Part 1 General

1.1 Summary

.1 Unless otherwise indicated, follow the standards below when specifying suspended ceilings work. These standards are not intended to restrict or replace professional judgment.

1.2 Design Requirements

.1 Suspended ceilings shall be specified for washrooms.

.2 Where ceiling-mounted items obstruct the regular spacing of hanger wires, design “trapeze” structures with additional steel supports to bridge the obstruction.

1.3 Ceiling Suspension

.1 The Architect/Engineer (A/E) shall design the means of suspending systems from the slab above, and allow space for the hangers. Piping, ductwork, and equipment shall have independent support systems (i.e. piping shall not be supported from ductwork supports, etc.) Do not suspend anything (including electrical conduit) from ductwork. Show trapeze hangers on the drawings, and provide additional details as necessary to convey the A/E’s intent to the Contractor. Verify that sufficient space exists above existing suspended ceilings for the design.

.2 In existing buildings new piping, ductwork and equipment shall not be supported from existing hangers and/or existing supplementary steel without A/E verification of existing component conditions and loading capacities.

Part 2 Products

2.1 Preferred Products

.1 The threshold level of compliance with the General Emissions Evaluation standards listed in 01 84 19 for ceilings must be met by 100%.

.2 For products with recycled content that may contribute to LEED® v4 MR Credit Building Product Disclosure and Optimization – Sourcing of Raw Materials, refer to:

.1 Green Circle Certified http://greencirclecertified.com/database

.3 For products with Environmental Product Declarations (EPDs), which may contribute to LEED® v4 MR Credit Building and Disclosure Optimization – Environment Product Declarations, refer to:

.1 UL Environment http://productguide.ulanet.com

.4 For products with a manufacturer inventory and/or with Health Product Declarations (HPDs), for LEED® v4 MR Credit Building Product Disclosure and Optimization – Material Ingredients, refer to:

.1 Declare Product Database www.living-future.org/declare-products
For products from manufacturers with Corporate Sustainability Reports (CSRs), which may contribute to LEED® v4 MR Credit Building Product Disclosure and Optimization – Sourcing of Raw Materials, refer to:

.1 GRI Sustainability Disclosure Database [http://database.globalreporting.org/search](http://database.globalreporting.org/search)

Materials that are locally sourced (extracted, manufactured, and purchased) within 160 km (100 miles) are preferred and will increase cost values for credit calculations in the Materials and Resources Building Product Disclosure and Optimization credits.

.7 Use companies that offer take-back programs for ceiling tiles.

### 2.2 Acoustic Panels

.1 Circulation, public areas and offices:

.1 Ceiling tiles: Shall be 610 mm x 1220 mm (24" x 48") “Fissured” #755 mineral fibre acoustical lay-in panels as manufactured by Armstrong or 610 mm x 610 mm (24" x 24") Fissured #756 mineral fiber acoustical lay-in panels as manufactured by Armstrong (see drawings for exact sizes) , or approved equivalent. Panels shall be 16 mm (5/8") thick with a flame spread index Class 25.

.2 Framing: Shall be 28 gauge, cold-rolled steel Tees, 38 mm (1 1/2") high with 25 mm (1") flanges. Tees shall be galvanized and prefinished on exposed surfaces in baked-enamel, white. Main Tees shall be installed at 1220 mm (4'-0") centre and fastened to wire hangers. Cross Tees shall be installed at 610 mm (2'-0") centres.

.2 Classrooms:

.1 Ceiling tiles: Shall be 610 mm x 1220 mm (24" x 48") with a minimum STC of 50 and a minimum NRC of 0.85. Refer also to section 09 84 10, acoustical treatment. Panels shall be 16 mm (5/8") thick with a flame spread index Class 25.

.2 Framing: Shall be 28 gauge, cold-rolled steel Tees, 38 mm (1 1/2") high with 25 mm (1") flanges. Tees shall be galvanized and prefinished on exposed surfaces in baked-enamel, white. Main Tees shall be installed at 1220 mm (4'-0") centre and fastened to wire hangers. Cross Tees shall be installed at 610 mm (2'-0") centres.

.3 Animal facilities, clean rooms, food service areas and wet laboratories:

.1 Shall be 610 mm x 1220 mm (24" x 48") VL #870 mineral fibres lay-in panels as manufactured by Armstrong, or approved equivalent. Panels shall be 16 mm (5/8") thick with a flame spread index Class 25 or under.

.2 Framing: Shall be as “Prelude” by Armstrong model ALXL, with clips # 414, or approved equivalent. The perimeter of light fixtures shall be sealed with latex silicone.

.3 Tiles shall be installed with “clip ons” capable of maintaining the tiles in place during cleaning and under positive pressure HVAC conditions in the room.

.4 When a tile has to be cut to fit room’s dimensions or configuration, the cut must be done so the face material stays continuous and can be folded and sealed to the cut edge(s).

.4 Washrooms:
.1 Ceilings shall be 610mm x 1220mm (24” x 48””) suspended acoustical lay-in non-perforated panels that are water resistant and scrubbable. Acceptable product is “Ultima Health Zone” by Armstrong.

2.3 **Edge Molding**

.1 Shall be 28 gauge, cold-rolled steel angles, 38 mm (1 1/2”) high with 25 mm (1”) flanges. Angles shall be galvanized and prefinished on exposed surfaces in baked-enamel, white.

2.4 **Hangers**

.1 Shall be 3.6mm diameter, hot-dipped galvanized, mild steel wire anchored to structure above at 1220 mm (4’-0”) centres in both directions.

END OF SECTION