

**SECTION 27 05 36
CABLE TRAYS FOR COMMUNICATIONS SYSTEMS**

SPEC WRITER NOTES:

1. Delete between // // if not applicable to project. Also delete any other item or paragraph not applicable in the section and renumber the paragraphs.

PART 1 - GENERAL

1.1 DESCRIPTION:

This section specifies requirements for telecommunications cabling cable tray and raceway equipment.

1.2 SUMMARY

Section Includes:

- A. Cable Tray.
- B. Fiber Optic Cable Raceway.
- C. Ladder Rack.

1.3 REFERENCES

- A. VA Infrastructure Standard for Telecommunications Spaces.

1.4 RELATED WORK:

- A. Grounding and bonding: Section 27 05 26, GROUNDING AND BONDING FOR COMMUNICATIONS SYSTEMS.

1.5 SUBMITTALS:

- A. Submit in accordance with Section 27 05 00, COMMON WORK RESULTS FOR COMMUNICATIONS SYSTEMS.

PART 2 - PRODUCTS

2.1 CABLE TRAY.

- A. Design. Wire basket with tray insert. Maximum 2" x 4" wire mesh construction. Constructed of round, smooth wire with continuous top side to minimize cable sheath damage.
- B. Finish. Coated to prevent rust.
- C. Size. Cable tray shall be sized to hold the maximum expected cable load at not more than 40% fill and not more than 6" maximum cable depth.
- D. Accessories. Provide and install the following components and accessories as necessary to achieve the design:
 1. Overhead mounting equipment (thread-rod, unistrut, nuts, washers, etc.) suitable for the supporting structural elements.

2. Tray section splicing hardware.
3. Tray insert.
4. Cable waterfalls.
5. Ground strap kits.
6. Bend radius limiters.

2.2 FIBER OPTIC CABLE RACEWAY.

- A. Design. Raceway system shall be a modular system of channels, fittings, and brackets, able to be assembled with couplers. Fittings for cable spillout shall maintain a minimum 2" bend radius.
- B. Materials. Raceway shall be constructed of rigid PVC and ABS plastics.
- C. Size. Raceway shall be nominally sized 4"x4".
- D. Accessories. Provide and install the following components and accessories as necessary to achieve the design:
 1. Overhead mounting equipment (thread-rod, unistrut, nuts, washers, etc.) suitable for the supporting structural elements.
 2. // Hinged // channel covers.
 3. Raceway section couplers.
 4. Channel corners and intersections.
 5. Spillway fittings.

2.3 LADDER RACK.

- A. Design. Ladder rack system shall be a modular system of ladder, turns, splices, supports, and accessories able to be assembled with couplers.
- B. Finish. Coated to prevent rust.
- C. Materials. Ladder rack shall be manufactured from // tubular // steel // and extruded aluminum //. Stringers will be 3/8" by 1-1/2" // tubular // steel. Cross members will be // 1" x 1/2" // // T-shaped //. Steel elements shall have a minimum 0.065" wall thickness.
- D. Size. Ladder rack shall be nominally sized 12" width.
- E. Accessories. Provide and install the following components and accessories as necessary to achieve the design:
 1. Overhead mounting equipment (thread-rod, unistrut, nuts, washers, etc.) suitable for the supporting structural elements.
 2. Ladder rack section couplers (splices).
 3. Ladder rack radius bends.

4. Ground strap kits.

PART 3 - EXECUTION

3.1 IMPLEMENTATION:

- A. Cable tray shall be used in horizontal applications. Ladder rack is used in vertical applications.
- B. Cable tray and ladder rack sections shall be bonded together with bonding conductors and the system bonded to the bonding busbar in the space.
- C. Support horizontal cable tray not less than every 5' (shorter spans if recommended by the equipment manufacturer).

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