

SECTION 09 51 00
ACOUSTICAL CEILINGS

PART 1 GENERAL

1.01 SUMMARY

- A. Section Includes:
 - 1. Materials and installation of the following, as specified and where shown on Drawings:
 - a. Suspended metal grid ceiling system.
 - b. Acoustical units.
- B. Related Sections:
 - 1. Section 05 05 23 - Standards for Anchors and Fasteners.
 - 2. Section 08 31 00 - Access Doors and Panels: Access panels.
 - 3. Section 09 29 00 - Gypsum Board

1.02 REFERENCE STANDARDS

- A. ASTM International:
 - 1. ASTM A568/A568M - Standard Specification for Steel, Sheet, Carbon, Structural, and High-Strength, Low-Alloy, Hot-Rolled and Cold-Rolled, General Requirements for.
 - 2. ASTM A641/A641M - Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire.
 - 3. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings.
 - 4. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels.
 - 5. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
 - 6. ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
 - 7. ASTM E580/E580M - Standard Practice for Installation of Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels in Areas Subject to Earthquake Ground Motions.
 - 8. ASTM E1264 - Standard Classification for Acoustical Ceiling Products.
- B. CBC - California Building Code.
- C. [Ceilings and Interior Systems Construction Association:]
 - 1. [CISCA - Acoustical Ceilings: Use and Practice.]
- D. [Intertek Testing Services (Warnock Hersey Listed):]
 - 1. [WH - Certified Listings.]
- E. State of California, Division of the State Architect's Interpretations of Regulations:
 - 1. DSA IR 25-2.07 - Metal Suspension Systems For Lay In Panel Ceilings.
- F. [Underwriters Laboratories Inc.:]
 - 1. [UL - Building Materials Directory.]

1.03 PERFORMANCE REQUIREMENTS

- A. Design and construct acoustical ceilings to resist lateral forces required by applicable codes.

- B. [Seismic Performance: Acoustical ceilings shall withstand the effects of earthquake motions determined by CBC Section 1613A.
 - 1. Seismic Design Category: [C]~~--or--~~[D]~~--or--~~[E]~~--or--~~[F].
 - 2. [Ceiling system to meet requirements of manufacturer's ICC Evaluation Survey Report (ESR) and applicable code requirements for alternate seismic design.]
- C. [Installed System: Meet requirements of Underwriters Laboratories Design Number [] for ceiling and floors.
- D. Suspension System: Rigidly secure acoustical system in a manner capable of supporting all super-imposed loads, with a maximum permissible deflection of 1/360 of span and maximum surface deviation of 1/8 inch in 12 feet.
- E. Ceiling Layout:
 - 1. Architectural Reflected Ceiling Plan Drawings govern over Mechanical and Electrical Drawings.
 - 2. [Layout work symmetrically about centers of rooms and provide symmetrical borders of not less than half size tile or board specified, unless otherwise indicated on Drawings.]
 - 3. [Center the lighting pattern as shown in the room in two directions. Equally, space lights within room or space with 1/2 space at the perimeter, unless otherwise indicated on Drawings.]
 - 4. [Center light fixtures, mechanical registers, sprinkler heads, and speakers within acoustical unit, unless otherwise indicated on Drawings.]
 - 5. [Locate mechanical registers, sprinkler heads, and speakers as shown on the Mechanical and Electrical Drawings and centered between lights or equally spaced from lights, unless otherwise indicated on Drawings.]

1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
 - 1. Initiate coordination in sufficient advance of work of other trades that no delays to the Work of the Project will be encountered.
 - 2. Coordinate the location of hangers with other work.
 - 3. Coordinate layout and installation of acoustical tiles and suspension system with other construction that penetrates ceilings or is supported by them, including light fixtures, HVAC equipment, fire-suppression system, and any other ceiling related items.
- 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:
 - 1. Coordinate acoustical work with mechanical, electrical, and telecommunications wiring work and other equipment, materials, and work that could conflict with the installation of acoustical work.
 - 2. Sequence work to ensure acoustical ceilings are not installed until building is enclosed, sufficient heat is provided, dust generating activities have terminated, interior wet work is dry, and overhead work is completed, tested, and accepted.

