings: 0.020 inch thick, Cabinet Liner Type (high-pressure).

2.03 ACCESSORIES

- A. Adhesive: FS MMM-A-130 contact adhesive or type recommended by AWI or laminate manufacturer to suit application.
- B. Fasteners: Size and type to suit application.
- C. Bolts, Nuts, Washers, Lags, Pins, and Screws: Of size and type to suit application.
- D. Concealed Joint Fasteners: Threaded steel.

2.04 HARDWARE

- A. Hardware: ANSI/BHMA A156.9
- B. Shelf Standards and Rests:
  - 1. Plastic laminate finished casework:

- a. Knape & Vogt Model 255 Standards
  - b. Knape & Vogt Model 256 Supports
2. At loose shelving, provide wall standard/brackets equal to Knape & Vogt 87-187 Heavy Duty system.
- C. Drawer Pulls: Stanley 4483½, finish as selected by Architect.
  - D. Door Catches: Magnetic, commercial grade with a minimum 14 lb. pull.
  - E. Cabinet Hinges: Stanley Series 1500 Series, self closing concealed units.
  - F. Grommets: Doug Mockett & Company Model TG. Color as selected.
  - G. Drawer Glides: Equal to Accuride 3832 series; size as required, steel ball bearing rollers, rated at 100 lbs., full extension type. ??????3640 HEAVY DUTY 200LBS
  - H. Locks: E07121 for doors and E07041 for drawers
  - I. Finish of exposed surfaces shall be brass t60 match existing hardware.

## 2.06 FABRICATION

- J. Complete fabrication, including assembly, finishing, and hardware application, before shipment to project site to maximum extent possible. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting. Shop assemble casework for delivery to site in units easily handled and to permit passage through building openings.
- K. Fit shelves, doors, and exposed edges with 3/8 inch minimum matching hardwood edging. Veneer edge with panel for transparent finished casework. Use one piece for full length only.
- L. Cap exposed plastic laminate finish edges with materials of same finish and pattern.
- M. Door and Drawer Fronts: 3/4 inch thick unless shown otherwise; flush overlay style.
- N. When necessary to cut and fit on site, provide materials with ample allowance for cutting. Provide trim for scribing and site cutting.
- O. Apply plastic laminate finish in full uninterrupted sheets consistent with manufactured sizes. Fit corners and joints hairline; secure with concealed fasteners. Slightly bevel arises. Locate counter butt joints minimum 2 feet from sink cut-outs.
  1. Apply laminate cabinet linings to all interior surfaces of cabinets, drawers and shelving within the cabinets.

- P. Apply laminate backing sheet to reverse side of plastic laminate finished surfaces.
- Q. Mechanically fasten back splash to countertops with steel brackets at 16 inches on center.
- R. Shop-cut openings, to maximum extent possible, to receive hardware, appliances, plumbing fixtures, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Smooth edges of cutouts and, where located in countertops and similar exposures, seal edges with a water-resistant coating.
- S. Provide a minimum of one (1) adjustable shelf in each cabinet unless more are required by the Drawings.
  - 1. Mortise in the standards flush with dividers at plastic laminate cabinets.
- S. All shelving shall have hardwood edge banding.

### **PART 3 - EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify adequacy of backing and support framing.

#### **3.02 INSTALLATION**

- A. Set and secure casework in place; rigid, plumb, and level in accordance with AWI Section 1700.
- B. Use fixture attachments in concealed locations for wall mounted components.
- C. Use concealed joint fasteners to align and secure adjoining cabinet units and counter tops.
- D. Carefully scribe casework abutting other components, with maximum gaps of 1/32 inch. Do not use additional overlay trim for this purpose. Refinish cut surfaces or repair damaged finish at cuts.
- E. Secure cabinet and counter bases to floor using appropriate angles and anchorages.
- F. Countersink anchorage devices at exposed locations. Conceal with solid wood plugs of species to match surrounding wood; finish flush with surrounding surfaces.
- G. Cabinets: Install without distortion so that doors and drawers fit openings properly and are accurately aligned. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation. Complete the installation of hardware and accessory items as indicated.
  - 1. Install cabinets with no more than 1/8 inch in 96 inch sag, bow, or other variation from a straight line.

- H. Tops: Anchor securely to base units and other support systems as indicated. Calk space between backsplash and wall with specified sealant.
  - 1. Install countertops with no more than 1/8 inch in 96 inch sag, bow, or other variation from a straight line.
  - 2. Secure backsplashes to tops with concealed metal brackets at 16 inches o.c.
- I. Anchor woodwork to anchors or blocking built-in or directly attached to substrate. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for complete installation. Except where prefinished matching fasteners heads are required, use fine finishing nails for exposed nailings, countersunk and filled flush with woodwork, and matching final finish where transparent finish is required.

### 3.03 ADJUSTING

- A. Adjust work under provisions of Section 01700.
- B. Adjust moving or operating parts to function smoothly and correctly.
- C. Adjust hardware to center doors and drawers in openings and to provide unencumbered operation.

### 3.04 CLEANING

- A. Clean work under provisions of Section 01700.
- B. Clean casework, counters, shelves, hardware, fittings and fixtures.

**END OF SECTION**