

National Committee on Uniform Traffic Control Devices

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NCUTCD Proposal for Changes to the Manual on Uniform Traffic Control Devices

TECHNICAL COMMITTEE: Railroad/Light Rail Transit Technical Committee

ITEM NUMBER: 19A-RR-02

TOPIC: Clearance from Flashing-Light Signal with or without Automatic Gate to Track

ORIGIN OF REQUEST: RR/LRT Technical Committee

AFFECTED SECTIONS OF MUTCD: 8C.01

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DEVELOPMENT HISTORY:

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- Approved by Technical Committee: 01/10/2019
- Approved by NCUTCD Council: 6/20/2019

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This is a proposal for recommended changes to the MUTCD that has been approved by the NCUTCD Council. This proposal does not represent a revision of the MUTCD and does not constitute official MUTCD standards, guidance, or options. It will be submitted to FHWA for consideration for inclusion in a future MUTCD revision. The MUTCD can be revised only by the FHWA through the federal rulemaking process.

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SUMMARY:

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The purpose of these proposed changes is to provide clarification on the location of flashing-light signals relative to the tracks, with or without automatic gates.

DISCUSSION

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Many railroads and transit agencies have standards regarding the placement of flashing-light signals relative to the tracks. It is desirable that mast-mounted flashing-light signals are mounted far enough from the tracks to provide adequate clearance, but not too far away from the roadway. A standard statement is proposed regarding compliance with railroad and/or transit agency standards.

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RECOMMENDED MUTCD CHANGES

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The following present the proposed changes to the current MUTCD within the context of the current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double

35 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background
36 comments may be provided with the MUTCD text. These comments are indicated by
37 **[highlighted light blue in brackets]**.
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39 **Section 8C.01 Introduction**

40 Support:

41 01 Active traffic control systems inform road users of the approach or presence of rail traffic at
42 grade crossings. These systems include four-quadrant gate systems, automatic gates, flashing-
43 light signals, traffic control signals, actuated blank-out and variable message signs, and other
44 active traffic control devices.

45 02 A composite drawing (see Figure 8C-1) shows a post-mounted flashing-light signal (two
46 light units mounted in a horizontal line), a flashing-light signal mounted on an overhead
47 structure, and an automatic gate assembly.

48 Option:

49 03 Post-mounted and overhead flashing-light signals may be used separately or in combination
50 with each other as determined by an engineering study. Also, flashing-light signals may be used
51 without automatic gate assemblies, as determined by an engineering study.

52 **Standard:**

53 04 **The meaning of flashing-light signals and gates shall be as stated in the “Uniform**
54 **Vehicle Code” (see Sections 11-701 and 11-703 of the UVC), which is available from the**
55 **National Committee on Uniform Traffic Laws and Ordinances (see Page i for the address).**

56 05 **Location and clearance dimensions for flashing-light signals and gates shall be as shown**
57 **in Figure 8C-1.**

58 06 **When there is a curb, a horizontal offset of at least 2 feet shall be provided from the**
59 **face of the vertical curb to the closest part of the signal or gate arm in its upright position.**
60 **When a cantilevered-arm flashing-light signal is used, the vertical clearance shall be at**
61 **least 17 feet above the crown of the highway to the lowest point of the signal unit.**

62 07 **Where there is a shoulder, but no curb, a horizontal offset of at least 2 feet from the**
63 **edge of a paved or surfaced shoulder shall be provided, with an offset of at least 6 feet from**
64 **the edge of the traveled way.**

65 08 **Where there is no curb or shoulder, the minimum horizontal offset shall be 6 feet from**
66 **the edge of the traveled way.**

67 08a **Minimum clearance dimensions for flashing lights and automatic gates relative to the**
68 **proximity to the closest track shall conform to standards provided by the railroad company**
69 **and/or transit agency.**

70 *Guidance:*

71 09 *Equipment housings (controller cabinets) should have a lateral offset of at least 30 feet from*
72 *the edge of the highway, and where railroad or LRT property and conditions allow, at least 25*
73 *feet from the nearest rail.*

74 10 *If a pedestrian route is provided, sufficient clearance from supports, posts, and gate*
75 *mechanisms should be maintained for pedestrian travel.*

76 11 *When determined by an engineering study, a lateral escape route to the right of the highway*
77 *in advance of the grade crossing traffic control devices should be kept free of guardrail or other*
78 *ground obstructions. Where guardrail is not deemed necessary or appropriate, barriers should*
79 *not be used for protecting signal supports.*

80 12 The same lateral offset and roadside safety features should apply to flashing-light signal and
81 automatic gate locations on both the right-hand and left-hand sides of the roadway.

