



**National Committee on
Uniform Traffic Control Devices**

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TECHNICAL COMMITTEE: Railroad / Light Rail Transit Technical Committee

TOPIC: Proposed Changes and Additions to Flashing-Light
Signals, Section 8C.02

STATUS/DATE OF ACTION:

| | |
|--------------------------|------------|
| TC Drafts: | 01/08/2014 |
| RRLRT Approval: | 06/27/2014 |
| Transmitted to Sponsors: | 03/25/2014 |
| Council Approval: | 06/28/2014 |

ORIGIN OF REQUEST: Railroad and Light Rail Transit Technical Committee

DISCUSSION: The proposed changes to this Manual Part are consistent with the AREMA Communication & Signal Manual of Recommended Practice and changes made the 2009 MUTCD Section 4D.11.

1 **Section 8C.02 Flashing-Light Signals**

2 Support:

3 01 Section 8C.03 contains additional information regarding flashing-light signals at
4 highway-LRT grade crossings in semi-exclusive and mixed-use alignments.

5 **Standard:**

6 02 **If used, the flashing-light signal assembly (shown in Figure 8C-1) on the side of the
7 highway shall include a standard Crossbuck (R15-1) sign, and where there is more
8 than one track, a supplemental Number of Tracks (R15-2P) plaque, all of which
9 indicate to motorists, bicyclists, and pedestrians the location of a grade crossing.**

10 Option:

11 03 At highway-rail grade crossings, bells or other audible warning devices may be included in
12 the assembly as determined by a Diagnostic Team and may be operated in conjunction with the
13 flashing lights to provide additional warning for pedestrians, bicyclists, and/or other non-
14 motorized road users.

15 **Standard:**

16 04 **When indicating the approach or presence of rail traffic, the flashing-light signal shall
17 display toward approaching highway traffic two red lights mounted in a horizontal line
18 flashing alternately.**

19 05 **If used, flashing-light signals shall be placed to the right of approaching highway
20 traffic on all highway approaches to a grade crossing. They shall be located laterally with
21 respect to the highway in compliance with Figure 8C-1 except where such location would
22 adversely affect signal visibility.**

23 06 **If used at a grade crossing with highway traffic in both directions, back-to-back pairs of
24 lights shall be placed on each side of the tracks.**

25 07 **On multi-lane one-way streets and divided highways, flashing-light signals shall be placed on the
26 approach side of the grade crossing on both sides of the roadway or shall be placed above the
27 highway.**

28 08 **Each red signal unit in the flashing-light signal shall flash alternately. The number of
29 flashes per minute for each lamp shall be 35 minimum and 65 maximum. Each lamp shall
30 be illuminated approximately the same length of time. Total time of illumination of each
31 pair of lamps shall be the entire operating time. Flashing-light signals shall use either 8-inch or
32 12-inch nominal diameter lenses.**

33 *Guidance:*

34 09 *In choosing between the 8-inch or 12-inch nominal diameter lenses for use in grade
35 crossing flashing-light signals, consideration should be given to the principles stated in Section
36 4D.07.*

37 10 *At least one pair of flashing lights should be provided for each approaching traffic lane.*

38 11 *Where the storage distance for vehicles approaching a grade crossing is less than a design
39 vehicle length, the Diagnostic Team should consider providing additional flashing light pairs
40 aligned toward the movement turning toward the grade crossing.*

41 12 *The Diagnostic Team should consider the use of additional pairs of flashing lights to provide
42 supplemental warning to pedestrians, especially on one way streets and divided highways.*

43
44 Option:

45 13 Additional pairs of flashing lights may be mounted on the same or additional supporting
46 masts and directed toward vehicular traffic approaching the grade crossing.

47 **Standard:**

48 14 **Grade crossing flashing-light signals shall operate at a low voltage using storage
49 batteries either as a primary or stand-by source of electrical energy. Provision shall be
50 made to provide a source of energy for charging batteries.**

1 **Standard:**
2 15 **References to lenses in this Section shall not be used to limit flashing-light signal**
3 **optical units to incandescent lamps within optical assemblies that include lenses.**
4 Support:
5 16 Research has resulted in flashing-light signal optical units that are not lenses, such as, but not
6 limited to, light emitting diode (LED) flashing-light signal modules.
7 Option:
8 17 If determined by a Diagnostic Team, flashing-light signals may be installed on overhead structures or
9 cantilevered supports as shown in Figure 8C-1 where needed for additional emphasis, or for better visibility
10 to approaching traffic, particularly on multi-lane approaches or highways with profile restrictions.
11 18 If it is determined by a Diagnostic Team that one set of flashing lights on the cantilever arm is
12 not sufficiently visible to road users, one or more additional sets of flashing lights may be mounted
13 on the supporting post and/or on the cantilever arm.
14 **Standard:**
15 19 **Breakaway or frangible bases shall not be used for overhead structures or cantilevered supports.**
16 20 **Except as otherwise provided in Paragraphs 13 through 15, flashing-light signals**
17 **mounted overhead shall comply with the applicable provisions of this Section.**