

SECTION 09 29 00

GYP SUM BOARD

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Gypsum wallboard.
 - 2. [Shaft wall system.]
 - 3. [Concrete backer board.]
 - 4. Joint treatment and accessories.
 - 5. [Textured finish system.]
- B. Related Sections:
 - 1. [Section 05 40 00 - Cold Formed Metal Framing: Exterior wind-load-bearing metal stud framing.]
 - 2. Section 06 10 00 - Rough Carpentry: Building framing and sheathing.
 - 3. [Section 07 84 00 - Firestopping: Fire-rated electrical outlet and junction box pads.]
 - 4. [Section 07 92 00 - Joint Sealants: Acoustic sealant.]
 - 5. Section 09 22 00 - Supports for Plaster and Gypsum Board.

1.02 REFERENCE STANDARDS

- A. [American National Standards Institute:]
 - 1. ANSI A108.11 - Interior Installation of Cementitious Backer Units.
 - 2. ANSI A118.9 - Test Methods and Specifications for Cementitious Backer Units.
- B. ASTM International:
 - 1. ASTM C442/C442M - Standard Specification for Gypsum Backing Board, Gypsum Coreboard, and Gypsum Shaftliner Board.
 - 2. ASTM C475/ 475M - Standard Specification for Joint Compound and Joint Tape for Finishing Gypsum Board.
 - 3. ASTM C630/C630M - Standard Specification for Water-Resistant Gypsum Backing Board.
 - 4. ASTM C645 - Standard Specification for Nonstructural Steel Framing Members.
 - 5. ASTM C754 - Standard Specification for Installation of Steel Framing Members to Receive Screw-Attached Gypsum Panel Products.
 - 6. ASTM C840 - Standard Specification for Application and Finishing of Gypsum Board.
 - 7. ASTM C931/C931M - Standard Specification for Exterior Gypsum Soffit Board.
 - 8. ASTM C954 - Standard Specification for Steel Drill Screws for the Application of Gypsum Panel Products or Metal Plaster Bases to Steel Studs From 0.033 in. (0.84 mm) to 0.112 in. (2.84 mm) in Thickness.
 - 9. ASTM C1002 - 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.
 - 10. ASTM C1396/C1396M - Standard Specification for Gypsum Board.
 - 11. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- C. Gypsum Association;
 - 1. GA-214 - Recommended Levels of Gypsum Board Finish.
 - 2. GA-216 - Application and Finishing of Gypsum Board.

3. GA-226 - Application of Gypsum Board to Form Curved Surfaces.
 4. GA-600 - Fire Resistance Design Manual.
- D. Intertek Testing Services NA, Inc.:
1. ITS - Directory of Listed Products.
- E. South Coast Air Quality Management District:
1. SCAQMD Rule #1168 - Adhesive and Sealant Applications.
- F. Underwriters Laboratories Inc.:
1. UL - Fire Resistive Directory.

1.03 PERFORMANCE DESCRIPTION

- A. Fire-rated gypsum board systems shall satisfy minimum fire ratings as indicated and shall conform to methods accepted by applicable codes.
- B. Type of gypsum board used shall be dependent on partition types shown and Gypsum Association, Underwriters Laboratories, or Warnock Hersey Design Numbers requirements.

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination: Coordinate details and requirements of other work supporting, adjoining, or fastening to gypsum board.
- B. Preinstallation Meeting:
1. Contractor shall arrange meeting to be attended by University's Representative, Contractor and Contractor's installer, and agents of manufacturers, all of whom shall have had at least one week's advance notice.
 2. Convene meeting minimum 7 days prior to commencing work of this Section.
 3. Meeting shall be held at the job site.
 4. Requirements of related work, preparation, storage and handling, materials, specification requirements, coordination with related or adjoining work, work sequence, items requiring backing and support, and issues that might affect proper metal support assemblies shall be discussed.
- C. [Sequencing:]
- D. [Scheduling:]

1.05 [SUSTAINABLE CHARACTERISTICS]

- A. Section 01 35 63 - Sustainability Project Requirements: Requirements for sustainable design compliance.
- B. Materials and Resources Characteristics:

1. [Recycled Content Materials: Furnish materials with maximum available recycled content including:
SPEC NOTE *List materials specified in this section required to have recycled content.*

a. [_____].

