

**SECTION 06100  
ROUGH CARPENTRY**

**PART 1 - GENERAL**

**1.01 DESCRIPTION OF WORK**

This section includes the requirements for rough carpentry work shown on the Drawings and whatever rough carpentry may be required to properly construct the project. Materials and installation requirements shall be as specified and accepted practices of the trade for work and materials commonly assigned to rough carpentry and as specified in other sections of the work.

- A. Rough carpentry work includes, but is not limited to, the following:
  - 1. Wood framing and/or blocking of walls, roofs, parapets and decks.
  - 2. Wood grounds, nailers, blocking and sleepers.
  - 3. Temporary railings, enclosures, forms and rough hardware and anchoring devices.
  - 4. Installation of hollow metal frames.

**1.03 QUALITY ASSURANCE**

- A. Lumber Standards: Shall comply with PS-20-70 for each indicated use, including moisture content not to exceed 19 percent, and actual size related to the indicated nominal sizes, except as otherwise indicated.
- B. Plywood Standards: Shall comply with PS-1-74 and APA's requirements, except as otherwise indicated for each use.
- C. Factory mark each piece of lumber and plywood with type, grade, mill and grading agency identification; except omit marking from surfaces to receive transparent finish and submit mill certificate that material has been inspected and graded in accordance with requirements if it cannot be marked on a concealed surface.
- D. Certificate of inspection and grading by a recognized agency may be submitted with each shipment, in lieu of factory marking at Contractor's option.

**1.04 SUBMITTALS**

- A. Wood Treatment Data: Submit chemical treatment manufacturer's instructions for proper use and handling of treated material.
- B. Submit certification of drying to 19 percent moisture content after treatment.

- C. For pressure treatment of each type specified, submit certificates of compliance from the treating plant stating chemicals and process used, net amount of salts retained and conformance to the following specifications:
  - 1. Wolmanized (CCA), meeting AWPA.
  - 2. Standard P-5 and conforming to AWPA.
  - 3. Standard LP-2

## 1.05 PRODUCT HANDLING

Keep rough carpentry materials dry during delivery, storage, and handling. Store lumber and plywood in stacks with provisions for air circulation within stacks. Protect bottom of stacks against contact with damp surfaces. Protect exposed materials against weather.

## 1.06 JOB CONDITIONS

- A. Time delivery and installation of carpentry work to comply with protection and storage requirements.
- B. Examine substrates and supporting structure and conditions under which work is to be installed and notify Engineer in writing of conditions detrimental to work. Do not proceed with installation until unsatisfactory conditions have been corrected.
- C. Correlate location of furring, nailers, blocking, grounds and similar supports so that attached work will comply with design requirements.

## PART 2 - MATERIALS

### 2.01 MATERIALS

- A. All materials that could be exposed to moisture, such as roof blocking, plates, grounds, etc., shall be wolmanized treated.
- B. Light Framing: For framing 2 inches to 4 inches thick and not exceeding 6 inches in width, provide:
  - 1. Southern Pine, Grade Number 2.
  - 2. Douglas Fir-Larch, Grade Number 2.
- C. Board Lumber:
  - 1. Where lumber less than 2 inches in nominal thickness is shown or specified, provide boards dressed S4S, Grade Number 2, Southern Pine.
  - 2. Moisture Content: 19 percent maximum, mark boards "S-DRY".

- D. Miscellaneous Lumber:
1. Provide wood for support or attachment of other work such as cant strips, bucks, nailers, blocking, furring, grounds, stripping and similar members. Provide lumber of the sizes shown or specified, worked to shapes shown and as follows:
  2. Grade: Construction Grade light framing size lumber of any species or board size lumber as required. Provide Construction Grade boards or Number 2 boards (SPIB or WWPA).
- E. Anchorage and Fastening Materials: Select proper type, size material and finish for each application. Comply with the following:
1. Nails and Staples: FS FF-N-105.
  2. Wood Screws: FS FF-S-111.
  3. Bolts and Studs: FS FF-B-575.
  4. Nuts: FS FF-N-836.
  5. Washers: FS FF-W-92.
  6. Lag Screws or Lag Bolts: FS FF-B-561
  7. Masonry Anchoring Devices: For expansion shields, nails, and drive screws, comply with FS FF-S-325.
  8. Bar and Strap Anchors: ASTM A575 carbon steel bars.
  9. Framing Anchors: Shall be of the type best suited for the connection or detailed as manufactured by Simpson, Silver, Hickman, or equal, having ICBO approval, or proper gauge and galvanized metal.