82 Option:

83 13 In industrial or other areas involving only low-speed highway traffic or where signals are
84 vulnerable to damage by turning truck traffic, guardrail may be installed to provide protection for
85 the signal assembly.

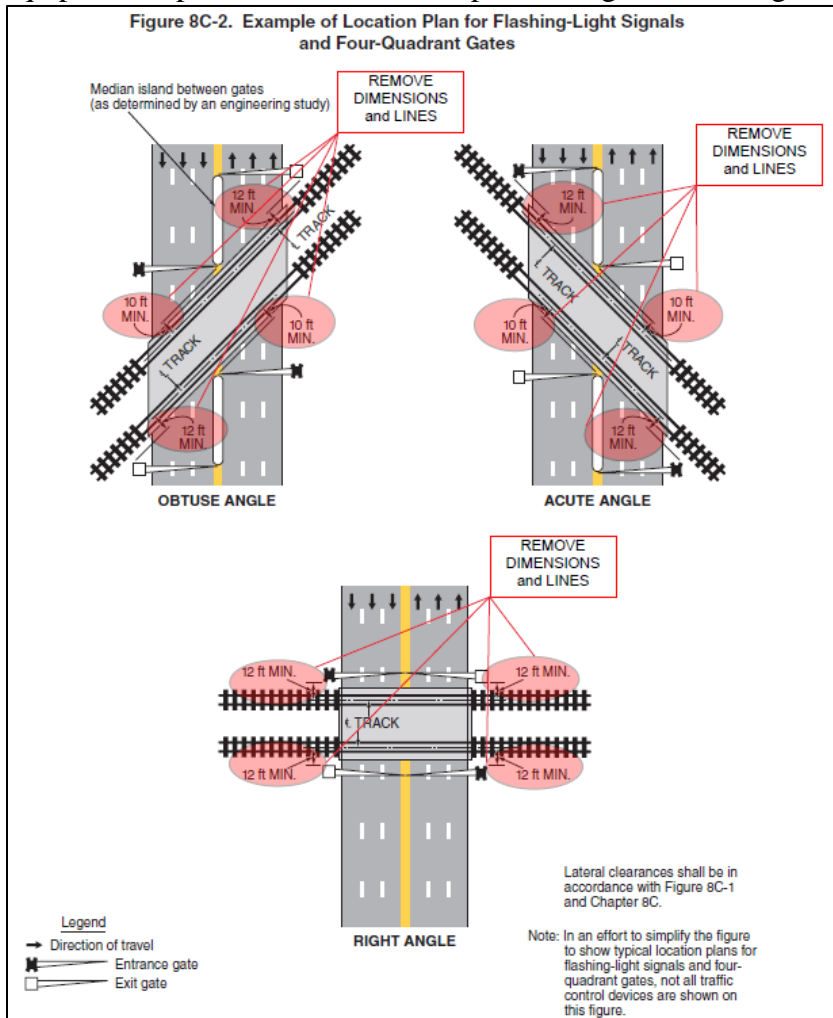
86 Guidance:

87 14 Where both traffic control signals and flashing-light signals (with or without automatic
88 gates) are in operation at the same highway-LRT grade crossing, the operation of the devices
89 should be coordinated to avoid any display of conflicting signal indications.

90 Support:

91 15 LRT typically operates through grade crossings in semi-exclusive and mixed-use alignments
92 at speeds between 10 and 65 mph.

93 16 When LRT speed is cited in this Part, it refers to the maximum speed at which LRT
94 equipment is permitted to traverse a particular grade crossing.



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