

SECTION 09260  
GYPSUM BOARD SYSTEMS

## PART 1 GENERAL

## 1.1 SECTION INCLUDES

- A. Metal stud wall framing
- B. Wall/Floor/Ceiling Sprayfoam insulation
- C. Gypsum board: Level 5 finish
- D. Taped and sanded joint treatment
- E. FRP Panels

## 1.2 RELATED SECTIONS

- A. Section 06100 – Rough Carpentry
- F. Section 09900 - Painting: Surface finish.

## 1.3 REFERENCES

- A. ASTM C36 - Gypsum Wallboard.
- B. ASTM C475 - Joint Treatment Materials for Gypsum Wallboard Construction.
- C. ASTM C514 - Nails for the Application of Gypsum Wallboard.
- D. ASTM C630 - Water Resistant Gypsum Backing Board.
- E. ASTM C645 - Non-Load (Axial) Bearing Steel Studs, Runners (Track), and Rigid Furring Channels for Screw Application of Gypsum Board.
- F. ASTM C665 - Mineral Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing.
- G. ASTM C754 - Installation of Framing Members to Receive Screw Attached Gypsum Wallboard, Backing Board, or Water Resistant Backing Board.
- H. ASTM C840 - Application and Finishing of Gypsum Board.
- I. ASTM C1002 - Steel Drill Screws for the Application of Gypsum Board.
- J. ASTM E90 - Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions.
- K. ASTM E119 - Fire Tests of Building Construction and Materials.
- L. GA-201 - Gypsum Board for Walls and Ceilings.
- M. GA-216 - Recommended Specifications for the Application and Finishing of Gypsum Board.

- N. GA-600 - Fire Resistance Design Manual.

#### 1.4 SUBMITTALS

- A. Submit under provisions of Section 01330.
- B. Product Data: Provide data on metal framing, gypsum board, joint tape.

#### 1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ASTM C840, GA-201, GA-216 and GA-600.
- A. Perform Work in accordance with State of South Carolina standards.
- B. Maintain one (1) copy of each document on site.
- C. **Single Source Responsibility for the Metal Stud Framing Section 05400, Gypsum Board installation Section 09260 and Spray Foam Insulation.**

#### 1.6 QUALIFICATIONS

- A. Applicator: Company specializing in performing the work of this section with minimum ten (10) years experience. The specialized company cannot be the General Contractor without receiving prior approval from the Architect. Approval will require documented information of previous installations and previous purchasing of materials on a consistent basis for the duration required.

#### 1.7 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire rated assemblies as follows:
  - 1. Fire Rated Partitions: Listed assembly by UL No. 306, one hour fire rated partition.

### PART 2 PRODUCTS

#### 2.1 MANUFACTURERS - GYPSUM BOARD SYSTEM

- A. U.S. Gypsum.
- B. Gold Bond. Building Products Division National Gypsum Co.
- C. Georgia - Pacific Corporation.

#### 2.02 FRAMING MATERIALS

- A. Studs: ASTM A525, non-load bearing rolled steel, channel shaped, punched for utility access, as scheduled.
- B. Runners: Of same material and thickness as studs, bent leg retainer notched to receive studs. Ceiling Runners; with extended leg retainer.

- C. Furring and Bracing Members: Of same material as studs; thickness to suit purpose.
- D. Fasteners: Self drilling, self tapping screws.
- E. Sheet Metal Backing: 18 gage steel for reinforcement as required or as indicated on Structural Drawings, whichever is more stringent.
- F. Anchorage Devices: Power actuated, drilled expansion bolts.
- G. Acoustic Sealant: As specified in Section 09260.

### 2.3 GYPSUM BOARD MATERIALS

- A. Standard Gypsum Board: ASTM C36; 5/8 inch thick, maximum permissible length; ends square cut, tapered edges.
- B. Fire Rated Gypsum Board: ASTM C36; fire resistive type, UL rated; 5/8 inch thick, maximum permissible length; ends square cut, tapered edges.
- C. Moisture Resistant Gypsum Board: ASTM C630; 5/8 inch thick, maximum permissible length; ends square cut, tapered edges. (install at caboose car and bathroom)
- D. Exterior Gypsum Board.

### 2.4 ACCESSORIES

- A. Acoustical Insulation: ASTM C665; preformed glass fiber, friction fit type, unfaced as indicated on drawings. Owens Corning, sound attention batt fiberglass 3-1/2" thickness, or to accommodate associated wall thickness.
- B. Acoustical Sealant: Non-hardening, non-skinning, for use in conjunction with gypsum board.
- C. Corner Beads: Metal.
- D. Edge Trim: GA 201 and GA 216;
- E. Joint Materials: ASTM C475; GA 201 and GA 216; reinforcing tape, joint compound, adhesive, and water.
- F. Fasteners: ASTM C1002, Type GA-216.
- F. Reglets: Fry Reglet; as indicated on drawings.

