



National Committee on Uniform Traffic Control Devices

13236 North 7th Street, Suite 4-259, Phoenix, Arizona 85022
Phone/Text: 231-4-NCUTCD (231-462-8823)
E-mail: secretary@ncutcd.org Website: <https://ncutcd.org>

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National Committee on Uniform Traffic Control Devices (NCUTCD) Recommended Changes to Proposed Text for 11th Edition of the MUTCD Docket Number: FHWA-2020-0001

6 **Federal Register Item Number:** 364

7 **NPA MUTCD Section Number:** Sections 3G.01-3G.04

8 **Legend:** Base text shown in proposal is the NPA “clean” proposed text.

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- 10 • [NCUTCD recommendation for text to be added in final rule.](#)
 - 11 • ~~NCUTCD recommendation for text to be deleted in final rule.~~
 - 12 • [NCUTCD recommendation for text to be moved/relocated in final rule.](#)
 - 13 • NPA text that was not previously approved by NCUTCD but is now approved.
 - 14 • Explanatory note: [\[Note that explains purpose of recommended change.\]](#)

15 The following pages present NCUTCD recommendations for changes to the MUTCD NPA
16 proposed text, tables, and figures for Chapter 3G. Below is a short summary of the NCUTCD
17 position for each section of this chapter. A more detailed summary is provided at the beginning
18 of each section.

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- 20 • Section 3G.01: NCUTCD agrees with NPA content (no changes recommended).
 - 21 • Section 3G.02: Changes recommended based on Council action in spring 2021.
 - 22 • NPA #364, Section 3G.03: NCUTCD agrees with NPA content (no changes recommended).
 - 23 • Section 3G.04: NCUTCD agrees with NPA content (no changes recommended).
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CHAPTER 3G. DELINEATORS

Section 3G.01 Comments: NCUTCD agrees with 3G.01 as presented in the NPA.

Section 3G.01 General

Support:

Delineators are particularly beneficial at locations where the alignment might be confusing or unexpected, such as at lane-reduction transitions and curves. Delineators are effective guidance devices at night and during adverse weather. An important advantage of delineators in certain locations is that they remain visible when the roadway is wet or snow covered.

Delineators are considered guidance devices to help road users navigate the roadway alignment, rather than warning devices.

Option:

Delineators may be used on long continuous sections of highway or through short stretches where there are changes in horizontal alignment.

Section 3G.02 Comments: NCUTCD generally agrees with 3G.02 as presented in the NPA, but recommends adding a provision in the Standard statement calling for crashworthy supports that was deleted from Part 6.

Section 3G.02 Design

Standard:

Delineators shall consist of retroreflective devices that are capable of clearly retroreflecting light under normal atmospheric conditions from a distance of 1,000 feet when illuminated by the high beams of standard automobile lights. They shall be mounted on crashworthy supports.

Retroreflective elements for delineators shall have a minimum vertical and horizontal, or diametric dimension of 3 inches.

Support:

Within a series of delineators along a roadway, delineators for a given direction of travel at a specific location are referred to as single delineators if they have one retroreflective element for that direction, double delineators if they have two identical retroreflective elements for that direction mounted together, or vertically elongated delineators if they have a single retroreflective element with an elongated vertical dimension to approximate the vertical dimension of two separate single delineators.

Option:

A vertically elongated delineator of appropriate size may be used in place of a double delineator.

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68 **Section 3G.03 Comments:** NCUTCD agrees with 3G.03 as presented in the NPA.
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70 **Section 3G.03 Application**

71 **Standard:**

72 **The color of delineators shall comply with the color of edge lines stipulated in Sections**
73 **3A.03 and 3B.09.**

74 **A series of single delineators shall be provided on the right-hand side of freeways and**
75 **expressways and on at least one side of interchange ramps, except when either Condition A**
76 **or Condition B is met, as follows:**

77 **A. On tangent sections of freeways and expressways when both of the following**
78 **conditions are met:**

79 **1. Raised pavement markers are used continuously on lane lines throughout all**
80 **curves and on all tangents to supplement pavement markings, and**

81 **2. Roadside delineators are used to lead into all curves.**

82 **B. On sections of roadways where continuous lighting is in operation between**
83 **interchanges.**

84 **Option:**

85 Delineators may be provided on other classes of roads.

86 A series of single delineators may be provided on the left-hand side of roadways.

87 **Standard:**

88 **Delineators on the left-hand side of a two-way roadway shall be white (see Figure 3G-1).**

89 *Guidance:*

90 *A series of single delineators should be provided on the outside of curves on interchange*
91 *ramps. Where median crossovers are provided for official or emergency use on divided highways*
92 *and where these crossovers are to be marked with pavement markings, a double yellow*
93 *delineator should be placed on the left-hand side of the through roadway on the far side of the*
94 *crossover for each roadway. Double or vertically elongated delineators should be installed at*
95 *approximately 100-foot intervals along acceleration and deceleration lanes.*

96 *A series of delineators should be used wherever guardrail or other longitudinal barriers are*
97 *present along a roadway or ramp.*

98 **Option:**

99 Red delineators may be used on the reverse side of any delineator where it would be viewed
100 by a road user traveling in the wrong direction on that particular ramp or roadway.

