



National Committee on Uniform Traffic Control Devices

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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: Item No. 18A.RW.02
TOPIC: Section 2C.36 Advance Traffic Control Signs
ORIGIN OF REQUEST: RWSTC Discussions
Task Force: Dan Paddick (Chair), Jim Pline, Tom Heydel,
James Sullivan, Herman Hill, Jeff Wolfe, Tim Haagsma, Ross
Oyen
AFFECTED SECTIONS OF MUTCD: Section 2C.36 Advance Traffic Control Signs
DEVELOPMENT HISTORY: Task Force 11-27-17

- Approved by Task Force: 11/27/2017
- Approved by RW Technical Committee: 01/03/2018 **READY FOR SPONSORS**
- Approved by RW Technical Committee following sponsor comments:
- Approved by NCUTCD Council:

NOTE TO BE PROVIDED IN VERSION SENT FOR SPONSOR REVIEW

This is a proposal for recommended changes to the MUTCD that has been developed by a technical committee of the NCUTCD. The NCUTCD is distributing it to its sponsoring organizations for review and comment. Sponsor comments will be considered in revising the proposal prior to NCUTCD Council consideration. This proposal does not represent a revision of the MUTCD and does not constitute official MUTCD standards, guidance, or options. If approved by the NCUTCD Council, the recommended changes 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.



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29 **SUMMARY:**

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

35 **DISCUSSION:**

36 Of particular concern is paragraph 01 which states:

37

38 **“The Advance Traffic Control symbol signs (see Figure 2C-6) include the Stop**
39 **Ahead (W3-1), Yield Ahead (W3-2), and Signal Ahead (W3-3) signs. These signs**
40 **shall be installed on an approach to a primary traffic control device that is not**
41 **visible for a sufficient distance to permit the road user to respond to the device (see**
42 **Table 2C-4). The visibility criteria for a traffic control signal shall be based on**
43 **having a continuous view of at least two signal faces for the distance specified in**
44 **Table 4D-2.”**

45

46 The first concern identified was the intent of the second sentence. Table 2C-4 is
47 referenced in parenthesis at the end of the sentence. Is the intent of this sentence to
48 define Table 2C-4 as the “sufficient distance” criteria reference in the second sentence?

49

50 The second concern was whether the second sentence was referring to all three signs, the
51 Stop Ahead, Yield Ahead and the Signal Ahead signs or just the Stop Ahead the Yield
52 Ahead signs. The third sentence specifically addresses the visibility criteria for the signal
53 ahead sign.

54

55 The third concern, is what sight distance criteria should be used to meet the “visible for a
56 sufficient distance.” This seems to be the primary concern of the two States that have
57 modified this section in their supplements.

58

59 The title for Table 2C-4 is “Guidelines for Advance Placement of Warning Signs”. This
60 table is for the advance placement of the sign. This is not necessarily the sight distance a
61 motorist needs to see the Stop sign to make a safe stop. It would seem that that distance
62 would be the Stopping Sight Distance for the approach speed. The stopping sight
63 distance is considerably longer than the distance in the “0 MPH” column in Table 2C-4.



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64 Since the Stop Ahead and Yield Ahead signs can be read and reacted to before the sign is
65 reached, the sign placement distance can be shorter than the stopping sight distance.

66
67 New York State has modified Table 2C-4 so that the “0 MPH” column is the AASHTO
68 Stopping Sight Distance table (Exhibit 3-1) from the AASHTO’s “2004 A Policy on
69 Geometric Design of Highways and Streets”. Wisconsin uses a “Minimum Visibility
70 Distance” which is the Intersection Sight distance for a left turn from a stop. It is Exhibit
71 9-55 of the aforementioned AASHTO Policy.

72
73 Task Force discussions also considered whether the use of the signs should continue to be
74 a Standard or whether it should be reduced to a Guidance statement. Some felt that a
75 Guidance statement would be strong enough and that it would give agencies some
76 leeway. Others felt that not giving warning when sufficient sight distance did not exist
77 could result in a hazardous situation. The consensus was to retain the Standard statement
78 for the use of the sign.

79
80 Task Force discussions also considered whether to provide a low speed exception to the
81 requirement that the sign be used when sufficient stopping sight distance was not
82 available. This would not give carte blanche to agencies or practitioners, but would allow
83 for judgment to be applied in a situation where, for instance, an approach from a 300-foot
84 long cul-de-sac to a Stop sign does not quite meet the SSD requirement due to a curve or
85 short tangent. As matters currently stand, an advance sign would be required, even on a
86 very low volume dead end street, and one where the context guides drivers to exercise
87 due care. As is, the Standard seems unduly restrictive when applied to low speed, low
88 volume conditions.

89
90

91 RECOMMENDATION:

- 92 1. Retain the Standard requirement that the sign be used when sufficient sight
93 distance is not available to stop.
- 94 2. Provide a low speed exception that the sign be used when sufficient sight distance
95 is not available to stop.
- 96 3. Delete the parentheses reference to Table 2C-4 at the end of the second sentence
97 of the first paragraph. Also delete the third sentence which relates to visibility
98 requirement for the Traffic Signal Ahead. Paragraph 03a is a Guidance statement
99 that addresses the same issue. The items in these deletions were causing
100 confusion. The purpose of reference to Table 2C-4 was implied but not specified.



