

## **SECTION 635 PULL AND JUNCTION BOXES**

### **635-1 Description.**

Install pull and junction boxes for traffic signals.

### **635-2 Materials.**

Use Pull and Junction Boxes listed on the Department's Approved Product List (APL). Ensure that all Pull and Junction Boxes are marked in accordance with Section 603 and the markings are visible after installation.

### **635-3 Pull Boxes Installation.**

Install pull boxes in accordance with the Design Standards, Index No. 17721. Ensure that the pull box cover is flush with the finished grade or sidewalk. Do not install pull boxes in roadways, driveways, parking areas, ditches or public sidewalk curb ramps.

### **635-4 Junction Boxes Installation.**

**635-4.1 Aerial Junction Boxes:** Install aerial junction boxes in accordance with the Design Standards, Index No. 17733.

**635-4.2 Mounted Junction Boxes:** Install mounted junction boxes in accordance with the Design Standards, Index No. 17841. Ensure that the bottom surface of pole mounted junction boxes is a minimum of 4 feet above the finished grade.

**635-4.3 Cable Terminations:** Make cable terminations in junction boxes in accordance with Section 632. Rout and form the cable to allow access to the terminal screws. Do not cover the terminal identification numbers with the cable.

### **635-5 General Requirements.**

Do not pull signal or interconnect cable through a pull box used for loop termination. Use separate pull boxes for signal and interconnect cables.

Use embedded junction boxes that include junction boxes, conduit, conduit expansion couplings, and miscellaneous hardware to make a complete and accepted installation.

Ground all metal covers in accordance with Section 620.

When specified in the Contract Documents, disregard the grounding requirements for metal covers for pull and junction boxes powered strictly by battery or a combination of battery and solar energy or used exclusively for vehicle loop wires where signal or 120V interconnect power is not present.

### **635-6 Method of Measurement.**

**635-6.1 General:** Measurement for payment will be in accordance with the following work tasks:

**635-6.2 Furnish and Install:** The Contract unit price each for Pull and Junction Boxes, furnished and installed, will consist of the pull and junction boxes including all required hardware for the type of box and location as specified in the Contract Documents, and all labor and materials necessary for a complete and accepted installation.

**635-6.3 Furnish:** The Contract unit price each for Pull and Junction Box, furnished, will include the cost of the pull and junction box including covers, doors, locks and keys, and any

necessary miscellaneous hardware specified in the Contract Documents, plus all shipping and handling costs involved in delivery as specified in the Contract Documents

**635-6.4 Install:** The Contract unit price each for Pull and Junction Box, installed, will include the cost of all labor, equipment, miscellaneous hardware and materials necessary to make a complete and accepted installation of the type box and at locations as shown on the plans. The Engineer will supply a complete box as specified in the Contract Documents.

**635-7 Basis of Payment.**

Price and payment will be full compensation for all work specified in this Section, except grounding. Payment for embedded junction boxes will not be made separately.

The Contractor shall include the cost of embedded junction boxes in the Contract unit price for the concrete substructure or superstructure items.

Payment will be made under:

Item No. 635- 1- Pull and Junction Boxes - each.