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**KEVIN J. THIBAULT, P.E.** SECRETARY

## **ROADWAY DESIGN BULLETIN 20-09**

DATE:	September 02,	2020
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TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Maintenance Engineers, District Consultant Project Management Engineers, District Roadway Design Engineers, District Traffic Operations Engineers, Program Management Engineers, District Materials Engineers, District Specifications Engineers, District Estimates Engineers DocuSigned by:

- FROM: Michael Shepard, P.E., State Roadway Design Engineer Michael Shepard E6B6BEAEB9A54B0.
- COPIES: Courtney Drummond, Will Watts, Tim Lattner, Dan Hurtado, Rudy Powell, Trey Tillander, Stefanie Maxwell, Scott Arnold, Paul Hiers, Vern Danforth, Daniel Strickland, Robert Robertson, Lora Hollingsworth, Gevin McDaniel, Kevin Burgess (FHWA), Chad Thompson (FHWA), Bren George (FHWA)

SUBJECT: Developmental Standard Plans, Index D520-030 (Raised Crosswalk)

This Bulletin introduces the new Developmental Standard Plans, Index D520-030, Raised Crosswalk. This index is available for use in accordance with the Limitations and Usage Criteria contained in the associated Developmental Standard Plans Instructions.

Modified Special Provisions (MSPs) to Specification 520 and Specification 711 are required. Draft MSPs are included in Attachment 'A', as examples of language that should be incorporated.

## **COMMENTARY**

These Developmental Standard Plans are intended to be used as one of the speed management strategies described in the FDOT Design Manual (FDM) 202. This current version includes details for two-lane, two-way facilities with a Target Speed of 30 mph or less and a post-construction posted speed of 30 mph or less. The State Roadway Design Office is currently involved in pilot projects using raised crosswalks in multilane conditions and these configurations will be further developed for inclusion in future versions of these Developmental Standard Plans. Use raised crosswalks in combination with other speed management strategies for best results. Coordinate with local public works and emergency services when vertical deflection is proposed.

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### **IMPLEMENTATION**

These *Developmental Standard Plans* are available for use on applicable current or future projects. Submit all projects including Raised Crosswalks to the State Roadway Design Office (i.e., the Central Office Monitor) for review and approval. Follow the *Developmental Standard Plans Usage Process* as outlined in *FDM 115* and insert *Index D520-030* in the Plans as described in *FDM 302*.

### **CONTACT**

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MS/gjm

# Attachment 'A' (Draft MSPs)

## SECTION 520 CONCRETE GUTTER, CURB ELEMENTS, AND TRAFFIC SEPARATOR

SUBARTICAL 520-2 is expanded by the following:

**520-2.4 Grates:** For RC Channel Gutter (raised crosswalk channel gutter), when required by the plans, provide structural steel grates that are galvanized in accordance with the requirements of ASTM A123.

SUBARTICAL 520-11 is expanded by the following:

### 520-11 Method of Measurement.

For curb or curb and gutter, the quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb or curb and gutter. Curb for sidewalk curb ramps or driveways will be paid at the Contract unit price for the adjacent curb type.

For valley gutter or shoulder gutter, the quantity to be paid will be the plan quantity, in feet, measured along the gutter line of the completed and accepted valley gutter or shoulder gutter.

For concrete traffic separator of constant width, meeting the requirements of Standard Plans, Index 520-020, the quantity to be paid will be the plan quantity, in feet, measured along the center of its width, completed and accepted, including the length of the nose.

For concrete traffic separator of nonstandard or varying width, the quantity to be paid will be the plan quantity, in square yards, completed and accepted.

For RC Channel Gutter, the quantity to be paid will be the plan quantity, in feet, measured along the face of the completed and accepted curb. When a grate is shown in the plans, payment for the grate will be incidental to the RC Channel Gutter.

SUBARTICAL 520-12.3 is expanded by the following:

520-12.3 Payment Items: Payment will be made under:

Item No. 520- 1-	Concrete Curb and Gutter - per foot.
Item No. 520- 2-	Concrete Curb - per foot.
Item No. 520- 3-	Concrete Valley Gutter - per foot.
Item No. 520- 5-	Concrete Traffic Separator - per foot.
Item No. 520- 6-	Concrete Shoulder Gutter - per foot.
Item No. 520- 70-	Concrete Traffic Separator - per square yard.
Item No. 920-520-	RC Channel Gutter – per foot.

## SECTION 711 THERMOPLASTIC PAVEMENT MARKINGS

SUBARTICAL 711-10.1 is expanded by the following:

**711-10.1 Certified Quantities:** The certified quantities, authorized and acceptably applied, under this Section will be paid as follows:

1. The length, in gross miles, of solid, 10'-30' skip, 3'-9' dotted, 6'-10' dotted, 2'-2' dotted, and 2'-4' dotted lines.

2. The length, in linear feet, of transverse lines, diagonal lines, chevrons, and parking spaces.

3. The number of pavement messages, symbols, and arrows and raised crosswalk markings. Each arrow is paid as a complete marking, regardless of the number of "points" or directions. Each vertical deflection and advance warning marking includes all lines or arrows within the set, as shown on the Standard Plans.

4. The area, in square feet, for removal of existing thermoplastic pavement markings acceptably removed. Payment for removal of thermoplastic pavement markings will only be made for locations where the existing pavement surface is to remain.

The gross mile measurement will be taken as the distance from the beginning of the thermoplastic line to the end of the thermoplastic line and will include the unmarked gaps for skip and dotted lines. The gross mile measurement will not include designated unmarked lengths at intersections, turn lanes, etc. Final measurement will be determined by plan dimensions or stations, subject to 9-1.3.1.

SUBARTICAL 711-11 is expanded by the following:

#### 711-11 Basis of Payment.

Prices and payments will be full compensation for all work specified in this Section, including, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work. Final payment will be withheld until all deficiencies are corrected.

Payment will be made under:

Item No. 711Thermoplastic Pavement Markings<br/>Solid - per gross mile.<br/>Solid - per linear foot.<br/>Skip - per gross mile.<br/>Dotted - per gross mile.<br/>Message or Symbol - each.<br/>Arrows - each.<br/>Vertical Deflection Marking - each.<br/>Vertical Deflection Advance Warning Marking - each.<br/>Yield Line - per linear foot.<br/>Railroad Dynamic Envelope - per linear foot.<br/>Remove - per square foot.