





## *Florida Department of Transportation*

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### **M E M O R A N D U M**

**DATE:** December 2, 2010  
**TO:** Specification Review Distribution List  
**FROM:** Rudy Powell, Jr., P.E., State Specifications Engineer  
**SUBJECT:** Proposed Specification: 6300301 - Fiber Optic Cable Locate Wire

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

This change was proposed by Chester Henson to clarify that the Contractor is to bury a locate wire with the conduit. The statement “as shown in the plans, or as directed by the Engineer” confuses the issue so it has been removed.

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 to my attention via e-mail at SP965RP or rudy.powell@dot.state.fl.us. Comments received after **December 30, 2010** may not be considered. Your input is encouraged.

RP/ft  
Attachment

**CONDUIT – FIBER OPTIC CABLE LOCATE WIRE.****(REV ~~7-15-10~~11-22-10)**

SUBARTICLE 630-3.1.2 (Pages 739 - 740) is deleted and the following substituted:

**630-3.1.2 Fiber Optic Cable Locate Wire:** *Install locate wire in the trench or bore with all underground conduits to provide end-to-end electrical continuity for electronically locating the underground conduit system.*

*For direct burial conduit or trench, bury locate wire along the centerline of the top outer surface of installed conduit, as shown in the plans, or as directed by the Engineer. Install the locate wire no more than 3 inches above the conduit.*

*For bored conduit, place locate wire within its own inner duct or use conduit with integral locate wire.*

~~Install locate wire in the trench or bore with all underground conduits to provide end-to-end electrical continuity for electronically locating the underground conduit system. Do not install locate wire in a conduit with fiber optic cable. For direct bore or where locate wire is to be inside the duct, the locate wire shall be enclosed within an inner duct.~~

~~Do not run locate wires into field cabinets. Terminate locate wires at the first and last pull boxes in the conduit run or as shown in the plans. Ensure that wire termination occurs only at the top of a pull box.~~

~~In a trenching operation, install the locate wire no more than 3 inches above the conduit. Ensure that the locate wire enters all pull boxes and splice boxes, and that a minimum of 10 feet of slack locate wire is coiled and neatly stored in each box.~~

~~In a boring operation, install the locate wire in an encasement.~~

*Ensure that the locate wire enters all pull boxes and splice boxes, and that a minimum of 10 feet of slack locate wire is coiled and neatly stored in each box. Drill a hole in the pull box or splice box for wire entry. Fill any gaps between the locate wire and the hole it passes through with non-shrink grout or a similar sealant suitable for the application and approved by the Engineer.*

~~Do not run locate wires into field cabinets. Terminate locate wires at the first and last pull boxes in the conduit run. Ensure that wire termination occurs only at the top of a pull box. Drill a hole in the pull box or splice box for wire entry as shown in the plans. Fill any gaps between the locate wire and the hole it passes through with non-shrink grout or a similar sealant suitable for the application and approved by the Engineer.~~

Perform continuity tests and insulation resistance tests on all locate wires. Provide the Engineer with all test results. Replace or repair defective locate wire at no additional cost.

Make locate wire splices in a flush grade-level box. Ensure that locate wire splices are waterproof and suitable for direct burial. Ensure that locate wire splices at the pull box meet NEC requirements. Ensure that locate wire splices include a mechanical crimp connection with a butt sleeve, an oxide-preventing aerosol lacquer, mastic electrical splicing tape, and standard electrical tape using methods and materials approved by the Engineer. At the completion of the installation, provide the Engineer with as-built drawings that document all splice locations.