# GENERAL

## Summary

### Provide all services, labor, materials, tools, and equipment required for the complete and proper installation of communications cable trays, J-hook hardware, and supports as called for in these specifications and related drawings. The communication cable trays will be installed by the electrical contractor.

## System Description

### Pathway: Cable trays, raceway, J-hooks, D-rings, and all fittings and connectors end-to-end that make up the primary and secondary pathway system.

### Pathway definitions

#### Primary pathways are major pathways for cable routed floor-to-floor, through corridors, and pathways that carry cables feeding multiple areas that are likely to be used to support growth in those areas. Primary pathways carry cable to secondary pathways.

#### Secondary pathways extend from the primary pathway to the Communications Location (CL).

## Submittals

### Product Data: Submit manufacturers’ product information for cable trays, J-hooks, and supports.

## Quality Assurance

### Comply with section 270000.

### Comply with Division 26 – Electrical.

## Delivery, Storage, and Handling

### Comply with section 270000.

### Comply with Division 26 – Electrical.

# PRODUCTS

## Manufacturers

### Conduit

#### Comply with Division 26 – Electrical.

### Cable tray

#### The cable trays and all fittings and accessories shall comprise a complete structural system in the form of a rigid mechanical tray of compatible material and design, functional to support all cables.

#### Description: Continuous, rigid, welded steel wire mesh. Tray height as indicated on the drawings. Tray width as indicated on the drawings.

### Fittings and accessories

#### Provide the manufacturer’s recommended fittings including splice plates, spacers, wall brackets, ceiling hanger brackets, couplings, junctions, radius bends, radius elbows, radius vertical and horizontal tees, waterfalls, crosses, wall end connectors, angle connectors, offset connectors, wall plate connectors, tray-to-box connectors, fasteners, offsets, and all other components to make the system work.

## Materials and Fabrication

### Comply with Division 26 – Electrical.

### J-hooks (if used): Plastic, rated for plenum indoor use. J-hooks shall be rated to support Category 6 cable.

# EXECUTION

## Examination

### Comply with section 270000.

### Comply with Division 26 – Electrical.

## Installation

### Comply with Division 26 – Electrical.

### Where physical discontinuity of the cable tray is necessary, cables shall be mechanically supported over the discontinuity by alternate means (including hangers, clips, brackets, hooks). The ends of the cable tray rack shall be electrically bonded together over each discontinuity.

### Bond the cable tray to make electrically continuous. Bond the cable tray to the telecommunications grounding bussbars in the TR, as applicable.

### Support cable tray at splices, tees, elbows, bends, intersections, and transitions, and per manufacturer’s recommendation. The supporting mechanisms shall be sufficiently spaced to support the weight of the cable trays for their maximum capacity rating.

### Install the cable tray, support system, entry, and exit points to be free of all sharp edges, burrs, or projections.

### Route cable trays parallel and perpendicular to walls and ceilings.

### Physical clearances to be provided around cable tray installations:

#### Above top of cable tray: 12 inches (preferred), 6 inches (minimum).

#### Below bottom of cable tray and on all sides of cable tray: 3 inches required. Note: side clearance between wall and cable tray is not required where cable tray is wall mounted.

#### Where above constraints cannot be met j-hooks may be considered. Coordinate with UNL ITS Staff as necessary.

## Adjustments

### Comply with section 270000.

### Comply with Division 26 – Electrical.

END OF SECTION 270536