SECTION 09 5426
SUSPENDED WOOD CEILINGS - USG

PART 1 GENERAL

1.01 SECTION INCLUDES

A. Wood veneer panels.

B. Linear wood veneer panels.

C. Wood grilles.

D. Metal suspension system.

1.02 RELATED REQUIREMENTS

A. Section ***01 6116 - Volatile Organic Compound (VOC) Content Restrictions***.

B. Section ***03 1000 - Concrete Forms and Accessories***: Execution requirements for placement of **<<*attachment anchors; hanger clips; or _____*>>** to **<<*structure above; ceiling system; or _____*>>**.

C. Section ***03 3000 - Cast-in-Place Concrete***: Execution requirements for placement of **<<*attachment anchors; hanger clips; or _____*>>** to **<<*structure above; ceiling system; or _____*>>**.

D. Section ***05 3100 - Steel Decking***: Execution requirements for placement of **<<*attachment anchors; hanger clips; or _____*>>** to **<<*structure above; ceiling system; or _____*>>**.

E. Section ***08 3100 - Access Doors and Panels***: Access panels.

F. Section ***092116 - Gypsum Board Assemblies - USG***: Gypsum board and metal framing products.

G. Section ***092116 - Gypsum Board Assemblies - USG***: Acoustical insulation.

H. Section ***09 5100 - Acoustical Ceilings - USG***: Metal suspension systems.

1.03 REFERENCE STANDARDS

A. ASCE 7 - Minimum Design Loads and Associated Criteria for Buildings and Other Structures; Most Recent Edition Cited by Referring Code or Reference Standard.

B. ASTM A580/A580M - Standard Specification for Stainless Steel Wire; 2018.

C. ASTM A492 - Standard Specification for Stainless Steel Rope Wire; 1995 (Reapproved 2013).

D. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process; 2020.

E. ASTM A666 - Standard Specification for Annealed or Cold-Worked Austenitic Stainless Steel Sheet, Strip, Plate, and Flat Bar; 2015.

F. ASTM B209/B209M - Standard Specification for Aluminum and Aluminum-Alloy Sheet and Plate; 2021.

G. ASTM C635/C635M - Standard Specification for the Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings; 2017.

H. ASTM C636/C636M - Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels; 2013.

I. ASTM C665 - Standard Specification for Mineral-Fiber Blanket Thermal Insulation for Light Frame Construction and Manufactured Housing; 2017.

J. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2020.

K. 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; 2020.

L. ASTM E1264 - Standard Classification for Acoustical Ceiling Products; 2019.

M. AWI/AWMAC/WI (AWS) - Architectural Woodwork Standards; 2014, with Errata (2018).

N. CISCA (WC) - Wood Ceilings Technical Guidelines; 2009.

1.04 ADMINISTRATIVE REQUIREMENTS

A. Coordination: Coordinate work of this section with installation of mechanical and electrical components and with other construction activities affected by work of this section.

B. Preinstallation Meeting: Convene **<<*one; or* _____>>** week before starting work of this section.

C. Sequence work to ensure ceilings are not installed until building is enclosed, dust generating activities have terminated, and overhead work is completed.

1.05 SUBMITTALS

A. See Section ***01 3000 - Administrative Requirements*** for submittal procedures.

B. Shop Drawings: Indicate **<<*grid layout and related dimensioning; attachment of wood ceiling components to grid; accessory attachments; junctions with other ceiling finishes; mechanical and electrical items installed in the ceiling; and* _____>>**.

C. Product Data: Provide data on **<<*wood ceiling components; suspension system components; and* _____>>**.

D. Samples: Submit **<<*two; or* ____>> <<*full size; _____ by _____ inch (_____ by _____ mm); or* _____>>** samples illustrating material and finish of wood ceiling components.

E. Samples: Submit **<<*two; or* ____>>** samples each, ***____ inches (____ mm)*** long, of suspension system **<<*main runner; cross runner; perimeter molding; and* _____>>**.

F. Test Reports: Certified test data from an independent test agency verifying that panels meet specified requirements for **<<*fire; acoustical; seismic; and* _____>>** performance.

G. Manufacturer's Installation Instructions: Indicate **<<*special procedures; perimeter conditions requiring special attention; and* _____>>**.

H. Designer's Qualification Statement.

I. Manufacturer's Qualification Statement.

J. Installer's Qualification Statement.

K. Maintenance Materials: Furnish the following for ***Owner***'s use in maintenance of project.
   1. See Section ***01 6000 - Product Requirements*** for additional provisions.
   2. Wood Ceiling Components: Provide a quantity equal to **<<*2 percent; or ___ percent*>>** of total product installed.

1.06 QUALITY ASSURANCE

A. Designer Qualifications for Seismic Design: Under direct supervision of a Professional Structural Engineer experienced in design of this Work and licensed at ***the State in which the Project is located***.

B. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum **<<*three; or* _____>>** years**<< *documented; or None - N/A*>>** experience.

C. Installer Qualifications: Company specializing in performing the work of this section.
   1. Minimum _____ years**<< *documented; or None - N/A*>>** experience.
   2. Approved by wood ceiling manufacturer.

1.07 MOCK-UPS

A. Provide ***____ feet (____ m)*** by ***____ feet (____ m)*** mock-up including suspension members, trim, and wood ceiling components.

B. See Section ***01 4000 - Quality Requirements*** for additional requirements.

C. Locate **<<*where directed; as indicated on drawings; or* _____>>**.

D. Mock-up **<<*may; or may not*>>** remain as part of the work.

1.08 DELIVERY, STORAGE, AND HANDLING

A. Deliver wood ceiling components to project site in original, unopened packages.

B. Store in fully enclosed space, flat, level and off the floor.

C. Allow wood materials to acclimate to installed space in accordance with manufacturer's recommendations.

D. Protect from sunlight, excessive heat, cold, moisture, and relative humidity variations outside of tolerances specified for project conditions in compliance with AWI/AWMAC/WI (AWS).

1.09 FIELD CONDITIONS

A. Do not install suspended wood ceiling system until wet construction work is complete and permanent heat and air conditioning is installed and operating.

B. Maintain room temperature between **<<*60 degrees F (16 degrees C); ____ degrees F (____ degrees C)*>>** and **<<*75 degrees F (24 degrees C); ____ degrees F (____ degrees C)*>>** and relative humidity between **<<*35 to 55 percent; or ___ to ___ percent*>>** before, during, and after installation.

PART 2 PRODUCTS

2.01 SUSPENDED WOOD CEILING ASSEMBLIES

A. Refer to **<<*Room Finish Schedule; Reflected Ceiling Plans; and _____*>>** on drawings for additional ceiling assemblies information.

B. Wood Panel **<<*Ceiling; Soffit; and _____*>>** System: Panels, suspension members, trim, and accessories as required to provide a complete system.

Lay-in panels are compatible with every exposed suspension grid included in this section, depending on compatibility of the grid with the panels' edge profile.

Lay-in grilles are compatible only with DX and DXT grids. Modular grilles are compatible only with heavy-duty DX grids.

Linear planks attach to a DWSS system.

C. Wood Panel Ceiling Assembly Type **<<*WPC-1; or _____*>>**:

1. Ceiling Units: **<<*True Wood Lay-In Panels; True Wood Accessible Reveal Panels; True Wood Linear Planks; True Wood Lay-In Grilles; True Wood Modular Grilles; or _____*>><<*, Item No. _____; or None - N/A*>>**:
   a. Lay-In Panel Edge: **<<*FL; SL; AR; or ___*>>**.
2. Layout: As indicated on drawings.
3. Interior Suspension Grid: Specified in Section ***09 5100***.
4. Interior Suspension Grid: **<<*Donn DX 15/16-inch Suspension System; Donn Centricitee DXT 9/16-inch Suspension System; Donn Fineline DXF Suspension System; Donn Fineline 1/8 DXFF Suspension System; Donn Identitee DXI Suspension System; or _____*>>**.
5. Drywall Suspension system: **<<*Flat; Curved; Wall-to-wall; or _____*>>**.

2.02 PERFORMANCE REQUIREMENTS

A. Design for maximum deflection of **<<*1/360; or _____*>>** of span.

B. Design to support imposed loads of indicated elements without eccentric loading of supports. Where supported elements may induce rotation of ceiling system components, provide stabilizing reinforcement.

C. Seismic Performance: Ceiling systems designed to withstand the effects of earthquake motions determined according to ASCE 7 for Seismic Design Category **<<*C; D, E, or F; or _____*>>** and complying with the following:

1. Local authorities having jurisdiction.
2. ICC-ES Evaluation Report No. _____.

D. Surface Burning Characteristics: Flame spread index of ____, smoke developed index of ____, when tested in accordance with ASTM E84.

E. Wood-Based Materials:
1. Certified as sustainably harvested; see Section ***01 6000***.
2. Solid Wood: Clear, dry, sound, plain sawn, selected for***<< compatible; well-matched; or None - N/A>><< species,; or None - N/A>>*** grain and color, no defects.
3. Composite Wood Panels: Containing no urea-formaldehyde resin binders.