2. [Regional Materials: Furnish materials extracted, processed, and manufactured within 500 miles of Project site.]

SPEC NOTE *List materials specified in this section required to be regional materials.*

a. [_____].

- C. Indoor Environmental Quality Characteristics:
 - 1. [Interior] Sealants and Sealant Primers: Maximum volatile organic compound content in accordance with SCAQMD Rule 1168.

1.06 SUBMITTALS

- A. See Section 01 33 00 - Submittal Procedures, for submittal procedures.
- B. Shop Drawings: Indicate special details associated with fireproofing.
- C. Product Data:
 - 1. Provide data on gypsum board, accessories, and joint finishing system.
 - 2. Provide manufacturer's data on partition head to structure connectors, showing compliance with requirements.
- D. Samples:
 - 1. Submit two samples of gypsum board finished with proposed texture application, 12 by 12 inches in size, illustrating finish color and texture.
 - 2. Other Samples only as requested.

1.07 [SUSTAINABLE DESIGN SUBMITTALS]

- A. Section 01 35 63 - Sustainability Project Requirements: Requirements for sustainable design submittals.
- B. Manufacturer's Certificate: Certify products meet or exceed specified sustainable design requirements.
 - 1. Materials Resources Certificates:
 - a. Certify recycled material content for recycled content products.
 - b. Certify source for regional materials and distance from Project site.
 - 2. Indoor Air Quality Certificates:
 - a. Certify volatile organic compound content for each interior [adhesive][and][sealant] and related primer.
 - 1) Provide product data for adhesives, sealants, sealants primer and aerosol adhesives used in the interior of the building highlighting VOC content of each product used. Adhesives and sealants must meet or exceed the VOC limits of SCAQMD Rule #1168. Refer to the LEED 2009 for New Construction and Major Renovations for acceptable VOC limits
 - 2) Provide a listing of each indoor adhesive, sealant, sealant primer and aerosol adhesive product used in the interior of the project. Include manufacture's name, product name, specific VOC data (g/L less water) for each product, and the corresponding allowable VOC from the referenced standard.
- C. Product Cost Data: Submit cost of products to verify compliance with Project sustainable design requirements. Exclude cost of labor and equipment to install products.
 - 1. Provide cost data for the following products:
 - a. Products with recycled material content.
 - b. Regional products.

1.08 QUALITY ASSURANCE

- A. Performa Work in accordance with ASTM C840, GA 214, GA 216, and GA-600.
- B. Fire Rated Construction: Rating and design as indicated on Drawings.

1.09 REGULATORY REQUIREMENTS

- A. Conform to applicable code for fire rated assemblies as follows:
 - 1. Fire Rated Partitions: Listed assembly by UL; one and two hour rating.
 - 2. Head of Fire Rated Partitions: Listed assembly by UL; one and two hour rating.
 - 3. [Fire Rated Shaft Wall Requirements: Listed assembly by UL; two hour rating.]

1.10 DELIVERY, STORAGE AND HANDLING

- A. Deliver material in original packages, containers, or bundles bearing brand name and identification of manufacturer or supplier for whom the product is manufactured. Protect material from damage.
- B. Keep materials dry, preferably by storing inside building or under roof. Where necessary to store gypsum board outside, stack off ground on properly supported level platform, and fully protect from weather.
- C. Stack gypsum board neatly and flat, with care to avoid damage to edges, ends, and surfaces. Protect from soiling and construction damage.

