

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

1 Item No.: 24B-GMI-01

2

4 5

NCUTCD RECOMMENDATION FOR CHANGES TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES

COMMITTEE / TASK FORCE: Guide and Motorist Information Sign Technical Committee

ITEM NUMBER: 24B-GMI-01

TOPIC: Advance Guide Signs at Closely Spaced Interchanges

ORIGIN OF REQUEST: GMI Technical Committee

AFFECTED SECTIONS 2E.23, 2E.31, 2E.32, 2E.43, 2E.44

OF MUTCD:

6

7

8

DEVELOPMENT HISTORY:

Approved by GMI: 01/11/2024, 06/11/2025

Approved by NCUTCD Council: 06/12/2025

9 10 11

12

13 14 This is a recommended change 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.

15 16

17

18

19

20

21

22

2324

25

26

SUMMARY:

An option for spacing Advance Guide signs for closely spaced interchanges is proposed to be relocated from Section. 2E.32, Diamond Interchange in Urban Area, to Section 2E.23, Advance Guide Signs, so it can be applied to all types of interchanges in both urban and rural areas. Section 2E.23 is also proposed to be reorganized to improve the flow of information. The relocation of the option paragraph from Section 2E.32 resulted in leaving the section with just two support paragraphs, which are proposed to be relocated to Section 2E.31 so Section 2E.32 can be deleted entirely. A sponsor comment suggested reviewing the content in Section 2E.44, Closely Spaced Interchanges. Based on the review of Section 2E.44, this proposal relocates all material from Section 2E.44 to other applicable sections, resulting in the deletion of Section 2E.44.

27 28

GUIDE SIGNING	G FOR INTERCHANGES	
Section 2E.21	Interchange Guide Signs	304
Section 2E.22	Interchange Exit Numbering	304
Section 2E.23	Interchange Advance Guide Signs (E1-1 through E1-3)	312
Section 2E.24	Interchange Sequence Signs (E9-1 and E9-2)	314
Section 2E.25	Exit Direction Signs (E4 Series)	
Section 2E.26	Exit Gore Signs and Plaque (E5-1 Series)	319
Section 2E.27	Pull-Through Signs (E6-1 Series and E6-2 Series)	
Section 2E.28	Signing for Interchange Lane Drops without an Optional Exit Lane	321
Section 2E.29	Signing by Type of Interchange	324
Section 2E.30	Minor Interchange	324
Section 2E.31	Diamond Interchange	333
Section 2E.32	Diamond Interchange in Urban Area	333
Section 2E.33	Cloverleaf Interchange	333
Section 2E.34	Cloverleaf Interchange with Collector-Distributor Roadways	337
Section 2E.35	Partial Cloverleaf Interchange	337
Section 2E.36	Collector-Distributor Roadways for Successive Interchanges	337
Section 2E.37	Freeway-to-Freeway Interchanges	337
Section 2E.38	Freeway Split with Dedicated Lanes	
Section 2E.39	Signing for Option Lanes at Splits and Multi-Lane Exits	344
Section 2E.40	Design of Overhead Arrow-per-Lane Guide Signs for Option Lanes	346
Section 2E.41	Design of Freeway and Expressway Diagrammatic Advance Guide Signs	351
Section 2E.42	Signing for Intermediate and Minor Interchange Multi-Lane Exits with an Option Lane	356
Section 2E.43	Number of Signs at an Overhead Installation and Sign Spreading	361
Section 2E.44	Closely-Spaced Interchanges	363
Section 2E.45	Guide Signing in Tunnels and Similar Structures	363

This proposal addresses the following issues:

• The following option is included in Section 2E.32: "If interchanges are too closely spaced to locate the Advance Guide signs at the distances specified in Section 2E.23, they may be placed closer to the exit with the distances displayed adjusted accordingly." This text offers a useful option for spacing of Advance Guide signs, but it is located in Section 2E.32, "Diamond Interchange in Urban Area." The option permitted by this text should be available for all configurations of interchanges, not just diamonds, and should not be limited to urban areas. While closely spaced interchanges are more common in urban areas, they also exist in rural areas. This option is proposed to be relocated to Section 2E.23, where it will apply more broadly and fit in context. A proposed reorganization of paragraphs in Section 2E.23 is expected to provide practitioners a clearer presentation of the desirable signing approach for interchanges with different spacing.

 The relocation of the Option paragraph in Section 2E.32 discussed above resulted in leaving Section 2E.32 with two Support paragraphs, which are proposed to be relocated as follows:

Para. 1 references Figure 2E-28 for an example of guide signs for a diamond interchange in an urban area. This is proposed to be relocated to the end of Section 2E.31, Diamond Interchange.

