

# Special Specification 6108

## SRA Parking Lot Illumination Assemblies



### 1. DESCRIPTION

Furnish, fabricate, and install Safety Rest Area (SRA) parking lot illumination assemblies.

### 2. MATERIALS

Provide new materials that comply with the details shown on the plans, the requirements of this Item, and the requirements of the following Items:

- Item 416, "Drilled Shaft Foundations"
- Item 421, "Hydraulic Cement Concrete"
- Item 441, "Steel Structures"
- Item 442, "Metal for Structures"
- Item 445, "Galvanizing"
- Item 449, "Anchor Bolts"
- Item 610, "Roadway Illumination Assemblies"
- Item 616, "Performance Testing of Lighting Systems"
- Item 618, "Conduit"
- Item 620, "Electrical Conductors"

Furnish 400 watt equivalent LED light fixtures from new materials that are in accordance with DMS-11011, "LED Roadway Luminaires."

Furnish thirty (30) ft. poles with four (4) ft. luminaire arms on breakaway base, designed in accordance with the latest Roadway Illumination Pole (RIP) standards.

Provide prequalified light fixtures from the Department's MPL. When required by the Engineer, notify the Department in writing of selected materials from the MPL intended for use on each project.

Do not provide shop drawings for complete assemblies that are fabricated in accordance with this Item and the details shown on the plans. Electronically submit shop drawings in accordance with Item 441, "Steel Structures," for optional multi-sided steel pole designs; optional aluminum pole designs; and non-standard designs, required when basic wind speeds or pole base mounting heights at the installation locations are in excess of those shown on the RIP standard. Manufacturers may request that the Department add their submitted shop drawings and design calculations to a pre-approved list of optional and non-standard pole designs, maintained by the Traffic Operations Division.

Hot-dip galvanize fabricated pole sections and associated parts in accordance with Item 445, "Galvanizing." Punch or drill holes in steel parts or members, when allowed, before galvanizing.

Paint poles, when shown on the plans, in accordance with Item 441, "Steel Structures" for uncoated structures and in accordance with Item 445, "Galvanizing" for galvanized structures.

### 3. CONSTRUCTION

Perform work in accordance with the details shown on the plans and the requirements of this Item.

Use established industry and utility safety practices when installing poles or luminaires located near overhead or underground utilities. Consult with the appropriate utility company before beginning work.

Prevent scarring or marring of the poles, luminaire arms, and luminaires. Replace damaged components. Repair damaged galvanizing in accordance with Section 445.3.5., "Repairs." Repair damaged painted areas of an SRA parking lot illumination assembly in accordance with Item 441, "Steel Structures" or Item 445, "Galvanizing."

Stake, install, and align each SRA parking lot illumination assembly as shown on the plans.

Construct foundations for SRA parking lot illumination assemblies in accordance with Item 416, "Drilled Shaft Foundations," and the details shown on the plans.

- 3.1. **Installation.** Furnish and install SRA parking lot illumination assembly components in accordance with the details, dimensions, and requirements shown on the plans. Do not use screw-in type foundations. Install anchor bolts and coat anchor bolt threads in accordance with Item 449, "Anchor Bolts." Erect structures after foundation concrete has attained its design strength as required on the plans and Item 421, "Hydraulic Cement Concrete." Tighten anchor bolts for poles with shoe bases and concrete traffic barrier base poles in accordance with Item 449, "Anchor Bolts." Do not place grout between base plate and foundation. Test installed SRA parking lot illumination assemblies in accordance with Item 616, "Performance Testing of Lighting Systems."

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#### 4. MEASUREMENT

This Item will be measured as each SRA parking lot illumination assembly installed.

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#### 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 SRA Parking Lot Illumination Assemblies" of the types specified in the plans. The Department will pay for electrical energy consumed by the lighting system.

This price is full compensation for furnishing, installing, and testing luminaires; furnishing and installing lamps, luminaire arms, brackets, poles, anchor bolt assemblies, templates, internal conductors, and connections; conducting system performance testing; and materials, equipment, labor, tools, and incidentals.

New drilled shaft foundations will be paid for under Item 416, "Drilled Shaft Foundations." New concrete riprap placed around foundations will be paid for under Item 432, "Riprap." New conduit will be paid for under Item 618, "Conduit." New conductors, except the conductors internal to the pole, will be paid for under Item 620, "Electrical Conductors." New duct cable will be paid for under Item 622, "Duct Cable." New ground boxes will be paid for under Item 624, "Ground Boxes." New electrical services will be paid for under Item 628, "Electrical Services."