

SECTION 061000 ROUGH CARPENTRY

PART 1 GENERAL

1.01 SECTION INCLUDES

- A Structural dimension lumber framing.
- B Nonstructural dimension lumber framing.
- C Rough opening framing for doors, windows, and roof openings.
- D Sheathing.
- E Subflooring.
- F Preservative treated wood materials.
- G Miscellaneous framing and sheathing.
- H Concealed wood blocking, nailers, and supports.

1.02 RELATED REQUIREMENTS

- A Section 061753 - Shop-Fabricated Wood Trusses.

1.03 REFERENCE STANDARDS

- A ASTM A153/A153M - Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware 2023.
- B AWP A U1 - Use Category System: User Specification for Treated Wood 2022.
- C PS 1 - Structural Plywood 2019.
- D PS 2 - Performance Standard for Wood Structural Panels 2018.
- E PS 20 - American Softwood Lumber Standard 2021.

1.04 SUBMITTALS

- A Product Data: Provide technical data on wood preservative materials and application instructions.
- B Structural Composite Lumber: Submit manufacturer's published structural data including span tables, marked to indicate which sizes and grades are being used; if structural composite lumber is being substituted for dimension lumber or timbers, submit grading agency structural tables marked for comparison.

1.05 DELIVERY, STORAGE, AND HANDLING

- A General: Cover wood products to protect against moisture. Support stacked products to prevent deformation and to allow air circulation.

PART 2 PRODUCTS

2.01 GENERAL REQUIREMENTS

- A Dimension Lumber: Comply with PS 20 and requirements of specified grading agencies.
 - 1. If no species is specified, provide species graded by the agency specified; if no grading agency is specified, provide lumber graded by grading agency meeting the specified requirements.
 - 2. Grading Agency: Grading agency whose rules are approved by the Board of Review, American Lumber Standard Committee at www.alsc.org, and who provides grading service for the species and grade specified; provide lumber stamped with grade mark unless otherwise indicated.

2.02 DIMENSION LUMBER FOR CONCEALED APPLICATIONS

- A Sizes: Nominal sizes as indicated on drawings, S4S.
- B Moisture Content: S-dry or MC19.
- C Stud Framing (2 by 2 through 2 by 8):
 - 1. Species: Allowed under referenced grading rules and as indicated on structural drawings.
 - 2. Grade: Standard.
- D Joist, Rafter, and Small Beam Framing (2 by 6 through 4 by 16):
 - 1. Machine stress-rated (MSR) as follows and as indicated on structural drawings:
 - a. Fb-single; minimum extreme fiber stress in bending: 1350 psi.
 - 2. Species: Allowed under grading rules and as indicated on structural drawings.
- E Miscellaneous Framing, Blocking, Nailers, Grounds, and Furring:
 - 1. Lumber: S4S, No. 2 or Standard Grade.
 - 2. Boards: Standard or No. 3.

2.03 STRUCTURAL COMPOSITE LUMBER

- A Structural Composite Lumber: Factory fabricated beams, headers, and columns, of sizes and types indicated on drawings; structural capacity as published by manufacturer.
 - 1. Beams and Lintels: Use laminated veneer lumber, laminated strand lumber, or parallel strand lumber with manufacturer's published modulus of elasticity, E: as indicated on structural drawings psi, minimum.

2.04 CONSTRUCTION PANELS

- A Subfloor/Underlayment Combination: PS 1 or PS 2 type, rated Single Floor.
 - 1. Bond Classification: Exposure 1.
 - 2. Bond Classification: Exposure 1.
 - 3. Span Rating: 48.
 - 4. Performance Category: 1-1/8 PERF CAT.
 - 5. Edges: Tongue and groove.
- B Roof Sheathing: Oriented strand board wood structural panel; PS 2.
 - 1. Grade: Structural 1 Sheathing.
 - 2. Bond Classification: Exposure 1.
 - 3. Performance Category: 5/8 PERF CAT.
 - 4. Span Rating: 40/20.
 - 5. Edges: Square.
- C Wall Sheathing: PS 2 type.
 - 1. Bond Classification: Exterior.
 - 2. Grade: Structural I Sheathing.
 - 3. Span Rating: 24.
 - 4. Performance Category: 5/16 PERF CAT.
 - 5. Edge Profile: Square edge.

2.05 ACCESSORIES

- A Fasteners and Anchors:

1. Metal and Finish: Hot-dipped galvanized steel complying with ASTM A153/A153M for high humidity and preservative-treated wood locations, unfinished steel elsewhere.
- B Die-Stamped Connectors: Hot dipped galvanized steel, sized to suit framing conditions.
- C Joist Hangers: Hot dipped galvanized steel, sized to suit framing conditions.
- D Sill Gasket on Top of Foundation Wall: 1/4 inch thick, plate width, closed cell plastic foam from continuous rolls.

