

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: HB 1113 Traffic and Pedestrian Safety

SPONSOR(S): Fine

TIED BILLS: **IDEN./SIM. BILLS:** SB 1412

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Tourism, Infrastructure & Energy Subcommittee	15 Y, 2 N	Johnson	Keating
2) Infrastructure & Tourism Appropriations Subcommittee	10 Y, 1 N	Hicks	Davis
3) Commerce Committee		Johnson	Hamon

SUMMARY ANALYSIS

Florida law provides that the driver of a vehicle must stop for a pedestrian who is walking in a crosswalk in accordance with a traffic control signal or where signage indicates the driver must stop. If there are no traffic control signals or signage in place at a crosswalk, the driver of a vehicle must yield to a pedestrian who is on the half of the roadway on which the vehicle is traveling. If traffic control signals are in operation, pedestrians may not cross at any place except in a marked crosswalk. If there is no crosswalk, pedestrians crossing a roadway must yield to vehicles.

The Department of Transportation (DOT) and local governments utilize various types of equipment or signals to indicate when pedestrians may safely cross at midblock crosswalks (crosswalks that are not at an intersection). One type of signal commonly used is a rectangular rapid flash beacon (RRFB). The RRFB consists of two rapidly and alternately flashing yellow rectangular LED lights that function as a warning beacon to drivers. Pedestrians press the call button to activate the yellow flashing lights, but should wait for motorists to stop before they cross.

The bill creates the “Sophia Nelson Pedestrian Safety Act.”

The bill requires a traffic engineering study conducted by a Florida licensed professional engineer prior to installing a new mid-block crosswalk (MBC). MBCs installed on public roads must conform to certain provisions of the latest Manual on Uniform Traffic Control Devices (MUTCD) and other applicable DOT standards, manuals, and specifications, and must include a pedestrian-facing sign containing language stating duties applicable to a pedestrian.

The bill requires, by October 1, 2024, that the entity with jurisdiction over a public highway, street, or road with a MBC must ensure that such crosswalk is controlled by the required coordinated traffic control signal devices and pedestrian control signals. Alternatively, the entity may remove the crosswalk.

Additionally, by October 1, 2022, the bill requires DOT to seek approval from the federal government to allow the use of red RRFBs in place of yellow RRFBs. If approved, all entities with jurisdiction over MBCs must replace existing yellow RRFBs with red RRFBs within 12 months of federal authorization. If the request is denied, all entities with jurisdiction over MBCs must remove all yellow RRFBs or retrofit MBCs with legally acceptable equipment as required in the bill.

The bill provides legislative findings that this bill fulfills an important state interest.

The bill will likely have a significant, negative fiscal impact to state and local governments. See Fiscal Analysis for details.

The bill has an effective date of October 1, 2021.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Current Situation

Unless otherwise directed by a law enforcement officer, pedestrians are required to obey the instructions of official traffic control devices that are specifically applicable to pedestrians.¹ If a sidewalk is provided, and no circumstances prevent a pedestrian's use of the sidewalk, a pedestrian is prohibited from walking on a roadway that is paved for vehicular traffic.² If a sidewalk is not provided, a pedestrian, when practicable, must walk only on the shoulder on the left side of the roadway in relation to the pedestrian's direction of travel, facing traffic that may approach from the opposite direction.³

The driver of a vehicle must stop for a pedestrian who is walking in a crosswalk at in accordance with a traffic control signal or where signage indicates the driver to stop. If there are no traffic control signals or signage in place at a crosswalk, the driver of a vehicle must yield to a pedestrian who is on the half of the roadway on which the vehicle is traveling.⁴ If traffic control signals are in operation, pedestrians cannot cross at any place except in a marked crosswalk.⁵ If there are no crosswalks, pedestrians crossing a roadway must yield to vehicles.⁶

When pedestrian traffic control signals or signage is installed, such indicators must conform to the requirements of the most recent Manual on Uniform Traffic Control Devices (MUTCD).⁷ The MUTCD defines the standards used by road managers nationwide to install and maintain traffic control devices on all public streets, highways, bikeways, and private roads open to public travel. The Federal Highway Administration (FHWA) maintains the MUTCD.⁸