1.11 SITE CONDITIONS

- A. Ambient Conditions: Establish and maintain application and finishing environment in accordance with ASTM C840.
- B. Ventilation: Provide adequate ventilation to eliminate excessive moisture within building during application and finishing of gypsum board. Avoid draft during dry, hot weather. Prevent rapid drying.

PART 2 PRODUCTS

2.01 METAL FRAMING MATERIALS

- A. Shaft Wall Studs and Accessories: ASTM C645; galvanized sheet steel, of size and properties necessary to comply with ASTM C754 and specified performance requirements.
- B. 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.

2.02 GYPSUM BOARD MATERIALS

- A. Regular Non-Rated Gypsum Board [(Typical Finish Board, Use throughout unless otherwise noted)]:
 - 1. Description: ASTM C1396/C1396M, tapered edge; 5/8 inch thickness unless other thickness in indicated on Drawings; 48 inches wide by maximum length to minimize number of joints.
 - 2. Product: Georgia-Pacific Gypsum LLC's "ToughRock Gypsum Wallboard"; National Gypsum Co.'s "Gold Bond Brand Gypsum Board"; United States Gypsum Co.'s "Sheetrock Brand Regular"; or equal.
- B. [Fire Rated Gypsum Board [(Typical Finish Board, Use throughout unless otherwise noted)]:

1. Description: ASTM C1396/C1396M, Type X, tapered edge; fire resistive type, UL or WH rated; 5/8 inch thickness unless other thickness is indicated on Drawings; 48 inches wide by maximum length to minimize number of joints.
 2. Product: Georgia-Pacific Gypsum LLC's "ToughRock Fireguard Gypsum Wallboard"; National Gypsum Co.'s "Gold Bond Brand Fire-Shield Gypsum Board"; United States Gypsum Co.'s "Sheetrock Brand Firecode Gypsum Panels"; or equal.
- C. [Moisture-Resistant Gypsum Board, Fire Rated:]
1. Description: ASTM C1396/C1396M, Type X; fire resistive type, UL or WH rated; 5/8 inch thickness unless other thickness is indicated on Drawings; core and paper surfacing specifically formulated for water resistance; complete with edge sealant for job cut edges.
 2. Product: Georgia-Pacific Gypsum LLC's "ToughRock Fireguard Moisture-Guard"; National Gypsum Co.'s "Gold Bond Brand XP Fire-Shield Gypsum Board"; United States Gypsum Co.'s "Sheetrock Brand Water-Resistant, Firecode C, and Firecode Core Panels"; or equal.
- D. [Shaft Liner Panel:]
1. Description: ASTM C1396/C1396M, one inch thick board with special gypsum core and moisture resistant paper facings; 24 inches wide; beveled edge.
 2. Product: Georgia-Pacific Gypsum LLC's "DensGlass Shaft Liner, Type X"; National Gypsum Co.'s "Gold Bond Brand 1" Fire-Shield Shaftliner"; United States Gypsum Co.'s "Sheetrock Brand Gypsum Liner Panels"; or equal.
- E. [Tile Backer Boards:]
1. [Glass Mat Tile Backer Board:
 - a. Description: ASTM C1178/C1178M, lightweight treated core with embedded glass mat and heat-cured acrylic coating, mold resistant, 5/8 inch thick; rated Type X as defined by ASTM C36 when tested according to ASTM E119
 - b. Product: Georgia-Pacific Gypsum LLC's "DensShield Fireguard Tile Backer, Type X"; or equal.]
 2. [Cementitious Backer Units:
 - a. Description: 5/8 inch thick board, consisting of expanded shale, light weight concrete core and reinforced with fiber glass mesh and high density
 - b. Product: National Gypsum Co.'s "PermaBase Brand Cement Board"; United States Gypsum Co.'s "Durock Cement Board"; or equal.]
- F. [Exterior Ceiling Soffit Board:]
1. Description: ASTM C1396/C1396M, Type X, 5/8 inch thickness, tapered edges; 48 inches wide by maximum length to minimize number of joints.
 2. Product: Georgia-Pacific Gypsum LLC's "ToughRock Fireguard Soffit Board"; National Gypsum Co.'s "Gold Bond Brand Exterior Soffit Board"; United States Gypsum Co.'s "Exterior Gypsum Ceiling Board, Firecode Core"; or equal.