- 59 60
- 61 62 63

64 65

66 67 68

> 69 70

72 73 74

71

76 77 78

75

79 80

81

87 88 89

90 91 92

93

96

101

94 Support:

95

97 Standard:

98

99 [Relocated from paragraph 3 of Section 2E.44.] 100

Section 2E.23 Advance Guide Signs (E1 Series)

- Paragraph 2 describes the display of street names as the principal message on destination signs in urban areas. This is proposed to be deleted, since it is already in Section 2E.15 and other locations, and therefore duplicative.
- Section 2E.44, Closely Spaced Interchanges, contains three paragraphs:
 - Paragraph 1 offers support about the benefits of sign spreading for closely spaced interchanges. It is proposed to be relocated to Section 2E.43, which discusses sign spreading in detail.
 - Paragraph 2 provides guidance on use of Interchange Sequence signs for closely spaced interchanges, but this guidance does not guantify what "closely" means. A provision in paragraph 16 of Section 2E.23 provides similar guidance but puts a dimension on "closely." Since the guidance in Section 2E.23 is more specific and actionable for practitioners, paragraph 2 of Section 2E.44 appears to be duplicative and unnecessary.
 - Paragraph 3 provides a standard that Interchange Advance Guide signs shall only show information about one interchange. However, this standard applies to all Interchange Advance Guide signs, not just those for closely spaced interchanges. This text is proposed to be relocated to Section 2E.23, which addresses Interchange Advance Guide signs generally.

RECOMMENDED MUTCD CHANGES:

The following present the proposed changes to the current MUTCD within the context of the current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and proposed deletions from the MUTCD are shown in red strikethrough. Changes previously approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double underline for additions and groon double strikethrough for deletions. In some cases. background comments may be provided with the MUTCD text. These comments are indicated by [bracketed white text in shaded green].

PART 2. SIGNS

- CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS
- An Interchange Advance guide sign (see Figure 2E-9) gives notice well in advance of the exit point of the principal destinations served by the next interchange and the distance to that interchange.
- 01a Interchange Advance guide signs shall show information about only one interchange.
- Except as provided in Paragraph 16 4c of this Section, and in Paragraph 18 of Section 2E.25, at least one Interchange Advance guide sign shall be used for all interchange classifications.

- 102 Guidance:
- 103 os At major and intermediate interchanges (see Section 2E.11), at least two Interchange Advance guide
- signs should be used, placed at ½ mile and at 1 mile in advance of the exit. A third Interchange Advance
- guide sign should be placed at 2 miles in advance of the exit if spacing permits.
- 106 o4 At minor interchanges, the Interchange Advance guide sign should be located ½ to 1 mile from the
- 107 exit gore.
- 108 Option:
- 109 o4a If interchanges are too closely spaced to locate the Interchange Advance guide sign(s) at the
- distances in Paragraphs 3 and 4 of this Section, they may be placed closer to the exit, with the distances
- displayed adjusted accordingly. [Relocated from Section 2E.32.]
- Where the distance between interchanges is more than 1 mile but less than 2 miles, the first
- 113 Interchange Advance guide sign may be closer than 2 miles, but not placed so as to overlap the signing
- for the preceding exit. Duplicate Interchange Advance guide signs or Interchange Sequence Series signs
- 115 (see Section 2E.24) may be placed in the median on the opposite side of the roadway and are not included
- in the minimum requirements of interchange signing. [Relocated from paragraph 15 of this section to
- group information logically.]
- 118 Guidance:
- 119 04c Where there is less than 800 feet between the theoretical gores of successive interchange entrance or
- exit ramps, Interchange Sequence Series signs should be used instead of Interchange Advance guide signs
- for the affected interchanges. [Relocated from paragraph 16 of this section. This paragraph contains
- guidance sufficient to allow deleting paragraph 2 of Section 2E.44.]
- 123 Support:
- 124 os Sections 2E.29 through 2E.44 43 contain additional provisions regarding the number, location, and
- mounting of Interchange Advance guide signs for certain interchange configurations.
- 126 Standard:
- 127 of Except as provided in Section 2E.28, the legend on Interchange Advance guide signs shall
- 128 contain the distance message. For each direction of travel, the legend on the Interchange Advance
- 129 guide signs shall be the same as the legend on the Exit Direction sign, except that the last line shall
- be the distance message. The distance message shall read XX MILE(S) where exit numbers are
- used. Where exit numbers are not used, the distance message shall read EXIT XX MILE(S) for an
- interchange with one exit ramp, and EXITS XX MILE(S) for an interchange with two or more exit
- ramps.
- 134 Guidance:
- 135 or Where an Interchange Advance guide sign is located more than 1,000 feet to ½ mile but not more
- 136 than I mile from the exit, the distance displayed should be to the nearest ¼ mile. Where the distance to be
- displayed on an Interchange Advance guide sign is 1,000 feet or less, the distance should be displayed in
- feet, rather than miles, to the nearest 100 feet. [The text "but not more than 1 mile" has been identified
- by FHWA as a known error. GMI agrees that this phrase should be deleted.
- 140 Standard:
- When a distance is displayed in miles, fractions of a mile, rather than decimals, shall be
- 142 displayed in all cases.
- 143 op For numbered exits, the exit number used with the Interchange Advance guides signs shall be
- displayed using an Exit Number plaque above and abutting the Interchange Advance guide sign.
- 145 for numbered exits to the right, an Exit Number (E1-5P through E1-5eP) plaque (see Figure
- 146 **2E-9)** shall be added to the top right-hand edge of the sign.

