

Item 656

Foundations for Traffic Control Devices



1. DESCRIPTION

Construct concrete foundations for small roadside signs, traffic signal controllers, pedestal poles, roadside flashing beacon assemblies, electrical services, and other small traffic control devices.

2. MATERIALS

Ensure materials and construction methods conform to the requirements of this Item and the pertinent requirements of the following Items:

- Item 400, "Excavation and Backfill for Structures"
- Item 416, "Drilled Shaft Foundations"
- Item 420, "Concrete Substructures"
- Item 421, "Hydraulic Cement Concrete"
- Item 432, "Riprap"
- Item 440, "Reinforcement for Concrete"
- Item 441, "Steel Structures"
- Item 442, "Metal for Structures"
- Item 445, "Galvanizing"
- Item 447, "Structural Bolting"
- Item 449, "Anchor Bolts"
- Item 618, "Conduit"

Use Class A concrete for non-reinforced drilled shafts. Use Class C concrete for reinforced drilled shafts. Use Class B concrete or polymer concrete composed of borosilicate glass fiber, catalyzed polyester resin, and aggregate for traffic signal controller foundations. Use drilled shaft or galvanized steel screw-in type foundations for roadside flashing beacon assemblies.

Use reinforcing steel when required.

3. CONSTRUCTION

Stake and install foundations as shown on the plans. The Engineer may shift the foundation locations within design guidelines where necessary to secure a more desirable location or avoid conflict with utilities. Use established industry and utility safety practices when working near underground or overhead utilities. Consult the appropriate utility before beginning work.

Hold anchor bolts in place with templates during concrete placement. Hold embedded items such as conduit or other hardware in place during concrete placement with templates or other approved means. Cap conduits before placing concrete. Ream conduit to remove burrs and sharp edges. Install bell ends or bushings on the conduit.

Carefully align foundation, posts, and anchor bolts. Do not spring or rake posts or anchor bolts.

Remove the top template after concrete has achieved initial set. Keep forms and other bracing intact until the concrete has cured at least one curing day.

Allow concrete for pedestal poles and roadside flashing beacon assemblies to cure at least 7 days before placing bases and poles on the foundation unless otherwise permitted in writing.

Allow concrete for traffic signal controller foundations and small roadside signs to cure at least 4 days before placing cabinets and posts on the foundation unless otherwise permitted.

Provide an ordinary surface finish to the concrete foundation extending above ground in accordance with Section 420.4.13., "Ordinary Surface Finish."

Place concrete riprap around the foundation in accordance with the plans.

Backfill disturbed surface with material equal in composition and density to the surrounding area. Replace surfacing material with similar material to an equivalent condition.

4. MEASUREMENT AND PAYMENT

The work performed, materials furnished, equipment, labor, tools, and incidentals will not be measured or paid for directly but will be subsidiary to pertinent items.