- D. Scheduling:
 - 1. Furnish information and assistance required for locating embedded items and be responsible for proper location.
 - 2. Install suspension system after major above-ceiling work is complete.
 - 3. Install acoustical units after interior wet work is dry.

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. [_____.]

1.06 SUBMITTALS

- A. See Section 01 33 00 - Submittal Procedures, for submittal procedures.
- B. Shop Drawings: Indicate grid layout and related dimensioning.
- C. Product Data: Provide data and Product test reports on suspension system components and acoustical units.
- D. Samples: Submit four samples 6 by 6 inch in size illustrating material and finish of acoustical units.
- E. Samples: Submit four samples each, 6 inches long, of suspension system main runner.
- F. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and recommendations for cleaning and refinishing acoustical units. Include precautions necessary for materials and methods which may be detrimental to finishes and acoustical performances..

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.
- 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. Installer's Qualifications: Installer of acoustical ceilings shall be licensed or otherwise certified by acoustical ceiling manufacturer and shall have been regularly providing installations of the types required for no less than five years and proving a background of not less than three years of installations of comparable size to that herein specified.
- B. Fire-Resistive Assemblies: Complete assembly listed and classified by UL, WH or from listings of another testing and inspecting agency, are identical in material and construction to those tested per ASTM E119.
- C. Fire-Response Tests performed by UL, WH or another independent testing and inspecting agency that is acceptable to authorities having jurisdiction and that performs testing and follow up services.
- D. Products are to be identified with appropriate markings of applicable testing and inspecting agency.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Deliver acoustical products only after glazing has been completed, exterior openings closed in, and wet work completed and dried out.
- B. Deliver and store packaged acoustical products to Project site in original containers with seals unbroken and labels intact until time of use.
- C. Store acoustical products in a fully enclosed space where they will be protected against damage from moisture, direct sunlight, surface contamination, and other causes.
- D. Before installing acoustical tiles, permit them to reach room temperature and a stabilized moisture content.
- E. Handle acoustical tiles carefully to avoid chipping edges or damaging units in any way.
- F. Comply with minimum requirements in specifications Section 01 60 00 - Product Requirements.

1.10 ENVIRONMENTAL REQUIREMENTS

- A. Maintain uniform temperature of minimum 60 degrees Fahrenheit, and maximum humidity of 40 percent prior to, during, and after acoustical unit installation, to be continuously maintained at these values for final occupancy.

1.11 WARRANTY

- A. Provide a written Warranty executed by Contractor and manufacturer agreeing to repair or replace acoustical panels that fail the warranty period. Failures include, but are not limited to, the following:
 - 1. Acoustical Panels: Sagging or Warping.
 - 2. Grid: Rusting and manufacturer's defects.
 - 3. Manufacturer's Warranty Period: Fifteen years for one-source Acoustical Panels and Suspended Grid System.

