



# Traffic Guidelines Manual

ORIGINATOR Director, Bureau of Traffic Operations		4-5-1
CHAPTER 4	Signals	
SECTION 5	Beacons	
SUBJECT 1	General Provisions	

## A. INTRODUCTION/GENERAL

Reference is made to the *WisMUTCD*, Chapter 4L and *MUTCD* – Interim Approval for Optional use of Rectangular Rapid Flashing Beacons (IA-11).

Flashing beacons (a.k.a. flashers, warning flashers, beacons, RRFBs hazard identification beacon) are a special type of signal indication, used to supplement standard regulatory and warning signs. According to the *MUTCD*, flashing beacons have the following applications:

- Intersection Control Beacon,
- Stop Beacon,
- Speed Limit Sign Beacon and,
- Warning Beacon.

Flashing beacons are considered to be part of a sign, as it pertains to the provisions for allowing the installation of the beacons on highway right-of-way. Statutes 84.02 (4) (c) and 86.19 (3) convey exclusive authority for signs and warning devices on the state trunk system to the Department. Installation of these devices on the state truck system by other agencies is only allowed in cases of emergency or when approved in writing by the Department.

This policy contains provisions for proper application, design, and permitting of flashing beacons on the STH system.

## B. POLICY

### General

The following general criteria apply to all flashing beacon installations on the STH system:

1. There are two types of flashing beacons:
  - Red – only to be used with STOP signs, and
  - Yellow – to be used with any yellow warning (W-series) signs, speed limit, speed limit reduction, and school speed limit signs.

Flashing Beacons **shall** only be associated with the sign installations referred to above.

2. Flashing beacons are supplementary to signs. When used, they **shall be mounted** on the same support as the sign which the beacon supplements in accordance with *WisMUTCD* 4L.03.
3. Activated flashing beacons **shall** not be approved on the STH system for use in conjunction with train crossings.
4. Emergency vehicle entrances *may* have activated flashing beacons, which will cancel after a pretimed period of flash.
5. State-owned and permitted installations:
  - a. The Department *may* determine that flashing beacons are needed and *may* install and maintain them at specific sites. In this case, the Regional Traffic Engineer **shall** make a final determination regarding the use of these devices on behalf of the Department.

Typically, Departmental installations will be based on safety concerns. Common examples include: red flashing beacons with STOP signs, yellow flashing beacons with advance traffic control signs (W3 series), or advance intersection warning signs (W2 series).

- b. At locations where local authorities determine that the use of flashing beacons is desirable, a permit *may* be issued for the installation and maintenance of flashing beacons. Permitted installations are subject to the approval of the Department and the conditions of this policy. Additionally, permits are revocable at the discretion of the Department.

### **Application of Flashing Beacons**

The following sections highlight policy items for flashing beacons that *may* be different from those presented in *WisMUTCD* Chapter 4L.

#### **Intersection Control Beacon**

An Intersection Control Beacon, as defined *WisMUTCD* Section 4L.02 is a red and/or yellow flashing beacon suspended over the intersection without an accompanying sign immediately adjacent to the beacon, which *may* face one, two or all approaches.

Intersection Control Beacons, as defined herein, **shall not** to be used on state-maintained highways.

#### Warning Beacon

Refer to *WisMUTCD* Section 4L.03 and to MUTCD – Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11).

#### Speed Limit Sign Beacon

Refer to *WisMUTCD* Section 4L.04. The Department rarely, if ever, would install and maintain flashing beacons with speed limit signs or school speed limit signs. Local authorities **shall** follow the permit requirements stated below.

#### Stop Beacon

Refer to *WisMUTCD* Section 4L.05

### Flashing Beacon Design & Installation

The following provisions pertain to the installation, operation and maintenance of flashing beacons other than Rectangular Rapid Flashing Beacons (RRFBs) on the state trunk highway system.

1. Location:
  - a. Ground mount – Flashing beacons *may* be ground mounted, where they will be approximately one foot above the sign they supplement. The sign *should* be in the lateral and vertical location as specified in the *WisMUTCD* Part 2 (no change).  
  
