

**ARCH 478  
OFFICE BUILDING**

**SECTION 09260**

**GYP SUM BOARD ASSEMBLIES**

**PART 1 GENERAL**

**1.01 SECTION INCLUDES**

- A. *Metal stud wall framing.*
- B. *Metal channel ceiling framing.*
- C. *Gypsum sheathing.*
- D. *Gypsum wallboard.*
- E. *Joint treatment and accessories.*

**1.02 RELATED SECTIONS**

- A. *Section 06100 - Rough Carpentry: Building framing system and Gypsum sheathing.*
- B. *Section 06114 - Wood Blocking and Curbing: Wood blocking for support of wall-mounted equipment.*
- C. *Section 07212 - Board and Batt Insulation: Acoustic insulation.*
- D. *Section 09300 - Tile: Backing board for tile installed on wall surfaces.*

**1.03 REFERENCES**

- A. *ASTM C 36/C 36M - Standard Specification for Gypsum Wallboard; 1999.*
- B. *ASTM C 79/C 79M - Standard Specification for Treated Core and Nontreated Core Gypsum Sheathing Board; 2000.*
- C. *ASTM C 442/C 442M - Standard Specification for Gypsum Backing Board, Gypsum Coreboard, and Gypsum Shaftliner Board; 1999a.*
- D. *ASTM C 475 - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board; 1994.*
- E. *ASTM C 514 - Standard Specification for Nails for the Application of Gypsum Board; 1996.*
- F. *ASTM C 557 - Standard Specification for Adhesives for Fastening Gypsum Wallboard to Wood Framing; 1999.*
- G. *ASTM C 630/C 630M - Standard Specification for Water-Resistant Gypsum Backing Board; 2000.*
- H. *ASTM C 645 - Standard Specification for Nonstructural Steel Framing Members; 2000.*
- I. *ASTM C 754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products; 2000.*
- J. *ASTM C 840 - Standard Specification for Application and Finishing of Gypsum Board; 1999a.*
- K. *ASTM C 1002 - Standard Specification for Steel Self-Piercing Tapping Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Wood Studs or Steel Studs; 2000.*
- L. *ASTM E 84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2000a.*
- M. *GA-214 - Recommended Levels of Gypsum Board Finish; Gypsum Association; 1996.*
- N. *GA-216 - Application and Finishing of Gypsum Board; Gypsum Association; 2000.*
- O. *UL (FRD) - Fire Resistance Directory; Underwriters Laboratories Inc.; current edition.*

**1.04 SUBMITTALS**

- A. *See Section 01300 - Administrative Requirements, for submittal procedures.*
- B. *Product Data: Provide data on metal framing, gypsum board, and accessories.*

**1.05 QUALITY ASSURANCE**

- A. *Perform in accordance with ASTM C 840.*

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**1.06 REGULATORY REQUIREMENTS**

- A. Conform to applicable code for fire rated assemblies as indicated on drawings.

**PART 2 PRODUCTS**

**2.01 MANUFACTURERS**

- A. Gypsum Board:
1. G-P Gypsum Corporation: [www.gp.com](http://www.gp.com).
  2. National Gypsum Company: [www.nationalgypsum.com](http://www.nationalgypsum.com).
  3. USG Corporation: [www.usg.com](http://www.usg.com).
- B. Substitutions: See Section 01600 - Product Requirements.

**2.02 METAL FRAMING MATERIALS**

- A. Non-Loadbearing Framing System Components: ASTM C 645; galvanized sheet steel, of size and properties necessary to comply with ASTM C 754 for the spacing indicated, with maximum deflection of wall framing of L/240 at 5 psf.
- B. Non-Loadbearing Framing System Components: ASTM C 645; galvanized sheet steel, size and gage to comply with ASTM C 754 at spacing indicated; maximum deflection L/240 at 5 psf.
1. Studs: C shaped with knurled faces.
  2. Runners: U shaped, sized to match studs.
  3. Ceiling Channels: C shaped.
  4. Furring: Hat-shaped sections, minimum depth of 7/8 inch.
- C. Ceiling Hangers: Type and size as specified in ASTM C 754 for spacing required.
- D. Partition Head To Structure Connections: Provide track fastened to structure with legs of sufficient length to accommodate deflection, for friction fit of studs cut short and fastened as indicated on drawings.

**2.03 GYPSUM BOARD MATERIALS**

- A. Standard Gypsum Wallboard: ASTM C 36/C 36M; sizes to minimize joints in place; ends square cut.
1. Thickness: 5/8 inch.
  2. Edges: Tapered.
- B. Fire Rated Gypsum Wallboard: ASTM C 36/C 36M; Type X, UL or WH rated; sizes to minimize joints in place; ends square cut.
1. Thickness: 5/8 inch.
  2. Edges: Tapered.
- C. Water-Resistant Gypsum Backing Board: ASTM C 630/C 630M; ends square cut.
1. Edges: Tapered.
- D. Exterior Gypsum Soffit Board: ASTM C 931; standard type; sizes to minimize joints in place; ends square cut.
1. Thickness: 5/8 inch.
  2. Edges: Tapered.
- E. Gypsum Sheathing Board: ASTM C 79/C 79M; moisture resistant type; sizes to minimize joints in place; water repellent paper faces; ends square cut.
1. Thickness: 5/8 inch.
  2. Edges: Square.
- F. Backer Board for ceramic tile: Specified in Section 09300 - Tile.

