

SECTION 635

FIBER OPTIC JUNCTION BOX

The following subsection shall be amended to this section:

635-1 Description

This Section shall cover the work of furnishing and installing fiber optic junction boxes in accordance with the provisions of this Section and the details included within the Plans.

635-2 Materials

Junction boxes shall have an open-bottom design. Large junction boxes shall have minimum inside dimensions of 30 inches in width, 48 inches in length and 36 inches in depth. Small junction boxes shall have minimum inside dimensions of 24 inches in width, 30 inches in length and 24 inches in depth. The sides of the junction box shall be constructed of a composite mixture of polymer and concrete, reinforced by heavy-weave fiberglass, or other material approved by the Engineer.

Conduit knockouts shall be provided on all four walls. These knockouts shall be approximately 5 inches in diameter; the top of each knockout on large junction boxes shall be located approximately 24 inches from the top of the junction box, and on small junction boxes shall be located approximately 16 inches from the top of the junction box. When a conduit knockout is removed or a hole is made in the junction box wall for the installation of a conduit, the opening around the conduit shall be suitably plugged with a mortar.

The junction box cover shall be traffic rated and shall be constructed of a composite mixture of polymer concrete consisting of sand and aggregate bound together with a polymer resin. Internal reinforcement may be provided by means of steel, fiberglass, or a combination of the two, or other material as approved by the Engineer. Junction box covers shall be provided with lifting slots, locking devices, and a non-slip surface. All junction box covers shall be marked "**TRAFFIC SIGNAL**".

635-3 Pull Boxes Installation

Junction boxes shall be installed, as much as practical, so as to reduce the likelihood of being run over by vehicular traffic. This requirement shall include installing junction boxes as far from the edge of traveled roadway, particularly curb radii, and driveway entrances as possible. Junction boxes shall not be installed in wheelchair access sidewalk ramps, roadways or driveways

Where the surrounding finish grade is earth or vegetation, junction boxes shall be installed level with the grade and 1/4 to 1/2 inch above the grade surface. Where the surrounding finish grade is sidewalk pavement, the junction box shall be installed level with the pavement surface and less than 1/4 inch above the pavement surface when the pavement is poured to contact the side of the junction box and finished so as to gently slope away from the junction box; the junction box shall be level and flush with the pavement surface if an expansion joint is installed between the pavement and the junction box surface.

The Junction box shall rest on a bed of gravel of at least 18 inches in depth.

The area around the junction box shall be restored to its original conditions.

Large junction boxes shall be used where fiber optic cable slack loops are specified.

635-6 Method of Measurement

The Furnishing and Installation of Fiber Optic Junction Boxes shall be measured in complete units consisting of the furnishing and installation of the Junction Box, excavation, drainage gravel, backfilling, the adjustment of existing conduit, and restoration of surrounding surface as defined in these Technical Special Provisions.

The Furnishing of Fiber Optic Junction Boxes shall be measured in complete units consisting of the furnishing and delivery of the Junction Box as defined in these Technical Special Provisions.

635-7 Basis of Payment

UNIT PRICE COVERAGE

The accepted work of furnishing and installing Fiber Optic Junction Boxes, measured as noted above, shall be paid for at the contract unit price bid, which shall be full compensation for the satisfactory furnishing and installation of the junction box in accordance with these Technical Special Provisions, and for all equipment, tools, labor; services, insurance, permits, and incidentals necessary to complete the work.

The accepted work of furnishing Fiber Optic Junction Boxes, measured as noted above, shall be paid for at the contract unit price bid, which shall be full compensation for the satisfactory furnishing and delivery of the junction box in accordance with these Technical Special Provisions, and for all equipment, tools, labor; services, insurance, permits, and incidentals necessary to complete the work.