

Origination Form

Specifications

Submittal Information			
Name:	Ronald Meyer	Standard Specification Section:	635
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Date:	2026-06-10T14:44:46Z	Associated Specs:	n/a

Summary:

Inserted missing subarticle heading (635-3 Installation). Updated content in 635-3.1.

Justification:

Propose updating content to clarify that box ID plates must be installed per the box manufacturer's instructions and that the Engineer must be notified if the Contractor encounters unsuitable installation locations. Also removing requirements for cable installation that are covered sufficiently in Section 633.

Do the changes affect other types of specifications?

Neither

List Specifications Affected:

Other Affected Documents/Offices	Contacted	Yes/No
Other Standard Plans		No
Florida Design Manual		No
Structures Manual		No
Basis of Estimates Manual		No
Approved Product List		No
Construction Office		No
Maintenance Office		No
Materials Manual		No

Are changes in line with promoting and making progress on improving safety, enhancing mobility, inspiring innovation, and fostering talent; explain how?

Yes. Changes reflect stakeholder update and clarify technical requirements, improving quality of specification content.

What financial impact does the change have; project costs, pay item structure, or consultant fees?

No expected financial impact.

What impact does the change have on production or construction schedules?

No expected impacts to production or construction schedules.

How does this change improve efficiency or quality?

Changes improve efficiency and quality by updating requirements to address user needs, fostering consistency, and adhering to standardized formatting styles.

Which FDOT offices does the change impact?

Traffic Engineering and Operations Office

What is the impact to districts with this change?

Districts will benefit from updated requirements that address needs, provide additional clarity, and reflect best practices.

Does the change shift risk and to who?

No expected shift in risk.

Provide summary and resolution of any outstanding comments from the districts or industry.

Comments and Responses are available on the Track the Status of Revisions hyperlink located on the Specifications landing page: <https://www.fdot.gov/specifications/default.shtm>

What is the communication plan?

Through the established specification revision process (e.g., Internal and Industry Review)

What is the schedule for implementation?

The Standard Specifications eBook and Workbook are effective July 1st every year.

PULL BOXES, SPLICE BOXES, JUNCTION BOXES, AND FIBER OPTIC SPLICE VAULTS

(REV 7-6-26)

ARTICLE 635-3 is deleted and the following substituted:

635-3 Installation.

635-3.1 General: Do not install power and communication cables in the same box unless otherwise shown in the Plans. When signal or 120 volt (or greater) power is present, ground all metal covers in accordance with Section 620. Ensure metal junction boxes are grounded and bonded in accordance with the NEC Section 314.4.

Covers must be flush with the concrete apron or sidewalk. If identification plates are used on covers, install them in accordance with the box manufacturer's instructions. Do not install boxes in roadways, driveways, parking areas, public sidewalk curb ramps, transition slopes, or in low-lying locations with poor drainage and notify the Engineer of any unsuitable locations encountered. ~~Do not subject the cable to a bend radius less than 14 times the diameter of the cable.~~ Ensure boxes are properly sized. Neatly route wires and cables within boxes and neatly place slack coils in the bottom portion of the box. Do not force or bend wires or cables beyond their safe radius. Ensure the box lid does not bend, compress, or crimp wires or cables.

635-3.1.1 Placement and Spacing: Place fiber optic splice vaults or toll site pull boxes as shown in the Plans. Place pull boxes or splice boxes as shown in the Plans and at the following locations:

1. At all major fiber optic cable and conduit junctions.
2. Approximately every 2,500 feet for fiber optic cable applications in rural areas with any continuous section of straight conduit if no fiber optic cable splice is required.
3. At a maximum of 1,760 feet for fiber optic cable applications in metropolitan areas.
4. At a maximum of 500 feet for electrical applications.
5. At each end of a tunnel, and on each side of a river or lake crossing.
6. On each side of an aboveground conduit installation, such as an attachment to a bridge or wall.
7. As required for bends in the conduit per Section 630.
8. Near the base of a service pole or communication cabinet to provide:
 - a. A transition point between the fiber optic conduits extending from the fiber backbone and the conduit feeding the communication cabinet.
 - b. An assist point for the installation of fiber optic drop cable.
 - c. Storage of slack fiber optic drop cable.

635-3.1.2 Electronic Box Marker: Use an electronic box marker to mark the location of products buried below the finish grade surface. Ensure that the electronic box marker is a device specifically manufactured to electronically mark and locate underground facilities. Ensure that the electronic box marker includes circuitry and an antenna encased in a waterproof polyethylene shell. Ensure that the outer shell is impervious to minerals, chemicals, and temperature extremes normally found in underground plant environments. Ensure that the electronic box marker does not require any batteries or active components to operate. Ensure that electronic box markers used to mark fiber optic cable and general telecom applications are

orange in color and operate at 101.4 kHz. Ensure that the electronic box marker's passive circuits produce an RF field when excited by a marker locator to direct the locator to the marker's position. Ensure that the electronic box marker has a minimum operating range of 5 feet from the marker locator.

635-3.2 Pull and Splice Boxes: Install pull and splice boxes in accordance with Standard Plans, Index 635-001.

635-3.3 Fiber Optic Splice Vaults: Install fiber optic vaults in accordance with Standard Plans, Index 635-005.

635-3.4 Toll Site Pull Boxes: Install at locations shown in the Plans, according to the pull box installation instructions in this Section, except that toll site pull boxes may be installed in the maintenance pull off area.

635-3.5 Aerial Junction Boxes: Install aerial junction boxes in accordance with Standard Plans, Index 634-002.

635-3.6 Mounted Junction Boxes: Install mounted junction boxes in accordance with Standard Plans, Index 676-010. Ensure that the bottom surface of pole mounted junction boxes is a minimum of 4 feet above the finished grade.

635-3.7 Cable Terminations: Make cable terminations in junction boxes in accordance with Section 632. Route and form the cable to allow access to the terminal screws. Do not cover the terminal identification numbers with the cable.