SECTION 12 56 70.11
SUSPENDED TABLE

SPEC WRITER NOTES:
1. This is a sole source patented table and inclusion of the manufacturer's name and model number is acceptable for this item. Show information and details of tables on drawings. Electrical operation is preferred as two persons are required for manual operation.
2. Coordinate electrical light requirements for room with requirements for table with integral light fixture and conduit and wiring services required under Division 26 for electrically operated tables.
3. Provide steel on structure for attachment of mounting frame; coordinate with Section 05 50 00, METAL FABRICATIONS.
4. Delete between //________// if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.
5. Special permission thru Project Manager is required, before sole source products can be used on any project.

PART 1 - GENERAL

1.1 DESCRIPTION
A. This section covers a ceiling mounted retractable suspended table system.
B. Tables shall be // electrically // manually // operated.

1.2 RELATED WORK
A. Structural provisions for anchorage: Section 05 50 00, METAL FABRICATIONS.
B. Color and pattern of table top: Section 09 06 00, SCHEDULE FOR FINISHES.
C. Electric connections and components: Division 26, ELECTRICAL.

1.3 SUBMITTALS
A. Furnish in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
B. Manufacturer's Literature and Data: Suspended table, installation procedures and instructions.

1.4 APPLICABLE PUBLICATIONS
A. The publications listed below form a part of this specification to the extent referenced. The publications are referenced in the text by basic designation only.
B. National Electrical Manufacturers Association (NEMA):
C. American Society for Testing and Materials (ASTM):
   A36/A36M-08 ............ Structural Steel
   A167-99(R2009) ........ Stainless and Heat-Resisting Chromium-Nickel
                      Steel Plate, Sheet, and Strip.
   A283-03(R2007) ........ Low and Intermediate Tensile Strength Carbon
                      Steel Plates, Shapes and Bars.
   A1008-11 ............... Steel, Sheet, Cold-Rolled, Carbon, Structural,
                      High Strength Low Alloy
   B209-10 ................ Aluminum and Aluminum-Alloy Sheets and Plate
   B221-08 ................ Aluminum and Aluminum-Alloy Extruded Bars, Rods,
                      Wire, Shapes, and Tubes.

D. Composite Panel Association (CPA):
   A208.1-09 .............. Wood Particleboard.

E. Federal Specifications (FS):
   A-A-1936 ............... Adhesive, Contact, Neoprene Rubber

F. National Fire Protection Association (NFPA):
   No 70-11 ............... National Electric Code.

G. National Association of Architectural Metal Manufacturers (NAAMM):
   AMP 500-06 ............. Metal Finishes Manual

H. American Welding Society (AWS):
   D1.1-10 ................ Structural Welding Code-Steel
   D1.2-08 ................ Structural Welding Code-Aluminum

1.5 PRODUCTS DELIVERY, STORAGE, AND HANDLING
   A. Tables shall be delivered in protective cartons.
   B. Store under cover and protect from moisture.

PART 2 - PRODUCTS

2.1 MATERIALS
   A. Wood Particleboard: ANSI A208.1, Grade 2-M-2.
   B. Plastic Laminate:
      1. NEMA LD3, decorative type PF42, not less than 1 mm (0.042) inch
         thick.
      2. Color and pattern as specified in Section 09 06 00, SCHEDULE FOR
         FINISHES.
   E. Steel:
      2. Cabinet enclosures: ASTM A1008.
      4. Stainless: ASTM A167, Type 302 or 304.
   F. Aluminum:
1. Alloys suitable for intended use.
2. Extrusions: ASTM B221.

G. Hardware:
1. Manufactures standard stainless steel hinges.
2. Fasteners:
   a. Stainless steel for exposed items and aluminum.
   b. Steel for concealed items.

2.2 SUSPENDED TABLES

A. Tables as manufactured by AFAB Corporation (Phone 813-677-8790), and conforming to these specifications are acceptable.

B. Table system shall support a live load of 225 Kg (500 pounds).

   SPEC WRITER NOTE: Use of round tables preferred. Round tables most economical and efficient. Consult with manufacturer for variations if required.

C. Tables:
   1. Diameter 1500 mm (60 inches).
   2. Core of 19 mm (3/4 inch) thick wood particle board.
   3. Top and bottom surface faced with decorative plastic laminate bonded with contact adhesion to particleboard.
   4. Edge vinyl "T" molding, flush with plastic laminate surface.
   5. Bottom provided with aluminum cross brace member designed to provide support against deflection of table top. Weld cross brace member together conforming to AWS D1.2.

D. Suspension System:
   1. One inch square stainless steel tube suspension arms welded into rigid assembly. Welding to conform with AWS as applicable.
   2. Hinges, stainless steel, welded to suspension arms.
   3. Stainless steel welds brushed to match adjacent finishes.
   4. Suspension system designed to fold at midpoint and pivot at top suspension and at table mounting.
   5. Table mounting device designed to transfer loads from pivots to table to cross brace on underside and maintain rigid level table top.
   6. Table mounting device housing of stainless steel designed to prevent fingers being inserted and entry of food particles.

E. Ceiling assembly unit consisting of counter balanced system, pivots for suspension arms //, motor geared operating mechanism, // and component supports all encased in sheet steel painted housing. Assembly designed to be bolted to ceiling mounting system. Provide trim for joint with finish ceiling material. Design unit for surface mounting at ceiling.
F. Ceiling Mounting System:
1. Structural steel support system consisting of structural shape angles and channels. Weld together conforming to AWS D1.1.
   a. Designed for attachment to building structural system above.
   b. Designed to receive and level ceiling assembly unit bolts.
   c. Designed to prevent sway or movement of table when in stationary down position or during raising or lowering operation.
2. Length to provide support from finish ceiling to structure above.

/G. Electrical:
1. Motor operated mechanism designed to operate on 120 Volt AC source (3 AMP).
2. Motor operation controlled by 12 volt switches.
3. Provide one 24 volt transformer for each group of eight tables.
4. Provide one key lock switch for each transformer.
5. Provide one "maintained contact" switch for each table for raising and lowering table.
6. Provide cover plate for switches with each table switch identified.
7. Provide device to stop motors when maximum raised or lowered table position occurs.
8. Key all key lock switches alike. Provide 10 keys labeled "Table Switches" or tagged with identification tags. //
9. Electrical system to conform to NFPA No. 70.

H. Finish: Manufacturers standard finish on metal conforming to NAAMM Metal Finishes Manual as follows:
1. Number 4 on stainless steel.
2. Baked enamel paint on carbon steel.
3. Anodized aluminum on aluminum.

PART 3 EXECUTION
3.1 INSTALLATION
A. Install suspended tables in accordance with manufacturer's instructions for level table top.
B. Securely bolt to structural support system after ceiling system is in place.

SPEC WRITER NOTE: Coordinate with electrical for location of conduit. Junction box for wall mounted switches to be within view of tables to be operated by the switches.

C. Ceiling flange shall cover joint with finish ceiling material.

/D. Install electrical switches and controls.
   1. Maximum of eight tables activated by one transformer.
   2. Install key lock switch to activate table switches.
3. Install "maintained contact" switches for each table within view of the table. //

3.2 ADJUSTING AND CLEANING

A. After installation, test and adjust table to operate as designed without binding or deformation of table or suspension system.
B. Clean table and components and leave in "Up" position.
C. Turn over Key Lock switch keys to Resident Engineer after demonstrating table operation.
D. Clean all exposed components as recommended by manufacturer.

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