2.03 [SHAFT WALL SYSTEMS]

- A. [Cavity Wall Type:]
1. Product: Georgia-Pacific Gypsum LLC's "Series 622 (One Hour) and Series 620 (Two Hour) Shaftwall System"; United States Gypsum Co.'s "One Hour and Two Hour Cavity Shaft Wall System, C-H Stud Design"; or equal.
 2. Fire Rating: [One and two hour fire ratings as indicated on Drawings.
 3. [Metal Components: Comply with configurations, sizes, and physical properties indicated on Drawings.]
 4. [Metal Components: J-runners, C-channels, and C-H studs; hot-dip galvanized steel, sizes and types as recommended by system manufacturer.]
 5. [Metal Components: J-runners, C-channels, and C-H studs; hot-dip galvanized steel, sizes and types as recommended by system manufacturer. [C-H studs shall have properties as follows:

Size Inches	Gauge	Pounds Per Foot	Moment of Inertia	Section Modulus
2-1/2	25	0.604	0.146	0.135
2-1/2	22	0.862	0.208	0.185
4	25	0.716	0.433	0.258
4	20	1.243	0.730	0.431

6. Deflection Angles: Continuous 14 gauge sheet metal angles.
7. Gypsum Board Components: Typical gypsum board, backer board, shaft liner panel, and taping as required for complete installation.

B. [Stair Soffit Type:]

1. System: Georgia-Pacific Gypsum LLC's "Series 627 (Two Hour) Shaftwall System"; National Gypsum Co.'s "Gold Bond I-Stud Cavity Shaftwall System"; or equal.
2. Fire Rating: Two hours.
3. Metal Components: J-runners, C-channels, and C-H studs; hot-dip galvanized steel, sizes and types as recommended by system manufacturer.
4. Gypsum Board Components: Typical gypsum board, backer board, shaft liner panel, and taping as required for complete installation.

2.04 ACOUSTICAL ACCESSORIES

A. [Acoustical Insulation:]

1. Description:
 - a. Nonfaced, friction fit, formaldehyde free or containing no formaldehyde fiberglass batts or blankets, 3-1/2 inches thick unless otherwise noted; and meeting requirements of ASTM C665, Type I.
 - b. Insulation shall have a flame spread rating of 25 or less and a smoke development of 450 when tested in accordance with ASTM E84.
2. Product: Johns Manville Corp.'s "JM Formaldehyde-Free Unfaced Batt"; Knauf Insulation's "EcoBatt Insulation Kraft Unfaced Thermal Insulation"; or equal.

B. [Acoustical Insulation:]

1. Description:
 - a. Nonfaced, friction fit, fiberglass batts or blankets, 3-1/2 inches thick unless otherwise noted; and meeting requirements of ASTM C665, Type I.
 - b. Insulation shall have a flame spread rating of 25 or less and a smoke development of 450 when tested in accordance with ASTM E84.
2. Product: Owens Corning Fiberglas Corp.'s "Unfaced Fiberglas Insulation"; Johns Manville Corp.'s "Sound-Shield, Fiber Glass Batt Sound Control Insulation"; or equal.]

C. [Acoustical Sealant:]

1. Description: Permanently resilient, nonstaining type of density equal to or greater than gypsum board. Sealant to have VOC content of less than or equal to 35 g/L.
2. Product: The Tremco Mfg. Co.'s "Tremco Acoustical Sealant"; Pecora Corp.'s "AC-20 FTR Acoustical Sealant"; or equal.