The Department of Transportation (DOT) and local governments utilize various types of MUTCD approved signals to indicate when pedestrians may safely cross midblock crosswalks (MBCs).⁹ Two types of signals commonly used by DOT and local governments are a rectangular rapid flash beacon (RRFB) and a pedestrian hybrid beacon.¹⁰ The RRFB consists of two rapidly and alternately flashing yellow rectangular LED lights that function as a warning beacon to drivers.¹¹ Pedestrians press the call button to activate the flashing lights, but should wait for motorists to stop before they cross.¹² The pedestrian hybrid beacon consists of three signal sections with a circular yellow signal indication centered below two horizontally aligned circular red signal indications.¹³ The pedestrian hybrid beacon is not illuminated until a pedestrian activates it and triggers the warning flashing yellow lens facing the street.¹⁴ After a set amount of time, the indication changes to a solid yellow light to inform drivers to prepare to stop.¹⁵ The beacon then displays a dual solid red light to drivers on the street and a walking person symbol to pedestrians on the crosswalk.¹⁶ At the conclusion of the walk phase, the beacon

¹ S. 316.130(1), F.S.

² S. 316.130(3), F.S.

³ S. 316.130(4), F.S.

⁴ S. 316.130(7), F.S.

⁵ S. 316.130(11), F.S.

⁶ S. 316.130(10), F.S.

⁷ S 316.0755, F.S.

⁸ U.S. Department of Transportation, *Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD)*, (updated February 2, 2021), <https://mutcd.fhwa.dot.gov/> (last visited Mar. 2, 2021).

⁹ DOT, *Pedestrian Facilities*, <https://www.fdot.gov/roadway/bikeped/default.shtm> (last visited Mar, 2, 2021). For purposes of this bill analysis, a MBC is defined as a crosswalk which is at least 100 feet from an intersection.

¹⁰ *Id.*

¹¹ *Id.*

¹² *Id.*

¹³ U.S. Department of Transportation, *Safety Effectiveness of the HAWK Pedestrian Crossing Treatment* (July 2010), <https://www.fhwa.dot.gov/publications/research/safety/10045/index.cfm> (last visited Mar. 2, 2021).

¹⁴ *Id.*

¹⁵ *Id.*

¹⁶ *Id.*

displays an alternating flashing red light, and pedestrians are shown an upraised hand symbol with a countdown display informing them of the time remaining to cross the street.¹⁷

In July 2008, the MUTCD was updated via a memorandum¹⁸ to provide interim approval of RRFBs for optional use in limited circumstances. The interim approval allows for the usage of RRFBs as a warning beacon to supplement standard pedestrian crossing warning signs and markings at either a pedestrian or school crossing.¹⁹ The cost is approximately \$10,000 to \$15,000 for purchase and installation of two RRFB units (one on either side of a street).²⁰ FHWA will grant interim approval for the optional use of an RRFB as a warning beacon in addition to standard pedestrian crossing or school crossing signs at crosswalks by any jurisdiction that submits a written request to FHWA's Office of Transportation Operations.²¹ A state may request interim approval for all jurisdictions in that state.²²

MBCs on the state highway system, both controlled and uncontrolled, are typically justified and installed as a result of a traffic engineering or safety study. To meet and conform to the requirements of the MUTCD and DOT's standards, a fully signalized MBC must serve a minimum of 133 pedestrians in the peak hour.²³

The current estimated quantity of MBCs on the state highway system include:

Controlled MBCs²⁴

- Total MBCs with Traffic Signals = 7
- Total MBCs with Pedestrian Hybrid Beacon = 15

Uncontrolled MBCs²⁵

- Total MBCs with warning signs and pavement markings only = 83
- Total MBCs with Yellow Circular Flashing Beacons = 5
- Total MBCs with Yellow RRFBs = 231²⁶

Effect of Proposed Changes

The bill creates the "Sophia Nelson Pedestrian Safety Act."

The bill provides that before the installation of a pedestrian crosswalk after October 1, 2021, on a public highway, street, or road which is located at any point other than an intersection with another public highway, street, or road, a traffic engineering study must be conducted by a Florida licensed professional engineer which recommends installation of such crosswalk.