Illustrations of typical ground-mount installations are in Figure 1 below.
  - b. Overhead mount – A flashing beacon *may* be mounted on one or both sides of an overhead sign. It *may* be mounted above the sign as long as the entire assembly including the sign has a minimum clearance of 17 feet.
2. For State-maintained installations, the standard size of flashing beacons is 12-inches in diameter. At the discretion of the Regional Traffic Engineer, permitted (not State-maintained) installations that are located in areas with a posted speed less than 30 mph *may* use 8-inch diameter beacons.
3. Ground mounted supports **shall** be the same as are normally used to support the sign, and of the same cross-section as normally used. These **shall** be 4x4 or cross-drilled 4x6 posts, or in urban areas signal posts on concrete footings, or light poles or wood poles where speeds are low. Usage of any kind of pole **shall** be in conformance with the offsets specified in highway lighting permit policy, FDM Policy 11-15-1.

4. The installation of two posts, one for the sign and the other for the flashing beacon is not permissible within the clear zone because of the unpredictable behavior of the combination of two posts when struck.
5. Service poles must be offset to the ROW line or in conformance with offsets in FDM 11-15-1.
6. Service *may* drop to the top of the support, which would be extended to maintain an 18-foot minimum wire-to-ground clearance as per Wisconsin Electrical code. Service *should* preferably be installed underground. In the latter case the conduit **shall** be run up and attached to the post or pole. The control box *may* be mounted on the post or pole.
7. At the discretion of the Regional Traffic Engineer, solar-powered flashing beacon installations *may* be allowed on the STH system provided the installation meets applicable electrical and crash standards.
8. According to TGM 2-1-8, flashing beacons and STOP or STOP AHEAD signs that incorporate flashing displays (e.g. blinker signs) **shall** not be used the same intersection approach.

The following provisions pertain to the installation, operation, and maintenance of Rectangular Rapid Flashing Beacons (RRFBs) on the state trunk highway system

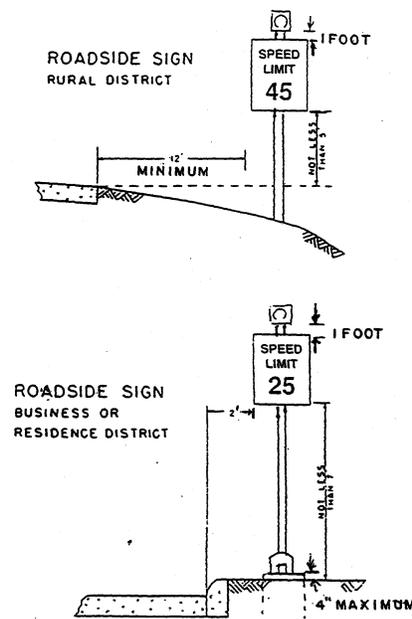
1. Shall be in compliance with the requirements established in Interim Approval IA-11
2. Poles shall be in conformance with the offsets specified in FDM 11-15-1
3. Service *may* drop to the top of the support, which would be extended to maintain an 18-foot minimum wire-to-ground clearance as per Wisconsin Electrical code. Service *should* preferably be installed underground. In the latter case the conduit **shall** be run up and attached to the post or pole. The control box *may* be mounted on the post or pole.
4. At the discretion of the Regional Traffic Engineer, solar-powered flashing beacon installations *may* be allowed on the STH system provided the installation meets applicable electrical and crash standards.

### C. PERMITTING OF FLASHING BEACONS

Any improperly installed electrical equipment *may* pose a hazard to the general public. As such, the Department spells out general and specific conditions, which are part of the permit agreement. **These** conditions are incorporated into the permit form, DT1877, a copy of which is appended to this policy. The *WisMUTCD* Chapter 4L and specific condition stated above **shall** also be followed for flashing beacons installed on all state trunk highways. Flashing beacons installed on connecting highways **shall not** require a WisDOT permit.

The following information provides conditions and processes related to the issuance of permits.

1. Permit applications **shall** be received by and permits issued by the appropriate Regional Office.
2. Permits for flashing beacons *may* only be issued to municipalities, not to private individuals at agencies, or to power companies. This *should* result in working with the most responsible and objective agency associated with the safety problem being addressed.
3. The region *may* rightfully deny the issuance of the permit. Reasons for denial *may* include: lack of need; conflict with other traffic control devices; vulnerable location; lack of confidence in the maintaining ability of the subject agency; knowledge that the request is due to reaction rather than long term need of commitment.
4. The region *may* revoke the permit for any of the reasons above, especially in regard to lack of maintenance, as well as for reasons cited on the permit itself.
5. For permitted flashing beacons installed on signal standards, Standard Detail Drawings 9C2, 9C3, and 9E7 *should* be made part of the permit. SDD numbers 9C5 and 9D3 for control cabinet installations *may* also apply.
6. **In the event of the reconstruction of the highway, reasonable notice *should* be given to the municipality to allow their removal of the equipment and arranging for disconnecting the electrical service.**



**Figure 1.** Standard Flashing Beacon Installations for Rural & Urban Districts

**FLASHING BEACON INSTALLATION APPLICATION/PERMIT**

Wisconsin Department of Transportation

DT1877 6/2010 s.86.19(3) Wis. Stats.

