

SECTION 06100
ROUGH CARPENTRY

PART 1 - GENERAL

1.01 PROVISIONS INCLUDED

- A. The general provisions of the Contract, including General and Supplementary Conditions and Division 1 - General Requirements, apply to work specified in this Section.

1.02 SUMMARY

- A. This Section includes the following:
 - 1. Wood nailers and blocking for attachment of roofing.
 - 2. Wood grounds, nailers and blocking for attachment of support of other work.
 - 3. Backing panels for support of telephone, electrical, and communication equipment.
- B. Related Work Specified in Other Sections:
 - 1. Nonstructural carpentry: Section 06400, Finish Carpentry and Architectural Woodwork.

1.03 REFERENCED STANDARDS

- A. U. S. Department of Commerce Product Standards:
 - 1. PS 1, "U. S. Product Standard for Construction and Industrial Plywood."
 - 2. PS 2, "Performance Standard for Wood-Based Structural Use Panels."
 - 3. PS-20, "American Softwood Lumber Standard."
- B. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. SPIB - Southern Pine Inspection Bureau.
 - 3. WWPA - Western Wood Products Association.
 - 4. WCLIB - West Coast Lumber Inspection Bureau.
- C. American Wood Preservers Association:
 - 1. AWWA C2: Lumber, Timbers, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Process.
 - 2. AWWA C20: Structural Lumber - Fire-Retardant Treatment by Pressure Process.
 - 3. AWWA C27: Plywood - Fire-Retardant Treatment by Pressure Process.

1.04 SUBMITTALS

- A. Product Data: For each type of process and factory-fabricated product. Indicate component materials and dimensions and include construction and application details.
 - 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 and net amount of preservative retained.

2. Include data for fire-retardant treatment from chemical treatment manufacturer and certification by treating plant that treated materials comply with requirements. Include physical properties of treated materials based on testing by a qualified independent testing agency.
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.
4. Include copies of warranties from chemical treatment manufacturers for each type of treatment.

B. Model Code Evaluation/Research Reports: Where model code evaluation/research reports are required by authorities having jurisdiction as evidence of compliance with the International Building Code, provide products for which such evaluation reports exist. Reports may be required for the following items:

1. Fire retardant treatment.
2. Power driven fasteners.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Keep materials under cover and dry.
- B. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.

PART 2 - PRODUCTS

2.01 WOOD PRODUCTS, GENERAL

A. Lumber: DOC PS 20 and applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by the ALSC Board of Review. Provide lumber graded by an agency certified by the ALSC Board of Review to inspect and grade lumber under the rules indicated.

1. Factory mark each piece of lumber with grade stamp of grading agency.
2. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry lumber.
3. Provide dressed lumber, S4S.

2.02 MISCELLANEOUS LUMBER

A. General: Provide miscellaneous lumber indicated and lumber for support or attachment of other construction, including the following:

1. Blocking.
2. Nailers.
3. Rooftop equipment bases and support curbs.

- B. For items of dimension lumber size, provide lumber of any species, in Construction or No. 2 per SPIB rules or Standard, Stud, or No. 3 grade lumber per WCLIB or WWPA rules; with 19 percent maximum moisture content.
- C. For blocking and nailers used for attachment of other construction, select and cut lumber to eliminate knots and other defects that will interfere with attachment of other work.
- D. Treat with preservative:
 - 1. Wood curbs, nailers, equipment support bases, blocking, and similar members in connection with roofing and flashing.
 - 2. Other items indicated on the Drawings.
- E. Treat for fire-retardance concealed blocking in walls and other items indicated on Drawings.

2.03 PLYWOOD BACKING PANELS

- A. Telephone and Electrical Equipment Backing Panels: DOC PS 1, Exposure 1, C-D Plugged, fire-retardant treated, in thickness indicated or, if not indicated, 3/4 inch thick.

