



National Committee on Uniform Traffic Control Devices

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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

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Federal Register Item Number: 386-388 (see listing below)

NPA MUTCD Section Number: Chapter 4B

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

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

The following pages present NCUTCD recommendations for changes to the MUTCD NPA proposed text, tables, and figures for Chapter 4B. Below is a short summary of the NCUTCD position for each section of this chapter. A more detailed summary is provided at the beginning of each section.

- NPA #N/A, Section 4B.01: NCUTCD agrees with NPA content.
- NPA #386, Section 4B.02: NCUTCD agrees with NPA content.
- NPA #N/A, Section 4B.03: NCUTCD agrees with NPA content.
- NPA #N/A, Section 4B.04: NCUTCD agrees with NPA content.
- NPA #388, Section 4B.05: NCUTCD agrees with NPA content.
- NPA #387, Section 4B.05 in 2009 MUTCD: NCUTCD agrees with deletion.

Section 4B.01 Comments: NCUTCD agrees with 4B.01 as presented in the NPA.

Section 4B.01 General

Support:

Words such as pedestrians and bicyclists are used redundantly in selected Sections of Part 4 to encourage sensitivity to these elements of “traffic.”

Standards for traffic control signals are important because traffic control signals need to attract the attention of a variety of road users, including those who are older, those with impaired vision, as well as those who are fatigued or distracted, or who are not expecting to encounter a signal at a particular location.

Section 4B.02 Comments: NCUTCD agrees with 4B.02 as presented in the NPA.

Section 4B.02 Basis of Installation of Traffic Control Signals

Support:

41 A careful analysis of traffic operations, pedestrian and bicyclist needs, and other factors at a large
42 number of signalized and unsignalized locations, coupled with engineering judgment, has provided a
43 series of signal warrants, described in Chapter 4C, that define the minimum conditions under which
44 installing traffic control signals might be justified.

45 *Guidance:*

46 *The design (including the phasing, operation, and timing) of new traffic control signals should be*
47 *based on an engineering study of roadway, traffic, and other conditions.*

48 *Traffic control signals should not be installed or operated for the purpose of penalizing drivers who*
49 *are speeding, especially in conjunction with signs that have a legend that informs drivers that speeding*
50 *triggers a red light.*

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53 **Section 4B.03 Comments: NCUTCD agrees with 4B.03 as presented in the NPA.**

54 **Section 4B.03 Basis of Removal of Traffic Control Signals**

55 *Guidance:*

56 *Engineering judgment should be applied in the review of operating traffic control signals to*
57 *determine whether the type of installation and the timing program meet the current requirements of all*
58 *forms of traffic.*

59 *If changes in traffic patterns eliminate the need for a traffic control signal, consideration should be*
60 *given to removing it and replacing it with appropriate alternative traffic control devices, if any are*
61 *needed.*

62 *If the engineering study indicates that the traffic control signal is no longer justified, and a decision is*
63 *made to remove the signal, removal should be accomplished using the following steps:*

- 64 *A. Determine the appropriate traffic control to be used after removal of the signal.*
- 65 *B. Remove any sight-distance restrictions as necessary.*
- 66 *C. Inform the public of the removal study.*
- 67 *D. Flash or cover the signal heads for a minimum of 90 days and install the appropriate stop control*
68 *or other traffic control devices.*
- 69 *E. Remove the signal if the engineering data collected during the removal study period confirms that*
70 *the signal is no longer needed.*

71 *Option:*

72 *Because Items C, D, and E in Paragraph 3 are not relevant when a temporary traffic control signal*
73 *(see Section 4D.10) is removed, a temporary traffic control signal may be removed immediately after*
74 *Items A and B are completed.*

75 *Instead of total removal of a traffic control signal, the poles, controller cabinet, and cables may*
76 *remain in place after removal of the signal heads for continued analysis.*

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79 **Section 4B.04 Comments: NCUTCD agrees with 4B.04 as presented in the NPA.**

80 **Section 4B.04 Advantages and Disadvantages of Traffic Control Signals**

81 *Support:*

82 *When properly used, traffic control signals are valuable devices for the control of vehicular and*
83 *pedestrian traffic. They control the various traffic movements by alternating between directing them to*
84 *stop and permitting them to proceed and thereby profoundly influence traffic flow.*

