



**National Committee on
Uniform Traffic Control Devices**

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**National Committee on Uniform Traffic Control Devices
RWSTC**

TECHNICAL COMMITTEE: NCUTCD Regulatory/Warning Signs Technical Committee

DATE OF ACTION: 5-12-13, revised 5-13-13, revised 5-19-13, revised 5-20-13, revised 5-26-13, revised 5-28-13, revised 5-29-13

Task force: Tom Heydel (chair) , Dan Paddick, Fred Ranck, Jeff Wolfe

RWSTC APPROVAL DATE: 6-26-13, revised following sponsor comments 12-18-13, revised 1-8-14 by RWSTC

TRANSMITTAL TO SPONSORS DATE: Fall 2013

RWSTC APPROVAL FOLLOWING SPONSOR COMMENTS: 1-8-14

COUNCIL APPROVAL DATE: 1-10-14

TOPIC: Size of R10-11, 11a, 11b and 17a sign designs - NTOR (NO TURN ON RED) and RIGHT ON RED ARROW AFTER STOP.

AFFECTED PORTIONS OF MUTCD: Section 2B.03, Figure-2B-27 and Table 2B-1

DISCUSSION/QUESTION:

At the January 2013 meetings, RWSTC concurred that the task force should develop a proposal for review and that we should allow smaller NTOR signs as noted in the discussion.

For multi-lane roadways Table 2B-1 for conventional roadways indicates sign sizes for some of the R10 series signs as larger than they were in the previous manual. Table 2B-1 also provides columns for the single lane sign size and multi-lane sign size. The new multi-lane column (speed limits 40 and higher) often has larger sizes shown. One example of this is the No Turn on Red (NTOR) sign (R10-11) which is 24 x 30 for single lane and 36 x 48 for multi-lane. The 36 x 48 is a relatively large sign and can sometimes present issues in urban locations. The same holds true for the RIGHT ON RED ARROW AFTER STOP (R10-17a). This sign size can be problematic for structural reasons if mounted overhead on a signal span wire or arm. It can also sometimes be difficult in tight urban locations in terms of space for a post mounted signs. For side post mounted signs, it may not be necessary to have this large of a sign, since

39 the driver reading this sign is in the right lane and at the stop bar/stop condition when reading the sign.
40 Also, the sign only applies to drivers in the right lane (R10-11, 11a and 11b, 17a)

41 There is a need to provide for an exception in size for post mounted signs as well as the overhead
42 application.

43 The goal is to have a sign that will perform as intended; which is to be legible at a distance that provides
44 adequate time to read, comprehend and obey the sign. 2009 MUTCD went from a 1" letter height
45 equals 30 feet of legibility from the previous 1" in 40'. Since the driver is at a stop bar when reading
46 the sign, the 4" Series D legend is proper size since the driver will be reading the sign from at less than
47 120 feet. Many R10 series signs do perform well with 4" legend. The FHWA sign plates show the 4"
48 legend size for the R10-11, 11a, 11b and 17a. The 6" series D legend shown for the R10-11, R10-11a,
49 R10-11b and R10-17a for multi-lane is not needed since the driver is stopped when reading the sign and
50 is 120 feet or less from the sign. In urban locations there is often a space limitation for the 36" x 48"
51 sign. The other application when the smaller single lane size should be allowed is when used overhead
52 on a sign structure where the overhead structure cannot support the wind loading for the sign such as
53 on span wire supports or trombone signal arms.

54 **RECOMMENDATION:**

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56 Change the text to allow the single lane size as an option at a multi-lane approach. Refer to
57 table 2B-1 portion shown below that shows the R10 series signs in question.

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59 Delete the * (asterisk) in table 2B-1 on signs R10-11 and R10-11a since these signs are not in
60 table 9B-1 which the * refers to. This has nothing to do with NTOR signs but is purely cleanup
61 of the table.

62

63

64 **The following sign sizes are recommended to be modified:**

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	Single lane	Multi-lane	
66 R10-11	24 x 30	36 x 48	NO TURN ON RED
67	Allow the option for 24" x 30" (4" letters) sign size on multilane roads.		
68			
69 R10-11a	30 x 36	36 x 48	NO TURN ON RED
70	Allow the option for 24" x 30" sign size on multilane roads installations. This is 4" series		
71	D letters for 24 x 30. Change the single lane size to 24" x 30"		
72			
73 R10-11b	36 x 36	36 x 36	NO TURN ON RED
74	Allow the option for 24" x 24" sign size on multilane roads installations. This is 4" letters		
75	series D. Change the single lane size to 24" x 24"		
76			
77 R10-17a	36 x 48	36 x 48	RIGHT ON RED ARROW AFTER STOP
78	STOP		
79	Allow the option for 30" x 36" sign size on multilane roads. This is 4" series D letters.		
80	Change the single lane size to 30" x 36". This then is consistent with the width of the		
81	R10-11d, R10-12 and R10-11c which are already 30" wide per table 2B-1.		

