

SECTION 16526

ELECTRICAL WORK BRIDGES

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Materials and procedures for installing bridge electrical work.

1.2 REFERENCES

- A. AASHTO M 55: Steel Welded Wire Fabric, Plain, for Concrete Reinforcement
- B. ASTM A 123: Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- C. ASTM A 153: Zinc Coating (Hot-Dip) on Iron and Steel Hardware
- D. ASTM A 307: Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength
- E. ASTM B 766: Electrodeposited Coatings of Cadmium
- F. National Electrical Manufacturers Association (NEMA)
- G. Underwriters Laboratory (UL)

PART 2 PRODUCTS

2.1 ELECTRICAL EQUIPMENT

- A. Use equipment conforming to the applicable standards:
 - 1. National Electrical Manufacturer's Association (NEMA)
 - 2. Underwriters Laboratories, Inc. (UL)
 - 3. Electronic Industries Association (EIA)
 - 4. Any local ordinances.

2.2 ANCHOR BOLTS, WASHERS, AND NUTS

- A. For light poles:
 - 1. ASTM A 307
 - 2. Hot-dip galvanize after fabrication. ASTM A 153
- B. Other Bolts and Anchors:
 - 1. ASTM A 307
 - 2. Electro-plated cadmium. ASTM B 766

2.3 CONDUIT AND FITTINGS

- A. When the conduit is totally enclosed within concrete, use schedule 40 PVC conduit and fittings rated at 190 degrees F as specified.
 - 1. NEMA TC-2
 - 2. NEMA TC-3
 - 3. UL Listed
- B. When the conduit is attached to the exterior surface of the structure, use galvanized rigid steel conduit and fittings as specified.
 - 1. Manufacture from mild steel, wrought iron, or silicon-bronze with no less than 1.25 percent silicon.
 - 2. UL 6
 - 3. ASTM A 123

2.4 JUNCTION BOXES

- A. Use hot dip galvanized cast iron junction boxes of standard manufacture, free of honey comb and other defects, approved by UL as watertight, and suitable for outdoor use for high voltage applications. AASHTO M 55.
- B. Use boxes a minimum size of 12 inch x 8 inch x 6 inch or of the size and type shown on the plans.
- C. Hold the cover rigidly in place by screws or bolts manufactured of a non-corrosive material.

2.5 WORKMANSHIP

- A. Conform to the requirements of the National Electric Code and any local ordinances that may apply.

- B. Place the anchor bolts accurately. Do not bend the anchor bolts or ream the holes in the base plate.

2.6 LEAD-IN WIRES

- A. Install all conduit segments with 10 gauge galvanized steel wire for future use as “lead-in” wire for electrical conductors.
- B. Use wire 6 ft longer than the conduit segment.
 - 1. 3 ft coiled at the junction box.
 - 2. 3 ft folded back into the terminus of the conduit so it is easily accessible for future use.

PART 3 EXECUTION Not used

END OF SECTION