85 Traffic control signals that are properly designed, located, operated, and maintained will have one or
86 more of the following advantages:

- 87 A. They provide for the orderly movement of traffic.
- 88 B. They increase the traffic-handling capacity of the intersection if:
 - 89 1. Proper physical layouts and control measures are used, and
 - 90 2. The signal operational parameters are reviewed and updated (if needed) on a regular basis (as
91 engineering judgment determines that significant traffic flow and/or land use changes have
92 occurred) to maximize the ability of the traffic control signal to satisfy current traffic
93 demands.
- 94 C. They reduce the frequency and severity of certain types of crashes, especially right-angle
95 collisions.
- 96 D. They are coordinated to provide for continuous or nearly continuous movement of traffic at a
97 definite speed along a given route under favorable conditions.
- 98 E. They are used to interrupt heavy traffic at intervals to permit other traffic, vehicular or pedestrian,
99 to cross.

100 Traffic control signals are often considered a panacea for all traffic problems at intersections. This
101 belief has led to traffic control signals being installed at many locations where they are not needed,
102 adversely affecting the safety and efficiency of vehicular, bicycle, and pedestrian traffic.

103 Traffic control signals, even when justified by traffic and roadway conditions, can be ill-designed,
104 ineffectively placed, improperly operated, or poorly maintained. Improper or unjustified traffic control
105 signals can result in one or more of the following disadvantages:

- 106 A. Excessive delay,
- 107 B. Excessive disobedience of the signal indications,
- 108 C. Increased use of less adequate routes as road users attempt to avoid the traffic control signals, and
- 109 D. Significant increases in the frequency of collisions (especially rear-end collisions).

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112 **Section 4B.05 Comments: NCUTCD agrees with 4B.05 as presented in the NPA.**

113 **Section 4B.05 Alternatives to Traffic Control Signals**

114 *Guidance:*

115 *Since vehicular delay and the frequency of some types of crashes are sometimes higher under traffic*
116 *signal control than under STOP sign control, consideration should be given to providing alternatives to*
117 *traffic control signals even if one or more of the signal warrants has been satisfied.*

118 *Option:*

119 These alternatives may include, but are not limited to, the following:

- 120 A. Installing signs along the major street to warn road users approaching the intersection;
- 121 B. Relocating the stop line(s) and making other changes to improve the sight distance at the
122 intersection;
- 123 C. Installing measures designed to reduce speeds on the approaches;
- 124 D. Installing a flashing beacon at the intersection to supplement STOP sign control;
- 125 E. Installing flashing beacons on warning signs in advance of a STOP sign controlled intersection on
126 major- and/or minor-street approaches;
- 127 F. Adding one or more lanes on a minor-street approach to reduce the number of vehicles per lane
128 on the approach;
- 129 G. Revising the geometrics at the intersection to channelize vehicular movements and reduce the
130 time required for a vehicle to complete a movement, which could also assist pedestrians;

- 131 H. Revising the geometrics at the intersection to add pedestrian median refuge islands and/or curb
- 132 extensions;
- 133 I. Installing roadway lighting if a disproportionate number of crashes occur at night;
- 134 J. Restricting one or more turning movements, perhaps on a time-of-day basis, if alternate routes are
- 135 available;
- 136 K. If the warrant is satisfied, installing multi-way STOP sign control;
- 137 L. Installing a pedestrian hybrid beacon (see Chapter 4J) or In-Roadway Warning Lights (see
- 138 Chapter 4U) if pedestrian safety is the major concern;
- 139 M. Installing a roundabout to reduce vehicular conflicts; and
- 140 N. Employing other alternatives, depending on conditions at the intersection.

141 Support:

142 Where installation of a roundabout as an alternative to a traffic control signal is in close proximity to

143 a grade crossing, refer to Section 8C.12 for additional information.

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146 **Section 4B.05 (in 2009 MUTCD) Comments: NCUTCD agrees with deletion of this section,**

147 **since roadway capacity is not a traffic control device.**