Submit application in triplicate to Wisconsin Department of Transportation, Regional office.  
 Make separate application for each flasher or associated pair of flashers desired.  
 See conditions for installation of flashing beacon on next page(s).

Applicant - Municipality			Unit of Government (County, Town, City, Village)			
Mailing Address					Date	
Name of 24/7 Emergency Contact		Contact Area Code – Telephone Number		Cell or Pager Number		
Description of Beacon				Mounting Height Feet	Lateral Setback Feet From <input type="checkbox"/> Edge of Pavement <input type="checkbox"/> Face or Top of Curb	
Red	<input type="checkbox"/> Incandescent 165 w	<input type="checkbox"/> LED *	<input type="checkbox"/> Single <input type="checkbox"/> Pair-as separate installation			
Yellow	<input type="checkbox"/> 116 w	<input type="checkbox"/>	<input type="checkbox"/> Pair-as same installation for school speed limit signs only			
RRFB Yellow	<input type="checkbox"/> Solar LED <input type="checkbox"/> Hardware LED	w	w	Single RRFB Indication Dual RRFB Indication		
* If LED indications are used, they shall have an equivalent output to incandescent indications.						
Location of Beacon		Facing <input type="checkbox"/> N <input type="checkbox"/> S <input type="checkbox"/> E <input type="checkbox"/> W		Reference to intersection, corporate limit, etc.		
Associated Sign <input type="checkbox"/> Stop <input type="checkbox"/> Warning <input type="checkbox"/> Speed Limit <input type="checkbox"/> School <input type="checkbox"/> Other						
Reason for Erecting Beacon						

Application is made for permission to install a flashing beacon as described above. It is understood and agreed that the design, installation and operation of the flashing beacon will comply with the regulations of the Wisconsin Department of Transportation, the State Electrical Code, local ordinances and regulations, as well as specific conditions stated on the next page(s).

The undersigned certifies that he/she is authorized to sign this application on behalf of the named unit of government.

\_\_\_\_\_  
 (Authorized Representative) (Date)  
 \_\_\_\_\_  
 (Title)

**PERMIT APPROVAL**

Permission is granted for the installation described above in compliance with the conditions specified.

Permit Number	Date Issued	Approved for Wisconsin Department of Transportation
FB-		X
		(Traffic Engineer) (Date)