### 2.5 FRP Panels (fiberglass reinforced wallpanels)

- A. Prefinished polyester glass reinforced plastic sheets adhered to unfinished gypsum board
- B. Manufacturer
  - 1. Marlite: Standard FRP
    - 0.090 Thick
    - 4'0" Wide
    - 8'-0" Length
    - Color: P100 White
    - Adhesive: Marlite C551 FRP, adhesive, water resistand non-flammable

- 2.6 Spray Foam
- A. QuikShield 112XC by SWD Urethane: 2 lb closed cell spray applied rigid polyurethane foam system
  - B. R value 1" = 6.3 Provide a minimum of 3" of spray foam at wall/roof and floor areas.
  - C. Clean all existing and new surfaces in accordance with manufacturer to maintain proper adhesion.
  - D. Apply in accordance with manufacturer recommendation.
  - E. Provide a consistent insulation at the structure envelope around all surfaces.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Verify site conditions under provisions of Section 01039.
- B. Verify that site conditions are ready to receive work.
- C. The existing wallpaper shall be removed and the existing Gypsum Board shall be prepared to receive a Level 5 finish as defined below.

#### 3.2 METAL STUD FRAMING INSTALLATION

- A. Align and secure top and bottom runners at 16 inches o.c..
- B. Place two beads of acoustic sealant between runners and substrate.
- C. Install studs vertically at 16 inches o.c. unless otherwise noted.
- D. Align stud web openings horizontally.
- E. Secure studs to tracks using fastener method. Do not weld.
- F. Stud splicing not permissible.
- G. Fabricate corners using a minimum of three studs.
- H. Double stud at wall openings, door and window jambs, not more than 2 inches (50 mm) from each side of openings.
- I. Brace stud framing system rigid.
- J. Coordinate erection of studs with requirements of door frames, window frames, and install supports and attachments.
- K. Coordinate installation of wood bucks, anchors, and wood blocking with electrical, mechanical work and fire extinguishers to be placed within or behind stud framing.
- L. Blocking: Secure wood blocking to studs. Secure steel channels to studs. Install blocking for support of plumbing fixtures, toilet partitions, wall cabinets, toilet accessories, hardware to meet ADA, ANSI 1117.1 (86) requirements for supportive devices and height for handicapped.

- M. Refer to drawings for indication of partitions extending to finished ceiling only and for partitions extending through the ceiling to the structure above. Maintain clearance under structural building members to avoid deflection transfer to studs.  
Provide extended leg ceiling runners.
- N. Coordinate placement of insulation in stud spaces made inaccessible after stud framing erection.

### 3.3 INSTALLATION TOLERANCES

- A. Maximum Variation From True Position: 1/8 inch.
- B. Maximum Variation of any Member from Plane: 1/8 inch.
- C. Maximum Variation From Plumb: 1/8 inch.

### 3.4 GYPSUM BOARD INSTALLATION

- A. Install gypsum board in accordance with GA-201, GA-216, GA-214 and GA-600 and manufacturer's instructions. All new and existing walls shall be prepared to receive a **Level 5** finish. No marks or ridges. Entire surface covered with skim coat of compound which shall completely cover the paper and ready to for drywall primer before applying finish painting.
  - 1. **Level 5** – All appropriately prepared gypsum board surfaces shall have one coat of drywall primer applied to yield a properly painted surface. Two separate coats of topcoat material shall be applied over the drywall primer to yield a properly painted surface. Paint shall be applied to the mil film thickness and application conditions specified by the paint manufacturer. Note that this level is recommended where the best paint finish is required, such as under critical lighting conditions or when paints that have a glossy surface are used.
- B. Erect single layer standard gypsum board in most economical direction, with ends and edges occurring over firm bearing unless conflicting with UL assembly requirements.
- C. Erect single layer fire rated gypsum board vertically, with edges and ends occurring over firm bearing.
- D. Use screws when fastening gypsum board to metal furring or framing.
- E. Treat cut edges and holes in moisture resistant gypsum board with sealant.
- F. Place corner beads at external corners as indicated. Use longest practical length. Place edge trim where gypsum board abuts dissimilar materials.
- G. Install sound insulation where indicated, prior to gypsum board.
- H. Where sound insulation is installed in partitions. Seal construction at perimeters, openings and penetrations with a continuous bead of acoustical sealant including a bead at both faces of partitions.

### 3.05 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finishes.

- B. Feather coats onto adjoining surfaces so that camber is maximum 1/32.
- C. Erect in accordance with manufacturer's instructions.

3.06 TOLERANCES

- A. Maximum Variation of Finished Gypsum Board Surface from True Flatness:  
1/8 inch in 10 feet in any direction.

END OF SECTION 09260