

SECTION 09264

GYPSUM BOARD SHAFT WALL ASSEMBLIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing gypsum board shaft wall assemblies.
- B. Related Sections:
 - 1. Firestopping is specified in Section 07840.
 - 2. Gypsum board is specified in Section 09250.

1.02 SYSTEM PERFORMANCES

- A. Fire-Resistance Ratings: Where shaft wall assemblies with fire-resistance ratings are indicated, provide materials and installations which are identical to design designations in UL "Fire Resistance Directory" or in listing of other testing and inspecting agencies acceptable to authorities having jurisdiction.
- B. Structural Performance Characteristics: Provide shaft wall assemblies designed and tested by manufacturer to withstand the following lateral design loads, applied transiently and cyclically, for maximum heights of partitions required, within the specified deflection limits.
 - 1. Lateral Loading: 5-psf.
 - 2. Deflection Limit: 1/240 of partition height.

1.03 SUBMITTALS

- A. Product Data: Manufacturer's product specifications and installation instructions for each component of shaft wall assembly, including certified test data required to show compliance with specified requirements.

1.04 QUALITY ASSURANCE

- A. Gypsum Board Terminology Standard: GA-505 by Gypsum Association.
- B. Single Source Responsibility: Obtain shaft wall products from a single manufacturer, or from manufacturer's recommended by the prime manufacturer of shaft wall assembly.

1.05 PRODUCT DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packages, containers or bundles bearing brand name and identification of manufacturer or supplier.
- B. Store materials inside under cover and in manner to keep them dry, protected from the weather, direct sunlight, surface contamination, corrosion and damage from construction traffic and other causes. Neatly stack gypsum boards flat to prevent sagging.
- C. Handle gypsum boards to prevent damage to edges, ends or surfaces. Protect metal trim from being bent or damaged.

1.06 PROJECT CONDITIONS

- A. Environmental Requirements, General: Comply with requirements of referenced application standard and recommendations of gypsum board shaft wall manufacturer.
- B. Ventilation: Ventilate building spaces as required to remove water in excess of that required for drying of joint treatment material. Avoid drafts during dry, hot weather.
- C. Ventilate building spaces to remove water not required for drying joint treatment materials. Avoid drafts during dry, hot weather to prevent materials from drying too rapidly.

- D. Provide for continuous ventilation during installation, using as close to 100-percent outside air as possible.
- E. Protect workers and HVAC system from gypsum dust.
- F. Remove and replace all gypsum board products that are exposed to water and display mold and mildew. Removal shall occur as soon as possible after exposure to water.
- G. Dry sanding of joint compound will be permitted only if space being sanded is fully isolated by using plastic dust-proof barriers, air systems and ductwork are closed off, and if construction sequence precludes the possibility of contamination of other spaces with gypsum dust and worker protection is provided.

PART 2 - PRODUCTS

2.01 APPROVED MANUFACTURERS

- A. Genstar Building Materials Co., Georgia Pacific Corporation, Gold Bond Building Products Div., USG or approved equal.

2.02 MATERIALS

- A. General: Provide manufacturer's standard materials except as otherwise indicated or required by governing regulations.
- B. Metal Framing: Manufacturer's standard C-H shapes, of profile, size and base metal thickness to comply with AISI "Specification for Design of Cold-Formed Steel Structural Members" for structural performance characteristics specified. Fabricate from steel sheet complying with ASTM A446, Grade A or B, galvanized in accordance with ASTM A525, G60 coating designation.
- C. Gypsum Board Liner: United States Gypsum "Sheetrock Brand Gypsum Liner panels – Enhanced (e+), Georgia-Pacific, National Gypsum or accepted equal liner panel with non-combustible and moisture-resistant gypsum core encased in a water-resistant, mold and mildew resistant, 100-percent recycled blue face and back paper. The panels shall be UL Classified for fire resistance with double beveled edges. Panels shall comply with ASTM C442, C1396 and have an average water absorption of no more than 5-percent by weight after 2-hour immersion in accordance with ASTM C473.
- D. Gypsum Board: ASTM C36, Type X, tapered edges, in maximum lengths available to minimize end-to-end butt joints, thickness indicated or required for indicated fire-resistance ratings.
- E. Trim: Manufacturer's standard trim accessories, formed of galvanized steel, with either knurled and perforated or expanded flanges for nailing or stapling, and beaded for concealment of flanges in joint compound. Provide corner beads, edge trim, and control joints as required.
- F. Gypsum Board Joint Treatment Materials: ASTM C475. Provide paper reinforcing tape and vinyl-type powder joint compound, one grade for bedding tapes and filling depressions, and one for topping and sanding.
- G. Miscellaneous Materials:
 - 1. Gypsum Board Fasteners: Comply with GA-216.
 - 2. Runner Fasteners: Tempered steel pins with corrosive resistant plating or coating, 9/64-inch diameter, minimum 1-1/8-inch penetration.

2.03 BASIC SYSTEM DESCRIPTION

- A. General Requirements: Provide a complete system, complying with specified requirements. Modify and supplement manufacturer's standard system to comply with performance requirements. Provide the depth, profile, gauge, and anchorage system of metal support members recommended by manufacturer for heights and structural performance characteristics indicated and specified.
- B. Cavity Shaft-Wall Assemblies: Provide assemblies consisting of gypsum shaft wall boards inserted between U-shaped metal floor and ceiling tracks, C-H shaped studs engaged in tracks and fitted between shaft wall boards, and gypsum boards on finished side or sides applied to studs in number of layers, thickness, and arrangement indicated.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Comply with manufacturer's installation instructions and with applicable requirements of ASTM C754, C840, and GA 216 as applicable.
- B. Anchor and fasten materials and components to comply with indicated and specified fire-ratings and performance requirements, and to comply with governing regulations.
- C. Do not bridge building expansion joints with drywall shaft system, frame both sides of joints.
- D. Install supplementary framing, blocking and bracing to support fixtures, equipment, services, heavy trim, furnishings and similar work which cannot be adequately supported directly on shaft-wall system.
- E. Isolate shaft systems from transfer of structural loading, both horizontally and vertically. Provide slip or cushioned type joints to attain lateral support and avoid axial loading. Comply with manufacturer's instructions.
- F. Seal perimeter of each section of work where it abuts other work. Install a bead of acoustical sealant to prevent dislocation by air pressure differential. Seal joints and penetrations in compliance with manufacturer's instructions.
- G. Trim and Accessories: Install trim accessories where room side of system is to be finished in accordance with manufacturer's instructions. Apply trim wherever edge of gypsum wallboard would otherwise be exposed or semi-exposed, including terminations, openings, external corners, expansion and control joints and similar edges.
- H. Gypsum Wallboard Finishing: Apply treatment at joints, flanges of trim and accessories, penetrations, fastener heads, surface defects, and as required to prepare work for decoration where scheduled. Pre-fill open joints and rounded or beveled edges, using type of compound recommended by manufacturer. Comply with requirements specified in Section 09250.

3.02 PROTECTION

- A. Protect and maintain conditions to ensure shaft wall assembly work is without damage or deterioration at time of Substantial Completion.

END OF SECTION