**2.04 ACCESSORIES**

- A. Corner Beads: Galvanized steel.
- B. Edge Trim: Bead type(s) as detailed.
- C. Joint Materials: ASTM C 475 and as recommended by gypsum board manufacturer for project conditions.
- D. Screws: ASTM C 1002; self-piercing tapping type; cadmium-plated for exterior locations.
- E. Nails: ASTM C 514.

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**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. *Verify that project conditions are appropriate for work of this section to commence.*

**3.02 SHAFT WALL INSTALLATION**

- A. *Shaft Wall Framing: Comply with manufacturer's installation instructions.*
  - 1. *Fasten runners to structure with short leg to finished side, using appropriate power-driven fasteners at not more than 24 inches on center.*
  - 2. *Install studs at spacing required to meet performance requirements.*
- B. *Shaft Wall Liner: Cut panels to accurate dimension and install sequentially between special friction studs.*
  - 1. *On walls over sixteen feet high, screw-attach studs to runners top and bottom.*
  - 2. *Seal perimeter of shaft wall and penetrations with acoustical sealant.*

**3.03 FRAMING INSTALLATION**

- A. *Metal Framing: Comply with ASTM C 754 and manufacturer's instructions.*
- B. *Suspended Ceilings and Soffits: Space framing and furring members as indicated.*
  - 1. *Level ceiling system to a tolerance of 1/1200.*
  - 2. *Laterally brace entire suspension system, per code.*
- C. *Studs: Space studs as permitted by standard.*
  - 1. *Extend partition framing to structure where indicated and to ceiling in other locations.*
  - 2. *Partitions Terminating at Ceiling: Attach ceiling runner securely to ceiling track in accordance with manufacturer's instructions.*
  - 3. *Partitions Terminating at Structure: Attach extended leg top runner to structure, maintain clearance between top of studs and structure, and brace both flanges of studs with continuous bridging.*
- D. *Openings: Reinforce openings as required for weight of doors or operable panels, using not less than double studs at jambs.*
- E. *Acoustic Furring: Install resilient channels at maximum 24 inches on center. Locate joints over framing members.*
- F. *Blocking: Install blocking for support of plumbing fixtures, toilet partitions, wall cabinets, wood frame openings, toilet accessories, and hardware. Comply with Section 06114 for wood blocking.*

**3.04 ACOUSTIC ACCESSORIES INSTALLATION**

- A. *Acoustic Sealant: Install in accordance with manufacturer's instructions.*
  - 1. *Place one bead continuously on substrate before installation of perimeter framing members.*
  - 2. *Seal around all penetrations by conduit, pipe, ducts, and rough-in boxes.*

**3.05 GYPSUM BOARD INSTALLATION**

- A. *Comply with ASTM C 840. Install to minimize butt end joints, especially in highly visible locations.*
- B. *Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.*
- C. *Single-Layer Fire-Rated: Install gypsum board vertically, with edges and ends occurring over firm bearing.*
- D. *Double-Layer Installation: Use gypsum backing board for first layer, placed perpendicular to framing or furring members. Use fire rated gypsum backing board for fire rated partitions and ceilings. Place second layer perpendicular to first layer. Offset joints of second layer from joints of first layer.*
- E. *Gypsum Sheathing: Install horizontally, with edges butted tight and ends occurring over firm bearing.*

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- F. *Gypsum Soffit Board: Install perpendicular to supports, with staggered end joints over supports.*
- G. *Installation on Metal Framing: Use screws for attachment of all gypsum board.*
- H. *Installation on Wood Framing: For rated assemblies, comply with requirements of listing authority. For non-rated assemblies, install as follows:*
  - 1. *Single-Layer Applications: Screw attachment.*
- I. *Moisture Protection: Install moisture resistant gypsum board at walls and ceilings of all restrooms and janitor closets. Treat cut edges and holes in moisture resistant gypsum board and exterior gypsum soffit board with sealant.*

**3.06 INSTALLATION OF TRIM AND ACCESSORIES**

- A. *Control Joints: Place control joints consistent with lines of building spaces and as follows:*
  - 1. *Not more than 30 feet apart on walls and ceilings over 50 feet long.*
- B. *Corner Beads: Install at external corners, using longest practical lengths.*
- C. *Edge Trim: Install at locations where gypsum board abuts dissimilar materials and as indicated.*

**3.07 JOINT TREATMENT**

- A. *Finish all gypsum board in accordance with ASTM C 840 Level 4, except as noted below:*
  - 3681. *Fire tape finish only at electrical room.*
  - 2. *Provide Level 5 at lower portion of conference rooms, per plans.*
- B. *Fill and finish joints and corners of cementitious backing board.*

**3.08 TOLERANCES**

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

**END OF SECTION**