

ITEM 685
ROADSIDE FLASHING BEACON ASSEMBLIES

685.1. Description.

- **Installation.** Furnish, fabricate, and erect roadside flashing beacon assemblies.
- **Relocation.** Remove and relocate existing roadside flashing beacon assemblies.
- **Removal.** Remove existing roadside flashing beacon assemblies.

685.2. Materials. Furnish new materials in accordance with the following Items and with details shown on the plans:

- Item 441, “Steel Structures”
- Item 442, “Metal for Structures”
- Item 445, “Galvanizing”
- Item 449, “Anchor Bolts”
- Item 656, “Foundations for Traffic Control Devices.”

Provide flasher controller assemblies in accordance with DMS-11160, “Flasher Controller Assembly.”

Provide flasher assemblies from manufacturers prequalified by the Department. The Traffic Operations Division maintains a list of prequalified flasher assembly manufacturers.

Provide pedestal pole bases in accordance with DMS-11140, “Pedestal Pole Base.”

Provide pedestal pole bases from manufacturers prequalified by the Department. The Traffic Operations Division maintains a list of prequalified pedestal pole base manufacturers.

When shown on the plans, provide solar powered flasher controller assemblies in accordance with DMS-11150, “Solar Power Flasher Controller Assembly.”

Provide solar powered flasher controller assemblies from manufacturers prequalified by the Department. The Traffic Operations Division maintains a list of prequalified solar-powered flasher controller assembly manufacturers.

Provide shop drawings for the complete assembly. Refer to the appropriate ASTM or Aluminum Association designation for all materials shown in submittals. Use the fabricator’s model number to identify the base in all tests, drawings, documentation, and other references.

685.3. Construction. For installation and relocation, install foundations in accordance with Item 656, “Foundations for Traffic Control Devices.”

- A. Fabrication.** Provide poles and bases in accordance with Item 687, “Pedestal Pole Assemblies.” Provide mild steel anchor bolts in accordance with Item 449, “Anchor Bolts.” Use galvanized bolts, nuts, and washers.
- B. Galvanizing.** Galvanize all fabricated parts in accordance with Item 445, “Galvanizing.” Repair galvanizing for any steel part or member damaged in assembly, transit, or erection, or for any steel part or member welded after galvanizing, in accordance with Item 445.3.D, “Repairs.”

C. Installation. Install roadside flashing beacon assemblies at the locations shown on the plans or as directed. Unless otherwise shown on the plans, stake the assembly locations for verification by the Engineer.

Install pole, breakaway base, connectors, wiring, signal beacons, sign, and foundation as shown on the plans or as directed. Install the flasher controller assembly on the electrical service pole. Install watertight breakaway electrical fuse holders in all line and neutral conductors at the breakaway base.

Use established industry and utility safety practices to erect assemblies near overhead or underground utilities. Consult with the appropriate utility company prior to beginning such work.

D. Relocation. Disconnect and isolate the electrical power supply prior to removal of the assembly. Remove existing assembly as directed. Unless otherwise directed, salvage existing components such as sign, beacons, pole, and base. Repair or replace lost or damaged components as directed.

Relocate existing assembly to the location shown on the plans or as directed. Install existing assembly at new foundations in accordance with Section 685.3.C, "Installation." Remove existing foundations in accordance with Section 685.3.E, "Removal." Accept ownership of unsalvageable materials and dispose of in accordance with federal, state, and local regulations.

E. Removal. Disconnect and isolate existing electrical power supplies prior to removal of the assembly. Remove existing sign panel, beacons, pole, and base from existing assembly. Store items to be reused or salvaged without damaging. Store sign panels above the ground in a vertical position at locations shown on the plans or as directed. Accept ownership of unsalvageable materials and dispose of in accordance with federal, state, and local regulations.

Unless otherwise shown on the plans, remove abandoned foundations, including steel, to 2 ft. below the finished grade. Backfill with material equal in composition and density to the surrounding area, and replace any surfacing, such as asphalt pavement or concrete riprap, with like material to equivalent condition.

685.4. Measurement. This Item will be measured by each installed, relocated, or removed roadside flashing beacon assembly.

685.5. Payment. The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Install Roadside Flashing Beacon Assemblies," "Relocate Roadside Flashing Beacon Assemblies," or "Remove Roadside Flashing Beacon Assemblies." The Department will pay for electrical energy consumed by the roadside flashing beacon.

New electrical services will be paid for under Item 628, "Electrical Services." New signs will be paid for under Item 634, "Plywood Signs," or Item 636, "Aluminum Signs." New signal heads will be paid for under Item 682, "Vehicle and Pedestrian Signal Heads."

A. Installation. This price is full compensation for furnishing, fabricating, galvanizing, assembling, and erecting the roadside flashing beacon assemblies; foundations; furnishing and placing anchor bolts, nuts, washers, and templates; controller; and equipment, materials, labor, tools, and incidentals.

- B. Relocation.** This price is full compensation for removing the roadside flashing beacon assemblies; removing existing foundations; installing new foundations; furnishing, fabricating, and installing any new components as required and replacing the assembly on its new foundations with all manipulations and electrical work; controller; salvaging; disposal of unsalvageable material; loading and hauling; and equipment, material, labor, tools, and incidentals.
- C. Removal.** This price is full compensation for removing the various roadside flashing beacon assemblies components; removing the foundations; storing the components to be reused or salvaged; disposal of unsalvageable material; backfilling and surface placement; loading and hauling; and equipment, materials, tools, labor, and incidentals.