101 *Guidance:*

102 Except as provided in Paragraph 11 of Section 3B.12, delineators of the appropriate color
103 should be used to indicate a lane-reduction transition where either an outside or inside lane
104 merges into an adjacent lane.

105 *When used for lane-reduction transitions, the delineators should be installed adjacent to the*
106 *lane or lanes reduced for the full length of the transition and should be so placed and spaced to*
107 *show the reduction (see Section 3B.12 and Figure 3B-14).*

108 *On a highway with continuous delineation on either or both sides, delineators should be*
109 *carried through transitions.*

110 **Standard:**

111 **When used on a truck escape ramp, delineators shall be red.**

112 *Guidance:*

113 *Red delineators should be placed on both sides of truck escape ramps.*

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116 **Section 3G.04 Comments:** NCUTCD agrees with 3G.04 as presented in the NPA.

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118 **Section 3G.04 Placement and Spacing**

119 *Guidance:*

120 *Except as provided in Paragraph 2, delineators should be mounted at a height, measured*
121 *vertically from the bottom of the lowest retroreflective device to the elevation of the near edge of*
122 *the roadway, of approximately 4 feet.*

123 *Option:*

124 When mounted on the face of or on top of guardrails or other longitudinal barriers,
125 delineators may be mounted at a lower elevation than the normal delineator height recommended
126 in Paragraph 21.

127 *Guidance:*

128 *Delineators should be placed 2 to 8 feet outside the outer edge of the shoulder, or if*
129 *appropriate, in line with the roadside barrier that is 8 feet or less outside the outer edge of the*
130 *shoulder.*

131 *Delineators should be placed at a constant distance from the edge of the roadway, except*
132 *that where an obstruction intrudes into the space between the pavement edge and the extension*
133 *of the line of the delineators, the delineators should be transitioned to be in line with or inside*
134 *the innermost edge of the obstruction. If the obstruction is a guardrail or other longitudinal*
135 *barrier, the delineators should be transitioned to be just behind, directly above (in line with), or*
136 *on the innermost edge of the guardrail or longitudinal barrier.*

137 *Delineators should not present a vertical or horizontal clearance obstacle for pedestrians.*

138 *Delineators should be spaced 200 to 530 feet apart on mainline tangent sections.*

139 *Delineators should be spaced 100 feet apart on ramp tangent sections.*

140 *Option:*

141 *On a highway with continuous delineation on either or both sides, the spacing between a*
142 *series of delineators may be closer.*

143 When uniform spacing is interrupted by such features as driveways and intersections,
144 delineators which would ordinarily be located within the features may be relocated in either

145 direction for a distance not exceeding one quarter of the uniform spacing. Delineators still
146 falling within such features may be eliminated.

147 Delineators may be transitioned in advance of a lane transition or obstruction as a guide for
148 oncoming traffic.

149 *Guidance:*

150 *The spacing of delineators should be adjusted on approaches to and throughout horizontal*
151 *curves so that several delineators are always simultaneously visible to the road user. The*
152 *approximate spacing shown in Table 3G-1 should be used.*

153 *The spacing between red delineators that are placed on both sides of a truck escape ramp*
154 *should not exceed 50 feet for a distance that is sufficient to identify the ramp entrance. The*
155 *spacing between red delineators that are placed beyond the ramp entrance should be such that*
156 *adequate guidance is provided based on the length and design of the escape ramp.*

157 *Option:*

158 When needed for special conditions, delineators of the appropriate color may be mounted in
159 a closely-spaced manner on the face of or on top of guardrails or other longitudinal barriers to
160 form a continuous or nearly continuous “ribbon” of delineation.