## CONDITIONS FOR INSTALLATION OF FLASHING BEACON

1. WisDOT's policy on *Beacons, General Provisions* per TGM 4-5-1 is made part of this policy (copy attached).
2. The design, installation and operation of the flashing beacon shall comply with, the state Electrical Code, Chapter 4L of the Wisconsin Manual on Uniform Traffic Control Devices, FHWA's July 16, 2008 Interim Approval Memo (IA-11) for Rectangular Rapid Flashing Beacons (RRFBs), and local ordinances and regulations.
3. During the installation and subsequent maintenance, the permittee shall follow all pertinent provisions for work zone traffic control provided in Part 6 of the Wisconsin Manual of Uniform Traffic Control Devices.
4. The beacon may be mounted on a post, pole, or other suitable rigid support. The supports shall be outside of the curb line or on rural type highways at or beyond the shoulder line.
5. The beacon shall be mounted on the same support as the sign that it is to supplement.
6. The beacon lens shall have a diameter of 12", unless an RRFB or otherwise approved by the Department.
7. The support for the beacon shall be so designed and constructed that the associated sign specified may be erected on the same support immediately below the beacon, except in the case of an RRFB. For an RRFB, the associated sign should be mounted above the beacon. The beacon shall be maintained in proper working order and condition.
8. The permittee shall maintain the equipment in proper working order, and coordinate the installation with other right-of-way users (i.e., utilities, adjacent property owners, etc.). If not already, the permittee shall become a member of Diggers Hotline. Failure to do so will result in permit revocation.
9. It is the responsibility of the permittee to maintain locational information or locating flashing beacon facilities in the field for the purposes of avoiding utility conflicts.
10. All costs of design, installation, operation, maintenance and relocation or removal of flashing beacons installations due to road construction shall be the responsibility of the permittee.
11. It is the responsibility of the permittee to identify upcoming highway improvement projects that will affect flashing beacon installations and appropriately coordinate with WisDOT staff. WisDOT will not participate in sharing costs related to removal or relocation of flashing beacon facilities due to improvement projects.
12. The permit may be revoked upon notice in writing for failure to comply with these conditions, or upon a finding by the Department that the continued operation of the flashing beacon is not warranted.
13. The final location of the flashing beacon shall have the approval of the Traffic Engineer or his authorized representative.
14. At schools or school crossings, unless an RRFB is installed, the installation shall be equipped with an automatic time switch which shall cause the flashing beacon to operate only during the following periods:
  - a. For three-quarters of an hour before school begins in the morning;
  - b. Between the end of the morning and the beginning of the afternoon session;
  - c. For three-quarters of an hour after the end of the afternoon session.
  - d. The beacon shall operate only on school days and arrangements shall be made so that the beacon will not operate on holidays.
15. A concrete base, if used, shall not extend more than four (4) inches above ground level at any point.
16. Subsequent maintenance of In-Roadway Lights that require the permittee to access public right-of-way *may* require a Work on Highway Right-of-Way Permit (DT1812). Should any of these selected maintenance activities encroach in the STH traveled way, or if activities impact the free flow of traffic on the STH highway (closure of a travel lane, diversion of traffic, etc.), a permit shall first be obtained from the Department. The following are examples of work, which does not require a permit:
  - a. Buried cable locates and facility marking.
  - b. Reading electrical service meters.
  - c. Repair to electrical service.
  - d. Land surveys.
  - e. Controller programming.
  - f. Connect and test wiring of cable at pull box and pedestal locations.
  - g. Pedestal base, standard, bracket, and hardware repair/replacement.
  - h. Remove debris from warning devices.
  - i. Repair cable bonding or grounds.
  - j. Visual condition surveys.
  - k. Trim trees or remove brush for vision of warning devices.
  - l. Fuse replacement.
  - m. Replace overhead highway lighting lamps and cleaning glass.
  - n. Repair or replace outdoor lighting control.
  - o. Reset time clock or control switches.
  - p. Replace equipment tags or identifiers.
  - q. Minor repair of electrical cable (splices, etc.).
17. Other conditions:  No  Yes – Specify below:

## Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (IA-11)



U.S. Department of Transportation  
Federal Highway Administration

### Memorandum

**Purpose:** The purpose of this memorandum is to issue an Interim Approval for the optional use of Rectangular Rapid Flashing Beacons (RRFB) as warning beacons under certain limited conditions. Interim Approval allows interim use, pending official rulemaking, of a new traffic control device, a revision to the application or manner of use of an existing traffic control device, or a provision not specifically described in the Manual on Uniform Traffic Control Devices (MUTCD).

**Background:** The Florida Department of Transportation, in conjunction with the city of St. Petersburg, has requested that the Federal Highway Administration (FHWA) issue an Interim Approval to allow the use of RRFBs as warning beacons to supplement standard pedestrian crossing and school crossing warning signs at crossings across uncontrolled approaches. The RRFB does not meet the current standards for flashing warning beacons as contained in the 2003 edition of the MUTCD, Chapter 4K which requires a warning beacon to be round in shape and either 8 or 12 inches in diameter, to flash at a rate of approximately once per second, and to be located no less than 12 inches outside the nearest edge of the warning sign it supplements. The RRFB uses rectangular-shaped high-intensity LED-based indications, flashes rapidly in a wig-wag "flickering" flash pattern, and is mounted immediately between the crossing sign and the sign's supplemental arrow plaque.

**Research on the RRFB:** The city of St. Petersburg has completed experimentation with the RRFB at 18 pedestrian crosswalks across uncontrolled approaches and has submitted their final report. In addition to "before" data, the city collected "after" data at intervals for 1 year at all sites and for 2 years at the first 2 implemented sites. For the first 2 sites, the city collected data for overhead and ground-mounted pedestrian crossing signs supplemented with standard round yellow flashing beacons, for comparison purposes, before the RRFBs were installed. The data show very high rates of motorist "yield to pedestrians" compliance, mostly in the high 80s to close to 100 percent, in comparison to far lower rates (in the 15 to 20 percent range) for standard beacons. The very high yielding rates are sustained even after 2 years in operation, and no identifiable negative effects have been found. The RRFB's very high compliance rates are previously unheard of for any device other than a full traffic signal and a "HAWK" hybrid signal, both of which stop traffic with steady red signal indications. The St. Petersburg data also shows that drivers exhibit yielding behavior much further in advance of the crosswalk with RRFB than with standard round yellow flashing beacons. These data clearly document very successful and impressive positive experience with the RRFBs at crosswalks in that city.