## **PART 3 - EXECUTION**

### **3.01 INSTALLATION**

- A. General
1. Discard units of material which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned or too small to fabricate work with a minimum of joints or the optimum joint arrangement.
  2. Fit carpentry work to other work. Scribe and cope as required for accurate fit.

3. Set carpentry work accurately to required levels and lines with members plumb and true.
  4. Shim with metal or slate for bearing on concrete and wood shakes at masonry substrates. Where indicated, grout with one part Portland cement to three (3) parts sand for full bearing.
  5. Securely attach carpentry work to substrates by anchoring and fastening as shown and as required such as Hilti pneumatic fastening, or equal.
    - a) Provide washers under bolt heads and nuts in contact with wood.
    - b) Nail plywood to comply with the recommendations of the American Plywood Association.
    - c) All fasteners exposed to exterior shall be galvanized or cadmium plated.
  6. Store all timber open-stacked in piles at least one foot above the ground surface, properly supported to prevent warping. Timber shall be covered to shed water and for protection from weather. Timber shall not be stored in flood prone areas.
- B. Fasteners: Use common wire nails, except as otherwise shown or specified herein. Use finishing nails for exposed work. Do not wax or lubricate fasteners that depend on friction for holding power. 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. Do not drive threaded friction type fasteners; turn into place. Tighten bolts and lag screws at installation and retighten as required for tight connections prior to closing in or at completion of work.
- C. Wood Grounds, Nailers, Blocking and Sleepers:
1. Provide wherever shown and where required for screeding or attachment of other work. Form to shapes as shown and cut as required for true line and level of work to be attached or screeded.
  2. Coordinate location with other work; refer to shop drawings of such work if applicable.
  3. Attach to substrates securely with anchor bolts or other attachment devices as shown and as required to support applied loading. Countersink bolts and nuts flush with surfaces, unless otherwise indicated. Build into masonry as work progresses, cutting to fit masonry unit size involved. Anchor to formwork before concrete placement.

4. Provide grounds of dressed, key bevelled 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. Where indicated as permanent grounds, provide treated lumber.

D. Wood Furring:

1. Install plumb and level with closure strips at edges and openings. Shim with wood as required.
2. Fire stop furred spaces on walls at each floor level with wood blocking or incombustible materials accurately fitted to close furred spaces. Comply with governing regulations. Use only as necessary.
3. Tolerance: Shim and level wood furring to a tolerance of 1/8-inch in 10 feet.
4. Installation shall be provided where shown and as necessary for facing materials specified. Except as shown otherwise, furring strips shall be 1-inch by 3-inches continuous, and spaced 24 inches on center. Furring shall be erected vertically or horizontally as necessary. Furring strips shall be nailed to trusses and to masonry. Wood plugs shall not be used. Furring strips shall be anchored near ends and at a 2 foot interval between. Furring strips shall be provided around openings, behind bases, and at angles and corners. Furring shall be plumb, rigid and level, and shall be shimmed as necessary to provide a true, even plane with surfaces suitable to receive the finish required. Furring for cornices, offsets and breaks in walls or ceilings shall be formed on 1-inch by 3-inch wood strips spaced 16 inches on center.

- E. Plywood: Comply with recommendations of American Plywood Association for fabrication and installation of plywood work. Provide thickness shown, or if not shown, provide as recommended by APA "Guide to Plywood Sheathing for Floors, Walls, and Roofs" for spacing of supports and types of substrates involved in the work.

**END OF SECTION 06100**

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