



Florida Department of Transportation

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605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

June 29, 2015

Khoa Nguyen
Director, Office of Technical Services
Federal Highway Administration
545 John Knox Road, Suite 200
Tallahassee, Florida 32303

Re: State Specifications Office
Section **654**
Proposed Specification: **6540202 Midblock Crosswalk Enhancement Assemblies.**

Dear Mr. Nguyen:

We are submitting, for your approval, two copies of the above referenced Supplemental Specification.

The changes are proposed by Matthew DeWitt of the State Traffic Engineering and Operations Office to allow use of the both flash patterns approved by FHWA.

Please review and transmit your comments, if any, within two weeks. Comments should be sent via email to daniel.scheer@dot.state.fl.us.

If you have any questions relating to this specification change, please call me at 414-4130.

Sincerely,

Signature on file

Daniel Scheer, P.E.
State Specifications Engineer

DS/ot

Attachment

cc: Florida Transportation Builders' Assoc.
State Construction Engineer

MIDBLOCK CROSSWALK ENHANCEMENT ASSEMBLIES.

(REV ~~5-576-29-15~~)

SUBARTICLE 654-2.2.2 is deleted and the following substituted:

654-2.2.2 Beacon Flashing Requirements: *The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 for Class 1 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles).*

The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30- flashes per second, to avoid frequencies that might cause seizures. When activated, the two yellow indications in each RRFB shall flash in *one of the following patterns* ~~a pattern that is approved by the FHWA~~ rapidly alternating “wig-wag” flashing sequence (left light on, then right light on).

654-2.2.2.1 “2/5” Pattern: The RRFB flash rate shall be 70 to 80 periods of flashing per minute. Each beacon shall have alternating flash rates, but approximately equal periods of rapid pulsing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, the yellow indications on the left side of the RRFB shall emit two slow pulses of light after which the yellow indications on the right side of the RRFB shall emit four rapid pulses of light followed by a long pulse. ~~The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second, to avoid frequencies that might cause seizures.~~

~~The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 for Class 1 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles).~~

654-2.2.2.2 “WW+S” Pattern: *The flash rate shall be 75 flash cycles per minute using the following sequence: left side beacon on for 50- milliseconds (~~msec~~), both beacons off for 50~~msee~~ milliseconds, right side beacon on for 50~~msee~~ milliseconds, both beacons off for 50 milliseconds~~msee~~, left side beacon on for 50 milliseconds~~msee~~, both beacons off for 50 milliseconds~~msee~~, right side beacon on for 50 milliseconds~~msee~~, both beacons off for 50 milliseconds~~msee~~, both beacons on for 50 milliseconds~~msee~~, both beacons off for 50 milliseconds~~msee~~, both beacons on for- 50 milliseconds~~msee~~, both beacons off for- 250 milliseconds~~msee~~.*

SUBARTICLE 654-2.2.3 is deleted and the following substituted:

654-2.2.3 RRFB Operation: RRFB assemblies shall be normally dark, initiate operation only upon pedestrian actuation via a pedestrian pushbutton, and cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk. The duration of the predetermined period shall be programmable and capable of matching the pedestrian clearance time for pedestrian signals as determined by MUTCD procedures. The timer that controls flashing must automatically reset each time a pedestrian call is received.

All RRFBs associated with a single crosswalk (including those with an advance crossing sign, if used) shall simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.

RRFBs must include an instruction sign with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS mounted adjacent to or integral with each pedestrian pushbutton.

A ~~small~~*confirmation* light directed at and visible to pedestrians in the crosswalk must be installed integral to the RRFB ~~or push button~~ to give confirmation that the RRFB is in operation.

MIDBLOCK CROSSWALK ENHANCEMENT ASSEMBLIES.
(REV 6-29-15)

SUBARTICLE 654-2.2.2 is deleted and the following substituted:

654-2.2.2 Beacon Flashing Requirements: The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 for Class 1 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles).

The flash rate of each individual yellow indication, as applied over the full on-off sequence of a flashing period of the indication, shall not be between 5 and 30 flashes per second. When activated, the two yellow indications in each RRFB shall flash in one of the following patterns.

654-2.2.2.1 “2/5” Pattern: The flash rate shall be 70 to 80 periods of flashing per minute. Each beacon shall have alternating flash rates, but approximately equal periods of rapid pulsing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, the yellow indications on the left side of the RRFB shall emit two slow pulses of light after which the yellow indications on the right side of the RRFB shall emit four rapid pulses of light followed by a long pulse.

654-2.2.2.2 “WW+S” Pattern: The flash rate shall be 75 flash cycles per minute using the following sequence: left side beacon on for 50 milliseconds, both beacons off for 50 milliseconds, right side beacon on for 50 milliseconds, both beacons off for 50 milliseconds, left side beacon on for 50 milliseconds, both beacons off for 50 milliseconds, right side beacon on for 50 milliseconds, both beacons off for 50 milliseconds, both beacons on for 50 milliseconds, both beacons off for 50 milliseconds, both beacons on for 50 milliseconds, both beacons off for 250 milliseconds.

SUBARTICLE 654-2.2.3 is deleted and the following substituted:

654-2.2.3 RRFB Operation: RRFB assemblies shall be normally dark, initiate operation only upon pedestrian actuation via a pedestrian pushbutton, and cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk. The duration of the predetermined period shall be programmable and capable of matching the pedestrian clearance time for pedestrian signals as determined by MUTCD procedures. The timer that controls flashing must automatically reset each time a pedestrian call is received.

All RRFBs associated with a single crosswalk (including those with an advance crossing sign, if used) shall simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.

RRFBs must include an instruction sign with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS mounted adjacent to or integral with each pedestrian pushbutton.

A confirmation light directed at and visible to pedestrians in the crosswalk must be installed integral to the RRFB to give confirmation that the RRFB is in operation.