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- 101 Having the visibility criteria for the Signal Ahead sign as both a Standard and a
102 Guidance statement is incorrect.
- 103 4. Add a Guidance statement that says that the visibility criteria for the Stop and
104 Yield signs should be based on the distances specified in Table 2C-X.
- 105 5. Add Table 2C-X that defines the “sufficient sight distance to stop” for Stop signs
106 and Yield signs. AAHSTO Stopping Sight Distance was used with a note that the
107 distances may be adjusted to account for grade and queue lengths.
- 108 6. Change “shows” to “show” in the first line of paragraph 02.
- 109 7. Clean up the wording of paragraph 07. It is now worded similar to paragraph 10.
- 110
- 111

RECOMMENDED WORDING:

112 The following present the proposed changes to the current MUTCD within the context of
113 the current MUTCD language. Proposed additions to the MUTCD are shown in blue
114 underline and proposed deletions from the MUTCD are shown in ~~red strikethrough~~.
115 Changes previously approved by NCUTCD Council (but not yet adopted by FHWA) are
116 shown in green double underline for additions and ~~green double strikethrough~~ for
117 deletions. In some cases, background comments may be provided with the MUTCD text.
118 These comments are indicated by [highlighted light blue in brackets]. Revisions in the
119 proposal text and MUTCD Figure made on the basis of sponsors comments have been
120 highlighted in yellow.

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

122 **Standard:**

123 **01 The Advance Traffic Control symbol signs (see Figure 2C-6) include the Stop**
124 **Ahead (W3-1), Yield Ahead (W3-2), and Signal Ahead (W3-3) signs. These signs**
125 **shall be installed on an approach to a primary traffic control device that is not**
126 **visible for a sufficient distance to permit the road user to respond to the device (see**
127 **Table 2C-4). The visibility criteria for a traffic control signal shall be based on**
128 **having a continuous view of at least two signal faces for the distance specified in**
129 **Table 4D-2.**

131 **Support:**

132 02 Figures 2A-4 and 2A-5a and b shows the typical placement of an Advance Traffic
133 Control sign. (approved by Council January 9, 2012, Attachment # 3, RW # 1)

134 03 Permanent obstructions causing the limited visibility might include roadway alignment
135 or structures. Intermittent obstructions might include foliage or parked vehicles.



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136 *Guidance:*

137 *03a The visibility criteria for a Stop sign or a Yield sign should be based on having a*
138 *continuous view of the Stop sign or the Yield sign for the distance specified in Table 2C-*
139 *X.*

140 *03b The visibility criteria for a traffic control signal should be based on having a*
141 *continuous view of at least two signal faces for the distance specified in Table 4D-2.*
142 *(approved by Council June 22, 2012, RW # 3, Attachment # 6)*

143 *04 Where intermittent obstructions occur or when the 85th - percentile speed or the posted*
144 *speed limit is 25 mph or less, engineering judgment should determine the treatment to be*
145 *implemented.*

146

147 *Option:*

148 *05 An Advance Traffic Control sign may be used for additional emphasis of the primary*
149 *traffic control device, even when the visibility distance to the device is satisfactory.*

150 *06 An advance street name plaque (see Section 2C.58) may be installed above or below an*
151 *Advance Traffic Control sign.*

152 *07 The Advance Traffic Control sign may be supplemented with a A warning beacon (see*
153 *Section 4L.03) may be used with an Advance Traffic Control sign or yellow LEDs within*
154 *the border of the sign (approved by Council June 28, 2014, RW # 3, Attachment # 1)*

155 *08 A BE PREPARED TO STOP (W3-4) sign (see Figure 2C-6) may be used to warn of*
156 *stopped traffic caused by a traffic control signal or in advance of a section of roadway*
157 *that regularly experiences traffic congestion.*

158

159 **Standard:**

160 **09 When a BE PREPARED TO STOP sign is used in advance of a traffic control**
161 **signal, it shall be used in addition to a Signal Ahead sign and shall be placed**
162 **downstream from the Signal Ahead (W3-3) sign.**

163

164 *Option:*

165 *10 The BE PREPARED TO STOP sign may be supplemented with a warning beacon (see*
166 *Section 4L.03) or yellow LEDs within the border of the sign. (approved by Council June*
167 *28, 2014, RW # 3, Attachment # 1)*

168

169 *Guidance:*

170 *11 When the warning beacon or sign border LEDs are ~~is~~ interconnected with a traffic*
171 *control signal or queue detection system, the BE PREPARED TO STOP sign should be*
172 *supplemented with a WHEN FLASHING (W16-13P) plaque (see Figure 2C-12).*

173 *(approved by Council June 28, 2014, RW # 3, Attachment # 1)*



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174
175 Support:
176 12 Section 2C.40 contains information regarding the use of a NO MERGE AREA (W4-
177 5P) supplemental plaque in conjunction with a Yield Ahead sign.
178

179 [Table 2C-X Minimum Sight Distance for a Stop or Yield 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

180 Note: Distances may be adjusted for queue length or grade. The Table is based on 2011 AASHTO Policy on Geometric
181 Design of highways and Streets, Table 3-1, Stopping Sight Distance on Level Roadways.

182 C: NCUTCD/January 2018/18A.RW.02 Advance Traffic Control Signs Section 2C.36 , 12-6-17, updated 12-10-17, revised 1-3-18