PART 2 PRODUCTS

2.01 ACOUSTICAL UNITS

- A. [[AC-1]Acoustical Board:]
1. Description: Rigid, noncompressible tile made of mineral fibers and designed for 15/16 grid system.
 - a. Classification: ASTM E1264, Type II, Form 1 and 2, Pattern G.
 - b. Fire Rating: Incombustible.
 - c. Flame Spread (ASTM E84): 25 or less.
 - d. Smoke Development (ASTM E84): 50 or less.
 - e. Face Size: 24 by 24 inches.
 - f. Thickness: 5/8 inch
 - g. Noise Reduction Coefficient (NRC): 55 minimum.
 - h. Ceiling Attenuation Class (CAC): 35 minimum
 - i. Recycled Content: 65 percent.
 - j. Edge: Rabbeted and beveled.
 - k. Finish: Factory-applied washable finish [with clear plastic overspray] and light reflectance of over 75 percent.
 - l. Treat surface and back with an antimicrobial.
 2. Product: USG Interiors, Inc.'s "Astro ClimaPlus, Item No. 8223"; or equal.
 3. Color: White.
- B. [[AC-2]Acoustical Board:]
1. Description: Rigid, noncompressible tile made of mineral fibers and designed for 15/16 grid system.
 - a. Classification: ASTM E1264, Type II, Form 1 and 2, Pattern G.
 - b. Fire Rating: As indicated on Drawings.
 - c. Flame Spread (ASTM E84): 25 or less.
 - d. Smoke Development (ASTM E84): 50 or less.
 - e. Face Size: 24 by 24 inches.
 - f. Thickness: 3/4 inch.
 - g. Noise Reduction Coefficient (NRC): 55 minimum.
 - h. Ceiling Attenuation Class (CAC): 35 minimum
 - i. Recycled Content: 65 percent.
 - j. Edge: Rabbeted and beveled.
 - k. Finish: Factory-applied washable finish and light reflectance of over 75 percent.
 - l. Treat surface and back with an antimicrobial.
 2. Product: USG Interiors, Inc.'s "Astro ClimaPlus, Item No. 8322"; or equal.
 3. Color: White.
- C. [[AC-3]Acoustical Board:]
1. Description: Rigid, noncompressible tile made of mineral fibers and designed for 15/16 grid system.
 - a. Classification: ASTM E1264, Type III, Form 1, Pattern GK.
 - b. Fire Rating: As indicated on Drawings.
 - c. Flame Spread (ASTM E84): 25 or less.
 - d. Smoke Development (ASTM E84): 50 or less.
 - e. Face Size: 24 by 48 inches with 24 by 24 inch pattern.
 - f. Thickness: 3/4 inch.
 - g. Noise Reduction Coefficient (NRC): 55 minimum.
 - h. Ceiling Attenuation Class (CAC): 35 minimum
 - i. Recycled Content: 65 percent.
 - j. Edge: Rabbeted and beveled.
 - k. Finish: Factory-applied washable finish and light reflectance of over 75 percent.
 - l. Treat surface and back with an antimicrobial.

2. Product: USG Interiors, Inc.'s "Astro ClimaPlus Illusion Two/24 Panels, Item No. 8742"; or equal.
3. Color: White.

D. [[AC-4]Acoustical Board:]

1. Description:
 - a. Classification: ASTM E1264, Type XX, Pattern G.
 - b. Fire Rating: Incombustible.
 - c. Flame Spread (ASTM E84): 25 or less.
 - d. Smoke Development (ASTM E84): 50 or less.
 - e. Face Size: 24 by 24 inches.
 - f. Thickness: 1/2 inch.
 - g. Ceiling Attenuation Class (CAC): 35 minimum
 - h. Recycled Content: 23 percent.
 - i. Edge: Square.
 - j. Finish: Factory-applied washable finish and light reflectance of over 75 percent.
 - k. Treat surface and back with an antimicrobial.
2. Product: USG Interiors, Inc.'s "Sheetrock Lay-In Ceiling Panel ClimaPlus Vinyl, Item No. 3260"; or equal.
3. Color: White.

E. [[AC-____]Acoustical Board:]

1. Description: Rigid, noncompressible tile made of mineral fibers and designed for 15/16 grid system.
 - a. Classification: ASTM E1264, Type [____,] Form [____,] Pattern [____].
 - b. Fire Rating: Incombustible.
 - c. Flame Spread (ASTM E84): 25 or less.
 - d. Smoke Development (ASTM E84): 50 or less.
 - e. Face Size: [____] by [____] inches.
 - f. Thickness: [____] inch
 - g. Noise Reduction Coefficient (NRC): [____] minimum.
 - h. Ceiling Attenuation Class (CAC): [____] minimum
 - i. Recycled Content: [____] percent.
 - j. Edge: [Square cut][Rabbeted and beveled].
 - k. Finish: Factory-applied washable finish [with clear plastic overspray] and light reflectance of over 75 percent.
 - l. Treat surface and back with an antimicrobial.
2. Product: USG Interiors, Inc.'s "[____]", Item No. [____]"; or equal.
3. Color: [White][____].

