This section includes a surface mounted grid system of PVC grid and accessories. Systems are usually non-fire rated. This section includes proprietary and descriptive type specifications. Edit to avoid conflicting requirements. Acoustic ceiling panels specified in another section.

Part 1 General

1.1 SECTION INCLUDES

A. Surface mounted PVC grid assembly, attachment devices, and perimeter PVC trim.

B. Grid Style: Mechanically fastened [exposed bottom runner.] [semi-concealed bottom runner, recessed.] [semi-concealed bottom runner, recessed, bevelled.]

1.2 RELATED SECTIONS

List sections that specify installation of products directly associated with this section; indicate specific items. In above ceiling mechanical and electrical work, the placement of anchors can be a problem if not addressed before installation of ceiling suspension assembly. Coordination between the work of mechanical and electrical sections and the text of this article, requires special consideration.

A. Section 06 11 00 - Wood Blocking: Blocking and shims attached to substrate to support attached ceiling to a level plane.

B. Section [_____-_____]: Placement of special anchors or inserts for supporting ceiling grid system.

C. Section 07 92 00 - Joint Sealants: Acoustic sealant for perimeter edge seal.

D. Section 09 51 00 - Acoustic Ceiling Panels: Acoustic units required for ceiling.

E. Section [_____-_____]: [Acoustic] partition system with head rails [attached to] [within] ceiling assembly.

F. Section [21 13 00] [_____] - Sprinkler Systems: Sprinkler heads in ceiling system.

G. Section [23 37 00] [_____] - Air Outlets and Inlets: Air diffusion devices in ceiling system.

H. Section [26 51 00] [_____] - Interior Luminaires: Light fixtures in ceiling system.

I. Section [27 51 00] [_____] - Public Address and Music System: Speakers in ceiling system.

J. Section [28 31 00] [_____] - Fire Alarm Systems: Fire alarm components in ceiling system.

1.3 REFERENCES

List reference standards that are included within the text of this section. Edit the following as required for project conditions.

A. ASTM D638 - Standard Test Method for Tensile Properties of Plastics.

B. ASTM D696 - Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30°C and 30°C With a Vitreous Silica Dilatometer.

C. ASTM D790 - Standard Test Methods for Flexural Properties of Un-reinforced and Reinforced Plastics and Electrical Insulating Materials.

D. ASTM D792 - Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.

E. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.

F. CISCA (Ceilings & Interior Systems Contractors Association):

1. Ceiling Systems Handbook.
2. Acoustic Ceilings: Use and Practice.

G. ISO 4611 - Plastics - Determination of the Effects of Exposure to Damp Heat, Water Spray and Salt Mist.

H. UL - Fire Resistance Directory.

I. USFDA (United States Food and Drug Administration).

1.4 SUBMITTALS FOR REVIEW

Do not request submittals if drawings sufficiently describe the products of this section or if proprietary specifying techniques are used. Include a requirement for shop drawings only when special project conditions exist or when reflected ceiling plans are not provided on the working drawings.

A. Section 01 33 00: Submission procedures.

B. Shop Drawings: Indicate grid layout and related dimensioning, junctions with other work, interrelation of mechanical and electrical items related to system and [_____].

C. Product Data: Provide data on PVC grid system components and accessories.

Include the following paragraph for submission of physical samples for selection of finish, colour, surface texture, etc.

D. Grid Samples: Submit [two] [____] samples each, [200] [____] mm ([8] [____] inches) long, of grid system [top hanger,] [main runner,] [cross tee,] [wall molding,] and [_____].

1.5 SUBMITTALS FOR INFORMATION

The following submittals are informational; responsive action by the Consultant is not required.

A. Section 01 33 00: Submission procedures.

B. Manufacturer's Installation Instructions: Indicate special procedures, perimeter conditions requiring special attention, and [_____].

1.6 QUALITY ASSURANCE

A. Conform to CISCA requirements.

B. Grid Installer: Company specializing in installing the Products specified in this section, authorized or certified in writing by the product manufacturer.

1.7 REGULATORY REQUIREMENTS

Use this article when a special code, regulation, or constructed assembly applies to the project; delete this article if none apply. Coordinate Regulatory Requirements with the UL assembly ratings indicated in the System Description article above.

A. Conform to applicable code for fire rated assembly.

1.8 PROJECT CONDITIONS

A. Section 01 32 13: Work scheduling.

B. Sequence work to ensure ceilings are not installed:

1. until building is enclosed,
2. sufficient heat is provided,
3. dust generating activities have terminated, and
4. overhead work is completed, tested, and approved.

1.9 DELIVERY, STORAGE AND HANDLING

A. Section 01 66 00 for storage and handling of materials.

B. Deliver materials in manufacturer's original, unopened, undamaged containers with identification labels intact.

C. Store cartons laid flat, protected from exposure to sun, high temperatures and humidity conditions as recommended by the manufacturer.

1.10 EXTRA MATERIALS

A. Section 01 78 46: Extra materials.

B. Provide the following to the Owner:

1. [____] m ([____] feet) of extra suspension main and cross runners.
2. a quantity of [5] [____] percent of all trim and accessories provided for the Work.

