

**SECTION 09500 - SUSPENDED ACOUSTICAL CEILINGS**

PART 1 GENERAL

1.01 WORK INCLUDED

Provide and install:

- A. Suspended metal grid ceiling system.
- B. Acoustical tile.
- C. Fire rated assembly with gypsum board boxes over light fixtures.
- D. Hold down clips and access clips.
- E. Perimeter trim.

1.02 REFERENCES

- A. ASTM C635 - Metal Suspension Systems for Acoustical Tile and Lay-in Panel Ceilings
- B. ASTM C636 - Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-in Panels.
- C. Armstrong Specification and Installation Guidelines.
- D. UL - Underwriter's Laboratories System Ratings.

1.03 SYSTEM DESCRIPTION

- A. Installed System: Conform to UL Assembly rating noted on plans.

1.04 QUALITY ASSURANCE

- A. Manufacturer: Company specializing in manufacture of ceiling suspension system and ceiling tile 10 years minimum experience.
- B. Installer: Company with 5 years minimum experience.

1.05 SUBMITTALS

- A. Submit product data.

- B. Provide product data on metal grid system components, acoustic units, and related accessories.
- C. Submit samples of ceiling tile and grid components.

#### 1.06 ENVIRONMENTAL REQUIREMENTS

- A. Maintain uniform temperature of minimum 60 degrees F (16 degrees C) and humidity of 20 to 40 percent prior to, during, and after installation.

#### 1.07 SEQUENCING/SCHEDULING

- A. Do not install acoustical ceilings until building is enclosed, sufficient heat is provided, dust generating activities have terminated, and overhead work is completed, tested, and approved.
- B. Schedule installation of acoustic units after interior wet work is dry.

#### 1.08 EXTRA STOCK

- A. Provide one extra quantity of each type of acoustic units to Owner.

### PART 2 PRODUCTS

#### 2.01 ACCEPTABLE MANUFACTURERS - SUSPENSION SYSTEM

- A. Armstrong 15/16" prelude fire guard heavy duty system with hold down clips at all locations, or equal. Refer to schedule for variations in grid types.

#### 2.02 SUSPENSION SYSTEM MATERIALS

- B. Grid: ASTM C635, heavy duty, fire rated to 2 hour assembly, exposed T; components die cut and interlocking.
- C. Accessories: Stabilizer bars clips splices edge moldings and hold down clips required for suspended grid system.
- D. Grid Materials: Commercial quality cold rolled steel with galvanized coating.
- E. Grid Finish: White.

## 2.03 ACCEPTABLE MANUFACTURERS - ACOUSTIC UNITS

A. Armstrong and Celotex tile as indicated on plans/finish schedule notes or equal.

## 2.04 ACOUSTIC UNIT MATERIALS

A. Acoustic Panels shall conform to the Armstrong Physical Data (Refer to Finish Schedule for designations).

## PART 3 EXECUTION

### 3.01 INSPECTION

- A. Verify that existing conditions are ready to receive work.
- B. Verify that layout of hangers will not interfere with other work.
- C. Beginning of installation means acceptance of existing conditions.

### 3.02 INSTALLATION

- A. Install system in accordance with ASTM C636 and manufacturer's instructions and as supplemented in this Section.
- B. Install fire rated system in accordance with UL Design No. G250.
- C. Install after major above ceiling work is complete. Coordinate the location of hangers with other work.
- D. Supply hangers with instructions for their correct placement. If metal deck is not supplied with hanger tabs, coordinate the installation of hanger clips during steel deck erection. Provide additional hangers and inserts as required.
- E. Hang system independent of walls, columns, ducts, pipes and conduit. Where carrying members are spliced, avoid visible displacement of face plane of adjacent members.
- F. Where ducts or other equipment prevent the regular spacing of hangers, reinforce the nearest affected hangers to span the extra distance.
- G. Locate system on room axis according to reflected plan.

- H. Do not support components on main runners or cross runners if weight causes total dead load to exceed deflection capability. Support fixture loads by supplementary hangers located within 6 inches of each corner; or support components independently.
- I. Do not eccentrically load system, or produce rotation of runners.
- J. Install edge molding at intersection of ceiling and vertical surfaces, using longest practical lengths. Miter corners. Provide edge moldings at junctions with other interruptions. Field rabbet panel edge. Where bullnose concrete block corners or round obstructions occur, provide preformed closers to match edge molding.
- K. Fit acoustic units in place, free from damaged edges or other defects detrimental to appearance and function.
- L. Lay directional patterned units one way with pattern parallel to shortest room axis. Fit border neatly against abutting surfaces.
- M. Install acoustic units level, in uniform plane, and free from twist, warp and dents.
- N. Install hold-down clips to retain panels tight to grid system.
- O. Install light fixture boxes constructed of gypsum board above light fixtures in accordance with UL assembly requirements.

### 3.03 TOLERANCES

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