161 *Support:*

162 Examples of delineator installations are shown in Figure 3G-1.

163 **Table 3G-1 Comments: NCUTCD agrees with Table 3G-1 as presented in the NPA.**

164 **Table 3G-1. Approximate Spacing for Delineators on Horizontal Curves**

Table 3G-1. Approximate Spacing for Delineators on Horizontal Curves

Radius (R) of Curve	Approximate Spacing (S) on Curve
50 feet	20 feet
115 feet	25 feet
180 feet	35 feet
250 feet	40 feet
300 feet	50 feet
400 feet	55 feet
500 feet	65 feet
600 feet	70 feet
700 feet	75 feet
800 feet	80 feet
900 feet	85 feet
1,000 feet	90 feet

NOTES:

1. Spacing for specific radii may be interpolated from table.
2. The minimum spacing should be 20 feet.
3. The spacing on curves should not exceed 300 feet.
4. In advance of or beyond a curve, and proceeding away from the end of the curve, the spacing of the first delineator is 2S, the second 3S, and the third 6S, but not to exceed 300 feet.
5. S refers to the delineator spacing for specific radii computed from the formula $S=3\sqrt{R-50}$.
6. The distances for S shown in the table above were rounded to the nearest 5 feet.

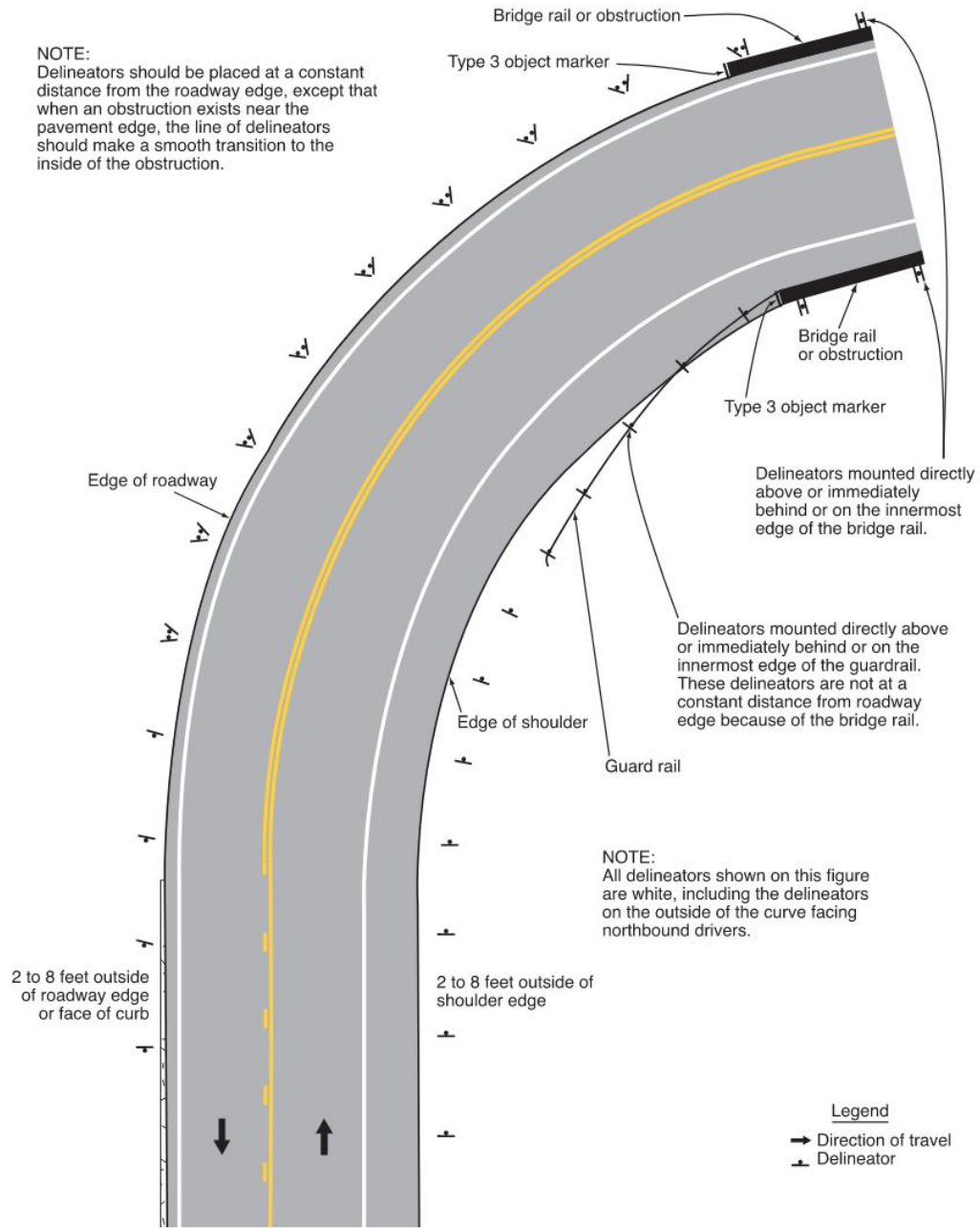
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Figure 3G-1 Comments: NCUTCD agrees with Figure 3G-1 as presented in the NPA.

Figure 3G-1. Examples of Delineator Placement

Figure 3G-1. Examples of Delineator Placement



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