2.03 COMPONENT PRODUCTS

A. Wood Panels:
1. Wood Veneer Acoustic Panels: Manufacturer's standard core with wood veneer face and integrated acoustical backer.
a. Classification: ASTM E1264 Type XX composite wood panel.
1) Provide MDF core with no added urea formaldehyde (NAUF).
b. Certification: FSC certified.
c. Panel Size(s): ***<<24 by 24 inches; 610 by 610 mm; 24 by 24 inches (610 by 610 mm); 610 by 610 mm (24 by 24 inches); 24 by 48 inches (610 by 1220 mm); 24 by 48 inches (610 by 1220 mm); 24 by 48 inches (610 by 1220 mm); 24 by 48 inches (610 by 1220 mm); _____ inches; _____ mm; _____ inches (_____ mm); and _____ mm (_____ inches)>>***.
d. Plank Size(s): ***<<12 by 48 inches (305 by 1219 mm); 12 by 48 inches (305 by 1219 mm); 12 by 48 inches (305 by 1219 mm); 12 by 48 inches (305 by 1219 mm); 12 by 60 inches; 305 by 1525 mm; 12 by 60 inches (305 by 1525 mm); 305 by 1525 mm (12 by 60 inches); 24 by 72 inches; 610 by 1828 mm; 24 by 72 inches (610 by 1828 mm); 610 by 1828 mm (24 by 72 inches); 24 by 96 inches; 610 by 2440 mm; 24 by 96 inches (610 by 2440 mm); 610 by 2440 mm (24 by 96 inches); 20 by 60 inches; 508 by 1525 mm; 20 by 60 inches (508 by 1525 mm); 508 by 1525 mm (20 by 60 inches); 30 by 60 inches; 762 by 1524 mm; 30 by 60 inches (762 by 1524 mm); 762 by 1524 mm (30 by 60 inches); _____ inches; _____ mm; _____ inches (_____ mm); and _____ mm (_____ inches)>>***.
e. Panel Thickness: ***<<3/4 inch (19 mm); _____ inch (_____ mm)>>***.
f. Edge Profile: ***<<FL; SL; AR; or ___>>***.
g. Surface Veneer Species: ***<<As indicated on Drawings; To be selected from manufacturer's standards; Beech; Maple; Light Cherry; Dark Cherry; Walnut; Red Oak; Light Bamboo; Dark Bamboo; or _____>>***.
1) Factory Finish: ***<<Clear sealer; Wood stain as selected; Opaque paint as selected; Semi-transparent paint as selected; As scheduled; or _____>>***.
h. Panel Weight: Approximately ***3.0 psf (14.65 kg/sq m)***.
i. Perforations:
1) Perforated Panel: Pattern ***<<W100; W200; W300; W400; or _____>>***.
(a) NRC: ***<<0.30; 0.40; 0.60; 0.70; or ___>>***, determined in accordance with ASTM E1264.
(b) Spacing: As indicated on drawings.
2) Channel Routed Panel: Pattern ***<<W500; W500 (Border); W600; W600 (Border); or _____>>***.
(a) Spacing: As indicated on drawings.
j. Installation: Lay-in.
k. Installation: Downward accessible.
l. Products:
1) USG Corporation; True Wood Lay-In Panels: www.usg.com/ceilings/#sle.
2) USG Corporation; True Wood Accessible Reveal Panels: www.usg.com/ceilings/#sle.

3) _____.
4) Substitutions: ***<<See Section 01 6000 - Product Requirements; or Not permitted>>***.

B. Wood Planks:
1. Wood Veneer Linear Acoustic Planks: Manufacturer's standard core with wood veneer face and integrated acoustical backer.
a. Classification: ASTM E1264 Type XX composite wood panel.
1) Provide MDF core with no added urea formaldehyde (NAUF).
b. Certification: FSC certified.
c. Panel Width(s): ***<<4 inches; 102 mm; 4 inches (102 mm); 102 mm (4 inches); 6 inches (152 mm); 6 inches (152 mm); 6 inches (152 mm); 6 inches (152 mm); _____ inches; _____ mm; _____ inches (_____ mm); and _____ mm (_____ inches)>>*** nominal.
d. Panel Thickness: ***<<3/4 inch (19 mm); _____ inch (_____ mm)>>***.
e. Backing: Black fabric spanning the reveal opening and overlapping panels.
f. Surface Veneer Species: ***<<As indicated on Drawings; To be selected from manufacturer's standards; Beech; Maple; Light Cherry; Dark Cherry; Walnut; Red Oak; Light Bamboo; Dark Bamboo; or _____>>***.
1) Factory Finish: ***<<Clear sealer; Wood stain as selected; Opaque paint as selected; Semi-transparent paint as selected; As scheduled; or _____>>***.
g. Panel Weight: Approximately ***3.0 psf (14.65 kg/sq m)***:.
h. Products:
1) USG Corporation; True Wood Linear Planks: www.usg.com/ceilings/#sle.
2) _____.
3) _____.
4) Substitutions: ***<<See Section 01 6000 - Product Requirements; or Not permitted>>***.