The bill also provides that, notwithstanding any other provision of law to the contrary:

- A pedestrian crosswalk on a public highway, street, or road that has a posted speed limit of 30 miles per hour or more, which is located at any point other than an intersection with another public highway, street, or road, must conform to the requirements of chapter 4D and 4E²⁷ of the most recent MUTCD and other applicable DOT standards, manuals, and specifications and

¹⁷ *Id.*

¹⁸ See *Memorandum of Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11)* (July 16, 2008), https://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm (last visited Mar. 2, 2021).

¹⁹ U.S. Department of Transportation, *Rectangular Rapid Flash Beacon (RRFB)*, https://safety.fhwa.dot.gov/intersection/conventional/unsignalized/tech_sum/fhwasa09009/ (last visited Mar. 2, 2021).

²⁰ *Id.*

²¹ See *Memorandum of Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11)* (July 16, 2008), https://mutcd.fhwa.dot.gov/resources/interim_approval/ia11/fhwamemo.htm (last visited March 2, 2021).

²² *Id.*

²³ Department of Transportation, Agency Analysis of 2021 House Bill 1113 (Version 2), p. 6. Mar. 11, 2021.

²⁴ Controlled MBCs contain either a traffic signal or pedestrian hybrid beacon.

²⁵ Uncontrolled MBCs contain devices such as pedestrian activated flashing beacons, RRFBs, street signs and/or pavement markings only.

²⁶ Department of Transportation, Agency Analysis of 2021 House Bill 1113 (Version 2), pp. 4-5. Mar. 11, 2021.

²⁷ Chapter 4D relates to traffic control signal features including designs for certain traffic control devices. Chapter 4E relates to pedestrian control features. Chapter 4F relates to pedestrian hybrid beacons. <https://mutcd.fhwa.dot.gov/pdfs/2009r1r2/part4.pdf> (last visited Mar. 16, 2021).

must include a pedestrian-facing sign containing language stating duties applicable to a pedestrian.

- A pedestrian crosswalk on a public highway, street, or road that has a posted speed limit of 29 miles per hour or less which is located at any point other than an intersection with another public highway, street, or road, must include a pedestrian-facing sign containing language stating duties applicable to a pedestrian.

The bill requires traffic control signal devices and pedestrian control signals at MBCs with posted speed limits of 30 miles per hour or more to be coordinated with traffic control signal devices at intersections adjacent to the crosswalk. The traffic control signal devices at intersections adjacent to the crosswalk must be taken into consideration as provided in the most recent MUTCD and other applicable DOT specifications.

The bill requires, by October 1, 2024, that the entity with jurisdiction over a public highway, street, or road with a MBC must ensure that such crosswalk is controlled by the required coordinated traffic control signal devices and pedestrian control signals. Alternatively, the entity may remove the crosswalk.

The bill requires DOT, by October 1, 2022, to submit to the federal government a request for authorization to allow existing yellow RRFB traffic control devices to be replaced by red RRFB traffic control devices. If the federal government grants the request, the entity with jurisdiction over the MBC must replace all yellow RRFBs with red RRFBs within 12 months after the date of federal authorization.

If the federal government denies the request, the applicable entity must remove all yellow RRFBs at MBC by October 1, 2025. The entity with jurisdiction over the crosswalk may retrofit the crosswalk with legally acceptable equipment.

The bill provides that the Legislature finds and declares that this act fulfills an important state interest.

The bill has an effective date of October 1, 2021.

B. SECTION DIRECTORY:

Section 1: Provides a short title.

Section 2: Creates s. 316.0756, F.S., relating to traffic control devices at crosswalks.

Section 3: Provides a declaration of important state interest.

Section 4: Provides an effective date of October 1, 2021.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

DOT has identified 319 uncontrolled and 22 controlled MBCs located on the state highway system that would be impacted by the provisions of this bill. DOT derived its total estimated cost of \$14.9 million in capital costs and \$159,000 in recurring annual maintenance for additional traffic signals by using the following per location costs:

- Replacing/retrofitting an uncontrolled MBC with a coordinated traffic signal - \$300,000
- Retrofit pedestrian hybrid beacons to a full coordinated traffic signal - \$18,000

- Retiming an uncoordinated MBC traffic signal to coordinate with adjacent traffic signals - \$5,525
- Removal of an uncontrolled MBC - \$7,000
- Maintaining a traffic signal - \$5,139
- Signal warrant/traffic engineering study - \$10,000