2.06 FACTORY WOOD TREATMENT

- A Treated Lumber and Plywood: Comply with requirements of AWWPA U1 - Use Category System for wood treatments determined by use categories, expected service conditions, and specific applications.
 1. Preservative-Treated Wood: Provide lumber and plywood marked or stamped by an ALSC-accredited testing agency, certifying level and type of treatment in accordance with AWWPA standards.
- B Preservative Treatment:
 1. Products:
 - a. Lonza Group: www.wolmanizedwood.com/#sle.
 - b. Koppers Performance Chemicals, Inc: www.koppersperformancechemicals.com/#sle.
 - c. Viance, LLC; Preserve ACQ: www.treatedwood.com/#sle.
 2. Preservative Pressure Treatment of Lumber Above Grade: AWWPA U1, Use Category UC3B, Commodity Specification A using waterborne preservative.
 - a. Kiln dry lumber after treatment to maximum moisture content of 19 percent.
 - b. Treat lumber in contact with masonry or concrete.
 - c. Treat lumber in other locations as indicated.
 3. Preservative Pressure Treatment of Lumber in Contact with Soil: AWWPA U1, Use Category UC4A, Commodity Specification A using waterborne preservative.
 - a. Preservative for Field Application to Cut Surfaces: As recommended by manufacturer of factory treatment chemicals for brush-application in the field.

PART 3 EXECUTION

3.01 PREPARATION

- A Install sill gasket under sill plate of framed walls bearing on foundations; puncture gasket cleanly to fit tightly around protruding anchor bolts.
- B Coordinate installation of rough carpentry members specified in other sections.

3.02 INSTALLATION - GENERAL

- A Select material sizes to minimize waste.
- B Reuse scrap to the greatest extent possible; clearly separate scrap for use on site as accessory components, including: shims, bracing, and blocking.
- C Where treated wood is used on interior, provide temporary ventilation during and immediately after installation sufficient to remove indoor air contaminants.

3.03 FRAMING INSTALLATION

- A Set structural members level, plumb, and true to line. Discard pieces with defects that would lower required strength or result in unacceptable appearance of exposed members.
- B Make provisions for temporary construction loads, and provide temporary bracing sufficient to maintain structure in true alignment and safe condition until completion of erection and installation of permanent bracing.
- C Install structural members full length without splices unless otherwise specifically detailed.
- D Comply with member sizes, spacing, and configurations indicated, and fastener size and spacing indicated, but not less than required by applicable codes.
- E Install horizontal spanning members with crown edge up and not less than 1-1/2 inches of bearing at each end.
- F Frame wall openings with two or more studs at each jamb; support headers on cripple studs.

3.04 BLOCKING, NAILERS, AND SUPPORTS

- A Provide framing and blocking members as indicated or as required to support finishes, fixtures, specialty items, and trim.
- B In walls, provide blocking attached to studs as backing and support for wall-mounted items, unless item can be securely fastened to two or more studs or other method of support is explicitly indicated.
- C Provide the following specific nonstructural framing and blocking:
 - 1. Cabinets and shelf supports.
 - 2. Wall brackets.
 - 3. Handrails.
 - 4. Grab bars.
 - 5. Towel and bath accessories.
 - 6. Chalkboards and marker boards.

3.05 INSTALLATION OF CONSTRUCTION PANELS

- A Subflooring/Underlayment Combination: Glue and nail to framing; staples are not permitted.
- B Roof Sheathing: Secure panels with long dimension perpendicular to framing members, with ends staggered and over firm bearing.
 - 1. Nail panels to framing; staples are not permitted.
- C Wall Sheathing: Secure with long dimension perpendicular to wall studs, with ends over firm bearing and staggered, using nails or screws.

3.06 TOLERANCES

- A Framing Members: 1/4 inch from true position, maximum.
- B Surface Flatness of Floor: 1/8 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.
- C Variation from Plane, Other than Floors: 1/4 inch in 10 feet maximum, and 1/4 inch in 30 feet maximum.

3.07 CLEANING

- A Waste Disposal: See Section 017419 - Construction Waste Management and Disposal.
 - 1. Comply with applicable regulations.
 - 2. Do not burn scrap on project site.
 - 3. Do not burn scraps that have been pressure treated.
 - 4. Do not send materials treated with pentachlorophenol, CCA, or ACA to co-generation facilities or “waste-to-energy” facilities.
- B Do not leave wood, shavings, sawdust, etc. on the ground or buried in fill.
- C Prevent sawdust and wood shavings from entering the storm drainage system.

END OF SECTION