

SECTION 06 10 53

CARPENTRY

PART 1: GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings, Details of Construction and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work specified in this section.

1.02 SUMMARY

- A. Section includes:
 - 1. Miscellaneous blocking, sleepers and nailers, shown on Drawings or required.
 - 2. Curbs and blocking at roof. Wood blocking under coping.
 - 3. Batt insulation within wood framing.
- B. Related work specified in other sections:
 - 1. Insulation - Section 07 21 00
 - 2. Prefabricated Roof Curbs for Air Handling - Division 23.

1.03 QUALITY ASSURANCE

- A. Lumber Grades: Western Wood Products Association "Product Use Manual".
- B. Preservative Treated Lumber: American Wood Preservers Bureau, "LP-2 Pressure Treated with Water-Borne Preservatives".

1.04 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
 - 1. Furnish certificates for preservative treated lumber.
 - 2. Submit roofing material manufacturer's current printed instructions for installation of nailers.

1.05 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Immediately upon delivery to job site, place materials in area protected from weather.
- B. Store materials a minimum of 6 in. above ground on framework or blocking and cover with protective waterproof covering providing for adequate air circulation or ventilation.
- C. Do not store seasoned material in wet or damp portions of building.
- D. While unloading, protect sheet materials from corners breaking and damaging surfaces.

1.06 COORDINATION

- A. Coordinate blocking for roof applications with Divisions 7, 22 and 23.
- B. Obtain product data, sizes and anchorage requirements prior to installation of blocking.

PART 2: PRODUCTS

2.01 ROUGH HARDWARE

- A. Nails, spikes, screws, bolts and similar items of size and types to rigidly secure members in place or as otherwise indicated.
- B. Non-corrosive type fasteners for redwood and preservative treated and fire retardant lumber such as stainless steel or double dipped galvanized.

2.02 LUMBER

- A. Framing, blocking lumber: No. 2 or better, S4S, Douglas Fir-Larch, Hem-Fir or Southern Pine, moisture content not to exceed 19%.
 - 1. Provide preservative-treated lumber for work exposed to moisture or indirect contact with concrete slabs. Preservative-treated lumber is not required for roof blocking.
 - 2. Provide fire-retardant lumber for all interior framing and blocking. Blocking for handrails, millwork, cabinets, window and door frames do not require fire-retardant lumber in Type I and Type II construction.
- B. Redwood: No. 2 or better under R.I.S. rules.

2.03 PLYWOOD

- A. Meet APA C-D exterior, thickness as shown on Drawings.
- B. Provide preservative-treated plywood when exposed to moisture, and as shown on Drawings.
- C. Interior Finish Plywood: Paint grade birch.

2.04 INSULATION

- A. Batt Insulation: Conform to requirements of Section 07 21 00, Insulation.

PART 3: EXECUTION

3.01 ROUGH CARPENTRY

- A. Provide wood nailers of size, shape where indicated, required.
- B. Fasten securely to substrate with appropriate fasteners. Use expansion-type anchors at masonry or concrete, self-tapping screws at steel. Use corrosive resistant fasteners for roofing applications or where otherwise exposed to moisture.
- C. Install work that is component of the roofing system according to roofing material manufacturer's current printed instructions.

- D. Install blocking for windows, storefront and entrances according to approved Shop Drawings. Blocking shall be continuous the width or height of rough openings, unless otherwise shown on Drawings. Install sill sealer under windowsill blocking as detailed
- E. Install blocking for finish materials, such as windows and sheet metal fascias, with minimum number of joints, plumb, level, true and straight with no distortions. Discard materials which are unsound, warped, bowed, twisted, improperly treated, not adequately seasoned.

3.02 INSULATION

- A. Install fiberglass insulation within wood construction as noted on the drawings.

END OF SECTION 06 10 53

SECTION 06 16 43

GYPSUM SHEATHING

PART 1: GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings, Details of Construction and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification Sections, apply to work specified in this section.

1.02 SUMMARY

- A. Section includes the following:
 - 1. Glass-mat faced gypsum sheathing.
 - 2. Rigid wall insulation and z-furring on exterior surfaces.
- B. Related work specified in other sections:
 - 1. Vapor-Permeable Weather-Barrier Section 07 65 16.

1.03 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
 - 1. Product Data: Manufacturer's specifications and installation instructions for each product specified.

1.04 QUALITY ASSURANCE

- A. Referenced Specifications: Current Gypsum Association Publications (www.gypsum.org).
- B. Fire-Test-Response Characteristics: For assemblies with fire-resistance ratings, provide materials and construction identical to those of assemblies tested for fire resistance per ASTM E 119 by a testing and inspecting agency acceptable to authorities having jurisdiction.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Delivery and Handling
 - 1. Deliver materials to the project site with manufacturer's labels intact and legible.
 - 2. Handle materials with care to prevent damage.
 - 3. Deliver fire-rated materials bearing testing agency label and required fire classification numbers.
- B. Storage
 - 1. Store materials under cover, stack flat, and off ground.

