
Special Specification 4004

Screw-In Type Anchor Foundations



1. DESCRIPTION

Construct screw-in type foundations only for roadside flashing beacon assembly (RFBA), solar-power roadside flashing beacon assembly (SPRFBA) and pedestal poles as required on the plans.

2. MATERIALS

Ensure materials conform to Item 441, "Steel Structures," Item 442, "Metal for Structures," and Item 445, "Galvanizing." Provide only new screw-in type foundations, and unless otherwise specified, a minimum 5 ft. in length and 8 in. in diameter pipe with a minimum 13 in. helix. Provide a base plate capable of accommodating four mounting holes to fit a variable bolt circle up to a 17 in. Ensure a minimum 12 in. conduit opening is located approximately 12 in. from the base. Provide pipe conforming to ASTM A-53, grade B or equal. Provide base plates conforming to ASTM A-36 or better. Use anchor bolts having minimum yield strength of 36 ksi. Stamp, incise or mark the foundation by other approved means, to show the fabricator's model number, and name or logo. Place this information in a readily seen location. Unless otherwise specifically noted and requested in writing, and subsequently approved by the Engineer, in writing, supply the foundation with the bolts and flat washers needed for attaching the pedestal base to the foundation. Provide seven copies of shop drawings for review and approval prior to ordering materials.

3. CONSTRUCTION METHODS

Fabricate and install screw-in anchors in accordance with the specifications, details and dimensions shown on the plans or as approved in writing. Locate screw-in anchors as shown on the plans except that the Engineer may shift the location, within design guidelines, where necessary to secure a more desirable location or to avoid conflict with utilities or a very dense soil condition. Unless otherwise shown on the plans, stake all screw-in anchor locations for verification by the Engineer. Install screw-in anchors located near any overhead or underground utilities using established industry and utility safety practices. Consult with the appropriate utility company prior to beginning such work. Install screw-in anchors using power-digging equipment equipped with an adapter designed for installing screw-in anchors. Ensure shaft alignment is within a tolerance of 1/4 in. per 5 ft. of depth. Install anchors level and the top of the anchor base is either flush to or within no more than 2 in. of the ground level.

4. MEASUREMENT AND PAYMENT

The work performed and materials furnished in accordance with this Item will not be paid for directly but shall be considered subsidiary to the Item 685, "Roadside Flashing Beacon Assemblies" and Item 687, "Pedestal Pole Assemblies."