

## SECTION 061000 - ROUGH CARPENTRY

### PART 1 - GENERAL

#### 1.01 SUMMARY

- A. Section Includes:
  - 1. Carpentry work not specified as part of other sections and which generally is not exposed, except as otherwise indicated.
  - 2. Rough carpentry for:
    - a. Wood framing.
    - b. Timbers for posts.
    - c. Timbers for beams.
    - d. Miscellaneous lumber for attachment and support of other work.
  - 3. Anti-fungal and anti-microbial agent application to rough carpentry.
- B. Related Sections:
  - 1. Division 06 Section 061753 Metal Plate Connected Wood Trusses.
  - 2. Division 06 Section 061600 Sheathing.

#### 1.02 DEFINITIONS

- A. Exposed: Wood products that will be exposed to view when work is completed, with or without a paint or stain finish.

#### 1.03 ACTION 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. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  - 3. Include copies of warranties from chemical treatment manufacturers for each type of treatment.
  - 4. Product data for anti-fungal and anti-microbial treatment products.

#### 1.04 QUALITY ASSURANCE

- A. Structural drawings and notes supercede these specifications.
- B. Lumber: Comply with NIST PS 20 and grading rules and inspection agencies.
- C. Grade Stamps for Concealed Lumber: Each piece of lumber, applied by inspection

agency and showing compliance with each specified requirement.

1.05 DELIVERY STORAGE AND HANDLING

- A. Protect wood products against moisture and dimensional changes. Support stacks at several uniformly spaced points to prevent deformation. Store stacks raised above ground. Cover to protect from rain and snow. Select and arrange cover to allow air circulation under and all around stacks to prevent condensation. Maintain and restore displaced coverings. Remove from the site any wood products that have been subjected to moisture or that do not comply with the specified moisture requirements.

PART 2 - PRODUCTS

2.01 DIMENSION LUMBER

- A. Size: Provide nominal sizes indicated, complying with NIST PS 20 except where actual sizes are specifically required.
  - 1. Surfacing: Dressed lumber (S4S).
  - 2. Moisture content: S-dry or MC19 (19 percent maximum moisture content).
- B. Stud Framing: See Structural Drawings.
- C. Joist and Small Beam Framing: See structural drawings.
- D. Rafter Framing: See structural drawings.
- E. Framing Lumber: Provide lumber of species and grades indicated on the drawings.
- F. Miscellaneous Lumber: Provide dimension lumber and boards necessary for the support of work specified in other sections, whether or not specifically indicated, and including but not limited to blocking, nailers, etc.
  - 1. Moisture content: 19 percent maximum (S-dry).
  - 2. Lumber: S4S, No. 2 or standard grade.
  - 3. Boards: Construction, 2 common, or No. 2 grade.

2.02 BOARDS - LESS THAN 2 INCHES THICKNESS

- A. Moisture Content: S-dry (19 percent maximum).
- B. Surfacing: S2S.

2.03 DECAY TREATED WOOD: Resistant to decay and termites. Water borne pressure preservative treatment to comply with AWPB standards C2 and C9. Comply with AWPB Standards LP-2 for above ground items and LP-22 for ground contact.

- 1. MANUFACTURERS/TYPES
  - a. Hickson Corporation, "Wolmanized".

- b. OSMOSE: "K33".
- 2. LOCATIONS: Install treated wood where wood contacts soil and concrete.
- 3. RIPPING: Ripping of treated wood is not permitted.

2.04 EXTERIOR FINISH LUMBER

- 1. EXPOSED TO VIEW FRAMING LUMBER: As specified above for general lumber. Lumber used for and around stairs shall be culled to be free of splits and knots.
- 2. EXTERIOR TRIM: Douglas Fir No. 2 or better or Western Red Cedar free of splits, tight sound knots, S4S, 3/4 (three - quarter) thickness, unless noted otherwise on drawings. Cull to eliminate rough and otherwise defective material. (Scarf joints are unacceptable.)
  - a. Provide a sample to the Owner for approval, at least 3 ft by 2 inch by 3/4 inch.

2.05 MISCELLANEOUS MATERIALS

- A. Fasteners: Provide as required by applicable codes and as otherwise indicated.
  - 1. Provide fasteners with a hot-dip zinc coating (ASTM A 153) for treated lumber and where wood is in ground contact, subjected to high relative humidity, or exposed to weather.
- B. Framing Connectors and Supports: Simpson or equivalent. Prefabricated, formed steel units; hot-dip galvanized finish unless otherwise indicated; type and size as required; approved by applicable codes. Provide type where nailing flanges are "turned in" so that nails are not exposed.
- C. Sill Sealer Gaskets: Glass fiber insulation strips; uncompressed thickness, 1 inch (1/32 inch compressed); width to match sill members.
- D. NAIL STOPPERS: Simpson NS-1 and NS-2 as required. Coordinate with Division 15 trades for location requirements generally where pipes pass thru bored or notched studs or joists to protect pipes from gypsum board nails or screws.
- E. Anti-fungal treatment: A fungicide mixture with insecticide additive complying with all applicable environmental, health and safety regulations for the designated use and acceptable to the authorities having jurisdiction.
- F. Microbial inhibitor treatment: An anti-microbial mixture complying with all applicable environmental, health and safety regulations for the designated use and acceptable to the authorities having jurisdiction.

PART 3 - EXECUTION

3.01 INSTALLATION - GENERAL

- A. Arrange work to use full length pieces except where lengths would exceed commercially

available lengths. Discard pieces with defects that would lower the required strength or appearance of the work.

