

## SECTION 061600 - SHEATHING

### PART 1 - GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

#### 1.2 SUMMARY

- A. Section Includes:
  - 1. Wall sheathing.
  - 2. Roof sheathing.
  - 3. Subflooring.
- B. Related Requirements:
  - 1. Section 061000 "Rough Carpentry" for plywood backing panels.
  - 2. Section 072500 "Weather Barriers" for water-resistive barrier applied over wall sheathing.

#### 1.3 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 plywood complies with requirements. Indicate type of preservative used and net amount of preservative retained.
  - 2. For products receiving waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.
  - 3. For air-barrier and water-resistant glass-mat gypsum sheathing, include manufacturer's technical data and tested physical and performance properties of products.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Evaluation Reports: For the following, from ICC-ES:
  - 1. Wood-preservative-treated plywood.
- B. Field quality-control reports.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Stack panels flat with spacers beneath and between each bundle to provide air circulation. Protect sheathing from weather by covering with waterproof sheeting, securely anchored. Provide for air circulation around stacks and under coverings.

### PART 2 - PRODUCTS

#### 2.1 WOOD PANEL PRODUCTS

- A. Thickness: As needed to comply with requirements specified, but not less than thickness indicated.
- B. Factory mark panels to indicate compliance with applicable standard.

## 2.2 PRESERVATIVE-TREATED PLYWOOD

- A. Preservative Treatment by Pressure Process: AWP A U1; Use Category UC2 for interior construction not in contact with ground, Use Category UC3b for exterior construction not in contact with ground, and Use Category UC4a for items in contact with ground.
  - 1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.
- B. Mark plywood with appropriate classification marking of an inspection agency acceptable to authorities having jurisdiction.
- C. Application: Treat items indicated on Drawings and plywood in contact with masonry or concrete or used with roofing, flashing, vapor barriers, and waterproofing.

## 2.3 WALL SHEATHING

- A. Oriented-Strand-Board Sheathing: DOC PS 2, Exposure 1, Structural I sheathing.
  - 1. Span Rating: Not less than 24/0.
  - 2. Nominal Thickness: Not less than 5/8 inch (16 mm).
- B. Composite Insulating Wall Sheathing: Oriented-strand-board Exposure 1 sheathing 7/16 inch thick, with factory-laminated water-resistive barrier exterior facer, and with rigid foam plastic insulating board laminated to interior face.
  - 1. Basis-of-Design Product: Huber Engineered Woods LLC; ZIP System R Sheathing.
  - 2. Span Rating and Performance Category of Sheathing Layer: Not less than 24/16; 7/16 Performance Category.
  - 3. Thickness: 2 inch.
  - 4. Thermal Resistivity (R Value): 6.6 deg F x h x sq. ft./Btu x in. at 75 deg F
  - 5. Edge Profile: Square edge.
  - 6. Exterior Facer: Medium-density, phenolic-impregnated polymer-modified sheet material meeting requirements for ASTM D779 Grade D weather-resistive barrier in accordance with ICC AC38 and AC310.

## 2.4 ROOF SHEATHING

- A. Plywood Sheathing: DOC PS 1 Exterior, Structural I sheathing.
  - 1. Span Rating: Not less than 32/16.
  - 2. Nominal Thickness: Not less than 5/8 inch (16 mm).

## 2.5 SUBFLOORING AND UNDERLAYMENT

- A. Plywood Subflooring: DOC PS 1 Exposure 1, Structural I single-floor panels or sheathing.
  - 1. Span Rating: Not less than 48/24.
  - 2. Nominal Thickness: Not less than 23/32 inch
- B. Underlayment: Provide underlayment in nominal thicknesses indicated or, if not indicated, not less than 1/4 inch over smooth subfloors and not less than 3/8 inch over board or uneven subfloors.

## 2.6 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture.

1. For roof and wall sheathing, provide fasteners with hot-dip zinc coating complying with ASTM A153/A153M.
  - B. Nails, Brads, and Staples: ASTM F1667.
  - C. Power-Driven Fasteners: Fastener systems with an evaluation report acceptable to authorities having jurisdiction, based on ICC-ES AC70.
  - D. Screws for Fastening Sheathing to Wood Framing: ASTM C1002.
- 2.7 MISCELLANEOUS MATERIALS
- A. Adhesives for Field Gluing Panels to Wood Framing: Formulation complying with APA AFG-01 that is approved for use with type of construction panel indicated by manufacturers of both adhesives and panels.
  - B. Seam Tape and Sealant: Pressure-sensitive, self-adhering, cold-applied, seam tape consisting of polyolefin film with acrylic adhesive, meeting ICC AC148, as recommended by panel manufacturer.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Do not use materials with defects that impair quality of sheathing or pieces that are too small to use with minimum number of joints or optimum joint arrangement. Arrange joints so that pieces do not span between fewer than three support members.
- B. Cut panels at penetrations, edges, and other obstructions of work; fit tightly against abutting construction unless otherwise indicated.
- C. Securely attach to substrate by fastening as indicated, complying with the following:
  1. Table 2304.9.1, "Fastening Schedule," in the ICC's International Building Code.
  2. Table R602.3(1), "Fastener Schedule for Structural Members," and Table R602.3(2), "Alternate Attachments," in the ICC's International Residential Code for One- and Two-Family Dwellings.
  3. ICC-ES evaluation report for fastener.
- D. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view or will receive finish materials. Make tight connections. Install fasteners without splitting wood.
- E. Coordinate wall and roof sheathing installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior moisture from passing through completed assembly.
- F. Do not bridge building expansion joints; cut and space edges of panels to match spacing of structural support elements.
- G. Coordinate sheathing installation with installation of materials installed over sheathing so sheathing is not exposed to precipitation or left exposed at end of the workday when rain is forecast.

### 3.2 WOOD STRUCTURAL PANEL INSTALLATION

- A. General: Comply with applicable recommendations in APA Form No. E30, "Engineered Wood Construction Guide," for types of structural-use panels and applications indicated.
- B. Fastening Methods: Fasten panels as indicated below:
  - 1. Subflooring:
    - a. Glue and nail to wood framing.
    - b. Space panels 1/8 inch apart at edges and ends.
  - 2. Wall and Roof Sheathing:
    - a. Nail to wood framing.
    - b. Space panels 1/8 inch apart at edges and ends.
  - 3. Underlayment:
    - a. Nail to subflooring.
    - b. Space panels 1/32 inch apart at edges and ends.
    - c. Fill and sand edge joints of underlayment receiving resilient flooring immediately before installing flooring.
- C. Joint Treatment - Walls: Install sealant between panel joints and apply joint tape in accordance with manufacturer's directions.

### 3.3 FIELD QUALITY CONTROL

- A. Testing and Inspecting Agency: Owner will engage a qualified testing agency to perform tests and inspections.
- B. Prepare test and inspection reports.

END OF SECTION 061600