D. [Non-Rated Electrical Outlet and Junction Box Pad:]

1. Description: 1/8 inch thick, 6 by 8 inch polybutene-butyl pads, self adhesive.
2. Product: Lowery and Associates' "Lowery Outlet Box Pads"; Specified Technologies Inc.'s "Spec Seal Firestop Putty Pads"; or equal.]

2.05 GYPSUM BOARD ACCESSORIES

- A. Typical Screws: ASTM C1002; self-piercing tapping type.

- B. Screws for Load Bearing Studs: ASTM C954; steel drill screws.
- C. Metal Trim:
 - 1. [Metal Accessories: Electro-galvanized steel corner beads and trim (casing beads) formed for application of joint cement and manufactured specifically for gypsum board construction.]
 - 2. [Metal Control Joints:
 - a. Description: Roll-formed zinc with tap to protect 1/4 inch opening, 7/16 inch deep.
 - b. Product: United States Gypsum Co.'s "Zinc Control Joint No. 093"; or equal.]
 - 3. [Corner Beads: Beadex Manufacturing Co.'s "B1W"; United States Gypsum Co.'s "200-B"; or equal.]
 - 4. [Edge Trim: Beadex Manufacturing Co.'s "B-4"; United States Gypsum Co.'s "Dur-A-Bead"; or equal.]
- D. [Vapor Barrier: Four mil polyethylene film.]
- E. Joint Tape:
 - 1. Typical: ASTM C475/C475M; joint compound, and water; as recommended by gypsum board manufacturer.
 - 2. [Glass Mat Tile Backer Board: Two inch wide, coated glass fiber tape for joints and corners.]
 - 3. [Cementitious Backer Units: Two inch wide, glass-fiber open-weave tape for joints and corners.]
- F. Joint Compound:
 - 1. Typical: ASTM C475/C475M; reinforcing tape, joint compound, and water; as recommended by gypsum board manufacturer.
 - 2. [Glass Mat Tile Backer Board: As recommended by glass mat tile backer board manufacturer.]
 - 3. [Cementitious Backer Units: As recommended by cementitious backer units manufacturer]
- G. [Textured Finish Materials: Vinyl-based compound; plain.]

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas, condition, and surfaces under which work of this Section will be performed and verify that:
 - 1. Support systems are in proper alignment.
 - 2. Blocking, bracing, and backing members of support systems are installed.
 - 3. There are no conditions detrimental to timely and proper completion of the Work.
- B. Correct conditions detrimental to timely and proper completion of the Work.
- C. Do not start installation until unsatisfactory conditions have been corrected.

3.02 [EXISTING WORK]

- A. Extend existing gypsum board installations using materials and methods as specified.
- B. Repair and remodel existing gypsum assemblies which remain or are to be altered.]

3.03 DUST CONTROL

- A. Provide all means necessary to protect and keep gypsum and joint compound dust from entering HVAC duct system. If dust does enter the HVAC duct system, clean out entire duct system.

