

DESCRIPTION

Under this item, the CONTRACTOR shall furnish and install steel pedestrian signal poles as shown on the plans and as ordered by the ENGINEER.

MATERIAL

The pole shall consist of a shaft of 4 ½" diameter with anchor base, handhole, and pressed steel pole cap, with cap screws. The pole shall be 14' - 0" overall. Pole shall maintain a minimum safety factor of 1.82 based on yield strength for basic wind pressure of 33 psf.

The shaft shall be made from the best grade hot rolled basic open hearth steel of not less than #11 Manufacturer's Standard Gauge, and it shall be formed, welded and longitudinally cold rolled under sufficient pressure to flatten the weld, form a round tube and improve the physical characteristics of the metal to insure minimum yield strength of 48,000 psi. Shaft shall be made from one length of steel sheet.

The shaft may be (4) inch nominal diameter standard weight pipe at the option of the CONTRACTOR.

A one-piece cast steel anchor base conforming to ASTM A 27-58, Grade 65-35, or the latest revision thereof, of adequate strength, shape and size with a scalloped top flange shall be secured to the lower end of the shaft by two continuous electric arc welds. The base shall telescope the shaft. One weld shall be on the inside of the base at the end of the shaft, and the other weld shall be on the outside of the shaft at the top of the base. Four removable cast iron or aluminum covers conforming to ASTM A 126-42, Class A, or the latest revisions thereof, shall be provided with each base and shall be attached to the base by hex head cap screws. A ventilation hole shall be provided in the shaft at each anchor bolt location.

A grounding nut having ½" #13 tapped hole shall be located on the inside of the shaft immediately above the weld.

Four high strength steel anchor bolts will be included, each fitted with a hexagon nut, a heavy square leveling nut and a lock washer. Each anchor bolt shall have an "L" bend at the ends and all nuts and washers shall be galvanized. The anchor bolts shall be capable of resisting at yield strength and the bending moment of the shaft at its yield strength stress.

A handhole 3" x 5" in size, consisting of a steel reinforcing frame securely welded into the shaft and with a removable steel handhole cover assembly, shall be furnished with each hole.

The pole, including all component parts, shall be hot dipped galvanized inside and outside in accordance with the applicable specifications for zinc coating ASTM A 123, or the latest revisions thereof. All threaded holes shall be tapped clean and greased with a silicone grease.

BASIS OF ACCEPTANCE

Acceptance of poles covered by the specification will be based on manufacturer’s certification of compliance with the specification requirements signed by an officer of the company. Detailed drawings of the poles shall be submitted with the certifications.

CONSTRUCTION DETAILS

Poles shall be erected as specified on the plans, in accordance with the appropriate Monroe County Traffic Signal Details, and as directed by the ENGINEER.

Pole and signal locations shown on the contract plans shall be field checked for any condition that may affect their placement; where changes are necessary, the exact location will be determined by the ENGINEER.

Pole erection shall include installation and attachment of fittings as specified on the plans and standard sheets as follows:

- a. Anchor bolt covers
- b. Weatherheads and couplings, if required
- c. Pole caps
- d. Reinforced couplings for wire entrances, if required

METHOD OF MEASUREMENT

Poles will be measured for payment as the number of each unit furnished and installed in accordance with the contract documents or as directed by the ENGINEER.

BASIS OF PAYMENT

The unit price bid for each pole shall include all items specified in the construction details and the necessary grounding system, anchor bolts, pole assembly and erections and field galvanizing as required.

Payment will be made under:

| <u>Item No.</u> | <u>Item</u> | <u>Pay Unit</u> |
|------------------------|---|------------------------|
| C686.9941 | Galvanized Steel Pedestrian Signal Pole | EA |