2.02 SUSPENSION SYSTEMS

A. General Requirements:

1. Provide system designed by the manufacturer to support the ceiling and partition assembly indicated on the drawings or as specified, including acoustical panels, lighting and HVAC elements.

SPEC NOTE

2. Metal suspension systems shall meet requirements of ASTM C635/C635M. [Suspension systems shall be the types load tested and approved by Office of Statewide Health Planning and Development.]
3. Protective Coatings and Finishes: Provide electrogalvanized steel components with low-gloss coatings and finishes to match acoustical panels and in conformation with the Architect's product sample. The finish shall be on all exposed portions of grid.
4. Design and construct main runners and cross-tees of the ceiling system and their splices, intersection connectors and expansion devices to carry a mean ultimate test load of not less than 180 pounds or twice the actual load, whichever is greater, in tension with a five

degrees misalignment of the members in any direction and in compression. In lieu of a five degrees misalignment, the load may be applied with a 1 inch eccentricity on a sample not more than 24 inches long each side of the splice. The connection at splices and intersections shall be of the mechanical interlocking type

- B. [Exposed Steel Tee Bar System:]
1. Description:
 - a. Heavy duty type, 15/16 inch face dimension, lay-in grid system of main runners, cross-runners, perimeter trim, and connection accessories.
 - b. Finish: Factory applied baked-on enamel paint.
 2. Product: USG Interiors, Inc.'s "Donn DX26 System, Heavy Duty"; Armstrong World Industries, Inc.'s "Prelude XL, Heavy Duty"; Chicago Metallic Corp.'s "1200 System using 200 Heavy Duty Main Runners"; or equal.
 3. Color: White to match actual color of acoustical panel.
- C. [Fire Rated Exposed Steel Tee Bar System:]
1. Description:
 - a. Heavy duty type, 15/16 inch face dimension, lay-in grid system of main runners, cross-runners, perimeter trim, and connection accessories;
 - b. Fire Rating: Listed and classified for use in a one hour fire-resistive assembly.
 - c. Finish: Factory applied baked-on enamel paint.
 2. Product: USG Interiors, Inc.'s "Donn DXL26 System, Fire-Rated, Heavy Duty"; Armstrong World Industries, Inc.'s "Prelude Plus XL Fire Guard, Heavy Duty"; Chicago Metallic Corp.'s "1250 System Using 270 Heavy Duty Main Runner, Fire-Rated"; or equal.
 3. Color: White to match actual color of acoustical panel.
- D. [Suspension System for Gypsum Board Ceiling: Formed steel, commercial quality cold rolled; heavy-duty.]
1. Description:
 - a. Heavy duty type, 15/16 inch and 1 1/2 inch wide face face dimension, lay-in grid system of main runners, cross-runners, perimeter trim, and connection accessories;
 - b. Fire Rating: Listed and classified for use in a one hour fire-resistive assembly.
 - c. Finish: Factory applied baked-on enamel paint.
 2. Product: USG Interiors, Inc.'s "Donn CE System, Fire-Rated, Heavy Duty"; or equal.

2.03 ACCESSORIES

- A. Support Channels and Hangers: Galvanized steel; size and type to suit application, seismic requirements, and ceiling system flatness requirement specified.
- B. Perimeter Moldings: Same material and finish as grid.
1. At Exposed Grid: Provide L-shaped molding for mounting at same elevation as face of grid.
 2. At Concealed Grid: Provide exposed L-shaped molding.
- C. Hanger Wire: ASTM A641/A641M, Class 1 Coating, soft temper; minimum 12 gauge for maximum 4 foot square module.
- D. [Seismic Retaining Clips:]
1. Description: Hot-dipped galvanized cold-rolled steel complying with ASTM A568/A568M; used to join main beam and cross tee to wall molding.
 2. Product: Armstrong World Industries, Inc.'s "BERG-2 Clip"; USG Interiors, Inc.'s "ACM7 Clip"; or equal.
- E. Compression Strut: [Gauges, configurations, and sizes as indicated on Drawings.]

