



National Committee on Uniform Traffic Control Devices

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Attachment No. 8
Item No.: 18A-RW-02

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

TECHNICAL COMMITTEE: Regulatory/Warning Signs Technical Committee
ITEM NUMBER: 18A-RW-02
TOPIC: Section 2C.36 Advance Traffic Control Signs
ORIGIN OF REQUEST: RWSTC Discussions
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AFFECTED SECTIONS OF MUTCD: Section 2C.36 Advance Traffic Control Signs

DEVELOPMENT HISTORY:

- Approved by Task Force: 11/27/2017
- Approved by RW Technical Committee: 01/03/2018
- Approved by RW Technical Committee following sponsor comments: 06/20/2018
- Approved by NCUTCD Council: 06/21/2018

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 through the federal rulemaking process.

SUMMARY:

A question was raised during private work by a RWSTC member regarding the consistency and completeness of Section 2C.36 “Advance Traffic Control Signs”. Subsequent discussions between RWSTC members revealed that at least two States, New York and Wisconsin have modified this Section of the MUTCD in their State supplements to attempt clarify or modify the intent of the Section.

DISCUSSION

Of particular concern is paragraph 01 which states:

“The Advance Traffic Control symbol signs (see Figure 2C-6) include the Stop Ahead (W3-1), Yield Ahead (W3-2), and Signal Ahead (W3-3) signs. These signs shall be installed on an approach to a primary traffic control device that is not visible for a sufficient distance to

33 **permit the road user to respond to the device (see Table 2C-4). The visibility criteria for a**
34 **traffic control signal shall be based on having a continuous view of at least two signal faces**
35 **for the distance specified in Table 4D-2.”**
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37 The first concern identified was the intent of the second sentence. Table 2C-4 is referenced in
38 parenthesis at the end of the sentence. Is the intent of this sentence to define Table 2C-4 as the
39 “sufficient distance” criteria reference in the second sentence?
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41 The second concern was whether the second sentence was referring to all three signs, the Stop
42 Ahead, Yield Ahead and the Signal Ahead signs or just the Stop Ahead the Yield Ahead signs.
43 The third sentence specifically addresses the visibility criteria for the signal ahead sign.
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45 The third concern is what sight distance criteria should be used to meet the “visible for a
46 sufficient distance.” This seems to be the primary concern of the two States that have modified
47 this section in their supplements.
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49 The title for Table 2C-4 is “Guidelines for Advance Placement of Warning Signs”. This table is
50 for the advance placement of the sign. This is not necessarily the sight distance a motorist needs
51 to see the Stop sign to make a safe stop. It would seem that that distance would be the Stopping
52 Sight Distance for the approach speed. The stopping sight distance is considerably longer than
53 the distance in the “0 MPH” column in Table 2C-4. Since the Stop Ahead and Yield Ahead
54 signs can be read and reacted to before the sign is reached, the sign placement distance can be
55 shorter than the stopping sight distance.
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57 New York State has modified Table 2C-4 so that the “0 MPH” column is the AASHTO Stopping
58 Sight Distance table (Exhibit 3-1) from the AASHTO’s “2004 A Policy on Geometric Design of
59 Highways and Streets”. Wisconsin uses a “Minimum Visibility Distance” which is the
60 Intersection Sight distance for a left turn from a stop. It is Exhibit 9-55 of the aforementioned
61 AASHTO Policy.
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63 Task Force discussions also considered whether the use of the signs should continue to be a
64 Standard or whether it should be reduced to a Guidance statement. Some felt that a Guidance
65 statement would be strong enough and that it would give agencies some leeway. Others felt that
66 not giving warning when sufficient sight distance did not exist could result in a hazardous
67 situation. The consensus was to retain the Standard statement for the use of the sign.
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69 Task Force discussions also considered whether to provide a low speed exception to the
70 requirement that the sign be used when sufficient stopping sight distance was not available. This
71 would not give carte blanche to agencies or practitioners, but would allow for judgment to be
72 applied in a situation where, for instance, an approach from a 300-foot long cul-de-sac to a Stop
73 sign does not quite meet the SSD requirement due to a curve or short tangent. As matters
74 currently stand, an advance sign would be required, even on a very low volume dead end street,
75 and one where the context guides drivers to exercise due care. As is, the Standard seems unduly
76 restrictive when applied to low speed, low volume conditions.
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79 RECOMMENDATION:

- 80 1. Retain the Standard requirement that the sign be used when sufficient sight distance is
- 81 not available to stop.
- 82 2. Provide a low speed exception that the sign be used when sufficient sight distance is not
- 83 available to stop.
- 84 3. Delete the parentheses reference to Table 2C-4 at the end of the second sentence of the
- 85 first paragraph. Also delete the third sentence which relates to visibility requirement for
- 86 the Traffic Signal Ahead. Paragraph 03a is a Guidance statement that addresses the
- 87 same issue. The items in these deletions were causing confusion. The purpose of
- 88 reference to Table 2C-4 was implied but not specified. Having the visibility criteria for
- 89 the Signal Ahead sign as both a Standard and a Guidance statement is incorrect.
- 90 4. Add a Guidance statement that says that the visibility criteria for the Stop and Yield
- 91 signs should be based on the distances specified in Table 2C-X.
- 92 5. Add Table 2C-X that defines the “sufficient sight distance to stop” for Stop signs and
- 93 Yield signs. AAHSTO Stopping Sight Distance was used with a note that the distances
- 94 may be adjusted to account for grade and queue lengths.
- 95 6. Change “shows” to “show” in the first line of paragraph 02.
- 96 7. Clean up the wording of paragraph 07. It is now worded similar to paragraph 10.