3.04 GYPSUM BOARD INSTALLATION

- A. Install and finish gypsum board in accordance with requirements of ASTM C840, GA-216, and manufacturer's recommendations unless otherwise indicated. Erect fire rated system in accordance with system indicated on Drawings.
- B. Install to minimize butt end joints, especially in highly visible locations.
- C. Cut gypsum board by scoring and breaking or sawing from face side. Smooth cut edges and ends of gypsum board as necessary in order to obtain neat jointing.
- D. Use boards of maximum practical lengths so that a minimum number of end joints occur.
- E. When gypsum board is applied to both ceiling and walls, apply gypsum board first to ceiling and then to walls.
- F. Scribe ceiling board neatly in casing bead where it meets surfaces of different materials in other planes.
- G. Stagger boards so that corners of any four boards will not meet at a common point except in vertical corners.
- H. Lay out joints at openings so that no end joint aligns with edges of opening, unless control joints will be installed at these points.
 - 1. Center as near as possible on face of framing members all joints running parallel to framing.
 - 2. Stagger end joints and arrange joints on opposite sides of partition to occur on different studs.
 - 3. At external corners, butt and fit base to provide solid edge. At end joints between framing members, taper and back-block or apply metal-backed tape.
- I. Hold gypsum board nominal 1/4 inch above floor or curb unless otherwise noted.
- J. Where gypsum board is carried full height from floor to underside of overhead structure system, provide for deflection of structure by undercutting board nominal 3/8 inch. Caulk top edge of board to structure in continuous bead to form elastic closure where specifically noted.
- K. Cut board to fit electrical outlets, pipes, or other items as required. Cut gypsum board by scoring on face and back in outline before removal or by cutting with a saw or other suitable tool. Smooth all cut outs where necessary.
- L. Single-Layer Non-Rated: Install gypsum board in most economical direction, with ends and edges occurring over firm bearing.
- M. Single-Layer Fire Rated: Install gypsum board vertically, with edges and ends occurring over firm bearing.
- N. [Fire-Rated Conditions:]
 - 1. Preserve continuity of fire rating.
 - 2. Provide fire-rated enclosures for electrical outlets and junction boxes, recessed cabinets, recessed light fixtures, and other items of any nature.

3. Where adjacent interior spaces have suspended ceilings of different heights, extend separating partition finish on both faces of studs to at least 3 inches above higher ceiling finish.
 4. Meet requirements of applicable codes and authorities for taping and cementing joints and fastener heads.
- O. [Sound-Rated Partitions:]
1. Construct partitions in accordance with drawings and as herein specified.
 2. Hold face layers and base layers 1/4 inch clear from abutting surfaces (floors, walls, and ceilings). Seal with acoustical caulking and tape. Tape not required at floors.
 3. Resilient Channel: Attach resilient channel horizontally 24 inches on center at studs with 1 inch drywall screws.
- P. [Moisture-Resistant Board: Reseal edges of board cut on job site before erecting board as recommended by board manufacturer.]
- Q. [Tile Backer Boards:]
1. [Glass Mat Tile Backer Board: Install in accordance with manufacturer's instructions.]
 2. [Cementitious Backer Units:]
 - a. Install cementitious backer units where indicated on the Drawings.
 - b. Install cementitious backer units in accordance with ANSI A108.11 and manufacturer's printed instruction unless indicted otherwise.
 - c. At walls, install vapor barrier prior to installing cementitious backer units
 - d. Provide 1/8 inch minimum gap between cementitious backer units.
- R. Gypsum Soffit Board: Install perpendicular to framing, with staggered end joints over framing members or other solid backing.
- S. Curved Surfaces: Apply gypsum board to curved substrates in accordance with GA-226.
- T. Fastening:
1. Attach board from center or field to edges and ends, pressing firmly against supports.
 2. Space fasteners when used at edges or ends, not more than 1 inch from edges and not less than 3/8 inch from edges and ends of gypsum board.
 3. Install fasteners slightly below surface, without breaking the surface paper of gypsum board. [Do not strip the framing member around the screw shank.]
 4. [Perimeter fastening into the partition plate or sole at the top and bottom is not required except where fire ratings or structural performance require such fastening.]
 5. Space fasteners according to [manufacturer's written instructions unless [CBC Tables A-G and A-H or GA, UL, or WH Design Number requirements are more stringent.
- U. Correct surface damage and defects after trim is applied.

3.05 [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.

3.06 INSTALLATION OF TRIM AND ACCESSORIES

- A. Control Joints: Place control joints consistent with lines of building spaces and as indicated.
 - 1. Not more than 30 feet apart on walls and ceilings over 50 feet long.
 - 2. At exterior soffits, not more than 30 feet apart in both directions.
- B. Corner Beads: Install at external angles where edge or corner guards are not designated using longest practical lengths.
- C. Edge Trim: Install at exposed edges of gypsum board, where gypsum board abuts dissimilar materials and as indicated.
- D. Set accessories tight against base and firmly secure at 12 inch maximum intervals.
- E. Correct surface damage and defects after trim is applied.

