# The Florida Senate BILL ANALYSIS AND FISCAL IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

| Prepared By:                     | The Profession | nal Staff of the   |   | ns Subcommittee o<br>elopment | n Transportation | on, Tourism, and Economic |
|----------------------------------|----------------|--|---|-------------------------------|------------------|---------------------------|
| BILL:                            | CS/SB 1000     |  |   |                               |                  |                           |
| INTRODUCER:                      | Infrastructu   | are and Security Committee and Senators Perry and Mayfield |   |                               |                  |                           |
| SUBJECT: Traffic and             |                | Pedestrian Safety  |   |                               |                  |                           |
| DATE: February 17, 2020 REVISED: |                |  |   |                               |                  |                           |
| ANALYST                          |                | STAFF DIRECTOR   |   | REFERENCE                     |                  | ACTION                    |
| Price                            |                | Miller   |   | IS                            | Fav/CS           |                           |
| . McAuliffe                      |                | Hrdlick  | a | ATD                           | Pre-meeting      |                           |
|                                  |                |  |   | AP                            |                  |                           |
|                                  |                |  |   |                               |                  |                           |
|                                  |                |  |   |                               |                  |                           |

# Please see Section IX. for Additional Information:

**COMMITTEE SUBSTITUTE - Substantial Changes** 

# I. Summary:

CS/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 requirements of Chapters 4D and 4E of the most recent Manual on Uniform Traffic Control Devices (MUTCD) and other applicable Florida Department of Transportation (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. Alternatively, the entity with jurisdiction may remove any the existing crosswalk.

The bill recites the Legislature's finding and declaration that the bill fulfills an important state interest.

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 Section V.

The bill takes effect July 1, 2020.

## **II.** Present Situation:

#### The MUTCD and FDOT Specifications

Traffic control signal devices are for the control of vehicular and pedestrian traffic. They assign the right-of-way to various traffic movements and influence pedestrian and vehicle traffic flow. When properly designed such devices provide for the orderly movement of traffic, increase the traffic capacity of an intersection, reduce the frequency and severity of crashes, provide for predictable movement of traffic and pedestrians, and interrupt heavy traffic at intervals to permit vehicles and pedestrians to cross safely.<sup>1</sup>

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. Section 316.0745, F.S., requires FDOT to adopt the MUTCD as the uniform system of traffic control devices for use on the streets and highways of this state. The FDOT has additional specifications that apply to given roadway markings, highway signs, and traffic signals and that are recognized by the Federal Highway Administration.

The MUTCD provides transportation engineers with information necessary to make appropriate decisions regarding the use of all traffic control devices. There are both provisions that are mandatory and provisions that require 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, "[e]ngineering 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."

<sup>&</sup>lt;sup>1</sup> See Federal Highway Administration (FHWA), Manual on Uniform Traffic Control Devices for Streets and Highways, available at <a href="https://mutcd.fhwa.dot.gov/index.htm">https://mutcd.fhwa.dot.gov/index.htm</a> (last visited January 31, 2020).

 $<sup>^{2}</sup>$  Id

<sup>&</sup>lt;sup>3</sup> See FHWA, MUTCDs & Traffic Control Devices Information by State, available at <a href="https://mutcd.fhwa.dot.gov/resources/state\_info/index.htm">https://mutcd.fhwa.dot.gov/resources/state\_info/index.htm</a> (last visited January 31, 2020).

<sup>&</sup>lt;sup>4</sup> See FHWA, Florida, MUTCD State Information, available at <a href="https://mutcd.fhwa.dot.gov/resources/state\_info/florida/fl.htm">https://mutcd.fhwa.dot.gov/resources/state\_info/florida/fl.htm</a> (last visited January 31, 2020).

<sup>&</sup>lt;sup>5</sup> Section 4B.02 of Chapter 4B of Part 4 of the MUTCD at p. 434, available at <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 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." 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.

However, "[t]he satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal." 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 beacons<sup>8</sup> 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 drivers and for pedestrians.

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; 9 and
- The number of vehicles using and the number of pedestrians crossing the street per hour. 10

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

<sup>&</sup>lt;sup>6</sup> *Id*. (emphasis added).

<sup>&</sup>lt;sup>7</sup> Section 4C.01 of Chapter 4C of Part 4 of the MUTCD at p. 436, available at <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 2020).

