

## SECTION 06100

### ROUGH CARPENTRY

#### PART 1 - GENERAL

##### 1.1 SUMMARY

- A. **Section Includes:** Wood grounds, nailers, blocking, and plywood backing panels.
  - 1. Provide treated, fire-retardant plywood sheathing at roof terminations/transitions, vertically as shown on Drawings.
- B. **Related Sections:**
  - 1. Section 06400 -Architectural Woodwork: Interior woodwork and finish carpentry items exposed to view.
  - 2. Section 09250 - Gypsum board Assemblies
  - 3. Section 09255 - Exterior sheathing.

##### 1.2 SUBMITTALS

- A. **Product Data:** Submit the following:
  - 1. Construction adhesives.
  - 2. Manufacturer's product specifications and handling and storage recommendations for treated wood.
  - 3. Wood treatment data as follows in addition to chemical treatment manufacturer's instructions for handling, storing, installation, and finishing of treated material:
    - a. For each type of preservative treated wood product include certification by treating plant stating type of preservative solution and pressure process used, net amount of preservative retained, and compliance with applicable standards.
    - b. For water-borne treated products include statement that moisture content of treated materials was reduced to levels indicated prior to shipment to project site.
    - c. For fire-retardant-treated wood products include certification by treating plant that treated material complies with specified standard and other requirements.
    - d. Material test reports from qualified independent testing laboratory indicating and interpreting test results relative to compliance of fire-retardant-treated wood products with requirements indicated.
    - e. Warranty of chemical treatment manufacturer for each type of treatment.
  - 4. Research reports or evaluation reports of the International Building Code Conference International evidencing compliance of the following wood products with specified requirements and building code in effect for Project.
    - a. Power driven fasteners.
    - b. Fire-retardant treated wood.

##### 1.3 DELIVERY, STORAGE, AND HANDLING

- A. **Delivery and Storage:** Keep materials under cover and dry. Protect against exposure to weather and contact with damp or wet surfaces. Stack lumber as well as plywood and other panels; provide for air circulation within and around stacks and under temporary coverings including polyethylene and similar materials.

1. For lumber and plywood pressure treated with waterborne chemicals, place spacers between each bundle to provide air circulation.

## **PART 2 - PRODUCTS**

### **2.1 LUMBER, GENERAL**

- A. **Lumber Standards:** Furnish lumber manufactured to comply with PS 20 "American Softwood Lumber Standard" and with applicable grading rules of inspection agencies certified by American Lumber Standards Committee's (ALSC) Board of Review.
- B. **Inspection Agencies:** Inspection agencies and the abbreviations used to reference them with lumber grades and species include the following:
  1. SPIB - Southern Pine Inspection Bureau.
  2. WCLIB - West Coast Lumber Inspection Bureau.
  3. WWPA - Western Wood Products Association.
- C. **Nominal sizes** are indicated, except as shown by detail dimensions. Provide actual sizes as required by PS 20, for moisture content specified for each use.
  1. Provide dressed lumber, S4S, unless otherwise indicated.
  2. Provide seasoned lumber with 19 percent maximum moisture content at time of dressing and shipment for sizes 2 inches or less in nominal thickness, unless otherwise indicated.

### **2.2 LUMBER**

- A. **General:** Provide lumber for support or attachment of other construction including curbs and support bases, cant strips, bucks, nailers, blocking, furring, grounds, stripping, and similar members.
- B. **Material:** Fabricate miscellaneous lumber from dimension lumber and boards of sizes and grades indicated and into arrangements shown.
- C. **Moisture Content:** 19 percent maximum for lumber items not specified to receive wood preservative treatment.
- D. **Grade:** "Standard" grade light-framing-size lumber of any species or board-size lumber as required. "No. 3 Common" or "Standard" grade boards per WCLIB or WWPA rules or "No. 2 Boards" per SPIB rules.

### **2.3 CONSTRUCTION PANELS**

- A. **Plywood Panel Standards:** Comply with PS 1 "U.S. Product Standard for Construction and Industrial Plywood" for plywood construction panels and, for products not manufactured under PS 1 provisions, with APA PRP-108.
- B. **Trademark:** Furnish plywood construction panels that are each factory-marked with APA trademark evidencing compliance with grade requirements.
- C. **Particle Panels:** Manufacture and factory-mark each particleboard panel to comply with ANSI A208.1 for grade indicated. Provide thickness indicated.
- D. **Plywood Backing Panels:** For mounting electrical or telephone equipment, provide fire-retardant-treated plywood panels with grade designation, APA C-D PLUGGED EXPOSURE 1, in thickness indicated, or, if not otherwise indicated, not less than 1/2 inch.