C. Wood Grilles:
1. Wood Grilles: Pre-assembled grille units of ***<<solid wood; wood veneer; or _____>>*** with ***<<battens; dowels; and _____>>***.
a. Lay-in Grille Size: ***<<24 by 24 inches (610 by 610 mm); 24 by 48 inches (610 by 1219 mm); _____ by _____ inches (_____ by _____ mm)>>***, nominal.
1) Slat Size: ***<<As indicated on drawings; 1/2 by 1-1/2 inches (13 by 38 mm); 1/2 by 1-1/2 inches (13 by 38 mm); 1/2 by 1-1/2 inches (13 by 38 mm); 1/2 by 1-1/2 inches (13 by 38 mm); _____ inches; _____ mm; _____ inches (_____ mm); and _____ mm (_____ inches)>>***.
2) Slat Orientation: ***<<As indicated on drawings; Vertical; Horizontal; or _____>>***.
b. Module Size: ***<<12 by 96 inches (305 by 2432 mm); _____ by _____ inches (_____ by _____ mm)>>***, nominal.
1) Slat Design: ***<<As indicated on drawings; Batten only; Batten and dowel; or _____>>***.
2) Slat Size:
(a) Batten Only: ***<<As indicated on drawings; 5/8 by 1-3/8 inches (16 by 35 mm); _____ inches (_____ mm)>>***.
(b) Batten and Dowel: ***<<As indicated on drawings; 5/8 by 3-1/4 inches (16 by 83 mm); 1 by 2-1/4 inches (25 by 57 mm); 1 by 3-1/4 inches (25 by 83 mm); 1-1/4 by 3-1/4 inches (32 by 83 mm); 1-1/4 by 4-1/4 inches (32 by 108 mm); 1-1/4 by 5-1/4 inches (32 by 133 mm); _____ inches (_____ mm)>>***.
3) Slat Spacing:
(a) Batten Only: ***<<As indicated on drawings; 7/8 inch (22 mm); 1-3/8 inches (35 mm); _____ inches (_____ mm)>>***.

(b) Batten and Dowel: ***<<As indicated on drawings; 1-3/8 inches (35 mm); 2 inches (51 mm); 2-3/4 inches (70 mm); _____ inches (_____ mm)>>***.

c. Solid Wood Species: ***<<Poplar or Basswood; or _____>>***.

1) Factory Finish: ***<<Wood stain matching panels, clear sealer top coat; As scheduled; or _____>>***.

d. Batten Strips at Back of Modular Grilles: Baltic birch plywood with black dyed finish.

e. Products:

1) USG Corporation; True Wood Lay-In Grilles: www.usg.com/ceilings/#sle.

2) USG Corporation; True Wood Modular Grilles: www.usg.com/ceilings/#sle.

3) _____.

4) _____.

5) Substitutions: ***<<See Section 01 6000 - Product Requirements; or Not permitted>>***.

D. Metal Suspension Systems:

1. See Section ***09 5100 - Acoustical Ceilings - USG***.

2. Metal Suspension Systems - General: Complying with ASTM C635/C635M; die cut and interlocking components, with ***<<perimeter moldings; hold down clips; stabilizer bars; seismic clips; splices; and _____>>*** as required.

a. Stabilizer Bars: Manufacturer's ***<<standard; locking; accessible; and _____>>*** bars designed to provide system rigidity in large module applications.

1) Lengths: As applicable to module dimensions, main tee spacing, and panel sizes of ceiling assemblies specified.

b. Materials:

1) Subgirt Members: Hot-dipped galvanized steel sheet, ASTM A653/A653M, with ***<<G90/Z275; G60/Z180; or _____>>*** coating; formed to resist imposed loads and to provide attachment for linear ceiling and accessories.

2) Steel Grid: ASTM A653/A653M ***<<G30; G60; G90; or _____>>*** coating, unless otherwise indicated.

3) Aluminum Grid: Aluminum sheet, ASTM B209/B209M.

4) Stainless Steel Grid: ASTM A666, Type 304.

3. Exposed Acoustical Suspension System: Hot-dipped galvanized steel grid and cap.

a. Application(s): ***<<Seismic; or _____>>***.

b. Structural Classification: Heavy duty, when tested in accordance with ASTM C635/C635M.

c. Recycled Materials Content: Classified as containing greater than 50 percent total recycled content. Available for specific sizes and lengths.

d. Profile: Tee; ***<<15/16 inch (24 mm); ____ inch (____ mm)>>*** face width.

e. Finish: ***<<Baked enamel; or _____>>***.

f. Color: ***<<As indicated on drawings; White; To be selected from manufacturer's standards; or _____>>***.

g. Products:

1) USG Corporation; DX 15/16 Inch Suspension System: www.usg.com/ceilings/#sle.

2) _____.

3) _____.

4) Substitutions: ***<<See Section 01 6000 - Product Requirements; or Not permitted>>***.