The costs to install pedestrian-facing signs containing language stating duties applicable to a pedestrian is negligible (\$130 per install). DOT estimates that the total retiming cost associated with coordinating traffic control signal devices and pedestrian control signals at MBCs with posted speed limits of 30 miles per hour or more with traffic control signal devices at intersections adjacent to the crosswalk would be \$38,675. If it was determined, based upon the most recent MUTCD and other applicable DOT standards, manuals, and specifications, that a MBC could not be retrofitted to be controlled by coordinated traffic control signal devices and pedestrian control signals, the crosswalk must be removed. The cost to remove unwarranted MBC's is estimated to be \$1,974,000.

Should the federal government grant the state's request to allow yellow RRFB traffic control devices to be replaced by red RRFB traffic control devices, the fiscal impact is indeterminate. Because red RRFB traffic control devices do not currently exist, certain required design and operational elements are not developed at this time.²⁸ If the federal government does not grant the request, the department assumes 10 percent of the uncontrolled MBCs would meet the requirements for the installation of a traffic signal resulting in an upgrade of 31 crosswalks. The remaining 90 percent (282 MBCs) would not meet the requirements, and therefore, would be removed altogether. The construction costs associated with retrofitting MBCs to coordinated traffic signals or removing the crosswalk altogether are estimated to be \$9,300,000 and \$1,974,000, respectively. DOT also assumes that all 15 of the MBCs controlled by a Pedestrian Hybrid Beacon would meet the requirements for the installation of pedestrian traffic signals and the cost to retrofit these locations would be \$270,000.

The costs associated with performance of a traffic engineering study by a Florida licensed professional engineer can be absorbed within existing resources as this is already a part of DOT's process. The cost for a Florida licensed professional engineer to conduct the traffic engineering study is \$10,000 per location.

The total fiscal impact of the bill is contained within the confines of DOT's Work Program. Due to the fluid and dynamic nature of the Work Program, the fiscal impact may be partially mitigated by normal changes which may occur with projects throughout the year. The bill specifies a full implementation date of October 1, 2024, for the installation of pedestrian-facing signs and coordinated traffic control signal devices and pedestrian control signals. This would effectively spread the fiscal impact over three years before required compliance. However, if the federal government does not approve DOT's request to allow yellow RRFB traffic control devices to be replaced by red RRFBs traffic control devices, all yellow RRFB traffic control devices must be removed by October 1, 2025.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

None.

2. Expenditures:

The bill appears to have an indeterminate, but likely significant, negative fiscal impact on counties and municipalities associated with studying and retrofitting or removing MBCs.²⁹

²⁸ Email from John Kotyk, Deputy Legislative Affairs Director, Florida Department of Transportation, RE: Analysis Language, (Mar. 23, 2021).

²⁹ Department of Transportation, Agency Analysis of 2021 House Bill 1113, p. 7. Mar. 9, 2021

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

None.

D. FISCAL COMMENTS:

DOT's efforts would be limited to MBCs on the state highway system. Its 5-year work program is built and its transportation funding sources have been planned for use. Moving DOT's resources to comply with the bill may result in DOT deferring or deleting other priority projects.³⁰

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

The county/municipality mandates provision of Art. VII, s. 18 of the Florida Constitution may apply because this bill requires counties and municipalities to spend funds relating to specified traffic and pedestrian signals; however, an exception may apply because similarly situated persons are all required to comply; and the bill includes a legislative determination that it fulfills an important state interest.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill does not provide a grant of rulemaking authority, nor does it require rulemaking.

C. DRAFTING ISSUES OR OTHER COMMENTS:

According to DOT, with the removal of MBCs, there would be significantly fewer locations for pedestrians to cross state roads, since they would only be able to legally cross at intersections. There may also be pedestrian delay associated with the required coordination with traffic signals. Additionally, removing MBCs may increase traffic crashes involving pedestrians in those areas, but these crashes may decrease in places where uncontrolled MBCs are replaced with a traffic signal.³¹

IV. AMENDMENTS/ COMMITTEE SUBSTITUTE CHANGES

³⁰ *Id.*

³¹ Department of Transportation, Agency Analysis of 2021 House Bill 1113 (Version 2), p. 6. Mar, 11, 2021.