- B. Cut and fit members accurately. Install plumb and true to line and level.
- C. Fasten carpentry in accordance with applicable codes and recognized standards.
- D. Where exposed, countersink nails and fill flush with suitable wood filler.
- E. Use fasteners of appropriate type and length. Predrill members when necessary to avoid splitting wood.
- F. Nailing - per structural drawings and nailing schedule.

### 3.02 MISCELLANEOUS CARPENTRY

- A. Provide miscellaneous blocking, nailers, grounds, and framing as shown and as required for support of facing materials, fixtures, specialty items, and trim. Cut and shape to the required size. Provide in locations required by other work.
- B. Use countersunk fasteners appropriate to applied loading.

### 3.03 WOOD FRAMING - GENERAL

- A. Comply with sizes, spacing, and configurations indicated. Where not specifically indicated, comply with applicable codes and NFPA "Manual for Wood Frame Construction." Splice members only where specifically indicated or approved.
- B. Space fasteners as indicated. Where not specifically indicated, comply with applicable codes and the "Recommended Nailing Schedule" of NFPA "Manual for Wood Frame Construction" and "National Design Specification for Wood Construction."
- C. Fire stops: Stops of nominal 2-inch-thick lumber in the following typical locations, and where otherwise indicated.
  - 1. Each floor level and ceiling of top story.
  - 2. Concealed vertical spaces over 10 feet in height occurring in stud walls and partitions, including furred walls.
  - 3. Interconnections of concealed vertical and horizontal spaces such as at soffits, drop ceilings, and cove ceilings.
- D. FLOOR AND ROOF FRAMING:
  - 1. Set joists and beams with crown up.
  - 2. Joists and beams shall be continuous for full span of member.
  - 3. Holes may be drilled at center of joist only, with maximum diameter no greater than one-fourth of member depth. No other cutting or notching permitted.
  - 4. Frame around openings with double headers same size as joists, except where otherwise shown on Drawings.
  - 5. Use joist or beam hangers for all members not resting directly on top of supporting

- member.
6. Exposed beams shall be spliced only where shown on Drawings.
  7. Beams shall be continuous over supports where indicated and shall be spliced only as indicated on Drawings.
  8. Ridges, hips and valleys shall be two inches deeper than rafters with a minimum 6 48 inch lap splice.
- E. TOP PLATES: Doubled with joints staggered. Provide 1/2 inch minimum clearance between top plate of interior partitions and bottom chord of trusses. Use Simpson truss clips or approved equivalent.
- F. NOTCHING AND BORING (UNLESS NOTED OTHERWISE ON STRUCTURAL DRAWINGS):
1. EXTERIOR STUDS AND BEARING WALLS (NOTCHING): Maximum 25 percent of stud width.
  2. NONBEARING PARTITIONS (NOTCHING): Maximum 25 percent of stud width, unless approved otherwise by Architect in writing or studs are adequately reinforced.
  3. BORING: Maximum diameter of hole 40 percent of stud width, not nearer than 8 inch from edge.
  4. WOOD TRUSSES JOINTS: Not permitted unless approved by structural engineer in writing.
  5. OTHER NOTCHING AND BORING will require approval of Architect.
  6. HOLES: Drill bolt holes 1/16 inch larger than bolt diameter.
- G. NAILING: Minimum requirements noted on structural drawings.
- H. WALL BLOCKING: Provide horizontal 2" x 4" wood blocking behind wall-mounted toilet accessories and fixtures and other required items.
- I. FELT SEPARATION: Wherever required by Code isolate attached wood framing against sheathing with No. 15 building felt.
- J. FASTENING EXTERIOR WALL SILL PLATES: Anchor with minimum 1/2 inch diameter bolts at 48" OC, not less than two anchor bolts for any one-piece and within 12 inches of ends. Embed bolts minimum of 7 inches into concrete or equivalent power actuated fasteners unless restricted by codes.
1. WASHERS: Provide between wood and head or nut.
  2. Set exterior wood sills and wood sill plates at unconditioned areas on fiberglass (1" uncompressed and 1/32" compressed seal sealer insulation strips. Width to match sill plates.
- K. FASTENING INTERIOR SILL PLATES TO CONCRETE: 1/8 inch gun driven pins 8 inches OC, 3/4 inch minimum penetration; or 9/64 inch pins at 48 inches OC, one inch minimum penetration. Start pins 12 inches from ends.
1. LOAD BEARING AND SHEARWALLS: See structural drawings for shearwall anchoring requirements.

3.04 TIMBER FRAMING

- A. Install beams and girders crown edge up, with at least 4 inches bearing on supports.
- B. Wood Posts: Secure to supporting and supported members using approved anchoring devices as indicated.

3.05 BOARD SHEATHING AND SUBFLOORING

- A. Locate end joints over supports unless end matched boards are used. Separate joints in adjacent boards by at least one joist or stud space. Separate joints over the same support by at least two boards. Nail 6-inch-wide boards using two 8d nails at intermediate supports and three at diaphragm boundaries. Nail 8-inch and wider boards using three 8d nails at intermediate supports and four at diaphragm boundaries.

3.06 WOOD TRIM

- A. PIECES LESS THAN 12 FT LONG shall be without splices.
- B. PIECES OVER 12 FT LONG: Use scarf (angle cut) joint, joints 12 ft. apart minimum.

END OF SECTION 610000