In addition to the St. Petersburg locations, experimentation is underway at 3 sites in Miami-Dade County, FL, 4 sites in Largo, FL, and 2 sites in Las Cruces, NM, and RRFBs are being installed at 3 sites in northern Illinois. Additionally, the District of Columbia has installed RRFBs at one crosswalk and plans to request experimentation with RRFB at several sites. Data from locations

other than St. Petersburg is limited but does show results very similar to those found in St. Petersburg. A study of 2 RRFB locations in Miami-Dade County, FL, reported in a TRB paper, found that evasive conflicts between drivers and pedestrians and the percentage of pedestrians trapped in the center of an undivided road because of a non-yielding driver in the second half of the roadway were both significantly reduced to negligible levels. Data so far from the one RRFB site in DC shows driver yielding compliance rates increased from 26 percent to 74 percent after 30 days in operation and advance yielding distances also increased comparable to the St. Petersburg results.

**FHWA Evaluation of Results:** The Office of Transportation Operations has reviewed the available data and considers the RRFB to be highly successful for the applications tested (uncontrolled crosswalks). The RRFB offers significant potential safety and cost benefits, because it achieves very high rates of compliance at a very low relative cost in comparison to other more restrictive devices that provide comparable results, such as full midblock signalization. The components of RRFB are not proprietary and can be assembled by any jurisdiction with off-the-shelf hardware. The FHWA believes that the RRFB has a low risk of safety or operational concerns. However, because proliferation of RRFBs in the roadway environment to the point that they become ubiquitous could decrease their effectiveness, use of RRFBs should be limited to locations with the most critical safety concerns, such as pedestrian and school crosswalks across uncontrolled approaches, as tested in the experimentation. At a recent meeting of the National Committee on Uniform Traffic Control Devices, the Signals Technical Committee voted to endorse the future inclusion of the RRFB for uncontrolled crosswalks into the MUTCD and recommended that FHWA issue an Interim Approval for RRFB. The FHWA believes this indicates a consensus in the practitioner community in support of optional use of RRFB. This Interim Approval does not create a new mandate compelling installation of RRFB but will allow agencies to install this type of flashing beacon, pending official MUTCD rulemaking, to provide a degree of enhanced pedestrian safety at uncontrolled crosswalks that has been previously unattainable without costly and delay-producing full traffic signalization.

**Conditions of Interim Approval:** The FHWA will grant Interim Approval for the optional use of the RRFB as a warning beacon to supplement standard pedestrian crossing or school crossing signs at crosswalks across uncontrolled approaches to any jurisdiction that submits a written request to the Office of Transportation Operations. A State may request Interim Approval for all jurisdictions in that State. Jurisdictions using RRFB under this Interim Approval must agree to comply with the technical conditions detailed below, to maintain an inventory list of all locations where the devices are placed, and to comply with Item F at the bottom of Page 1A-6 of the 2003 MUTCD, Section 1A.10 which requires:

"An agreement to restore the site(s) of the Interim Approval to a condition that complies with the provisions in this Manual within 3 months following the issuance of a Final Rule on this traffic control device. This agreement must also provide that the agency sponsoring the Interim Approval will terminate use of the device or application installed under the Interim Approval at any time that it determines significant safety concerns are directly or indirectly attributable to the device or application. The FHWA's Office of Transportation Operations has the right to terminate the interim approval at any time if there is an indication of safety concerns."

1. General Conditions:

- a. An RRFB shall consist of two rapidly and alternately flashed rectangular yellow indications having LED-array based pulsing light sources, and shall be designed, located, and operated in accordance with the detailed requirements specified below.
- b. The use of RRFBs is optional. However, if an agency opts to use an RRFB under this Interim Approval, the following design and operational requirements shall apply, and shall take precedence over any conflicting provisions of the MUTCD for the approach on which RRFBs are used:

2. Allowable Uses:

- a. An RRFB shall only be installed to function as a Warning Beacon (see 2003 MUTCD Section 4K.03).
- b. An RRFB shall only be used to supplement a W11-2 (Pedestrian) or S1-1 (School) crossing warning sign with a diagonal downward arrow (W16-7p) plaque, located at or immediately adjacent to a marked crosswalk.
- c. An RRFB shall not be used for crosswalks across approaches controlled by YIELD signs, STOP signs, or traffic control signals. This prohibition is not applicable to a crosswalk across the approach to and/or egress from a roundabout.
- d. In the event sight distance approaching the crosswalk at which RRFBs are used is less than deemed necessary by the engineer, an additional RRFB may be installed on that approach in advance of the crosswalk, as a Warning Beacon to supplement a W11-2 (Pedestrian) or S1-1 (School) crossing warning sign with an AHEAD: (W16-9p) plaque. This additional RRFB shall be supplemental to and not a replacement for RRFBs at the crosswalk itself.

