

Section 09545 - Specialty Metal Ceilings

Part 1 – General

1.01 Scope

- A. Furnish and install the Plank Security Metal Ceiling System as manufactured by Steel Ceilings Inc., Johnstown, Ohio.

1.02 Related Sections

- A. Section 09510 Acoustical Ceilings
- B. Section 09250 Plaster and Gypsum Board
- C. Section 15550 Heating, Ventilating and Air-conditioning
- D. Section 16500 Lighting

1.03 References

- A. American Society for Testing and Materials (ASTM)
 - 1. C635 - Standard specification for the manufacture, performance and testing of metal suspension systems for acoustical tile and lay-in panel ceilings.
 - 2. C636 - Standard practice for installation of metal ceiling suspension systems for acoustical tile and lay-in panels.
 - 3. E84 - Test method for surface burning characteristics of building materials.
- B. CISCA – Ceilings and Interior Systems Construction Association

1.04 Submittals

- A. Provide product data sheets listing dimensions, style, edge detail, perforation pattern and finish.
- B. Alternates require prior approval no later than 21 days prior to bid date. In addition to the requirements above, submittals for approved alternates must include samples of actual products to be substituted together with test certificates supporting performance claims, a mock up and a written warranty.

1.05 Project Conditions

- A. Environmental Requirements
 - 1. Area to receive ceiling systems shall be protected from the weather.
 - 2. Wet trades work shall be complete and dry prior to installation of ceiling system.
 - 3. Installation shall not proceed until the temperature and humidity conditions closely approximate finish condition.

1.06 Attic Stock

- A. Provide 2% (3% etc) of the ceiling system area materials to be used as attic stock.

1.07 Performance

- A. Materials and installation must comply with Local Building Code and Regulations
- B. Materials should be stored and handled in accordance with CISCA's *Acoustical Ceilings – Use and Practice*
- C. Materials to comply to CISCA's *Metal Ceilings Technical Guidelines*
- D. There are no special seismic requirements

Part 2 - Products

2.01 Manufacturer

- A. Plank Security Metal Ceiling System shall be as manufactured by Steel Ceilings Inc., Johnstown, Ohio. www.steelceilings.com

2.02 Materials

- A. Suspension System
 - 1. Primary support system shall be the wall molding. The secondary support system, if required, will be the Mid-span supports in 14 gauge steel in similar material and finish to the security planks.
 - 2. Midspan should be supported via a supplied bracket by 9-gauge wire with compression struts, or 14-gauge 1.5" x 1.5" angle at 2 ft. centers (depending on load this may extend to 4 ft. centers).
 - 3. Compression struts shall be 3/4" galvanized steel channel fixed to the mid-span at a minimum of 48" on center, fastened securely to the hanger wires and secured back to the building structure with drilled anchors as approved by the architect.
 - 4. Wall molding shall be formed from 14 gauge steel in C shape with 2" face designed to accept security metal planks. Wall molding to be secured to all vertical surfaces with drilled in anchors at a minimum of 16" on center.
 - 5. Hold down clips shall be formed from same materials as the molding.
 - 6. Fasteners and hardware shall be galvanized steel or other non-corrosive materials compatible with the security system. Security planks to be securely fastened to adjacent security planks with self-tapping screws. Exit planks shall be securely fastened to Z-clips with tamper-proof fasteners.
- B. Security Planks
 - 1. Metal pans shall be formed from 16-gauge galvanized steel – minimum A40/G40 (14-gauge, 12-gauge, etc., stainless steel).
 - 2. Plank width shall measure 12" (18", 24")
 - 3. Panels shall be perforated with pattern S (non-perforated).
 - 4. Panels shall be post painted to seal all perforations with polyester powder global white (brushed # 4).
- C. Acoustical Infill
 - 1. Panels shall be supplied with 1" (2", etc.) thick 1 pcf (2 pcf, etc.) glass fiber insulation wrapped in flame retardant black polyfilm (nonwoven acoustic fleece) to provide sound absorption NRC of 0.75 (0.95), etc.)

Part 3 – Execution

3.01 Examination

- A. Installer must inspect the area that is to receive the metal ceiling system for conditions that may affect the installation and notify, in writing, any conditions that must be rectified before commencing.
- B. All work above the ceiling shall be completed before proceeding with this installation.
- C. All wet work shall be completed and thoroughly dry before proceeding with this installation.

3.02 Installation

- A. Metal Ceiling components shall be delivered in unopened cartons and shall be clearly marked with manufacturer's name.
- B. Material shall be stored in dry and protected areas.
- C. Install the ceiling system in accordance with the manufacturer's recommendations and the approved shop drawings.
- D. Panels shall be free from defects and damaged panels shall be removed and replaced.