SECTION 09510

ACOUSTICAL CEILINGS

PART 1 - GENERAL

1.01 SUMMARY

A. Provide acoustical ceilings where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:
   1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

C. Codes: Materials and work shall conform to the governing Building Code. In case of conflict between these specifications, the standard specifications, and the Building Code, the more stringent shall govern.

1.02 SUBMITTALS

A. Comply with pertinent provisions of Section 01300.

B. Product data: Within 30 calendar days after the Contractor has received the Owner's Notice to Proceed, submit:
   1. Materials list of items proposed to be provided under this Section;
   2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;
   3. Shop Drawings in sufficient detail to show suspension, layout, lateral restraint, installation, anchorage, and interface of the work of this Section with the work of adjacent trades;
   4. Manufacturer's recommended installation procedures which, when approved by the Architect, will become the basis for accepting or rejecting actual installation procedures used on the Work.

1.03 QUALITY ASSURANCE

A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.04 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section 01600.

1.05 MAINTENANCE

A. Deliver to the Owner for his use in future modifications, an extra stock of approximately 10% of each type of acoustical material installed, packaging each type of material separately, distinctly marked, and adequately protected against deterioration. For materials designated to receive field painting, provide 10% extra

stock as specified, painted in required colors and ready for installation by the Owner's personnel. Surplus material shall be from the same production lot.

PART 2 - PRODUCTS

2.01 "T" GRID SYSTEM

A. Provide a complete system of supporting members, anchors, wall cornices, adapters for light fixtures and grilles, and accessories of every type required for a complete suspended "T" grid system of the arrangements shown on the Drawings, in color or colors selected by the Architect from standard colors of the approved manufacturer, and complying with pertinent requirements of Underwriters Laboratories, Inc., and the governmental agencies having jurisdiction.

B. Acceptable products:
   1. Armstrong World Industries, 2500 Columbia Ave., Lancaster, PA (888) 234-5464.
      a. Ceiling system at all non-food preparation areas which call for acoustic tile ceiling: AL Prelude Plus XL. (rooms S101, S103, S105, S107, S109, S111, S113)
      b. Ceiling system at all food preparation areas which call for acoustic tile ceiling: Clean Room Grid System. (rooms S114, S115, S116, S118, S122, S123)

2.02 ACOUSTICAL CEILING PANELS

A. Acceptable products:
   1. Manufactured by Armstrong World Industries, 2500 Columbia Avenue, Lancaster, PA (888) 234-5464:
      a. Ceiling system at all non-food preparation areas which call for acoustic tile ceiling: Cirrus Tegular/Fine Texture 584M, 24" x 24" x 3/4" angled tegular lay-in, color: White. (rooms S101, S103, S105, S107, S109, S111, S113)
      b. Ceiling system at all food preparation areas which call for acoustic tile ceiling: Clean Room VL Unperforated Class 5 (Class 100), #868, 24"X24"X5/8", square lay-in, color: White. (rooms S114, S115, S116, S118, S122, S123)

2.03 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the Architect.

PART 3 - EXECUTION

3.01 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.02 INSTALLATION, GENERAL

A. Except as modified by requirements of governmental agencies having jurisdiction, recommendations of the manufacturer as approved by the Architect, or specific directions of the Architect, install in accordance with ASTM C636 and the pertinent UL design requirements.

B. Lateral bracing:
   1. Provide lateral bracing as required by pertinent codes and regulations.
   2. Secure lateral bracing to structural members. Secure at right angles to the direction of the partition and four ways in large ceiling areas.

C. Provide hold-down clips for ceiling boards only when so required by governmental agencies having jurisdiction.

D. Make all grids level within a tolerance of one in 1000 and straight within a tolerance of one in 1000.

3.03 INSTALLATION OF ACOUSTICAL MATERIALS

A. "T" grid system: Install acoustical ceiling boards so linearity of facing is as directed by the Architect.

3.04 CLEANING UP

A. In addition to other stipulated requirements for cleaning, completely remove finger prints and traces of soil from the surfaces of grid and acoustical materials, using only those cleaning materials recommended for the purpose by the manufacturer of the material being cleaned.

END OF SECTION - 09510

SECTION 09540

FIBERGLASS REINFORCED PLASTIC PANELS

PART 1 - GENERAL

1.01 SUMMARY

A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, Special Conditions and/or other such Provisions as the Owner may require, and Division 1 of these Specifications.

B. Section Includes:
1. Fiberglass reinforced plastic wall panels, referred to as FRP.
2. Components and moldings.
3. Sealants

1.02 REFERENCES

A. American Society for Testing and Materials.
1. ASTM E84 - Surface Burning Characteristics of Building Materials.

1.03 QUALITY ASSURANCE

A. Product Manufacturer: Company specializing in manufacturing products specified herein with minimum ten years experience.

B. Applicator: Company specializing in installation of specified products with minimum five years experience.

1.04 FIRE-RATING REQUIREMENTS

A. ASTM E84; flame spread less than 25, smoke density less than 450.

1.05 SUBMITTALS

A. Submit under provisions of Section 01300.

B. Submit manufacturer's current recommended method of installation.

C. Submit three sets of samples of panels and molding illustrating color, texture, thickness and physical characteristics.

D. Submit certification of USDA approval for use of material in food handling facilities.

1.06 DELIVERY, STORAGE AND HANDLING

A. Deliver materials to the project site with manufacturer's labels intact and legible.

B. Handle materials with care to prevent damage.

C. Store materials under cover, stacked flat, off floor.

D. Stack panels so that long lengths are not over short lengths.

1.07 ENVIRONMENTAL CONDITIONS

A. Maintain temperature range between 55 degrees F. to 70 degrees F. for 24 hours before, during and after gypsum wallboard and joint treatment applications.

B. Provide ventilation during and following sealing of joints.

C. Adhesives shall comply with local air quality management district regulations.

PART 2 - PRODUCTS

2.01 MANUFACTURERS

A. Approved Manufacturers:
1. Commercial and Architectural Products, Inc., Dover OH. Product: Marlite panels.

B. Equivalent products by the following manufacturers may be submitted for approval:
1. Construction Specialties, Inc., San Marcos CA. Product: Acrovyn.

2.02 MATERIALS

A. ASTM E84: Class A, 3/32 inch thick, interior liner panels, chemical, stain, odor, moisture and impact resistant.
1. Panels shall not support mold or mildew.
2. Color: As selected by architect from manufacturer's standard list.

2.03 ACCESSORIES

A. Moldings: Painted aluminum extrusion. Designs and thickness shall match panels. Provide at all edges, divider joints, interior corners and exterior corners.

B. Sealant: One-part silicone, as specified in Section 07920.

C. Adhesive: C375 neoprene based or C551 latex based construction adhesive, VOC compliant.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify that surfaces are ready to receive the work of this Section.

B. Verify that gypsum board substrate has been taped and sanded, all joints.

C. Beginning of installation means installer accepts existing surfaces.

3.02 INSTALLATION

A. Install panels plumb, level and with all vertical joints on bearing.

B. Verify location and install all trim required. Install all trim and sealant in accordance with the manufacturer's recommendations.

3.03 CLEANING

A. Clean surfaces under provisions of Section 01710.

B. Do not allow the accumulation of debris, immediately remove spilled or splashed material and all trace of residues.

END OF SECTION - 09540