3. Sign/Beacon Assembly Locations:

- a. For any approach on which RRFBs are used, two W11-2 or S1-1 crossing warning signs (each with RRFB and W16-7p plaque) shall be installed at the crosswalk, one on the right-hand side of the roadway and one on the left-hand side of the roadway. On a divided highway, the left-hand side assembly should be installed on the median, if practical, rather than on the far left side of the highway.
- b. An RRFB shall not be installed independent of the crossing signs for the approach the RRFB faces. The RRFB shall be installed on the same support as the associated W11-2 (Pedestrian) or S1-1 (School) crossing warning sign and plaque.

4. Beacon Dimensions and Placement in Sign Assembly:

- a. Each RRFB shall consist of two rectangular-shaped yellow indications, each with an LED-array based light source. Each RRFB indication shall be a minimum of approximately 5 inches wide by approximately 2 inches high.
- b. The two RRFB indications shall be aligned horizontally, with the longer dimension horizontal and with a minimum space between the two indications of approximately seven inches (7 in), measured from inside edge of one indication to inside edge of the other indication.
- c. The outside edges of the RRFB indications, including any housings, shall not project beyond the outside edges of the W11-2 or S1-1 sign.

- d. As a specific exception to 2003 MUTCD Section 4K.01 guidance, the RRFB shall be located between the bottom of the crossing warning sign and the top of the supplemental downward diagonal arrow plaque (or, in the case of a supplemental advance sign, the AHEAD plaque), rather than 12 inches above or below the sign assembly. ([See attached example photo.](#))
5. Beacon Flashing Requirements:
- a. When activated, the two yellow indications in each RRFB shall flash in a rapidly alternating "wig-wag" flashing sequence (left light on, then right light on).
  - b. As a specific exception to 2003 MUTCD Section 4K.01 requirements for the flash rate of beacons, RRFBs shall use a much faster flash rate. Each of the two yellow indications of an RRFB shall have 70 to 80 periods of flashing per minute and shall have alternating but approximately equal periods of rapid pulsing light emissions and dark operation. During each of its 70 to 80 flashing periods per minute, one of the yellow indications shall emit two rapid pulses of light and the other yellow indication shall emit three rapid pulses of light.
  - c. 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.
  - d. The light intensity of the yellow indications shall meet the minimum specifications of Society of Automotive Engineers (SAE) standard J595 (Directional Flashing Optical Warning Devices for Authorized Emergency, Maintenance, and Service Vehicles) dated January 2005.
6. Beacon Operation:
- a. The RRFB shall be normally dark, shall initiate operation only upon pedestrian actuation, and shall cease operation at a predetermined time after the pedestrian actuation or, with passive detection, after the pedestrian clears the crosswalk.
  - b. All RRFBs associated with a given crosswalk (including those with an advance crossing sign, if used) shall, when activated, simultaneously commence operation of their alternating rapid flashing indications and shall cease operation simultaneously.
  - c. If pedestrian pushbuttons (rather than passive detection) are used to actuate the RRFBs, a pedestrian instruction sign with the legend PUSH BUTTON TO TURN ON WARNING LIGHTS should be mounted adjacent to or integral with each pedestrian pushbutton.
  - d. The duration of a predetermined period of operation of the RRFBs following each actuation should be based on the MUTCD procedures for timing of pedestrian clearance times for pedestrian signals.
  - e. A small light directed at and visible to pedestrians in the crosswalk may be installed integral to the RRFB or push button to give confirmation that the RRFB is in operation.
7. Other:
- a. Except as otherwise provided above, all other provisions of the MUTCD applicable to Warning Beacons shall apply to RRFBs.

Any questions concerning this Interim Approval should be directed to Mr. Scott Wainwright at [scott.wainwright@dot.gov](mailto:scott.wainwright@dot.gov) or by telephone at 202-366-0857.



Example of RRFB with W1-2 sign and W16-7p plaque at crosswalk across uncontrolled approach. [Photo courtesy of City of St. Petersburg, Florida]