ORIGINATION FORM
Proposed Revisions to the Specifications

(Please provide all information - incomplete forms will be returned)

Date: 5-8-19

Office: Traffic Engineering & Opera

Originator: Matthew DeWitt

Specification Section: 635

Telephone: 850-921-7353

Article/Subarticle: 2.2.2, 2.2.4, 2.2.5, 3.1

email: Matthew.DeWitt@dot.state.fl.us

Will the proposed revision require changes to:

Publication	Yes	No	Office Staff Contacted
Standard Plans Index	○	◉	
Traffic Engineering Manual	○	◉	
FDOT Design Manual	○	◉	
Construction Project Administration Manual	○	◉	
Basis of Estimate/Pay Items	○	◉	
Structures Design Guidelines	○	◉	
Approved Product List	○	◉	
Materials Manual	○	◉	

Will this revision necessitate any of the following:

Design Bulletin ☐ **Construction Bulletin** ☐ **Estimates Bulletin** ☐ **Materials Bulletin** ☐

Are all references to external publications current? **Yes** ◉ **No** ○

If not, what references need to be updated? (Please include changes in the redline document.)

Why does the existing language need to be changed?

The changes allow options for labeling pull boxes and splice boxes and the types of security bolts allowed. The change also updates the testing standard to current version. The change removes a reference to metal covers which were removed from the Materials section on an earlier spec change.

Summary of the changes:

Change 635-2.2.2 to allow the options for labeling. Change 635-2.2.4 to allow the options for security bolts. Change 635-2.2.5 to update the testing standard. Change 635-3.1 to remove a reference to metal covers.

Are these changes applicable to all Department jobs? **Yes** ◉ **No** ○

If not, what are the restrictions?

Contact the State Specifications Office for assistance in completing this form.
Dan Hurtado 850-414-4130 dan.hurtado@dot.state.fl.us Debbie Toole 850-414-4114 deborah.toole@dot.state.fl.us
Rebecca Frimmel 850-414-4155 rebecca.frimmel@dot.state.fl.us

Florida Department of Transportation

RON DESANTIS
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

KEVIN J. THIBAULT
SECRETARY

M E M O R A N D U M

DATE: May 23, 2019

TO: Specification Review Distribution List

FROM: Dan Hurtado, P.E., State Specifications Engineer

SUBJECT: Proposed Specification: **6350202 Pull, Splice, and Junction Boxes.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Derek Vollmer of the State Traffic Engineering Research Lab to modify the language.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at http://www2.dot.state.fl.us/ProgramManagement/Development/IndustryReview.aspx . Comments received after **June 20, 2019**, may not be considered. Your input is encouraged.

DH/dt
Attachment

PULL, SPLICE, AND JUNCTION BOXES.
(REV 5-10-19)

SUBARTICLE 635-2.2.2 is deleted and the following substituted:

635-2.2.2 Marking: Ensure the following information is permanently cast or engraved into the top surface of all pull and splice box covers. If used, identification plates must be UV stable, mechanically fastened, and bonded with adhesive material suitable for outdoor applications:

1. Unless otherwise shown in the Plans, mark application as follows:

FDOT TRAFFIC SIGNAL for signalized intersections
FDOT FIBER OPTIC CABLE for fiber optic cable
FDOT LIGHTING for highway lighting
FDOT TRAFFIC MONITORING for traffic monitoring
FDOT ELECTRICAL for other electrical applications

2. Manufacturer's name or logo
3. FDOT APL approval number
4. TIER rating

Ensure the date of manufacture (month/day/year, or date code) is permanently located on the top or bottom of the cover. Ensure the interior of the box body has a permanent marking that includes the manufacturer part/model number and date of manufacture near the top of box in a location that is visible after installation when the cover is removed.

SUBARTICLE 635-2.2.4 is deleted and the following substituted:

635-2.2.4 Fabrication: Provide box covers constructed of concrete, polymer concrete or other materials meeting the requirements of this Section.

Provide box covers with lifting slots and a flush-seating lockdown mechanism. Use penta-head or other non-standard, security type lockdown lag bolts. Ensure lockdown bolts and lifting slots are Type 316, 304, or 302 passivated stainless steel or brass. Ensure lockdown bolt assembly is designed to prevent seizing and can be removed without damaging the cover or box body. Ensure the lockdown bolt threaded insert/nut assembly is field replaceable.

SUBARTICLE 635-2.2.5 is deleted and the following substituted:

635-2.2.5 Testing Requirements: Ensure pull and splice boxes meet the American National Standards Institute/Society of Cable Telecommunications Engineers (ANSI/SCTE) 77 2013~~3~~7 Specification for Underground Enclosure Integrity for TIER 15 loading with the following additional clarifications and requirements:

1. Apply all environmental tests to the box and its cover.
2. All flexural testing must be conducted in accordance with an appropriate ASTM standard and clearly stated in the report.

3. Perform repetitions of Cycle 1 in Table X2.1 of ASTM G154 for a minimum duration of 1000 hours for the simulated sunlight exposure test.

4. Use deflection-measuring devices positioned to measure vertical and lateral deflection (wherever maximum deflection occurs) for the vertical sidewall load test.

5. Conduct the lateral sidewall pressure, vertical sidewall load and cover vertical load tests without any removable or permanent wall to wall supporting beams located in the interior or top of the box opening.

When testing pull and splice boxes of various sizes (width x length x depth), the cover impact test, internal equipment protection test, coefficient of friction test, and all environmental tests, can be completed using a single representative box/cover (instead of samples from all box/cover sizes) as long as the test report indicates the following:

1. Materials of construction, compositions, and manufacturing processes are identical for all box and cover sizes submitted for listing on the APL.

2. Size (width x length x depth) of the representative box/cover.

SUBARTICLE 635-3.1 is deleted and the following substituted:

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.~~