## 2.4 FASTENERS

- A. **General:** Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.
  - 1. Where rough carpentry is exposed to weather, in ground contact, or in area of high relative humidity, provide fasteners with a hot-dip zinc coating per ASTM A 153 or of AISI Type 304 stainless steel.
- B. **Screws for Metal Framing:** 1-inch long self-drilling, self-tapping bugle head screws with corrosion resistant coating.
- C. **Nails, Wire, Brads, and Staples:** FS FF-N-105.
- D. **Power Driven Fasteners:** National Evaluation Report NER-272.
- E. **Wood Screws:** ANSI B18.6.1.
- F. **Lag Bolts:** ANSI B18.2.1.
- G. **Bolts:** Steel bolts complying with ASTM A 307, Grade A; with ASTM A 563 hex nuts and where indicated, flat washers.
- H. **Adhesives:** For field gluing plywood panels to framing, provide formulation complying with APA AFG-01.

## 2.5 PRESERVATIVE WOOD TREATMENT BY PRESSURE PROCESS

- A. **General:** Where lumber or plywood is indicated as preservative-treated wood or is specified herein to be treated, comply with applicable requirements of AWPB Standards C2 (Lumber) and C9 (Plywood). Mark each treated item with the AWPB or SPIB Quality Mark Requirements.
- B. **Pressure Treatment:** Comply with applicable requirements of AWPB C2 (lumber) and AWPB C9 (plywood). Mark each treated item with the Quality Mark Requirements of an inspection agency approved by ALSC/s Board of Review. Pressure-treat all lumber with waterborne preservatives to a minimum retention of 0.40 lb/cu. ft (6.4 kg/cu. m). Treat indicated items and the following:
  - 1. Wood cants, nailers, curbs, equipment support bases, blocking, stripping, and similar members in connection with roofing, flashing, vapor barriers, and waterproofing.
  - 2. Wood sills, sleepers, blocking, furring, stripping, and similar concealed members in contact with masonry or concrete.
  - 3. Wood floor plates installed over concrete slabs directly in contact with earth.

## PART 3 - EXECUTION

### 3.1 INSTALLATION, GENERAL

- A. **Material Selection:** Discard material with defects and that are too small to use with minimum joints or optimum joint arrangement.
- B. **Material Installation:** Set rough carpentry to required levels and lines, with members plumb and true to line and cut and fitted.
  - 1. Fit rough carpentry to other construction; scribe and cope as required for accurate fit. Correlate location of furring, nailers, blocking, grounds, and similar supports to allow attachment of other construction.

- C. **Fasteners:** Securely attach rough carpentry by anchoring and fastening as indicated.
  - 1. Use common wire nails, unless otherwise indicated. Use finishing nails for finish work. Select fasteners of size that will not penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections between members. Install fasteners without splitting of wood; pre-drill as required.

### 3.2 WOOD GROUNDS, NAILERS, BLOCKING, AND SLEEPERS

- A. **Installation:** Install wood grounds, nailers, blocking, and sleepers where shown and where required for screeding or attachment of other work. Arrange as shown and shim as necessary for true line and level of work to be attached.
- B. **Anchorage:** Attach to substrates as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise indicated. Build into masonry during installation of masonry work. Where possible, anchor to formwork before concrete placement.
- C. **Plaster Grounds:** Install permanent grounds of dressed, preservative treated, key-beveled lumber not less than 1\_1/2 inches wide and of thickness required to bring face of ground to exact thickness of finish material involved. Remove temporary grounds when no longer required.

### 3.3 INSTALLATION OF CONSTRUCTION PANELS

- A. **General:** Comply with applicable recommendations contained in Form No. E30, "APA Design/Construction Guide - Residential & Commercial," for types of construction panels and applications indicated.
- B. **Vertical Plywood sheathing at roof terminations:** Exterior grade, treated, fire-retardant plywood sheathing shall be used vertically at all roof transitions to a vertical wall. Plywood shall be carried at least 20" minimum above finished roof surface and thickness shall match adjacent sheathing thickness for a flush installation.
- C. **Fastening Methods:** Fasten panels as indicated below:
  - 1. Attach to metal framing with self-drilling, self-tapping, corrosion-resistant screws.

END OF SECTION