

SECTION 16112

CABLETRAYS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Division 0, including General and Supplementary Conditions, Division 1 Sections, and the Drawings, apply to this Section.
- B. Section 16010, Basic Electrical Requirements

1.02 SECTION INCLUDES

- A. Cable tray, aluminum ladder type
- B. Data tray, aluminum center spine type

1.03 SUBMITTALS

- A. Product Data: Provide catalog data for the following:
 - 1. Cable tray
 - 2. Data tray
- B. Submit product data and shop drawings in booklet form with a separate sheet for each product. Indicate clearly on each sheet product manufacturer, catalog number, product description and other pertinent data.
- C. Test reports.

PART 2 - PRODUCTS

2.01 DATA CABLE TRAY

- A. Manufacturers:
 - 1. B-Line or approved equal
- B. Except as otherwise indicated, provide metal cable trays, of types, classes and sizes indicated with splice hangers and all other necessary accessories.
- C. Provide cable tray with rounded edges and smooth surfaces in compliance with applicable standards. Center rails and rungs shall be extruded from Aluminum Association Alloy 6063. All fabricated parts shall be made from Aluminum Association Alloy 5052 and all cast parts from Aluminum Association Alloy 319. All hardware and fasteners shall be zinc plated steel in accordance with ASTM B633.
- D. Construct with a center rail 1.625" x 3.250" with minimum section structural properties of $S_x = 0.701 \text{ in}^3$ and $I_x = 1.174 \text{ in}^4$. Rungs shall be a single continuous square tube 0.54" x 0.54" with radiused corners and minimum section properties of $S_x = 0.019 \text{ in}^3$ and $I_x = 0.005 \text{ in}^4$. Rungs shall be mechanically connected to the center rail in at least two places, with ends finished to protect installers and cables.
- E. Provide in 10 or 12 foot lengths, 12" width, 4" loading depth, and 9" rung spacing.
- F. Design splice hangers to act as the support points for threaded rod suspension.

- G. Splices and connectors shall protect cables from the edges of the center rail and act as a barrier to prevent the center rail from transmitting hazardous gases or smoke; hardware shall be installed vertically so as not to interfere with the cables in the cable fill area.
- H. Cable tray shall be capable of being installed flush against a flat surface without the use of spacers or brackets.
- I. Where required, expansion splices shall allow for 1" of thermal expansion and contraction.
- J. Cable tray shall meet the loading requirements of NEMA 12C.
- K. Upon request, manufacturer shall provide test reports in accordance with the latest revision of NEMA VE-1 or CSA C22.2 No. 126-M91.

PART 3 - EXECUTION

3.01 CABLE TRAY

- A. Suspend cable tray using trapeze hangers constructed from Unistrut P-1000 and threaded rods anchored to building structural members. Support at minimum intervals of 10' 0", or less as recommended by the manufacturer to support the intended load.
- B. Provide fittings, offsets, angle fittings, and related as necessary to provide a continuous tray system when making changes in direction vertically and horizontally to avoid obstacles. Provide necessary direction changes without additional cost to the Owner.

END OF SECTION