SECTION 06 16 00 - SHEATHING

1.1 SECTION INCLUDES

A. Qualitative requirements for wall sheathing, roof sheathing, vented nailboard, building wrap, sheathing joint and penetration treatment and flexible flashing at openings in sheathing.

1.2 WOOD PANEL PRODUCTS,

A. Emissions: Products shall meet the testing and product requirements of the California Department of Public Health's "Standard Method for the Testing and Evaluation of Volatile Organic Chemical Emissions from Indoor Sources Using Environmental Chambers."

B. Plywood: Either DOC PS 1 or DOC PS 2 unless otherwise indicated.

1.3 PERFORMANCE REQUIREMENTS

A. Fire-Resistance Ratings: As tested according to ASTM E119; testing by a qualified testing agency. Identify products with appropriate markings of applicable testing agency.

1. Fire-Resistance Ratings: Indicated by design designations from UL's "Fire Resistance Directory" or from the listings of another qualified testing agency.

C. Fire Propagation Characteristics: NFPA 285 Ó Standard Fire Test Method for Evaluation of Fire Propagation Characteristics of Exterior Non-Load-Bearing Wall Assemblies Containing combustible Components.

D. Delegated Design: Design fasteners to support composite nail base insulated wall sheathing, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated. Prime Contractors shall coordinate fastener requirements and cold-formed metal framing requirements to support composite nail base insulated wall sheathing and shall include all requirements for both in the Bid Price.

1.4 PRESERVATIVE-TREATED PLYWOOD

A. Preservative Treatment by Pressure Process: AWPA U1; Use Category UC2 for interior construction not in contact with the ground, Use Category UC3b for exterior construction not in contact with the ground, and Use Category UC4a for items in contact with the ground.

1. Preservative Chemicals: Acceptable to authorities having jurisdiction and containing no arsenic or chromium.

1.5 FIRE-RETARDANT-TREATED PLYWOOD

A. Fire-Retardant-Treated Plywood by Pressure Process: Products with a flame spread index of 25 or less when tested according to ASTM E 84, and with no evidence of significant progressive combustion when the test is extended an additional 20 minutes, and with the flame front not extending more than 10.5 feet beyond the centerline of the burners at any time during the test.

1. Exterior Type: Treated materials shall comply with requirements specified above for fire-retardant-treated plywood by pressure process after being subjected to accelerated weathering according to ASTM D 2898. Use for exterior locations and where indicated.

2. Interior Type A: Treated materials shall have a moisture content of 28 percent or less when testing according to ASTM D 3201 at 92 percent relative humidity. Use where exterior type is not indicated.

1.6 WALL SHEATHING

A. Plywood Wall Sheathing

B. Glass-Mat Gypsum Wall Sheathing

C. Cellulose Fiber-Reinforced Gypsum Sheathing

D. Extruded-Polystyrene-Foam Wall Sheathing

E. Foil Faced Closed Cell Rigid Foam Wall Sheathing

1.7 ROOF SHEATHING

A. Plywood Roof Sheathing: Exterior, Structural I sheathing.
   1. Provide 5/8 inch nominal thickness for 24 inch rafter spacing.

B. Oriented-Strand-Board Roof Sheathing: Exposure 1, Structural 1 sheathing.
   1. Provide 5/8 inch nominal thickness for 24 inch rafter spacing.

C. Composite Nail Base Insulated Roof Sheathing
   1. Type: Vented
   2. Board Insulation: Either polyisocyanurate or extruded polystyrene
   3. Oriented Strand Board: ***Board 5/8" thick and shall not exceed the*** APA span rating based on the spacing of the spacer blocks.
      a. The spacer blocks within the ventilation space shall not exceed 10 percent of the panel area and will allow air to flow both up the slope and horizontally. The air space shall be 2 inches minimum.

1.8 FASTENERS

A. Fasteners: Hot-dip galvanized or stainless steel where exposed to weather, in ground contact, in contact with treated wood, or in area of high relative humidity.

1.9 WEATHER-RESISTANT SHEATHING PAPER

A. Building Wrap: ASTM E 1677, Type I air retarder; with flame-spread and smoke developed indexes of less than 25 and 450, respectively, when tested according to ASTM E 84; UV stabilized.

B. Building-Wrap Tape: Pressure-sensitive plastic tape recommended for sealing joints and penetrations in building wrap.

C. Refer to Section 07 27 00 for Air Barrier.

1.10 SHEATHING JOINT-AND-PENETRATION TREATMENT MATERIALS

A. Sealant for Glass-Mat Gypsum Sheathing Board: Silicone emulsion sealant, compatible with sheathing tape and sheathing, and recommended for use with glass fiber sheathing tape and for covering exposed fasteners.

B. Sheathing Tape for Glass-Mat Gypsum Sheathing Board: Self-adhering glass-fiber tape, for use with silicone emulsion sealant in sealing joints in glass-mat gypsum sheathing board.

C. Sheathing Tape for Foam-Plastic Sheathing: Pressure-sensitive plastic tape for sealing joints and penetrations in sheathing.

1.11 MISCELLANEOUS MATERIALS

A. Flexible Flashing: Composite, self-adhesive, flashing product consisting of a pliable, rubberized-asphalt compound, bonded to a high-density, cross-laminated polyethylene film to produce an overall thickness of not less than 0.025 inch.

1.12 LEED SUGGESTIONS

A. Emissions: Products shall meet the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

B. Vented Roof Assemblies: Proper ventilation is critical to the longevity and effectiveness of the roof assembly. While 2 inches is the recommended air space, for runs over 60 feet and complex roof designs, including hips, the Design Team should consult vented nailboard manufacturer and verify design using a "Vented Roof System Calculator" available from most manufacturers.

END OF SECTION