4. Exposed Acoustical Suspension System: Hot-dipped galvanized steel grid and cap.

a. Application(s): ***<<Seismic; or _____>>***.

b. Structural Classification: Heavy duty, when tested in accordance with ASTM C635/C635M.

c. Recycled Materials Content: Classified as containing greater than 50 percent total recycled content. Available for specific sizes and lengths.

d. Profile: Tee; ***<<9/16 inch (14 mm); ____ inch (____ mm)>>*** face width.

e. Finish: **<<Baked enamel; or _____>>**.
f. Color: **<<As indicated on drawings; White; To be selected from manufacturer's standards; or _____>>**.
g. Products:
1) USG Corporation; Centricitee DXT 9/16 Inch Suspension System: www.usg.com/ceilings/#sle.
2) _____.
3) _____.
4) Substitutions: **<<See Section 01 6000 - Product Requirements; or Not permitted>>**.

5. Exposed Acoustical Suspension System: Hot-dipped galvanized steel grid.
a. Application(s): **<<Seismic; or _____>>**.
b. Structural Classification: Heavy duty, when tested in accordance with ASTM C635/C635M.
c. Recycled Materials Content: Classified as containing greater than 50 percent total recycled content. Available for specific sizes and lengths.
d. Profile: Slotted Reveal Tee; **<<9/16 inch (14 mm); ____ inch (____ mm)>>** face width, with 1/4-inch wide center reveal.
e. Intersections: Mitered.
f. Finish: **<<Baked enamel; or _____>>**.
g. Color: **<<As indicated on drawings; White; To be selected from manufacturer's standards; or _____>>**.
h. Products:
1) USG Corporation Fineline DXF Suspension System: www.usg.com/ceilings/#sle.
2) _____.
3) _____.
4) Substitutions: **<<See Section 01 6000 - Product Requirements; or Not permitted>>**.

6. Exposed Acoustical Suspension System: Hot-dipped galvanized steel grid.
a. Application(s): **<<Seismic; or _____>>**.
b. Structural Classification: Heavy duty, when tested in accordance with ASTM C635/C635M.
c. Recycled Materials Content: Classified as containing greater than 50 percent total recycled content.
d. Profile: Slotted Reveal Tee; **<<9/16 inch (14 mm); ____ inch (____ mm)>>** face width, with 1/8-inch wide center reveal.
e. Intersections: Mitered.
f. Finish: **<<Baked enamel; or _____>>**.
g. Color: **<<As indicated on drawings; White; To be selected from manufacturer's standards; or _____>>**.
h. Products:
1) USG Corporation; Fineline DXFF Suspension System: www.usg.com/ceilings/#sle.
2) _____.
3) _____.
4) Substitutions: **<<See Section 01 6000 - Product Requirements; or Not permitted>>**.

7. Exposed Suspension System: Hot-dipped galvanized steel grid and cap.
a. Application(s): **<<Seismic; or _____>>**.
b. Structural Classification: Heavy duty, when tested in accordance with ASTM C635/C635M.
c. Recycled Materials Content: Classified as containing greater than 50 percent total recycled content.

d. Profile: Double reveal Tee; **<<9/16 inch (14 mm); ____ inch (____ mm)>>** face width.
e. Intersections: Seamless reveal.
f. Finish: **<<Baked enamel; or _____>>**.
g. Color: **<<As indicated on drawings; White; To be selected from manufacturer's standards; or _____>>**.
h. Products:
1) USG Corporation; Identitee DXI Suspension System: www.usg.com/ceilings/#sle.
2) _____.
3) _____.
4) Substitutions: **<<See Section 01 6000 - Product Requirements; or Not permitted>>**.

8. Grid Suspension Systems: G40 galvanized steel grid system of main**<< and cross; or None - N/A>>** tees, **<<suspended from structure above; attached to walls at tee ends; or _____>>**.
a. Indexed Support Bars: Designed for wall-to-wall system only.
b. Products:
1) USG Corporation; DWSS Drywall Suspension System - Flat Ceilings: www.usg.com/#sle.
2) USG Corporation; DWSS Drywall Suspension System - Curved Ceilings: www.usg.com/#sle.
3) USG Corporation; DWSS Drywall Suspension System - Wall-to-Wall: www.usg.com/#sle.
4) _____.
5) Substitutions: **<<See Section 01 6000 - Product Requirements; or Not permitted>>**.

