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Prepared By	: The Profe	essional Staff of t	he Committee on Ir	nfrastructure and Security
SB 1000				
Senators Perry and Mayfield				
Traffic and Pedestrian Safety				
January 24, 2020 REVISED:				
ANALYST		F DIRECTOR	REFERENCE	ACTION
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I. Summary:

SB 1000 requires a pedestrian crosswalk on a public highway, street, or road which is located at any point other than at an intersection with another public highway, street, or road (midblock crosswalk) to be controlled by coordinated traffic control signal devices and pedestrian control signals that conform to the most recent Manual on Uniform Traffic Control Devices (MUTCD) and other applicable Florida Department of Transportation (FDOT) specifications.

The bill requires that the traffic control signal devices and pedestrian control signals at midblock crosswalk locations be coordinated according to all of the following requirements:

- Vehicular traffic approaching the crosswalk is required to come to a complete stop before pedestrians are permitted to enter the crosswalk.
- Traffic control signal devices at intersections adjacent to the crosswalk are taken into consideration as provided in the most recent MUTCD and other applicable FDOT specifications.

By October 1, 2024, the entity with jurisdiction over a public highway, street, or road with a described midblock crosswalk which is in existence on July 1, 2020, must ensure that the crosswalk is controlled by coordinated traffic control signal devices and pedestrian control signals, as required by the bill. Alternatively, the entity with jurisdiction may remove any the existing crosswalk.

The bill is expected to have a significant negative fiscal impact on state and local government expenditures. However, the extent of the impact is indeterminate because the number of midblock crosswalk locations and their current traffic control design treatments is unknown. Additionally, the number of locations that will be modified to comply with the bill's requirement and the number of midblock crosswalks to be removed is unknown. See the "Fiscal Impact Statement" for additional information.

The bill takes effect July 1, 2020.

II. Present Situation:

The MUTCD and FDOT Specifications

The MUTCD "is a compilation of national standards for all traffic control devices, including road markings, highway signs, and traffic signals." States are currently required to adopt the 2009 edition of the MUTCD (which includes revisions and interim approvals) as the legal state standard for traffic control devices.¹ Pursuant to direction to the FDOT in s. 316.0745, F.S., the MUTCD is adopted as the uniform system of traffic control devices for use on the streets and highways of this state.² The FDOT has additional specifications that apply to given roadway markings, highway signs, and traffic signals that are recognized by the Federal Highway Administration.³

The MUTCD provides the transportation engineer with information necessary to make appropriate decisions regarding the use of all traffic control devices. There are both mandatory provisions and provisions requiring the use of engineering judgment. Part 4 of the MUTCD addresses highway traffic signals and recites a basic tenant found throughout the MUTCD: "The selection and use of traffic control signals should be based on an engineering study of roadway, traffic, and other conditions." Further, "Engineering judgment should be applied in the review of operating traffic control signals to determine whether the type of installation and the timing program meet the current requirements of all forms of traffic."⁴

¹ See FHWA, Manual on Uniform Traffic Control Devices for Streets and Highways, available at <u>https://mutcd.fhwa.dot.gov/index.htm</u> (last visited January 24, 2020).

² See FHWA, MUTCDs & Traffic Control Devices Information by State, available at <u>https://mutcd.fhwa.dot.gov/resources/state_info/index.htm</u> (last visited January 24, 2020).

³ See FHWA, Florida, MUTCD State Information, available at <u>https://mutcd.fhwa.dot.gov/resources/state_info/florida/fl.htm</u> (last visited January 24, 2020).

⁴ Section 4B.02 of Chapter 4B of Part 4 of the MUTCD at p. 434, available at <u>https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</u> (last visited January 24, 2020).

The MUTCD contains a series of "signal warrants," established following "careful analysis of traffic operations, pedestrian and bicyclist needs, and other factors at a large number of signalized and unsignalized locations, coupled with engineering judgment, that define the *minimum* conditions under which installing a traffic control signal might be justified."⁵ The MUTCD directs transportation engineers to conduct an analysis of conditions related to operation and safety at a given location, the potential to improve those conditions, and the factors contained in any of those signal warrants. The MUTCD describes the eight signal warrants as follows:

- Eight-hour vehicular volume,
- Four-hour vehicular volume,
- Peak hour,
- Pedestrian volume,
- School crossing,
- Coordinated signal system,
- Crash experience,
- Roadway network, and
- Intersection near a grade crossing.

However, "The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal."⁶ Other engineering considerations are required with respect to midblock crosswalks.

Midblock Crosswalks

Crosswalks at any location other than at an intersection are referred to as "midblock" crosswalks, crossings, or locations in the MUTCD. The design treatment of traffic control and pedestrian signals take various forms and can range, for example, from a flashing yellow pedestrian crossing signal to use of full (red, yellow, and green displays) traffic control signals. Concerns have been raised over use of what are called pedestrian hybrid beacons⁷ at midblock crossings, some of which display only flashing yellow lights to vehicular traffic when activated by a pedestrian crossing a highway, street, or road. Use of these hybrid beacons may result in confusion for both drivers to drive through and for pedestrians to use the crosswalk in a safe manner.

⁵ Id.

⁶ Section 4C.01 of Chapter 4C of Part 4 of the MUTCD at p. 436, available at

https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf (last visited January 24, 2020).

