

The following standard specification is intended to be edited according to the specifics of the project. Brackets [ ] and areas shaded in gray [e.g. format] indicate requirements that are optional depending upon the type of system being provided or per instructions associated with the [ ] and project requirements. Consult with University's Representative and campus stakeholders.

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## SECTION 06 16 43 GYPSUM SHEATHING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes exterior gypsum wall and soffit sheathing, fasteners, and accessories.

#### 1.2 RELATED SECTIONS

- A. Section 01 43 00 Quality Assurance
- B. Section 01 43 39 Mock-ups
- C. Section 01 60 00 Product Requirements
- D. Section 07 25 00 Water Resistive Barrier System

#### 1.3 SUBMITTALS

- A. Product Data: Manufacturer's descriptive literature indicating material composition, thickness, size and fire resistance. Include manufacturer's certification that gypsum sheathing complies with specified fire-resistance requirements.
- B. Shop Drawings: Indicate fastener patterns and installation details.

Note to Specifier: Coordinate LEED submittal requirements with the project's LEED goals and rating system.

#### C. LEED Submittals:

- 1. Credit MR 5.1 and MR 5.2: Product data for regional materials indicating location and distance from Project of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating cost for each regional material and the fraction by weight that is considered regional.

#### 1.4 QUALITY ASSURANCE

- A. Fire Resistance Ratings: Gypsum sheathing shall have a flame spread of 0 and smoke developed of 0 when tested in accordance with ASTM E84 and be non-combustible when tested in accordance with ASTM D136.
- B. Gypsum sheathing shall comply with ICC ES Legacy Report NER-574.
- C. Gypsum sheathing shall be installed plumb, level and in plane within 1/4 inch in 10 feet.
- D. Mock-ups: Provide products, assemblies, and related materials for the composite mock-ups specified in ~~Section 01~~Section 01 43 39 Mock-ups. Test completed mock-up assemblies following CBC 1403.2 to the code prescribed minimum pressure or the building design pressure, whichever is greater.
- E. Gypsum sheathing shall be manufactured to conform to the physical requirements of ASTM C79 for gypsum sheathing board and shall have the following performance characteristics:

	5/8 inch Thick Type X Sheathing
Thickness	5/8 inch +/- 1/32 inch

Weight, lbs/m sq.ft.	2500
Width, nom	4-feet +/- 1/8 inch
Length, std	8-feet; 10-feet, +/- 1/4 inch
Edges	Square
Core	Water Resistant
Permeance    ASTM E96	12.4 Perms

Note to Specifier: Coordinate Environmental Quality Assurance with LEED submittal requirements and project's LEED goals and rating system.

#### 1.5 ENVIRONMENTAL QUALITY ASSURANCE

- A. Provide building materials (by cost) that are regional materials (extracted, harvested or recovered and manufactured within 500 miles of the Project site.) Percentage as required for LEED credit.
- B. Available LEED Credits:
  - 1. Credit MR 5.1 and 5.2 – Regional Materials

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Refer to Section 01 60 00 Product Requirements.
- B. Each bundle or package of sheathing shall bear the manufacturer's name and/ or trademark, the NES logo and evaluation report number (NER-574) for field identification.
- C. Keep materials under cover and dry. Protect against exposure to weather and contact with wet or damp surfaces.
- D. Stack sheathing and provide for air circulation within and around stacks under temporary coverings.

### PART 2 - PRODUCTS

#### 2.1 GYPSUM SHEATHING

- A. Manufacturer: Georgia-Pacific "DensGlass Fireguard" or equal.
- B. Gypsum Wall and Soffit Sheathing: Gypsum sheathing panel with glass mat faced water-resistant treated core, 5/8-inch thick, complying with ASTM C1177.
  - 1. Gypsum sheathing shall be resistant to mold and mildew when tested in accordance with ASTM D3273.
  - 2. Where indicated for fire-rated walls, provide glass mat faced water-resistant treated core panel, 5/8-inch thick with Type X rating as defined in ASTM C1396.
  - 3. Proprietary gypsum sheathing shall meet the performance requirements of ASTM C79 (gypsum sheathing) and shall be considered an equivalent product.
- C. Fire Resistance:
  - 1. Noncombustible when tested in accordance with ASTM E136.
  - 2. Flame spread 10, smoke developed 0, when tested in accordance with ASTM E84.

#### 2.2 MISCELLANEOUS MATERIALS

- A. Fasteners: Provide bugle or wafer head, self-tapping, corrosion-resistant, fine thread fasteners as recommended by gypsum sheathing manufacturer. Fasteners shall have a minimum 2,000-hour resistance to salt spray when tested in accordance with ASTM B117.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION, GENERAL

- A. Examine framing substrate for alignment, framing member locations and tolerance with planarity requirements. Do not install sheathing over unacceptable framing substrates until corrections are completed. Cut and fit gypsum sheathing accurately. Install members plumb and true to line and level.
- B. Securely attach to framing by anchoring and fastening as indicated and required.
- C. Use fasteners of appropriate type and length.

#### 3.2 GYPSUM WALL AND SOFFIT SHEATHING

- A. Provide gypsum sheathing where indicated.
- B. Provide continuous L-shape panels at corners of wall openings, with 16 inch minimum dimensions in all directions.
- C. Fasten sheathing to exterior face of stud framing for exterior walls in accordance with manufacturer's instructions, applicable instructions in GA-253 and ASTM C1280, and ICC ES Legacy Report NER-574.
- D. Use maximum lengths possible to minimize number of joints.
- E. Fasten with screws of appropriate type and length.
- F. Attach sheathing to metal framing with screws spaced 8-inches o.c. at perimeter where there are framing supports and 8-inches o.c. along intermediate framing in field.
- G. Drive fasteners to bear tight against and flush with surface of sheathing. Do not counter sink.
- H. Locate fasteners minimum 3/8-inch from edges and ends of sheathing panels, tight against and flush with surface of sheathing.
- I. For transverse wind load resistance, comply with the requirements specified in ICC ES Legacy Report NER-574.

END OF SECTION 06 16 43