



National Committee on Uniform Traffic Control Devices

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ATTACHMENT NO. 5

RRLRT Item No. 1

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5 **TECHNICAL COMMITTEE:** Railroad / Light Rail Transit Technical Committee

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8 **TOPIC:** Arrow and Edge Line Markings at Highway-Rail and Light Rail Transit
9 Grade Crossings

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12 **STATUS/DATE OF ACTION:** Send for Sponsor Comment

13 **TC Drafts:** 02/28/2009

14 **RRLRT TC Approval:** Jan 2009

15 **Transmitted to Sponsors:** Jan 2009

16 **Council Approval:** 06/20/2009

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18 **ORIGIN OF REQUEST:** RR/LRT TC

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20 **AFFECTED SECTIONS OF MUTCD:** 3B.19/20 Change, 8B.23 New, 8B.24 New,
21 10C.25 New and 10C.26 New,

SUMMARY:

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26 The purpose of this change is to address five train-auto crashes which have occurred
27 within the last 7 months. In all of these incidents, a roadway user made an improper turn
28 and turned onto the railroad rather than at an adjacent intersection immediately beyond
29 the grade crossing. It is believed that there are two areas where some additional
30 language may be beneficial to guide roadway users at grade crossings. The first is that
31 in all five incidents, an arrow pavement marking denoting an exclusive lane was located
32 on the roadway between the stop line for the grade crossing and the track area. The
33 second issue is that the roadway edge line stopped near the stop line for the grade
34 crossing and did not continue across the track area. It is believed that the proposed
35 change will lead road users to more clearly understand where the turn is to be made,
36 even under adverse conditions.

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38 These changes have been supported by the AAR who has sent a letter to FHWA
39 recommending adoption of the changes into MUTCD.

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DISCUSSION

The proposed changes have been reviewed by both the RR/LRT TC and the marking TC. It is recommended that the proposed changes be sent for sponsor comment.

RECOMMENDED CHANGE(S) TO THE MUTCD

Note: Proposed changes to the MUTCD are shown in underline red.

Proposed New Section 8B.23:

Section 8B.23 Arrow Markings

Standard:

Arrow pavement markings for turn lanes (see Fig. 3B-21) shall not be placed between the stop line for the highway-rail grade crossing and the tracks.

Guidance:

Arrow pavement markings, if used, should be placed a minimum of 30 m (100 ft) in advance of the stop line for the highway-rail grade crossing when sufficient turn lane storage length exists. Arrow pavement markings, if used, should be placed no less than 6.4 m (20 ft) beyond the far rail.

Proposed New Section 8B.24:

Section 8B.24 Edge Lines at Highway-Rail Grade Crossings

Guidance:

When used on paved roadways, edge lines (see Section 3A.03) should be continued on approaches to and across the track(s) at a highway-rail grade crossing to delineate the edge of the traveled way across the track(s).

Option:

The edge line may be omitted from the crossing surface if the surface cannot retain the application of the marking.

Support:

This delineation is desirable where the crossing is in close proximity to a highway intersection.

Proposed Change to Section 3B.19/3B.20:

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Blue formatting is from the NPA, not this proposed action.

Section ~~3B.19~~ 3B.20 Pavement Word, and Symbol, and Arrow Markings

Support:
Word, ~~and~~ symbol, and arrow markings on the pavement are used for the purpose of guiding, warning, or regulating traffic. These pavement markings can be helpful to road users in some locations by supplementing signs and providing additional emphasis for important regulatory, warning, or guidance messages, because the markings do not require diversion of the road user's attention from the roadway surface. Symbol messages are preferable to word messages. Examples of standard word and arrow pavement markings are shown in Figures 3B-23 and 3B-24.

For arrow pavement markings in the vicinity of highway-rail grade crossings, see Section 8B.23. For arrow pavement markings in the vicinity of highway-light rail transit grade crossing, see Section 10C.25.

Proposed New Section 10C.25:

Section 10C.25 Arrow Markings

Standard:

Arrow pavement markings for turn lanes (see Fig. 3B-21) shall not be placed between the stop line for the highway-light rail transit grade crossing and the track(s).

Guidance:

Arrow pavement markings, if used, should be placed a minimum of 30 m (100 ft) in advance of the stop line for the highway-rail grade crossing when sufficient turn lane storage length exists. Arrow pavement markings, if used, should be placed no less than 6.4 m (20 ft) beyond the far rail.

Proposed New Section 10C.26:

Section 10C.26 Edge Lines at Highway-Light Rail Transit Grade Crossings

Guidance:

When used on paved roadways, edge lines (see Section 3A.03) should be continued on approaches to and across the track(s) at a highway-light rail transit grade crossing to delineate the edge of the traveled way across the track(s).

Option:

131 The edge line may be omitted from the crossing surface if the surface cannot retain the
132 application of the marking.

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134 Support:

135 This delineation is desirable where the crossing is in close proximity to a highway
136 intersection.

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140 Sponsor Comments:

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142 52 Concur

143 4 Concur in Part

144 2 Do Not Concur

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146 **DISCUSSION IN RESPONSE TO SPONSOR COMMENTS:**

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148 Technical Committee

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150 For

151 Opposed

152 Abstentions