⁷ The MUTCD defines a pedestrian hybrid beacon as "a special type of hybrid beacon used to warn and control traffic at an unsignalized location to assist pedestrians in crossing a street or highway at a marked crosswalk," which "may be considered for installation...at a location that does not meet traffic signal warrants but a decision is made not to install a traffic control signal." Section 4F.01 of Chapter 4F of Part 4 of the MUTCD at p. 509, available at https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf (last visited January 24, 2020).

The MUTCD contains a number of provisions relating to installing traffic control signals at midblock crosswalks. For example, these provisions direct the entity with jurisdiction over the crosswalk to consider detailed criteria related to:

- The distances to the nearest traffic control signal, side streets and highways; and the number of vehicles,⁸ and
- The number of vehicles per hour using the street and the number of pedestrians crossing the street per hour.⁹

The MUTCD contains other applicable provisions. However, the focus of the MUTCD is that installation of a traffic control signal at any location, including midblock locations, must be based on an engineering study of traffic conditions, pedestrian characteristics, and physical characteristics of the particular location. The same focus is present in the MUTCD with respect to related pedestrian signals at any location, including midblock locations. "The design and operation of traffic control signals shall take into consideration the needs of pedestrians as well as vehicular traffic."¹⁰

III. Effect of Proposed Changes:

The bill, notwithstanding any law to the contrary, requires a pedestrian crosswalk on a public highway, street, or road which is located at any point other than at an intersection with another public highway, street, or road to be controlled by coordinated traffic control signal devices and pedestrian control signals that conform to the most recent MUTCD and other applicable FDOT specifications.

The bill requires that the traffic control signal devices and pedestrian control signals at midblock crosswalk locations be coordinated according to all of the following requirements:

- Vehicular traffic approaching the crosswalk is required to come to a complete stop before pedestrians are permitted to enter the crosswalk.
- Traffic control signal devices at intersections adjacent to the crosswalk are taken into consideration as provided in the most recent MUTCD and other applicable FDOT specifications.

By October 1, 2024, the entity with jurisdiction over a public highway, street, or road with a described midblock crosswalk which is in existence on July 1, 2020, must ensure that the crosswalk is controlled by coordinated traffic control signal devices and pedestrian control signals, as required by the bill. Alternatively, the entity with jurisdiction may remove any existing midblock crosswalk.

The bill conflicts with the MUTCD's requirement that installation of traffic control signals and related pedestrian signals at midblock crosswalk locations be based on an engineering study, as the bill mandates a given design treatment of such signals at these locations in the absence of any

⁸ Section 4D.01 of Chapter 4D of Part 4 the MUTCD at p. 449, available at https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf (last visited January 24, 2020).

⁹ MUTCD, Section 4C.05 of Part 4 at p. 442, available at <u>https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf (last visited January 24, 2020).</u>

¹⁰ MUTCD, Section 4D.03 at p. 450, available at <u>https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</u> (last visited January 24, 2020).

engineering analysis. Under the bill, jurisdictional entities must comply with the mandate by October 1, 2024, or remove any non-compliant midblock crosswalk. Going forward, new midblock crosswalks would have to comply with the mandated design treatment.

The bill takes effect July 1, 2020.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None. Article VII, section 18(a) of the Florida Constitution provides that no county or municipality shall be bound by any general law requiring such county or municipality to spend funds or to take an action requiring the expenditure of funds unless the legislature has determined that such law fulfills an important state interest and unless, among other exceptions, the expenditure is required to comply with a law that applies to all persons similarly situated, including the state and local governments. The bill applies to both state and local governments but does not include a Legislative determination that it fulfills an important state interest as required by the Florida Constitution.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

D. State Tax or Fee Increases:

None.

E. Other Constitutional Issues:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

The number of midblock crosswalks in Florida, whether under the jurisdiction of the FDOT or a local jurisdictional entity, is unknown. However, the FDOT provided¹¹ two examples of the cost of installation of traffic control lights and pedestrian signals at midblock crosswalks:

- Monroe Street at Lake Ella in Tallahassee: \$386,658.
- 5 midblock crosswalks along U.S. 98 in Destin between Airport Road and Stahlman Avenue: \$1,035,661.

The bill is expected to have a significant negative fiscal impact on state and local government expenditures. However, the extent of the impact is indeterminate because the number of midblock locations and their design and treatment is unknown. Additionally, the number of locations that will be modified to comply with the bill's requirement and the number of midblock crosswalks to be removed is unknown.

VI. Technical Deficiencies:

None.

VII. Related Issues:

The FDOT notes that the bill would prohibit some important pedestrian midblock crossing countermeasures that are proven to reduce vehicle-pedestrian crashes, serious injuries, and fatalities, while minimizing vehicle and pedestrian delay. These include marked crosswalks, flashing beacons, rectangular rapid flashing beacons, in-roadway warning lights, and in-street pedestrian signs.¹²

VIII. Statutes Affected:

This bill creates section 316.0756 of the Florida Statutes:

IX. Additional Information:

A. Committee Substitute – Statement of Changes: (Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.

This Senate Bill Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.

¹¹ See the FDOT email to committee staff, October 22, 2019 (on file in the Senate Infrastructure and Security Committee.)

¹² See the FDOT email to committee staff, October 18, 2019 (on file in the Senate Infrastructure and Security Committee.