

## **Section 09545 - Specialty Metal Ceilings**

### **Part 1 – General**

#### **1.01 Scope**

- A. Furnish and install the Snap-In 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. Concealed Snap T-bar suspension system, clips, molding and metal pans shall be as manufactured by Steel Ceilings Inc., Johnstown, Ohio. [www.steelceilings.com](http://www.steelceilings.com)

### **2.02 Materials**

- A. Suspension System
  - 1. Primary Channel shall be 1-1/2" deep 16 gauge galvanized steel -minimum G60, and shall be spaced not to exceed 48" on center by direct suspension from the existing structure with not less than 9 gauge pre-straightened hanger wires, wrapped tightly 3 full turns, spaced 48 inches along the component length or 1/4" threaded rod.
  - 2. To strengthen the ceiling against upward pressure compression struts are to be added for every 16 sq. ft. (4 x 4 module)
  - 3. Snap T-bars shall be galvanized steel - minimum A40/G40 (stainless steel) and attached with galvanized wire T-clips and screws at right angles to the 1 1/2" primary channel
  - 4. Wall molding shall be formed from 18-gauge galvanized steel (stainless steel), in C shape to receive metal pans.
  - 5. Hold down shall be formed from same materials as the molding.
- B. Snap-In Metal Panels
  - 1. Metal pans shall be formed from 18- to 24-gauge galvanized steel – minimum A40/G40 (stainless steel).
  - 2. Panels shall measure 24" x 24" (12" x 24", 24"x 48" etc)
  - 3. Panels shall be square edge (bevel edge on 12" x 24" or 24" x 24" or 24" x 48").
  - 4. Security clips shall slip over T-bars and engage holes in security panel flanges.
  - 5. Panels shall be perforated (non-perforated) with pattern B (C, D, F, FF, G, M, R S or custom perforation).
  - 6. Panels shall be post painted to seal all perforations with polyester powder global white (color) gloss level 12% to 15%
- C. Acoustical Infill
  - 1. Panels shall be supplied with 1" (2" etc) thick 1pcf (2 pcf, etc.) glass fiber insulation wrapped in flame retardant black polyfilm (non-woven acoustic fleece) to provide sound absorption NRC of 0.75 (0.95 etc).
- D. Access Panel
  - 1. Access Panels shall be assembled from 24" x 24" ceiling panels and have keyed alike hardware.

### **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. Cut panels shall, where possible, not be less than one half of full size.
- E. Panels shall be free from defects and damaged panels shall be removed and replaced.