- F. [Hold-down clips, color-coded markers, and other items specifically designed for use with components employed.]
- G. [Fire-Rated Protective Covers: Type as required for use with fire-rated ceiling assembly.]
- H. Fasteners: Meet requirements of Section 05 05 23 - Standards for Anchors and Fasteners.
 - 1. Powder Driven Fasteners: Meet requirements of Section 05 05 23 - Standards for Anchors and Fasteners.]
 - 2. Pin and Clip Anchors for Vertical Hanger Wires at Gypsum Board Ceiling Only: Meet requirements of Section 05 05 23 - Standards for Anchors and Fasteners
 - 3. Expansion Anchors: Meet requirements of Section 05 05 23 - Standards for Anchors and Fasteners.
- I. Steel Angle Strap for Suspension System: Fabricate from 12 gauge steel, 1 inch wide by 2 inch long with holes to receive fastener and bracing wires, profile as shown, galvanized after fabrication.
- J. Gypsum Board: Fire rated type; 5/8 inch thick, ends and edges square, paper faced.
- K. Acoustical Sealant For Perimeter Moldings: Specified in Section 07 92 000 - Joint Sealers.
- L. Touch-up Paint: Type and color to match acoustical and grid units.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Examine areas to receive acoustical treatment and verify that:
 - 1. Installation of building components located in ceiling plenum is complete.
 - 2. Field measurements are as shown on the Drawings.
 - 3. Layout of hangers will not interfere with other work.
 - 4. Spacing, direction, and details of grid members and supports to accommodate installation of light fixtures, diffusers, and other items as shown on Architectural Reflected Ceiling Plan Drawings are correct.
 - 5. Areas are clean and free of materials or rubble that could damage acoustical surfaces.
- B. Obtain approval of University's Representative before installing acoustical surfaces.
- C. Do not begin work until unsatisfactory conditions are corrected.

3.02 PREPARATION

- A. Provide complete layout for all hangers where the locations are required to be coordinated with the work of others.
- B. Provide required inserts to be incorporated into the work.

3.03 INSTALLATION - SUSPENSION SYSTEM

- A. Install mechanical suspension systems in accordance with manufacturer's instructions and reviewed Shop Drawings.
- B. Install suspension system in accordance with ASTM C636/C636M, ASTM E580/E580M, and manufacturer's instructions and as supplemented in this Section.