- 147 For numbered exits to the left, a Left Exit Number (E1-5fP through E1-5kP) plaque (see
- 148 Figure 2E-9) shall be added directly above the top left-hand edge of the sign (see Figures 2E-18 and
- 149 **2E-34**).
- 150 12 For unnumbered exits to the left, a LEFT (E1-5mP) plaque (see Figure 2E-9) shall be added to
- the top left-hand edge of the sign, abutting the sign.
- Support:
- 153 Section 2E.22 contains additional information regarding exit numbering.
- 154 Standard
- 155 44 Interchange Advance guide signs for multi-lane exits having an optional exit lane that also
- carries the through route at major interchanges (see Figures 2E-36, 2E-37, and 2E-42) and for splits
- 157 with an option lane (see Figures 2E-38 and 2E-39) shall be Overhead Arrow-per-Lane signs
- designed in accordance with Sections 2E.39 and 2E.40. [Relocated to paragraph 15 of this section.]
- 159 Option:
- 160 Where the distance between interchanges is more than 1 mile, but less than 2 miles, the first
- 161 Interchange Advance guide sign may be closer than 2 miles, but not placed so as to overlap the signing
- 162 for the preceding exit. Duplicate Interchange Advance guide signs or Interchange Sequence Series signs
- 163 may be placed in the median on the opposite side of the roadway and are not included in the minimum
- 164 requirements of interchange signing. [Relocated to paragraph 4b of this section.]
- 165 Guidance:
- 166 16 Where there is less than 800 feet between the theoretical gores of successive interchange entrance or
- 167 exit ramps, Interchange Sequence Series signs (see Section 2E.24) should be used instead of Interchange
- 168 Advance guide signs for the affected interchanges. [Relocated to paragraph 4c of this section.]
- 169 # 14 The Interchange Advance guide signs for the last exit from a highway before it becomes a facility on
- 170 which toll payments are required should include the LAST EXIT BEFORE TOLL (W16-16P) plaque (see
- 171 Section 2F.10 and Figure 2F-4). The plaque should be installed above the Interchange Advance guide
- signs, but below the Exit Number or LEFT plaque, if used.
- 173 **Standard:**
- 174 15 Interchange Advance guide signs for multi-lane exits having an optional exit lane that also
- carries the through route at major interchanges (see Figures 2E-36, 2E-37, and 2E-42) and for splits
- with an option lane (see Figures 2E-38 and 2E-39) shall be Overhead Arrow-per-Lane signs
- designed in accordance with Sections 2E.39 and 2E.40. [Relocated from paragraph 14 of this section.]
- 178 **Section 2E.31 Diamond Interchange**
- 179 Support:
- 180 of An example of guide signs for a diamond interchange is shown in Figure 2E-27.
- 181 o2 The typical diamond interchange ramp departs from the main roadway such that a speed reduction
- generally is not necessary in order for a driver to negotiate an exit maneuver from the main roadway onto
- the ramp roadway. Section 2C.12 contains provisions for the use of an Advisory Exit Speed (W13-2) sign
- 184 for situations where a speed reduction is necessary.
- 185 Guidance:
- 186 og When a speed reduction is not necessary, an Advisory Exit Speed sign should not be used.
- 187 of The Advisory Exit Speed sign, if used, should be located along the deceleration lane or along the
- ramp such that it is visible to the driver far enough in advance to allow the driver to decelerate before
- reaching the curve associated with the exiting maneuver. Use and placement of the Advisory Exit Speed
- sign should otherwise comply with Section 2C.12 of this Manual.
- 191 Option:

