


PUBLIC WORKS DEPARTMENT
TRAFFIC ENGINEERING DIVISION

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October 5, 2011

TO: Maria Connolly, FDOT District 4, Broward Operations Engineer

FROM: Scott Brunner, Assistant Director, Traffic Engineering Division 

CC: Richard Tornese, Director, Highway Construction and Engineering Division
Ed Davis, Interim Director, Traffic Engineering Division
Brad Terrier, Assistant Director, Highway Construction and Engineering Division
Michael Cleary, Traffic Capital Projects Manager
Ed Gariboldi, Signal Operations & Maintenance Superintendent

SUBJECT: Policy on Non-Acceptance of HDPE SDR 13.5 Conduit by Broward County

Recently an issue has surfaced regarding the acceptability of high-density polyethylene (HDPE) conduit with Standard Dimension Ratio (SDR) of 13.5 in lieu of HDPE SDR 11 for traffic signal and communications applications. The use and application of HDPE SDR 11 conduit is specifically identified in **Section A630 Conduit** of the Department's **Minimum Specifications for Traffic Control Signal and Devices**, however, there is no specific reference made to HDPE SDR 13.5. The physical properties of SDR 11 exceed that of SDR 13.5, including higher tensile strength, increased environmental durability, and greater wall thickness over SDR 13.5. FDOT specifications require that SDR 11 conduit be used for communications and ITS applications along limited access facilities.

Some contactors have contended that SDR 13.5 conduit should also be acceptable for use since FDOT specifications reference the NEMA TC-7 smooth-wall coilable conduit standard, and SDR 13.5 falls within that standard. It has been further argued that Section A630's omission of a specific requirement for SDR 11 to be used on non-limited access facilities implicitly allows the use of SDR 13.5 for traffic signal conduits on urban roadways. Broward County does not agree with this position. It is Broward County's contention that FDOT specification A630 specifically references SDR 11 (and not SDR 13.5) because of its preferred physical properties and the likelihood that the SDR 11 specification will better ensure the longevity and operation of underground conduit system.

As the maintaining agency for FDOT traffic signal and communications conduit, Broward County shares the same preference for the use of SDR 11, and will no longer accept SDR 13.5 for traffic signal or systems communications applications. It is our understanding that FDOT Central Office will be issuing a clarification on the specifications within the next few months.

During the interim, we would appreciate the Department's assistance in ensuring that all future signal projects that include installation of directional-bored conduit specifically require the use SDR 11 conduit rather than SDR 13.5 conduit. Effective November 15, 2011 Broward County will no longer accept submittals of SDR 13.5 conduit on FDOT work program or permit projects. Any projects already let for construction for which the Engineer-of-Record has approved SDR 13.5 conduit shop drawing submittals on or before November 15, 2011 will be grandfathered in through May 15, 2012. Any SDR 13.5 conduit that is inspected in the field after November 15, 2011 that did not receive shop drawing approval by the Engineer-of-Record on or before November 15, 2011 will be rejected (failed) and not accepted for maintenance. All SDR 13.5 conduit inspected after May 15, 2012 will be rejected (failed) and not accepted for maintenance. In this instance, the conduit will have to be re-bored using SDR 11 in order to be accepted and maintained by Broward County.

We appreciate the Department's assistance in this matter, and would appreciate the dissemination of the requirement to all appropriate FDOT in-house personnel, consultants and contractors.

TECHNICAL POLICY DIRECTIVE APPROVED BY:

EFFECTIVE DATE: 11-15-2011

A handwritten signature in blue ink that reads "Scott Brunner". The signature is written in a cursive style with a long horizontal flourish at the end.

Scott Brunner, P.E., Assistant Director
Broward County Traffic Engineering Division