

SECTION 09251
GYPSUM WALLBOARD

PART 1 - GENERAL

1.1 DESCRIPTION

A. Scope

1. Furnish and install gypsum wallboard partitions, ceilings and walls as indicated on the Drawings or specified

B. Additional Requirements Specified Elsewhere

1. Section 01340: Shop Drawings, Product Data and Samples
2. Section 01600: Materials and Equipment

C. Related Requirements Specified Elsewhere

1. Section 06100: Carpentry
2. Section 08100: Metal Doors and Frames
3. Section 09900: Painting
4. Section 13121: Prefabricated Metal Building

1.2 QUALITY ASSURANCE

A. Design Criteria

1. Gypsum wallboard partitions and ceilings
 - a. Listed and labeled for one hour fire protective rating
 - b. Conform to ASTM C36, Type X for specified fire protective rating
2. Provide water-resistive gypsum wallboard where shown or otherwise required by the Drawings, other Sections of these specifications or the local building code requirements

1.3 SUBMITTALS

A. Shop Drawings and Product Data in Accordance with Section 01340

1. Copies of manufacturer's specifications covering all materials and accessories, plainly identified

1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver in manufacturer's original, unopened containers and store in a clean, dry, interior area until ready for use

- B. Stack wallboard flat and off of floor
- C. Protect adhesives from freezing
- D. Protect metal goods against rusting

1.5 JOB CONDITIONS

A. Environmental Conditions

- 1. During gypsum panel application and finishing, maintain temperatures in the building within the range of 55°F to 70°F
- 2. Provide adequate ventilation to carry off excess moisture

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Design Basis - Drywall and Accessories

- 1. Georgia-Pacific
- 2. National Gypsum Company
- 3. United States Gypsum
- 4. American Gypsum
- 5. Equivalent products of other manufacturers may be accepted subject to compliance with design, function, materials and performance of the specified items

2.2 DRYWALL AND RELATED MATERIALS

A. Faceboards

- 1. USG 48" wide tapered edge Firecode or equivalent of other design basis
- 2. Faceboards shall be ½" thick unless specifically indicated otherwise on the Drawings
 - a. Increase board thickness to attain specified fire protective rating for specific space installations
 - 1) Provide 5/8" thick wallboard for ceiling installations
- 3. Faceboard length shall allow for vertical installation without cross joints
- 4. ASTM C36

B. Cementitious Fiberboard

- 1. Non-asbestos, fiber-cement exterior grade sheet conforming to ASTM C1186
- 2. Noncombustible material compliant with ASTM E136
 - a. Flame Spread Index = 0, per ASTM E84
 - b. Smoke Developed Index = 5, per ASTM E84
- 3. 5/16" thick panels with smooth face finish
- 4. Factory-primed for field painting in accordance with Section 09900

5. HardiePanel® vertical siding panels as manufactured by James Hardie Building Products, Inc.
- C. Fasteners
 1. ASTM C380 annular ring nails, Type GWB-54
 2. Length as recommended by faceboard manufacturer
 - D. Metal Trim
 1. USG No. 200-B or equivalent of other design basis
 - E. Joint Treatment
 1. USG Perf-A-Tape or equivalent of other design basis
 - F. Adhesive
 1. USG Durabond multi-purpose adhesive or equivalent of other design basis
 - G. Texturing Compound
 1. USG joint compound - All Purpose or equivalent of other design basis
 - H. Wood Studs and Truss Chords
 1. Refer to Section 06100 – Carpentry
 2. Apply metal furring channels on truss chords to attain fire protective rating for ceiling assemblies.
 - a. Space metal channels to provide for support and other attachments in accordance with wallboard manufacturer's recommendations

PART 3 - EXECUTION

3.1 STUD FRAMING

- A. Wood studs installed vertically at 16" horizontal centers
- B. Securely anchored to top and bottom plates by nailing
- C. Bottom plate anchored to floor at 2'-0" maximum centers, or as indicated on the Drawings

3.2 MISCELLANEOUS FRAMING AND FURRING

- A. Provide all necessary framing and furring for special framing at recesses, specialty items, etc.
- B. Provide all necessary framing and suspensions for offsets, verticals, recessed and all other gypsum drywall surfaces

3.3 JOINT FINISHING

- A. All walls and ceilings to receive paint
- B. Finish with tape and joint compound as recommended by the manufacturer
- C. Feather and sand joint compound smooth
- D. Wallboard surfaces smooth, clean and ready for finish as indicated on the Drawings or specified

3.4 WALLBOARD INSTALLATION

- A. Single layer of 1/2" wallboard installed on all interior wood stud walls or as indicated on the Drawings
- B. Single layer of 5/8" wallboard installed on all ceiling framing with cementitious fiberboard secured over gypsum wallboard or as indicated on the Drawings
- C. Temperature of spaces and materials shall be 60°F minimum
- D. Provide required heat and ventilation to maintain temperature and remove excessive moisture
- E. Fasten wallboard to wood studs with nails at 8" centers in the field of board and at 8" centers along abutting edges
 - 1. Stainless steel fasteners required in Headworks Building
- F. Fasten wallboard to ceiling structural members or furring channels with screws at 8" centers in the field of board and at 8" centers along abutting edges
 - 1. Stainless steel fasteners required in Headworks Building
- G. Edge joints over surface of wood studs or truss chords
 - 1. In contact but not forced into place
 - 2. When used on ceiling spaces with metal furring channels, butt short dimension of panel together at centerline of channel section
- H. Long dimension perpendicular to framing members and parallel to floor for walls and partitions
- I. Perforated flange type metal corner beads at all external corners
- J. Metal trim at all edges where exposed or abutting other materials
- K. Mix joint compound in accordance with manufacturer's recommendations

L. Fasteners

1. Not closer than $\frac{3}{8}$ " to any edge
2. Opposite each other on adjacent edges
3. Driven with shank perpendicular to face of board
4. Head set to form slight dimple without breaking paper

M. Joint Compound

1. Applied to end of edge joints and to fastener heads
2. Surplus removed from joints leaving tapered groove for embedding tape
3. No material on high edges
4. Dry for 12 hours before tape is applied
5. Thin, uniform layer of joint compound approximately 4" wide shall be spread over the joints and the tape shall be embedded

N. After compound dries, apply additional coat approximately 10" wide over each joint

1. Slight crown at center of joint
2. Feathered at edges

O. After preceding coat dries, apply final coat of compound and allow to dry for 24 hours

P. All fastener heads and dimples to receive at least three coats of compound

1. Each coat shall dry for at least 24 hours

Q. When thoroughly dry, sand all compound surfaces smooth, avoid roughing surfaces of wallboard

1. Leave finished surfaces suitable for coating in accordance with Section 09900 or as otherwise specified

END OF SECTION