- 192 os A Stop Ahead (W3-1) or Signal Ahead (W3-3) warning sign (see Section 2C.35) may be placed,
- where engineering judgment indicates a need, along the ramp in advance of the crossroad, to give notice
- to the driver.
- 195 Guidance:
- 196 06 When used on two-lane ramps, Stop Ahead or Signal Ahead signs should be used in pairs with one
- 197 sign on each side of the ramp.
- 198 or Where the exit ramp allows traffic to turn in either direction onto the crossroad, a Destination (D1
- series) sign (see Section 2D.36) that includes each destination displayed on the Advance, Exit Direction,
- and Supplemental guide signs along the main roadway for that exit should be placed along the ramp.
- 201 Support:
- This example includes the use of the Community Interchanges Identification sign (see Section 2E.52),
- which might be useful if two or more interchanges serve the same community. [Relocated from
- paragraph 1 of Section 2E.32.]
- 206 Section 2E.32 Diamond Interchange in Urban Area [All content in this Section is relocated or
- deleted.
- 208 Support:
- 209 of An example of guide signs for a diamond interchange in an urban area is shown in Figure 2E-28.
- 210 This example includes the use of the Community Interchanges Identification sign (see Section 2E.52),
- 211 which might be useful if two or more interchanges serve the same community. [Relocated to the end of
- 212 Section 2E.31.]
- 213 02 In urban areas, street names are often displayed as the principal message in destination signs.
- [Deleted, since it is already in Section 2E.15 and other locations, therefore duplicative.]
- 215 Option:
- 216 03 If interchanges are too closely spaced to locate the Interchange Advance Guide signs at the distances
- specified in Section 2E.23, they may be placed closer to the exit with the distances displayed adjusted
- 218 accordingly. [Relocated to paragraph 4a of Section 2E.23.]
- 219
- 220 [Subsequent sections renumbered to reflect deletion of Section 2E.32.]
- Section 2E.43 42 Number of Signs at an Overhead Installation and Sign Spreading
- 222 Guidance:
- 223 of If overhead signs are warranted, as set forth in Section 2A.13, the number of signs at these locations
- should be limited to only those essential in communicating pertinent destination information to the road
- 225 user. Exit Direction signs for a single exit and the Interchange Advance Guide signs should have only one
- sign with one or two destinations. Regulatory signs, such as speed limits, should not be used in
- 227 conjunction with overhead guide sign installations. Because road users have limited time to read and
- 228 comprehend sign messages, there should not be more than three guide signs displayed at any one location
- 229 either on the overhead structure or its support.
- 230 Option:
- 231 o2 At overhead locations, more than one sign may be installed to advise of a multiple exit condition at
- an interchange. If the roadway ramp or crossroad has complex or unusual geometrics, additional signs
- with confirming messages may be provided to properly guide the road user.
- 234 Support:
- 235 os Sign spreading is a concept where major overhead signs are spaced so that road users are not
- overloaded with a group of signs at a single location. Figure 2E-48 illustrates an example of sign
- spreading. Sign spreading is particularly beneficial where interchanges are closely spaced and overhead

- 238 <u>signing is used in conjunction with Interchange Sequence signs.</u> [Relocated from paragraph 1 of Section
 239 2E.44.]
- 240 Guidance:

241

242

243

244

245

246

247

248

249

250

251

- Where overhead signing is used, sign spreading should be used at all single-exit interchanges and to the extent possible at multi-exit interchanges. Sign spreading should be accomplished by use of the following:
 - A. The Exit Direction sign should be the only guide sign used in the vicinity of the gore (other than the Exit Gore sign). It should be located overhead near the theoretical gore and generally on an overhead sign support structure.
 - B. The Interchange Advance guide sign to indicate the next interchange exit should be placed near the crossroad location. If the crossroad goes over the mainline, the Interchange Advance guide sign should be placed on the overcrossing structure or on a separate structure immediately in front of the overcrossing structure.
- 252 Section 2E.44 Closely Spaced Interchanges [All content in this Section is relocated or deleted.
- Reference to this section in Section 2E.03, paragraph 1, item A, would be removed.]
- 254 Support
- 255 of Section 2E.43 contains information regarding sign spreading where the Exit Direction sign and the
- 256 Interchange Advance guide sign for the next interchange are mounted overhead. Sign spreading is
- 257 particularly beneficial where interchanges are closely spaced and overhead signing is used in conjunction
- with Interchange Sequence signs as provided in Paragraph 2 of this Section. [Relocated to paragraph 3 of
- 259 Section 2E.43.]
- 260 Guidance:
- 261 02 Interchange Sequence signs (see Section 2E.24) should be used at closely-spaced interchanges.
- When used, they should identify and show street names and distances for the next two or three exits as
- 263 shown in Figure 2E-11. [This guidance does not quantify what "closely" means. In contrast, paragraph
- 264 16 of Section 2E.23 provides similar guidance but includes a distance that clarifies how closely
- interchanges should be spaced for the provision to apply. The direction that Interchange Sequence signs
- should show "the next two or three exits" is clear from Section 2E.24, which is referred to in paragraph
- 267 16 of Section 2E.23.]
- 268 Standard:
- 269 93 Interchange Advance guide signs for closely-spaced interchanges shall show information for
- 270 only one interchange. [Relocated to Section 2E.23 because it applies to all Interchange Advance Guide
- signs, not just those for closely spaced interchanges.