E. Moldings and Trim:
1. Edge Molding**<<, Expansion Joints,; or None - N/A>>** and Splices: Same material, thickness, and finish as metal pan panels, unless otherwise indicated.
2. Perimeter (Wall) Moldings: **<<Same metal and finish as grid; Aluminum; or _____>>**.
a. Size: As required for installation conditions**<< and specified Seismic Design Category; and _____; or None - N/A>>**.
b. Angle Moldings: L-shaped, for mounting at same elevation as face of grid.
c. Shadow Moldings: Shaped to create a perimeter reveal.
d. Channel Moldings: U-shaped, for hold-down type installations.
e. Gaskets For Perimeter Moldings: Closed-cell foam, factory-applied to molding.
f. Acoustical Sealant For Perimeter Moldings: Non-hardening, non-skinning, for use in conjunction with suspended ceiling system.
3. Metal Transition Trim: Steel or extruded aluminum; provide attachment clips, splice plates and preformed corner pieces for complete trim system:
a. Trim Height: **<<2-1/4 inch (57 mm); 4 inch (102 mm); 6 inch (152 mm); 8 inch (203 mm); 10 inch (254 mm); _____ inch (_____ mm)>>**.
b. Finish: **<<Baked enamel; or _____>>**.
c. Color: **<<White; or _____>>**.
d. Products:
1) USG Corporation; Compasso Elite Transitions - Acoustical to Acoustical: www.usg.com/ceilings/#sle.
2) USG Corporation; Compasso Elite Transitions - Acoustical to Drywall: www.usg.com/ceilings/#sle.
3) USG Corporation; Compasso Elite Drywall: www.usg.com/ceilings/#sle.
4) _____.
5) Substitutions: **<<See Section 01 6000 - Product Requirements; or Not permitted>>**.

4. Metal Perimeter Trim for "Cloud" Suspension Systems: Steel or extruded aluminum; provide attachment clips, splice plates, and preformed corner pieces for complete trim system.
   a. Trim Height: ***<<2-1/4 inch (57 mm); 4 inch (102 mm); 6 inch (152 mm); 8 inch (203 mm); 10 inch (254 mm); _____ inch (_____ mm)>>***.
   b. Finish: ***<<Baked enamel; or _____>>***.
   c. Color: ***<<White; or _____>>***.
   d. Products:
      1) USG Corporation; Compasso Suspension Trim - Standard: www.usg.com/ceilings/#sle.
      2) USG Corporation; Compasso Suspension Trim - Slim: www.usg.com/ceilings/#sle.
      3) USG Corporation; Compasso Suspension Trim - Elite: www.usg.com/ceilings/#sle.
      4) USG Corporation; Compasso Suspension Trim - Elite with Island Accent Lighting: www.usg.com/ceilings/#sle.
      5) _____.
      6) Substitutions: ***<<See Section 01 6000 - Product Requirements; or Not permitted>>***.
5. Metal Curtain Pocket Trim: Steel or extruded aluminum; provide attachment clips, splice plates and preformed corner pieces for complete trim system:
   a. Trim Height: ***<<2-1/4 inch (57 mm); 4 inch (102 mm); 6 inch (152 mm); 8 inch (203 mm); 10 inch (254 mm); _____ inch (_____ mm)>>***.
   b. Finish: ***<<Baked enamel; or _____>>***.
   c. Color: ***<<White; or _____>>***.
   d. Products:
      1) USG Corporation; Compasso Elite Curtain Pocket: www.usg.com/ceilings/#sle.
      2) _____.
      3) _____.
      4) Substitutions: ***<<See Section 01 6000 - Product Requirements; or Not permitted>>***.

F. Wood Veneer Perimeter Trim: Field cut wood veneer panels to match acoustic ceiling panels.
   1. Support: Aluminum L angle, ***1/8 inch (3.2 mm)*** thick.

G. Trim Accessories: Manufacturer's standard clips, cleats splice plates, extension plates, closure plates, corner pieces, and similar accessories required for a complete installation.

2.04 ACCESSORIES

A. General: Manufacturer's standard accessories for installation method indicated, ***<<seismic requirements; above-ceiling accessibility; and _____>>***.

B. Support Channels, Carriers, and Hangers: ***<<Galvanized; or Primed>>*** steel; size and type to suit application***<<, seismic requirements,; or None - N/A>>*** and ceiling system flatness requirement specified.

C. Retention Clips: Standard accessories, as required by manufacturer or project conditions.

D. Suspension Wire***<< and Rope; or None - N/A>>***: Size and type as required for application***<<, seismic requirements,; or None - N/A>>*** and ceiling system flatness requirement specified.
   1. Concealed Suspension:
      a. Suspension Wire: Steel, annealed, ***<<galvanized; or plain>>*** finish, ***<<12 gage, 0.0808 (2.05 mm); 9 gage, 0.1144 inch (2.91 mm); ___ gage, ___ inch (___ mm)>>*** diameter.
   2. Exposed (To View) Suspension:
      a. Suspension Wire: Stainless steel, ***<<18 gage, 0.0403 (1.02 mm); ___ gage, ___ inch (___ mm)>>*** diameter, complying with ASTM A580/A580M.

b. Suspension Rope: ***1/32 inch (0.8 mm)*** stainless steel rope wire complying with ASTM A492, with ***<<loop and crimp-end; turnbuckle; wire crimp; or _____>>*** connection.

E. Compression Posts: ***3.4 inch (19 mm)*** nominal diameter EMT conduit, lengths as required by installation conditions.
1. Adapters: Manufacturer's standard adapters designed to connect post to suspension carrier member.