<sup>&</sup>lt;sup>8</sup> 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... or at a location that meets 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 <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 2020).

<sup>&</sup>lt;sup>9</sup> Section 4D.01 of Chapter 4D of Part 4 of the MUTCD at p. 449, available at <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 2020).

<sup>&</sup>lt;sup>10</sup> Section 4C.05 of Chapter 4C of Part 4 of the MUTCD at p. 442, available at <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 2020).

operation of traffic control signals shall take into consideration the needs of pedestrians as well as vehicular traffic."<sup>11</sup>

## III. Effect of Proposed Changes:

The bill 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 Chapters 4D and 4E<sup>12</sup> of the most recent MUTCD and other applicable FDOT specifications.

The bill requires the traffic control signal devices and pedestrian control signals at midblock crosswalk locations to 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 also includes a Legislative finding and declaration that the bill fulfills and important state interest.

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 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.

<sup>&</sup>lt;sup>11</sup> Section 4D.03 of Chapter 4D of Part 4 of the MUTCD at p. 450, available at <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 2020).

<sup>&</sup>lt;sup>12</sup> Figure 4D-2 of Chapter 4D of Part 4 of the MUTCD at p. 458 and Figure 4E-1 of Chapter 4E of Part 4 of the MUTCD at p. 496, available at <a href="https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf">https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf</a> (last visited January 31, 2020). These are the traffic control signals with Red/Yellow/Green light displays and the Walk/Don't Walk pedestrian signals customarily seen at intersections.

## IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

Article VII, s. 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 and includes 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 total number of midblock crosswalks in Florida, whether under the jurisdiction of the FDOT or a local jurisdictional entity, is unknown. FDOT estimates that there are 4,900 midblock crosswalks without traffic signals or rectangular rapid flashing beacons on the state highway system. It also estimates that there are 191 midblock crosswalks on-system that have rectangular rapid flashing beacons. <sup>13</sup>

<sup>&</sup>lt;sup>13</sup> FDOT, 2020 Agency Legislative Bill Analysis SB 1000, January 30, 2002 (on file in the Senate Transportation, Tourism, and Economic Development Appropriations Subcommittee).

The FDOT provided the following approximate costs: 14

• \$300,000 to replace an uncontrolled midblock crosswalk with a traffic signal or pedestrian hybrid beacon.

- \$7,000 to remove an uncontrolled midblock crosswalk.
- \$3,200 per year to maintain a traffic signal.
- \$10,000 per location to conduct a signal warrant engineering study.

The FDOT provided two examples of the cost of installation of traffic control lights and pedestrian signals at midblock crosswalks: 15

- 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. The FDOT estimates that if 20 percent of the current locations warrant a traffic signal or pedestrian hybrid beacon, then the construction costs for conversion could be \$11.4 million, with a recurring annual maintenance cost of \$122,000 per year. The estimated cost to remove midblock crosswalks is \$35.4 million. 16

However, the extent of the impact to governments 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 local 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.<sup>17</sup>

#### VIII. Statutes Affected:

This bill creates section 316.0756 of the Florida Statutes.

<sup>&</sup>lt;sup>14</sup> *Id*.

<sup>&</sup>lt;sup>15</sup> See the FDOT email to the Senate Infrastructure and Security Committee staff, October 22, 2019 (on file in the Senate Infrastructure and Security Committee).

<sup>&</sup>lt;sup>16</sup> FDOT, 2020 Agency Legislative Bill Analysis SB 1000, January 30, 2002 (on file in the Senate Transportation, Tourism, and Economic Development Appropriations Subcommittee).

<sup>&</sup>lt;sup>17</sup> See the FDOT email to the Senate Infrastructure and Security Committee staff, October 18, 2019 (on file in the Senate Infrastructure and Security Committee).

## IX. Additional Information:

# A. Committee Substitute – Statement of Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

## CS by Infrastructure and Security on January 27, 2020:

The committee substitute:

- Specifies the type of traffic control signals (Red/Yellow/Green lights) and pedestrian control devices (Walk/Don't Walk) required for midblock pedestrian crossings by including references to the specific chapters of the MUTCD.
- Includes a Legislative finding and declaration that the bill fulfills an important state interest.

#### B. Amendments:

None.

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