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SECTION 092116.23 - GYPSUM BOARD SHAFT WALL ASSEMBLIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Gypsum board shaft wall assemblies.

1.2 ACTION SUBMITTALS

- A. Product Data: For each component of gypsum board shaft wall assembly.
- B. LEED Submittals:
 - 1. Product Data for Credit MR 4: For products having recycled content, documentation indicating percentages by weight of postconsumer and preconsumer recycled content. Include statement indicating cost for each product having recycled content.
 - 2. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regional materials, certificates indicating location of material manufacturer and point of extraction, harvest, or recovery for each raw material. Include statement indicating distance to Project, cost for each regional material, and fraction by weight that is considered regional.
 - 3. Product Certificates for Credit MR 5: For products and materials required to comply with requirements for regionally manufactured[**and regionally extracted and manufactured**] materials. Include statement indicating cost for each regionally manufactured material.
 - a. Include statement indicating location of manufacturer and distance to Project for each regionally manufactured material.
 - b. Include statement indicating location of manufacturer and point of extraction, harvest, or recovery for each raw material used in regionally extracted and

manufactured materials. Indicate distance to Project and fraction by weight of each regionally manufactured material that is regionally extracted.

4. Laboratory Test Reports for Credit EQ 4: For gypsum board shaft wall systems, documentation indicating that products comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Moisture- and Mold-Resistant Assemblies: Provide and install moisture- and mold-resistant glass-mat gypsum shaft-wall panel and wallboard products with moisture-resistant fiberglass mat faced surface where indicated on Drawings and in all locations that might be subject to limited moisture exposure during construction.
- B. Fire-Resistance-Rated Assemblies: For fire-resistance-rated assemblies, provide materials and construction identical to those tested in assembly indicated according to ASTM E 119 by an independent testing agency.
- C. STC-Rated Assemblies: Provide materials and construction identical to those of assemblies tested according to ASTM E 90 and classified according to ASTM E 413 by a testing and inspecting agency.
- D. Low-Emitting Materials: Gypsum shaft wall assemblies shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 GYPSUM BOARD SHAFT WALL ASSEMBLIES <Insert drawing designation>

- A. Basis-of-Design Product: As indicated on Drawings by design designation of a qualified testing agency.
- B. Fire-Resistance Rating: [As indicated] [1 hour] [2 hours] [3 hours] [4 hours] <Insert rating>.
- C. STC Rating: [As indicated] [51, minimum] <Insert rating>.
- D. Studs: Manufacturer's standard profile for repetitive members, corner and end members, and fire-resistance-rated assembly indicated.
 1. Depth: [As indicated] [2-1/2 inches (64 mm)] [4 inches (102 mm)] [6 inches (152 mm)].
 2. Minimum Base-Metal Thickness: [As indicated] [0.018 inch (0.45 mm)] [0.033 inch (0.84 mm)] <Insert value>.

- E. Runner Tracks: Manufacturer's standard J-profile track with manufacturer's standard long-leg length, but at least **2 inches (51 mm)** long and matching studs in depth.
1. Minimum Base-Metal Thickness: [**As indicated**] [**Matching steel studs**] [**0.018 inch (0.45 mm)**] [**0.021 inch (0.53 mm)**] [**0.033 inch (0.84 mm)**] <Insert value>.
- F. Firestop Tracks: Provide firestop track at head of shaft wall on each floor level.
- G. Elevator Hoistway Entrances: Manufacturer's standard J-profile jamb strut with long-leg length of **3 inches (76 mm)**, matching studs in depth.
- H. Room-Side Finish: [**As indicated**] [**Gypsum board**] [**Gypsum veneer plaster**] [**Cementitious backer units**] <Insert finish>.
- I. Shaft-Side Finish: [**As indicated**] [**Gypsum shaftliner board, Type X**] [**Gypsum shaftliner board, moisture- and mold-resistant Type X**] [**As indicated by fire-resistance-rated assembly design designation**] <Insert finish>.
- J. Insulation: Sound attenuation blankets.

2.3 PANEL PRODUCTS

- A. Recycled Content of Gypsum Panel Products: Postconsumer recycled content plus one-half of preconsumer recycled content not less than <Insert number> percent by weight.
- B. Regional Materials: Gypsum panel products shall be manufactured within **500 miles (800 km)** of Project site from materials that have been extracted, harvested, or recovered, as well as manufactured, within **500 miles (800 km)** of Project site.
- C. Regional Materials: Gypsum panel products shall be manufactured within **500 miles (800 km)** of Project site.
- D. Panel Size: Provide in maximum lengths and widths available that will minimize joints in each area and that correspond with support system indicated.
- E. Gypsum Shaftliner Board, Type X: ASTM C 1396/C 1396M; manufacturer's proprietary fire-resistive liner panels with paper faces.
1. Products: Subject to compliance with requirements, [**provide the following**] [**provide one of the following**]:
- American Gypsum; Shaft Liner.
 - CertainTeed Corp.; ProRoc Shaftliner.
 - Lafarge North America, Inc.; Firecheck Type X Shaftliner.
 - National Gypsum Company; Gold Bond Brand Fire-Shield Shaftliner.
 - PABCO Gypsum; Pabcore Shaftliner Type X.
 - Temple-Inland Inc.; Fire-Rated SilentGuard Gypsum Shaftliner System.
 - USG Corporation; Sheetrock Brand Gypsum Liner Panel.
 - <Insert manufacturer's name; product name or designation>.