F. Panel Fixing Brackets: Manufacturer's standard PFB accessory items.

G. Seismic Clips: Manufacturer's standard clips designed to provide a rigid connection between suspension grid tees and wall moldings.

H. Unopposed Tee Attachment Clip: Manufacturer's standard clip designed to create code-compliant cross tee connections when a cross tee is installed in a main tee without another cross tee directly opposite.

I. Acoustical Insulation: ***<<Specified in Section 07 2100; or ASTM C665, friction fit type, unfaced batts>>***.
1. Thickness: ***<<2 inch (51 mm); 6 inch (152 mm); ____ inch (____ mm)>>***.
2. Size: To fit acoustical suspension system.

J. Gypsum Board and Framing Materials: See Section ***09 2116***.

K. Touch-Up Paint for Exposed Surfaces: Type and color to match panels and suspension system grid and trim elements.

L. Touch-Up Paint For Concealed Items: ***<<Zinc rich; Zinc oxide; or _____>>*** type, as recommended by ceiling system manufacturer.

2.05 FABRICATION

A. Shop fabricate wood ceiling components to the greatest extent possible.

B. Shop fabricate wood ceiling components to accommodate mechanical and electrical items.

C. Fabricate components to allow access to ceiling plenum as required.

PART 3 EXECUTION

3.01 EXAMINATION

A. Verify existing conditions before starting work.

B. Verify that layout of hangers will not interfere with other work.

C. Verify that field measurements are as ***<<indicated; indicated on shop drawings; instructed by the manufacturer; or _____>>***.

D. Do not install ceiling until after interior wet work is dry.

E. Start of installation constitutes acceptance of project conditions.

3.02 PREPARATION

A. Coordinate the location of hangers with other work.

B. Provide hanger clips during steel deck erection. Provide additional hangers and inserts as required.

C. Install after major above-ceiling work is complete.

D. Lay out wood ceiling components in pattern according to reflected ceiling plan and as indicated on shop drawings.

E. Acclimate wood ceiling materials by removing from packaging in installation area a minimum of ***<<72 hours; or _____>>*** prior to installation.

3.03 INSTALLATION - SUSPENSION SYSTEM

A. Install in accordance with ***<<ASTM C636/C636M; ASTM E580/E580M; manufacturer's instructions; and _____>>*** and as supplemented in this section.

B. Install suspended wood ceiling system in accordance with CISCA (WC).

C. Install hangers and inserts coordinated with overhead work. Provide additional hangers and supports as required.

D. Rigidly secure system, including integral mechanical and electrical components, for maximum deflection of **<<1:360; 1:240; or ____>>**.

E. Lay out system to a balanced grid design with edge units no less than 50 percent of acoustical unit size.

F. Locate system on room axis according to reflected ceiling plan.

G. Suspension System, Non-Seismic: 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.

H. Seismic Suspension System, Seismic Design Category C: Hang suspension system independent of walls, columns, ducts, pipes and conduit. Maintain a **3/8 inch (9 mm)** clearance between grid ends and wall.

I. Seismic Suspension System, Seismic Design Categories D, E, F: Hang suspension system with grid ends attached to the perimeter molding on two adjacent walls; on opposite walls, maintain a **3/4 inch (19 mm)** clearance between grid ends and wall.

J. Where ducts. facility services, or equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers**<< and related carrying channels; or None - N/A>>** to span the extra distance.

K. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability.

L. Support fixture loads using supplementary hangers located within **<<6 inches (152 mm); ____ inches (____ mm)>>** of each corner, or support components independently.

M. Do not eccentrically load system or induce rotation of runners.

N. Form expansion joints **<<as detailed; or _____>>**. Form to accommodate plus or minus **<<1 inch (25 mm); ____ inch (____ mm)>>** movement. Maintain visual closure.

O. Install unopposed tee attachment clips at appropriate locations to enable installation of acoustical units in an ashlar pattern.

P. Edge Moldings: Install at intersection of ceiling and vertical surfaces and penetrations, using components of maximum length, set level.**<< Provide edge moldings at junction with other ceiling finishes.; or None - N/A>><< Miter corners.; or None - N/A>><< Provide preformed edge closures to match bullnosed cornered partitions.; or None - N/A>>**

1. Install **<<in bed of acoustical sealant; or with continuous gasket>>**.
2. Use longest practical lengths.
3. **<<Miter; Overlap; or Overlap and rivet>>** corners.

3.04 INSTALLATION - WOOD PANELS

A. Install panels in accordance with manufacturer's instructions.

B. Fit wood components in place, free from damaged edges or other defects detrimental to appearance and function.

C. Install panels in uniform plane, and free from twist, warp, and dents.

D. Cut to fit irregular grid and perimeter edge trim.

E. Make field-cut edges of same profile as factory edges, seal and finish according to manufacturer.

F. Install **<<clips; stabilizer bars; other attachments; and _____>>** as indicated to secure wood ceiling components tight to the grid system.