PART 2: PRODUCTS

2.01 GYPSUM SHEATHING

A. The following manufacturers/products are acceptable:

1. Georgia-Pacific Gypsum LLC, www.gpgypsum.com, DensGlass Gold Exterior Sheathing.
2. National Gypsum Company, www.nationalgypsum.com, Gold Bond Brande e²XP Extended Exposure Gypsum Sheathing.
3. USG Corporation, www.usg.com, Securock Glass Mat Gypsum Sheathing.
4. Certain Teed Corporation, www.certainteed.com, GlasRoc Sheathing.
5. LaFarge North America, www.lafargenorthamerica.com, Weather Defense Platinum.

B. Panel Physical Characteristics

1. Core: Regular gypsum core (Type X gypsum core at fire rated conditions) with additives to enhance moisture and mold resistance.
2. Facing: Water-resistant glass mat on both face, back, and long edges.
3. Overall thickness: ½ inch (5/8 inch at fire rated conditions)
4. Panel complies with requirements of ASTM C 1177 (ASTM C1177, Type X at fire rated conditions).
5. Racking strength – Ultimate: 540 lbs/sq.ft. dry when tested in accordance with ASTM E72.
6. Flexible Strength – Parallel: 80 lbs, when tested in accordance with ASTM C473.
7. Humidified Deflection: Not more than ¼ inch when tested in accordance with ASTM C473.
8. Nail Pull Resistance: 80 lbs, when tested in accordance with ASTM C473.
9. Water Absorption: Less than 10% when tested in accordance with ASTM C473.
10. Surface Water Absorption: Less than 1% when tested in accordance with ASTM C473.
11. Permeance: Greater than 10 perms, when tested in accordance with ASTM E96.
12. R-Value: 0.40 when tested in accordance with ASTM C518.
13. Combustibility: Noncombustible when tested in accordance with ASTM E136.
14. Flame spreads/smoke developed: 5/0 when tested in accordance with ASTM E84.
15. Mold/Mildew Resistance: 10 when tested in accordance with ASTM D 3273.

2.02 ACCESSORIES

A. Screws for Fastening Gypsum Sheathing to Cold-Formed Metal Framing: Steel drill screws, in length recommended by sheathing manufacturer for thickness of sheathing board to be attached, with organic-polymer or other corrosion-protective coating have a salt-spray resistance of more than 800 hours according to ASTM B 117.

1. For steel framing less than 0.0329 inch thick, attach sheathing to comply with ASTM C 1002.
2. For steel framing from 0.033 to 0.112 inch thick, attach sheathing to comply with ASTM C 954.

B. Z-Furring: Manufacturer's standard Z-shaped furring members with slotted or nonslotted web, with minimum base metal (uncoated) thickness of 0.0179 inch, face flange of 1 ¼ inch, wall attachment flange of 7/8 inch and of depth required to fit insulation thickness indicated. Protective coating, ASTM C 645/C, 645 M, G40 (Z120) or equivalent corrosion resistance.

1. Fasteners for Metal Framing: Provide fasteners of type, material, size, and corrosion resistance, holding power and other properties required to fasten steel framing and furring member securely to substrates involved; comply with recommendations of gypsum board manufacturers for applications indicated.

C. Rigid Wall Insulation and Expanding Foam Insulation: Conform to the requirements of Section 07 21 00.

PART 3: EXECUTION

3.01 EXAMINATION

- A. Inspection: Verify that project conditions and substrates are acceptable, to the installer, to begin installation of work of this section.

3.02 FURRING AND INSULATION

- A. Install rigid wall insulation by holding in place with Z-furring members running perpendicular to framing and spaced at 16" o.c.
- B. Seal all voids in rigid wall insulation with expanding foam insulation.

3.03 GYPSUM SHEATHING INSTALLATION

- A. Comply with GA-253 and with manufacturer's written instructions.
 - 1. Fasten gypsum sheathing to cold-formed metal framing with screws.
 - 2. Install boards with a 3/8 inch gap where non-load-bearing construction abuts structural elements.
 - 3. Install boards with a 1/4 inch gap where they abut masonry or similar materials that might retain moisture, to prevent wicking.
- B. Apply fasteners so heads bear tightly against face of sheathing boards but do not cut into facing.
- C. Horizontal Installation: Install sheathing with V-grooved edge down and tongue edge up. Interlock tongue with groove to bring long edges in contact with edges of adjacent boards without forcing. Abut ends of boards over centers of studs, and stagger end joints of adjacent boards not less than one stud spacing. Attach board at perimeter and within field of board to each steel stud.
 - 1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.
- D. Vertical installation: Install board vertical edges centered over studs. Abut ends and edges of each board with those of adjacent boards. Attach boards at perimeter and within field of board to each stud.
 - 1. Space fasteners approximately 8 inches o.c. and set back a minimum of 3/8 inch from edges and ends of boards.

END OF SECTION 06 16 43

