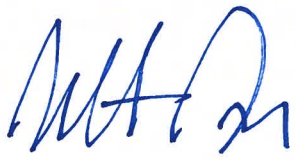




TECHNICAL SERVICES DIRECTIVE

SUBJECT FHWA Termination of Interim Approval for Rectangular Rapid Flashing Beacons	FINAL NUMBER TSB18-01(D)	EFFECTIVE DATE 01/24/2018	VALIDATION DATE	SUPERSEDES or RESCINDS NEW
	WEB LINK(S) http://www.oregon.gov/ODOT/HWY/TECHSERV/Pages/technicalguidance.aspx			
TOPIC/PROGRAM Crosswalk Devices	APPROVED SIGNATURE  Bob Pappe, P.E. Technical Services Manager / Chief Engineer			

PURPOSE

The purpose of this Directive is to:

1. Inform ODOT and other jurisdictions in Oregon that FHWA has terminated its Interim Approval for Use of Rectangular Rapid Flashing Beacons (RRFB) and directed they not be installed after December 21, 2017 per FHWA's Interim Approval IA-11 termination memorandum dated December 21, 2017;
2. Provide direction on actions ODOT will take for RRFBs that are in process of being installed, but were not turned on before December 21, 2017; and
3. Provide options for Pedestrian Actuated Warning Devices that can be used in place of RRFBs at planned future locations.

DIRECTION

On the State Highway System and local agency projects with federal or state funding:

1. RRFBs installed and turned on as of December 21, 2017 may remain in service until the end of useful life of that device.
2. RRFBs that are part of awarded projects or are in the process of being constructed by other delivery methods but not turned on as of December 21, 2017 may continue to be installed as planned; however, if installed, the flash rate of the beacons shall be reduced to 50 to 60 times per minute. The illuminated period of each flash shall be a minimum of 1/2 and a maximum of 2/3 of the total cycle.
3. RRFBs planned at future locations that are not yet under contract as of the effective date of this Directive shall be replaced with a Pedestrian Activated Beacon. Standard details for Pedestrian Activated Beacons are available in Standard Details [DET4431](#) and [DET4432](#). Standard details are available at <http://www.oregon.gov/ODOT/Engineering/Pages/Details-Traffic.aspx>.

DEFINITIONS

Rectangular Rapid Flashing Beacon – a warning beacon used to supplement standard pedestrian crossing or school crossing warning signs at crosswalks that uses rectangular-shaped high-intensity LED-based indications, flashing rapidly in a wig-wag “flickering” flash pattern, mounted between the warning sign and the sign’s supplemental arrow plaque.

Pedestrian Activated Beacon – a warning beacon used to supplement standard pedestrian crossing or school crossing warning signs at crosswalks that uses two circular-shaped yellow signal sections that flash in an alternating pattern as shown in Standard Details [DET4431](#) and [DET4432](#). The beacons flash alternately with a flash rate of 50 to 60 times per minute. The illuminated period of each flash is a minimum of 1/2 and a maximum of 2/3 of the total cycle.

Other definitions related to traffic control devices are available in the 2009 Manual on Uniform Traffic Control Devices.

BACKGROUND

Federal regulation, through the Manual on Uniform Traffic Control Devices, prohibits the use of patented devices under an Interim Approval or official experimentation with patented devices. The Federal Highway Administration terminated the Interim Approval for Optional Use of Rectangular Rapid Flashing Beacons (RRFB) (IA-11) on December 21, 2017 for all new installations of RRFBs because FHWA learned of the existence of four issued U.S. patents and at least one pending patent application covering aspects of the RRFB. FHWA is allowing RRFBs installed prior to December 21, 2017 to remain in service until the end of useful life of those devices.

Further information on the Interim Approval termination is available at this FHWA website: https://mutcd.fhwa.dot.gov/res-interim_approvals.htm#term2003.

ACTION REQUIRED

RESPONSIBILITY

ACTION

Region, District, Section,
Unit Managers

Distribute this Directive and discuss with affected employees, consultants, local agencies, and contractors.

Construction Engineers

Revise any installations or planned installations of RRFBs to be in alignment with this Directive.

Traffic Engineers

Revise approvals and planned installations of RRFBs to be in alignment with this Directive.

CONTACT INFORMATION

Title: Traffic Investigations Engineer
Branch/Section: Technical Services
Phone: 503-986-3580
E-mail: eric.s.leaming@odot.state.or.us