

## **ITEM 08615.9995 08M - ORNAMENTAL ILLUMINATED BOLLARDS**

### **DESCRIPTION:**

This work consists of furnishing and installing pre-manufactured ornamental illuminated bollards in the locations identified in the contract documents or as directed by the Engineer.

### **MATERIALS:**

The bollards shall be manufactured by the company specified in the contract documents, unless otherwise approved by the Engineer after consultation with the Regional Landscape Architect and Regional Lighting Designer. All of the bollards shall be supplied by the same company unless otherwise indicated in the contract documents.

Model: ANTIQUE Street Lamps, Inc. Washington Series Cast Aluminum Bollard,  
Model#: BOL/W39/14/DT/L-CA/BK-S100/120-RB/GFI/WPC  
ANTIQUÉ Street Lamps, Inc.  
Telephone: (512) 295-3585  
Fax: (512) 295-3330

Bases. If not direct burial, bases shall be either pre-cast, cast-in-place concrete meeting the requirements of Class A concrete Section 501, Portland Cement Concrete - General or be a structural part of the area of installation.

Optical System. The optical system shall be well gasketed to ensure weatherproofing. The electrical components shall be internal to the housing and easily accessible and serviceable through either a tool-less or tool-necessary hand hole port, as specified in the contract documents.

Finish coatings. Finish coatings shall be applied as per the manufacturer's recommendations. The color shall be as indicated in the contract documents.

Select Granular Fill shall meet the requirements of Subsection 203-2.02C of the Standard Specifications. Internal Bolts shall be as supplied by Manufacturer or AOBE. Direct Burial Base shall be as supplied by Manufacturer or AOBE.

### **CONSTRUCTION DETAILS:**

Ornamental illuminated bollards shall be constructed in accordance with this specification, the contract documents, and as directed by the Engineer. The Contractor shall submit all cut sheets, shop drawings, manufacturer's recommendations and bolt patterns pertaining to the construction, assembly and installation of the ornamental illuminated bollards for approval.

The Contractor shall set the ornamental illuminated bollard plumb to the height indicated in the contract documents or as directed by the Engineer. Any excavation shall be in accordance with the requirements of Section 206, Trench, Culvert and Structural Excavation. The ornamental illuminated bollard shall be painted as indicated in the contract documents.

The contractor shall include but not be limited to the following work to install the optical system:

1. Illumination Criteria. If required, the contractor shall supply the Engineer with certified photometric test data based upon design performance requirements.
2. Assembly. Clean all optical components and the inside surface of the globe or lens. Install the required lamp and securely tighten all fasteners and gaskets.
3. Field Installation. Make and secure all wire connections according to all Federal, State and local

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electrical codes. Secure all access ports and weatherproofing gaskets. Following final installation, all lenses and /or globes and surfaces be cleaned externally following the manufacturer's recommendations and to the satisfaction of the Engineer.

**METHOD OF MEASUREMENT:**

The quantity to be paid for under this work shall be the number of ornamental illuminated bollards satisfactorily installed, on an each basis, in accordance with the plans and/or as directed by the Engineer.

**BASIS OF PAYMENT:**

The unit price bid for each ornamental illuminated bollard shall include the cost of furnishing all labor, materials including bases and anchor bolts and equipment necessary to complete the work including any necessary excavation and backfill.

All conduit, conduit excavation and wire necessary to supply power to the unit shall be paid under their respective items.

DISAPPROVED BY E12-001