G. Install acoustical backer above wood ceiling components; fit tight between grid members.

3.05 INSTALLATION OF TRANSITION TRIM

A. After the grids are installed, for each grid end that meets the transition trim, insert one tee attachment clip into the lower and upper bosses and secure the set screw. Leave enough tension for adjustment.

B. At drywall suspension systems install gypsum panels after the transition trim is installed.

C. Secure a tee attachment clip to each grid member that will connect to the transition trim. Install one framing screw into the center of the slotted screw hole. Leave enough tension so the attachment clip can be adjusted if needed. Follow manufacturer's instructions when aligning the attachment clip.

D. Install the splice plates by sliding them into the bosses at the end of each transition trim joint. Loosely tighten the set screws and align the system square and true.

3.06 INSTALLATION OF PERIMETER "CLOUD" TRIM

A. General: Install in accordance with manufacturer's instructions.
   1. Examine the reflected ceiling layout and carefully plan the layout of the trim on the ceiling grid.
   2. Lay trim segments on top of the grid in the desired pattern and temporarily secure them in place.
   3. Temporarily splice the segments together.
   4. Assemble trim system, arranging the trim into smooth curves.
   5. Mark and cut the suspension grid.
   6. Install an attachment clip to each cut end of the grid. Attach the clip to trim section segment.
   7. Join trim and permanently splice the segments together.

B. 10-Inch and 12-Inch Trim:
   1. Support segments by attaching diagonal braces to the installation clips using fasteners recommended by manufacturer. Attach one end of the brace to back of trim segment and the other to the tee. Ensure that the clip remains at 90 degrees to the ceiling plane. Repeat this procedure at ***24 inches (610 mm)*** increments along the entire perimeter of the grid.
   2. Attach trim segments to the grid.

C. Corners:
   1. Outside Corners: Slide a permanent splice plate into each side of the preformed outside corner. Attach one side of the outside corner to a trim segment. Connect a trim segment to the other side of the corner and secure with appropriate splice plate.
   2. Inside Corners: Follow manufacturer's instructions for installation of preformed and welded corners or for field-assembled corners from separate premitered pieces.

3.07 INSTALLATION OF CURTAIN POCKET TRIM

A. Mounting: Mount curtain pocket trim in accordance with manufacturer's instructions and as appropriate for project conditions:
   1. Wall Cleat Mounting:
      a. Determine the mounting height of the pocket and cleat combination. Mount wall cleats on the perimeter wall at that height.
      b. Mount cleats at framing stud locations, on the center of the stud flange or face for the length of the pocket.
      c. Secure cleat and pocket to wall using fasteners appropriate for attachment substrates.
      d. Hook pocket on the mounting cleats. Use a metal screw for locking pocket to cleat.
   2. Hanger Wire Mounting:
      a. Mount using hanger wire located at ***16 inches (406 mm)*** on center by drilling a ***1/4 inch (6 mm)*** diameter hole into vertical mounting leg located on top of the extrusion, no more than ***48 inches (1219 mm)*** on center.
   3. Metal Framing Mounting:

a. Hang curtain pockets using standard ***2-1/2-Inch (64 mm)*** metal framing members ***48 inches (1219 mm)*** on center, maximum, hung from and braced with kickers attached to the underside of the structure.

B. Continuous Lengths Installation: Use wall cleat, hanger wire, or metal framing mounting method specified above. Connect curtain pocket segments with standard system splice plates. Use three (3) splice plates for a tight, seamless connection; one located on the top of the pocket and two (2) along the vertical surface.

C. Corners Installation: For 90-degree turns use manufacturer's pre-engineered inside and outside corners. Position corner segments in place using mounting method selected for the system. Use three (3) splice plates for a tight, seamless connection to the main curtain pocket; one located on the top of the pocket and two (2) along the vertical surface.

D. End Cap Terminations: Use the appropriate end cap for the indicated ceiling integration. Install using self-tapping mini screws in two or three locations depending on the end cap selected.

E. Partition Wall Termination: Use a single splice plate bent in half at 90-degrees. Mount one flange of the plate to the curtain pocket and mount the other to the partition wall above the ceiling grid wall molding.

F. Install **<<*extension plates; closure plates; and* _____>>** in accordance with manufacturer's instructions.

G. Connection to Suspension Grid: Use clips recommended by manufacturer.

3.08 TOLERANCES

A. Maximum Variation from Flat and Level Surface: **<<*1/8 inch in 10 feet (3 mm in 3 m); ____ inch in 10 feet (____ mm in 3 m)*>>**.

3.09 CLEANING

A. Clean and touch up minor finish damage. Remove and replace components that cannot be successfully cleaned and repaired.

END OF SECTION