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RECOMMENDED MUTCD CHANGES

100 The following present the proposed changes to the current MUTCD within the context of the
101 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and
102 proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously
103 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double
104 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background
105 comments may be provided with the MUTCD text. These comments are indicated by
106 highlighted light blue in brackets.

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Section 2C.36 Advance Traffic Control Signs (W3-1, W3-2, W3-3, W3-4)

Standard:

110 01 Except as provided in Paragraph 4, ~~The~~ Advance Traffic Control ~~symbol~~ signs, (~~see~~
111 ~~Figure 2C-6~~) include the Stop Ahead (W3-1), Yield Ahead (W3-2), and Signal Ahead (W3-
112 3) signs (see Figure 2C-6), ~~These signs~~ shall be installed on an approach to a primary
113 traffic control device that is not visible for a sufficient distance to permit the road user to
114 respond to the device (~~see Table 2C-4~~). ~~The visibility criteria for a traffic control signal~~
115 ~~shall be based on having a continuous view of at least two signal faces for the distance~~
116 ~~specified in Table 4D-2.~~

Support:

118 02 Figures 2A-4 and 2A-5a and b shows the typical placement of an Advance Traffic Control
119 sign. (approved by Council January 9, 2012, Attachment # 3, RW # 1)

120 03 Permanent obstructions causing the limited visibility might include roadway alignment or
121 structures. Intermittent obstructions might include foliage or parked vehicles.

Guidance:

122 03a The visibility criteria for a Stop sign or a Yield sign should be based on having a continuous
123 view of the Stop sign or the Yield sign for the distance specified in Table 2C-X.
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125 *03b The visibility criteria for a traffic control signal should be based on having a continuous*
126 *view of at least two signal faces for the distance specified in Table 4D-2. (approved by Council*
127 *June 22, 2012, RW # 3, Attachment # 6)*

128 *04 Where intermittent obstructions occur or when the 85th - percentile speed or the posted*
129 *speed limit is 25 mph or lower engineering judgment should determine the ~~treatment to be~~*
130 *implemented: need for and the placement of an Advance Traffic Control sign.*

131 Option:

132 *05 An Advance Traffic Control sign may be used for additional emphasis of the primary traffic*
133 *control device, even when the visibility distance to the device is satisfactory.*

134 *06 An advance street name plaque (see Section 2C.58) may be installed above or below an*
135 *Advance Traffic Control sign.*

136 *07 The Advance Traffic Control sign may be supplemented with a ~~A~~ warning beacon (see*
137 *Section 4L.03) ~~may be used with an Advance Traffic Control sign or yellow LEDs within the~~*
138 *border of the sign. (approved by Council June 28, 2014, RW # 3, Attachment # 1)*

139 *08 A BE PREPARED TO STOP (W3-4) sign (see Figure 2C-6) may be used to warn of*
140 *stopped traffic caused by a traffic control signal or in advance of a section of roadway that*
141 *regularly experiences traffic congestion.*

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143 **Standard:**

144 **09 When a BE PREPARED TO STOP sign is used in advance of a traffic control signal, it**
145 **shall be used in addition to a Signal Ahead sign and shall be placed downstream from the**
146 **Signal Ahead (W3-3) sign.**

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148 Option:

149 *10 The BE PREPARED TO STOP sign may be supplemented with a warning beacon (see*
150 *Section 4L.03) or yellow LEDs within the border of the sign. (approved by Council June 28,*
151 *2014, RW # 3, Attachment # 1)*

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153 *Guidance:*

154 *11 When the warning beacon or sign border LEDs are ~~is~~ interconnected with a traffic control*
155 *signal or queue detection system, the BE PREPARED TO STOP sign should be supplemented*
156 *with a WHEN FLASHING (W16-13P) plaque (see Figure 2C-12). (approved by Council June 28,*
157 *2014, RW # 3, Attachment # 1)*

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159 Support:

160 *12 Section 2C.40 contains information regarding the use of a NO MERGE AREA (W4-5P)*
161 *supplemental plaque in conjunction with a Yield Ahead sign.*

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Table 2C-X Minimum Sight Distance for a Stop Ahead (W3-1) or a Yield Ahead (3-2) Sign

| Speed limit or 85th-Percentile Speed | Minimum Sight Distance |
|---|-------------------------------|
| 20 mph | 115 feet |
| 25 mph | 155 feet |
| 30 mph | 200 feet |
| 35 mph | 250 feet |
| 40 mph | 305 feet |
| 45 mph | 360 feet |
| 50 mph | 425 feet |
| 55 mph | 495 feet |
| 60 mph | 570 feet |
| 65 mph | 645 feet |
| 70 mph | 730 feet |

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Note: The Table is based on 2011 AASHTO Policy on Geometric Design of Highways and Streets, Table 3-1, Stopping Sight Distance on Level Roadways. Distances may be adjusted for queue length or grade. Table 3-2 of the 2011 AASHTO Policy on Geometric Design of Highways and Streets may be used as a guide on grades.