- C. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of 1:360.
- D. Locate system on room axis according to reflected plan.
- E. Install after major above-ceiling work is complete.
- F. Hang suspension system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- G. Interference: Where wide air conditioning ducts or similar obstructions above acoustical ceiling interfere with suspension hanger wires, provide independent framing below obstruction to support the ceiling as an obligation.
 - 1. Support framing from roof or floor structure above. Do not attach framing to ductwork.
 - 2. Provide layout of proposed support system for University's Representative's review prior to beginning such work.
 - 3. Ensure hanger wires and carrying channels are located to accommodate fittings and units of equipment, which are to be placed after the installation of ceiling grid.
- H. Pendent Mounted Light Fixtures: Support pendent mounted light fixtures directly from structure above with hanger wires or cables passing through each pendent hanger and capable of supporting tow times the weight of the fixture. If pendent hanger penetrates the ceiling, provide a seismic bracing assembly to pendent hanger to transmit horizontal force. If pendent mounted light fixture is directly and independently braced below the ceiling, i.e. aircraft cable wire to wall, then seismic bracing assembly is not required above ceiling.
- I. Ceiling Grid Installation:
 - 1. Install ceiling grid in accordance with requirements of manufacturer's ICC Evaluation Survey Report (ESR) and applicable code requirements including DSA IR 25-5 for alternate Seismic Design Category [C]~~--or--~~[D]~~--or--~~[E]~~--or--~~[F].
 - 2. Ceiling grid may be attached to not more than two adjacent walls, and at least 3/4 inch clear of other walls. Install seismic retaining clips at unattached walls.
 - 3. Use of scrap or short-cut members is not permitted.
 - 4. Span width of corridor using main runners equal to or greater than corridor width. Joining of two or more short ends to make additional runners will not be permitted.
 - 5. Connect exposed grid members with positive interlocking method as standard with manufacturer.
 - 6. Interconnect cross runners over 12 inches long and all main runners not interconnected to walls near free end with number 16 gauge tie wire or a metal strut securely attached to prevent lateral spreading. Where the perpendicular distance from the wall to the first parallel runner is 12 inches or less, this interlock is not required.
 - 7. Level grid assembly in each area after installation of mechanical and electrical equipment.
- J. Perimeter Wall Molding:
 - 1. Install at intersection of ceiling and vertical surfaces and at junctions with other interruptions.
 - 2. Install in bed of acoustical sealant.
 - 3. Use longest practical lengths.
 - 4. Overlap and rivet corners.
- K. Provide a 2 inch oversized ring, sleeve, or adaptor through ceiling tile or board penetrations for sprinkler heads, and other similar devices that are not integrally tied to ceiling system in lateral direction.
- L. Do not support fixtures from or on main runners or cross runners if weight of the fixture causes

the total dead load to exceed the deflection capability. In such cases, support fixture loads by supplementary hanger wires located within 6 inches of each corner, or independently support the fixtures.

- M. Support fixture loads using supplementary hangers located within 6 inches of each corner, or support components independently.
- N. Do not eccentrically load system or induce rotation of runners.
- O. Form expansion joints as required. Form to accommodate plus or minus 1 inch movement. Maintain visual closure.
- P. Install light fixture boxes constructed of gypsum board above light fixtures in accordance with fire rated assembly requirements and light fixture ventilation requirements.

3.04 INSTALLATION - ACOUSTICAL UNITS

- A. Install acoustical units in accordance with manufacturer's instructions.
- B. Fit acoustical units in place, free from damaged edges or other defects detrimental to appearance and function.
- C. Lay directional patterned units with pattern parallel to longest room axis.
- D. Fit border trim neatly against abutting surfaces.
- E. Install units after above-ceiling work is complete.
- F. Install acoustical units level, in uniform plane, and free from twist, warp, and dents.
- G. Cutting Acoustical Units:
 - 1. Cut to fit irregular grid and perimeter edge trim.
 - 2. Make field cut edges of same profile as factory edges.
 - 3. Double cut and field paint exposed reveal edges.
- H. Where round obstructions occur, provide preformed closures to match perimeter molding.
- I. Lay acoustical insulation for a distance of 48 inches either side of acoustical partitions as indicated.
- J. Install hold-down clips on each panel to retain panels tight to grid system; comply with fire rating requirements.
- K. Install hold-down clips on panels within 20 feet of an exterior door.

3.05 ERECTION TOLERANCES

- A. Maximum Variation from Flat and Level Surface: 1/8 inch in 10 feet.
- B. Maximum Variation from Plumb of Grid Members Caused by Eccentric Loads: Two degrees.

3.06 CLEANING AND ADJUSTING

- A. Remove damaged or soiled material and replace with new prior to University's acceptance of project.

- B. Adjust any sags or twists that develop in the ceiling systems.

3.07 PROTECTION OF INSTALLED WORK

- A. Protect installed Work under provisions of Section 01 76 00 - Protecting Installed Work.
- B. Protect installation from damage during remainder of construction.

END OF SECTION