82
 83 **Modify language in Section 2B.03 (size of regulatory signs) to include an option for the**
 84 **practioner to use the single lane sign size on multilane roads for the R10-11, 11a, 11b and**
 85 **17a signs.**

86
 87 **Change the sign size charts for R10-11, 11a, 11b and R10-17a for single lane size as shown**
 88 **below.**

89
 90 **If single lane size is used as a far side overhead or post mounted sign; then a near side sign**
 91 **would also be required to supplement the smaller far side sign, when the distance is more**
 92 **than 120 feet to the far side sign from the stop bar, since the legibility distance for 4” letters**
 93 **is 120 feet.**

94
 95
 96 **RECOMMENDED WORDING:**

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 98 **Note: Proposed changes to the MUTCD are shown in underline red and removed text are**
 99 **shown in ~~strikethrough red~~.**

100 **Section 2B.03 Size of Regulatory Signs**

101 **Standard:**
 102 **01 Except as provided in Section 2A.11, the sizes for regulatory signs shall be as shown**
 103 **in Table 2B-1.**

Table 2B-1. Regulatory Sign and Plaque Sizes								
Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
No Turn on Red	R10-11	2B.54	24 x 30 * Delete *	36 x 48	—	—	—	36 x 48
No Turn on Red	R10-11a	2B.54	30 x 36* <u>24 x</u> <u>30</u> Delete *	36 x 48	—	—	—	—
No Turn on Red	R10-11b	2B.54	36 x 36 <u>24 x</u> <u>24</u>	36 x 36	—	—	—	—
No Turn on Red	R10-11c	2B.54	30 x 42	30 x 42	—	—	—	—

Table 2B-1. Regulatory Sign and Plaque Sizes								
Sign or Plaque	Sign Designation	Section	Conventional Road		Expressway	Freeway	Minimum	Oversized
			Single Lane	Multi-Lane				
Except From Right Lane								
No Turn on Red From This Lane	R10-11d	2B.54	30 x 42	30 x 42	—	—	—	—
								—
Right on Red Arrow After Stop	R10-17a	2B.54	36 x 48 <u>30 x 36</u>	36 x 48	—	—	—	—

104

105 * See [Table 9B-1](#) for minimum size required for signs on bicycle facilities

106 Notes:

- 107 1. Larger signs may be used when appropriate
- 108 2. Dimensions in inches are shown as width x height

109 Support:

110 02 [Section 2A.11](#) contains information regarding the applicability of the various columns in [Table](#)
111 [2B-1](#).

112 **Standard:**

113 03 **Except as provided in [Paragraphs 4](#) and [5](#), the minimum sizes for regulatory signs**
114 **facing traffic on multi-lane conventional roads shall be as shown in the Multi-lane**
115 **column of [Table 2B-1](#).**

116 Option:

117 04 Where the posted speed limit is 35 mph or less on a multi-lane highway or street, other than
118 for a STOP sign, the ~~minimum~~-size shown in the Single Lane column in [Table 2B-1](#) may be used.

119 05 Where a regulatory sign, other than a STOP sign, is placed on the left-hand side of a multi-
120 lane roadway in addition to the installation of the same regulatory sign on the right-hand side or
121 the roadway, the size shown in the Single Lane column in [Table 2B-1](#) may be used for both the
122 sign on the right-hand side and the sign on the left-hand side of the roadway.

123 **Standard:**
124 06 **A minimum size of 36 x 36 inches shall be used for STOP signs that face multi-lane**
125 **approaches.**

126 07 **Where side roads intersect a multi-lane street or highway that has a speed limit of**
127 **45 mph or higher, the minimum size of the STOP signs facing the side road**
128 **approaches, even if the side road only has one approach lane, shall be 36 x 36 inches.**

129 08 **Where side roads intersect a multi-lane street or highway that has a speed limit of**
130 **40 MPH or lower, the minimum size of the STOP signs facing the side road approaches**
131 **shall be as shown in the Single Lane or Multi-lane columns of Table 2B-1 based on the**
132 **number of approach lanes on the side street approach.**

133 *Guidance:*
134 09 *The minimum sizes for regulatory signs facing traffic on exit and entrance ramps should be as*
135 *shown in the column of Table 2B-1 that corresponds to the mainline roadway classification*
136 *(Expressway or Freeway). If a minimum size is not provided in the Freeway column, the*
137 *minimum size in the Expressway column should be used. If a minimum size is not provided in*
138 *the Freeway or Expressway Column, the size in the Oversized column should be used.*

139 **Option:**
140 **10 The following signs may be the single lane size on a multi-lane approach:**

- 141 • **The R10-11 or R10-11a NO TURN ON RED signs(24" x 30")**
- 142 • **The R10-11b NO TURN ON RED sign (24" x 24")**
- 143 • **The R10-17a RIGHT ON RED ARROW AFTER STOP sign (30" X 36").**

144 **Standard:**

145
146 **13 If a single-lane R10-11, 11a, 11b, or 17a sign size as shown in Table 2B-1 is used on an**
147 **approach on the far side of the intersection, and the distance between the stop line and the**
148 **sign is more than 120 feet, then a near side NO TURN ON RED or RIGHT ON RED**
149 **ARROW AFTER STOP sign as applicable shall be required to supplement the far side**
150 **sign.**

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153 RWSTC Vote 6-26-13 For: 21

154 Against: 1

155 RWSTC Vote: January 8, 2014 For: Unanimous

156 Against

157 Abstentions:

158 Council Vote: January 10, 2014

159 For: 35

160 Against: 1

161 Abstentions:

162 C: NCUTCD/Jan 2014 meeting/ RW # 6 R10 Series sign designs – NTOR 5-12-13, revised 5-13-13, revised
163 5-19-13, revised 5-20-13, revised 5-26-13, revised 5-28-13, revised 5-29-13, revised 6-26-13 READY FOR
164 SPONSORS, revised following sponsor comments 12-18-13, approved by RWSTC 1-8-14, approved by
165 Council 1-10-14

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