



U.S. Department
of Transportation
**Federal Highway
Administration**

1200 New Jersey Ave., SE
Washington, D.C. 20590

December 9, 2009

In Reply Refer To:
HOTO-1

Rick Perez, P.E.
City Traffic Engineer
City of Federal Way
P.O. Box 9718
Federal Way, WA 98063

Dear Mr. Perez:

Thank you for your November 10 e-mail requesting an official interpretation of the Federal Highway Administration's (FHWA) Interim Approval of Rectangular Rapid Flashing Beacons (RRFB). That Interim Approval, numbered IA-11, was issued on July 21, 2008, under the provisions of Section 1A.10 of the Manual on Uniform Traffic Control Devices (MUTCD) and it contains various technical provisions regarding the design, location, and operation of RRFB.

Specifically, you cited two locations where you plan to install RRFB under IA-11-10 (the FHWA's blanket approval of Federal Way's use of RRFB) at crosswalks where frequent bus presence at near-side bus stops would unacceptably obscure approaching road users' view of W11-2 Pedestrian Crossing signs mounted at the normal roadside locations. You indicated that an overhead-mounted W11-2 sign (without the W16-7P diagonal down arrow plaque) would be preferred at these locations and asked whether RRFB could be used with that overhead sign.

The technical provisions contained in Interim Approval IA-11 indicate that RRFB shall be installed with two roadside-mounted W11-2 or S1-1 crossing warning signs, each with W16-7P plaque, on the approach to the crosswalk. No mention is made of overhead sign mounting in those technical provisions, and in fact the 2003 MUTCD does not directly address overhead mounting of W11-2 or S1-1 signs at the crossing. However, human factors studies have shown that the more centrally a traffic control device is placed in the road user's attention window, the higher percentage of correct action by road users is obtained. Especially when adequate visibility of a roadside sign cannot be practically achieved, an overhead mounting of a critical warning sign, directly over the approaching lanes, is highly advisable. Therefore, we believe that allowing overhead mounting of the W11-2 or S1-1 sign and allowing RRFB to be used with the overhead sign are in the best interest of highway and pedestrian safety.

It is our official interpretation of Interim Approval IA-11 that items 2.b., 3.a, and 4.d. of the IA-11 technical provisions do not preclude overhead mounting, at or near the crosswalk, of the W11-2 or S1-1 sign and the RRFB. When the W11-2 or S1-1 sign is mounted overhead, only a minimum of one such sign per approach is required and it should be located over the

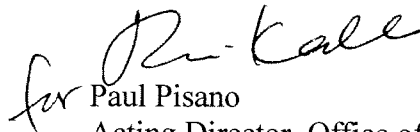


approximate center of the lanes of the approach or where optimum visibility can be achieved, and no arrow plaque shall accompany the overhead crossing sign. The RRFB is to be mounted directly below the bottom of the overhead W11-2 or S1-1 sign.

We hope that this interpretation answers your question. We would also point out that, for roadside signs, the MUTCD establishes no maximum mounting height. Therefore, W11-2 or S1-1 signs with W16-7P plaques could be installed at a mounting height much higher than the normal 7 feet, perhaps 15 to 17 feet or more, and still comply with the MUTCD and the IA-11 technical provisions. A high roadside mounting might provide satisfactory visibility of the signs above stopped buses at a lower cost than overhead sign mounting on a mast arm.

Thank you for writing on this subject. If you have any questions, please contact Mr. Scott Wainwright of our staff by e-mail at scott.wainwright@dot.gov or by telephone at 202-366-0857. Please note that we have assigned your request the following official interpretation number and title: "4-376(I)—RRFB Overhead Mounting." Please refer to this number in any future correspondence regarding this issue.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "for Paul Pisano".

Paul Pisano
Acting Director, Office of Transportation
Operations