2. Thickness: 1 inch (25.4 mm).
 3. Long Edges: Double bevel.
- F. Gypsum Shaftliner Board, Moisture- and Mold-Resistant Type X: ASTM C 1658/C 1658M; manufacturer's proprietary fire-resistive liner panels with moisture- and mold-resistant core and surfaces.
1. Basis-of-Design Product: Subject to compliance with requirements, provide Georgia-Pacific Gypsum; "DensGlass Shaftliner" or a comparable product by one of the following:
 - a. CertainTeed Corp.
 - b. Lafarge North America, Inc.
 - c. National Gypsum Company.
 - d. PABCO Gypsum.
 - e. Temple-Inland Inc.
 - f. USG Corporation.
 - g. <Insert manufacturer's name>.
 2. Thickness: 1 inch (25.4 mm).
 3. Long Edges: Double bevel.
 4. Mold Resistance: ASTM D 3273, score of 10 as rated according to ASTM D 3274.
- G. Gypsum Board: As specified in Section 092900 "Gypsum Board."

2.4 NON-LOAD-BEARING STEEL FRAMING

- A. Recycled Content of Steel: Postconsumer recycled content plus one-half of preconsumer recycled content not less than [25] <Insert number> percent.
- B. Steel Framing Members: Comply with ASTM C 645 requirements for metal.
- C. Firestop Tracks: Top runner manufactured to allow partition heads to expand and contract with movement of the structure while maintaining continuity of fire-resistance-rated assembly indicated.
1. Products: Subject to compliance with requirements, [provide the following] [provide one of the following] [available products that may be incorporated into the Work include, but are not limited to, the following]:
 - a. Fire Trak Corp.; Fire Trak System[attached to studs with Fire Trak Posi Klip].
 - b. Grace Construction Products; FlameSafe FlowTrak System.
 - c. Metal-Lite, Inc.; The System.
 - d. Steel Network Inc. (The); [VertiClip SLD] [VertiTrack VTD] Series.
 - e. <Insert manufacturer's name; product name or designation>.

2.5 AUXILIARY MATERIALS

- A. Trim Accessories: Material and shapes as specified in [**Section 092900 "Gypsum Board"**] [**Section 092613 "Gypsum Veneer Plastering"**] that comply with gypsum board shaft wall assembly manufacturer's written recommendations for application indicated.
- B. Steel Drill Screws: ASTM C 1002 unless otherwise indicated.
- C. Track Fasteners: Power-driven fasteners of size and material required to withstand loading conditions.
- D. Sound Attenuation Blankets: As specified in [**Section 092900 "Gypsum Board."**] [**Section 092613 "Gypsum Veneer Plastering."**]
- E. Acoustical Sealant: As specified in [**Section 092900 "Gypsum Board."**] [**Section 092613 "Gypsum Veneer Plastering."**]

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Comply with requirements of fire-resistance-rated assemblies indicated, manufacturer's written installation instructions, and ASTM C 754 other than stud-spacing requirements.
- B. Examine panels before installation. Reject panels that are wet, moisture damaged, or mold damaged.
- C. Sprayed Fire-Resistive Materials: Patch or replace sprayed fire-resistive materials removed or damaged during installation of shaft wall assemblies. After application, remove only to extent necessary for installation of gypsum board shaft wall assemblies.
- D. Building Expansion Joints: Frame both sides of expansion joints with furring and other support.
- E. Install supplementary framing around openings and as required for blocking, bracing, and support of gravity and pullout loads of fixtures, equipment, handrails, and similar items.
 - 1. Elevator Hoistway: Provide jamb struts on each side of door frame.
- F. Penetrations: Install supplementary steel framing around perimeter of penetration behind boxes containing wiring devices, elevator call buttons, elevator floor indicators, and similar items.
- G. Isolate perimeter of gypsum panels from building structure, while maintaining continuity of fire-rated construction.
- H. Firestop Tracks: Install to maintain continuity of fire-resistance-rated assembly indicated.
- I. Control Joints: Install control joints [**at locations indicated on Drawings**] [**according to ASTM C 840 and in specific locations approved by Architect**] while maintaining fire-resistance rating of gypsum board shaft wall assemblies.

- J. Sound-Rated Shaft Wall Assemblies: Seal with acoustical sealant at perimeter of each assembly and at joints and penetrations.
- K. Cant Panels: At projections into shaft exceeding 4 inches (102 mm), install 1/2- or 5/8-inch- (13- or 16-mm-) thick gypsum board cants covering tops of projections.
- L. Installation Tolerance: Install each framing member so fastening surfaces vary not more than 1/8 inch (3 mm) from the plane formed by faces of adjacent framing.
- M. Remove and replace panels that are wet, moisture damaged, or mold damaged.

END OF SECTION 092116.23