3.07 [INSTALLATION – ACOUSTICAL ACCESSORIES]

- A. [Acoustical Insulation: Place acoustical insulation full height in partitions, tight within spaces, around cut openings, behind and around electrical and mechanical items within or behind partitions, and tight in items passing through partitions.]
 - 1. Comply with manufacturer's instructions for particular conditions of installation in each case. If printed instructions are not available or do not apply to project conditions, consult manufacturer's technical representative for specific recommendations before proceeding with work.
 - 2. All workmanship and handling shall be in accordance with all applicable federal and state safety standards, and in accordance with the manufacturer's recommendations for safe handling.
- B. [Acoustical Sealant:]
 - 1. Place as shown on drawings and in accordance with manufacturer's recommendations.
 - 2. Set floor and ceiling runners in two continuous beads of sealant.
 - 3. Install continuous beads of acoustical sealant to produce an airtight sound seal at intersections of all partitions and shafts with floors, ceilings, walls, and columns and other abutting construction so that the entire perimeter is sealed.
 - 4. At openings and outlets, fill open spaces between gypsum board and ducts, pipes and other penetrating items.
- C. [Non-Rated Electrical Outlets and Junction Box Pads:]
 - 1. Mold pad carefully around electrical outlet and junction boxes after boxes are securely attached to studs and before gypsum board is installed.
 - 2. Take care to ensure that all openings are sealed with pad material.
 - 3. Leave no gaps.

3.08 JOINT TREATMENT

- A. Tape, fill, and sand exposed joints, edges, and corners to produce smooth surface ready to receive finish in accordance with recommendations of gypsum board manufacturer.
- B. Feather coats onto adjoining surfaces so that camber is maximum 1/32 inch. Work final coat to smooth level plane surface.
- C. Treat fastening head dimples same as joints; tape may be omitted.
- D. Taping, filling, and sanding is not required at surfaces behind adhesive applied ceramic tile

and fixed cabinetry.

- E. Fill and finish joints and corners of cementitious backing board as recommended by manufacturer.

3.09 GYPSUM BOARD FINISH

- A. Levels of Gypsum Board Finish: Provide the following levels of gypsum board finish per GA-214.
1. Level 1 Locations: Ceiling plenum areas, concealed areas, and where indicated, unless a higher level of finish is required for fire-resistive rating and sound rated assemblies.
 2. Level 2: Locations: Where moisture-resistant gypsum board is used as a substrate for ceramic tile, and where indicated.
 3. Level 3 Locations: Where indicated.
 4. Level 4 Locations: [Where indicated]—~~or~~—[Typical exposed [wall][and][ceiling]locations unless indicated otherwise]—~~or~~—[Walls to receive [textured finish,] [wall coverings,] and where indicated].
 5. [Level 5 Locations: [Where indicated]—~~or~~—[Typical exposed wall and ceiling locations unless indicated otherwise]—~~or~~—[Location to receive dry erasable wall covering and resinous wall coating systems and where indicated].
- B. [Texture Finish:]
1. Apply finish texture coating by means of spraying apparatus in accordance with manufacturer's instructions and to match approved sample.

3.10 TOLERANCES

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

3.11 CLEANING

- A. In addition to other requirements for cleaning, use necessary care to prevent scattering of gypsum wall board scraps and dust, and to prevent tracking gypsum and joint finishing compound onto floors surfaces.
- B. Remedy evidence of fastener popping or ridging.
- C. Promptly remove any residual joint compound from adjacent surfaces.
- D. At completion of each segment of installation in a room or space, promptly pick up and remove from working area all scrap, debris, and surplus material.

END OF SECTION