1.11 WARRANTY

A. Warranty: Refer to Section [01 78 00.] [_____.]

B. Limited Warranty: Ten (10) years from product manufacturing defects.

Part 2 Products

2.1 SURFACE MOUNTED GRID SYSTEM MATERIALS

In the following paragraph, list the manufacturers acceptable for this project. Edit the subsequent descriptive specifications to identify project requirements and to eliminate any conflict with specified manufacturer's products.

A. Manufacturers:

1. Acoustic Ceiling Products, LLC., PO Box 1581, Appleton, WI, 54912-1581; Phone - Toll Free: 800-434-3750; Fax - Toll Free 800-434-3751; e-mail to: techsupport@acpideas.com; Web site: www.acpideas.com.
2. Substitutions: [Refer to Section 01 62 00.] [Not permitted.]

B. Grid Material:

1. Material: Virgin grade polyvinyl chloride (PVC).
2. Laminated Components: ABS (acrylonitrile butadiene styrene terpolymer) plastic, laminated with hot stamping foil.

C. Grid Components:

1. Manufacturer's Grid Style: "CeilingMAX".
   a. [24 mm (15/16 inch), Model 100, 2440 mm (96 inch) Runner.]
   b. [24 mm (15/16 inch), Model 110, 2440 mm (96 inch) Runner.]
   c. [24 mm (15/16 inch), Model 120, 584 mm (23 inch) Cross Tee.]
   d. [24 mm (15/16 inch), Model 121, 635 mm (25 inch) Cross Tee.]
   e. [24 mm (15/16 inch), Model 150, 2440 mm (96 inch) Wall Bracket.]
2. Grid Nominal Size: [610 x 610 mm (24 x 24 inches).] [610 x 1220 mm (24 x 48 inches).]
3. Duty Class: ASTM C635, Intermediate duty.
4. USFDA - Approval of the resin used in CeilingMAX surface mounted grid system for food processing applications.
5. Profile:
   a. Top Hanger: PVC, runner, cross tee 24 mm (15/16 inches).
   b. Runner: Molded PVC at [610] [1220] mm ([24] [48] inches) on center.
   c. Cross Tees: Molded PVC at [610] [1220] mm ([24] [48] inches) on center.
   d. Wall Bracket: Molded PVC, mechanically fastened to existing substrate at 406-610 mm (16-24 inches) on center.
   e. Top Hanger: Molded PVC, mechanically fastened to existing substrate at 406-610 mm (16-24 inches) on center. Cut to fit into wall bracket.
6. Bottom of Runner Face Width: 24 mm (15/16 inch).
7. Grid Accessories: [Model 170 Suspension Clip] [Model 180 Concrete Clip] [Model 190 FRP Clip] required for surface mounted grid system.

D. Grid Finish: [White, paintable.] [Brass.] [Chrome.] [Brushed Aluminum.] [Argent Silver.] [Copper.] [Copper Fantasy.] [Verdigris.] [Bermuda Bronze.] [Moonstone Copper Cracked Copper.] [Muted Gold.] [Cross Hatch Silver.] [Argent Gold.] [Light Maple.] [Pearwood.] [Welsh Cherry] [Medium Oak.] [Satin Black] [Custom color.]

2.2 ACCESSORIES

The following paragraph is for constructing fire-resistant boxes over light fixtures in fire rated ceilings, when so required.

A. Acoustic Sealant For Perimeter Moldings: Available from grid manufacturer.

B. Tools: [Site-cutting tools,] [and] [_____] for installing grid assembly.

C. Adhesive: [PL Latex FRP adhesive.] [PL Wall and Tileboard adhesive.]

Part 3 Execution

3.1 EXAMINATION

A. Section 01 71 00: Verification of existing conditions before starting work.

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

Select and edit one or both of the following two Installation articles for lay-in.

3.2 INSTALLATION - SURFACE MOUNTED GRID SYSTEM

A. Install assembly in accordance with manufacturer's instructions and as supplemented in this section.

Include the first paragraph below if a reflected ceiling plan is not included with the drawings; or the subsequent paragraph if a reflected ceiling plan is included.

B. Lay out assembly to a balanced grid design with edge units no less than 50 percent of acoustic unit size.

[OR]

C. Locate assembly on room axis according to reflected ceiling plan.

D. Install grid members to substrate.

E. Mount assembly independent of walls, columns, ducts, pipes and conduit.

F. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.

G. Perimeter Molding:

1. Install edge molding at intersection of ceiling and vertical surfaces into bead of acoustic sealant, that is not visible after installation.
2. Use single piece longest practical lengths.
3. Miter corners.

The following paragraph describes the need for ceiling grid expansion joints where a ceiling passes under and across the vertical plane of a building expansion joint. Most expansion joints require two (2) parallel tees usually spaced to the same measurements as the building expansion joint - usually 1 or 2 inches. Each tee is supported over its length to each respective side of the building structural member.

H. Form expansion joints [as detailed.] [with two (2) parallel tees spaced [25] [50] ([1] [2] inches) apart, supported from each respective structure above.]

3.3 SCHEDULE

Provide a schedule when various ceiling locations, ceiling assembly types, acoustic unit designs, or other variables require listing for clarity. The following are examples to illustrate a scheduled item:

A. Public Areas: 600 x 1200 mm (24 x 48 inch) PVC surface mounted grid, Copper color.

B. Dining Areas: 600 x 600 mm (24 x 24 inch) PVC surface mounted grid, White color.

END OF SECTION