2.04 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, provide fasteners with a hot-dip zinc coating per ASTM A 153 or of AISI Type 304 stainless steel.
- B. Nails, Wire, Brads, and Staples: FS FF-N-105.
- C. Power Driven Fasteners: National Evaluation Report NER-272.
- D. Wood Screws: ANSI B18.6.1.
- E. Steel Stud Screws: Corrosion-resistant screws with bugle-shaped head, self-drilling points; minimum length long enough to penetrate stud 1/2":
 - 1. ASTM C 954 for steel studs 0.033 to 0.112 inch thick.
 - 2. ASTM C 1002 for lighter-gauge steel studs.
- 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.

2.05 WOOD-PRESERVATIVE-TREATED LUMBER

- A. Preservative Treatment by Pressure Process: AWPA C2, except that lumber that is not in contact with the ground and is continuously protected from liquid water may be treated according to AWPA C31 with inorganic boron (SBX).
 - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

- B. Kiln-dry lumber after treatment to a maximum moisture content of 19 percent. Do not use material that is warped or does not comply with requirements for untreated material.
- C. Mark lumber with treatment quality mark of an inspection agency approved by the ALSC Board of Review.

2.06 FIRE-RETARDANT-TREATED MATERIALS

- A. General: Comply with performance requirements in AWWA C20 (lumber) and AWWA C27 (plywood). Use Interior Type A.
- B. Identify fire-retardant-treated wood with appropriate classification marking of testing and inspecting agency acceptable to authorities having jurisdiction.

PART 3 - EXECUTION

3.01 INSTALLATION, GENERAL

- A. Provide blocking and framing as indicated and as required to support facing materials, fixtures, specialty items, and trim.
- B. Set rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit rough carpentry to other construction; scribe and cope as needed for accurate fit. Locate nailers, blocking, and similar supports to comply with requirements for attaching other construction.
- C. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- D. Fastening: Securely attach rough carpentry work to substrate by anchoring and fastening as indicated.
 - 1. Where nailing is indicated, use common wire nails, unless otherwise indicated. Countersink nail heads on exposed carpentry work and fill holes.
 - 2. Select fasteners of size that will not penetrate members where opposite side is exposed or will receive finish materials.
 - 3. Install fasteners without splitting wood; predrill as required.
 - 4. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.

3.02 WOOD NAILERS AND BLOCKING FOR INTERIOR AND WALL-MOUNTED ITEMS

- A. Install wood nailers and blocking where shown and where required for attachment of other work. Form to shapes as shown and cut as required for true line and level of work to be attached. Coordinate location with other work involved.

1. Provide blocking for support of wall-mounted items such as bumper rails, markerboard and tack-board trim, plumbing fixtures, cabinets and casework, adjustable shelving, fire extinguisher cabinets and brackets, vertical blinds, and light fixtures, whether or not shown.
2. Provide blocking for wall- and ceiling-mounted items which are going to be installed by the Owner, such as window blinds and toilet accessories. If locations of these items is not shown on Drawings, obtain information about intended location before enclosing partitions where blocking has to be installed.
3. Provide blocking of size shown, or if not shown, of size required to support load and not less than 3/4" thick.

- B. Attach to substrates as required to support applied loading. Countersink bolts and nuts flush with surfaces.

3.03 WOOD BLOCKING AND NAILERS FOR ATTACHMENT OF ROOFING

- A. General: Install nailers and blocking for attachment of roofing and flashing and for support or attachment of rooftop equipment. Fabricate from pressure-preservative treated lumber of sizes indicated and into shapes shown.
- B. Install continuous blocking or nailers where shown, where required by the roofing manufacturer's standard details, and at other locations required by field conditions for nailing membrane edges and for securing gravel stops, copings and similar sheet metal work.
1. Principal application applicable to this Project will be around penetrations which are 12" or larger in any dimension.

3.04 INSTALLATION OF CONSTRUCTION PANELS

- A. General: Comply with applicable recommendations contained in APA E30 and APA T625 for types of construction panels and applications indicated.
- B. Electrical and Telephone Backing Panels: Screw or bolt plywood backing panels to blocking. Provide sufficient fasteners to support weight of equipment which is going to be mounted on the backing panel.

3.05 CLEAN UP

- A. As work progresses, and at the end of each day's work, remove scraps of wood, loose fasteners, and other debris; sweep clean; and leave the work area safe and free of debris such as screws and nails that may damage other Work in place.

END OF SECTION 06100