



# National Committee on Uniform Traffic Control Devices

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Item No.: 18B-SIG-01

## NCUTCD Proposal for Changes to the Manual on Uniform Traffic Control Devices

**TECHNICAL COMMITTEE:** Signals Committee  
**ITEM NUMBER:** 18B-SIG-01  
**TOPIC:** Pedestrian Signal Requirements  
**ORIGIN OF REQUEST:** Signals Technical Committee  
**AFFECTED SECTIONS OF MUTCD:** 4D.02 Provisions for Pedestrians  
4I.01 Pedestrian Signal Heads  
4I.02 Application of Pedestrian Signal Heads

### DEVELOPMENT HISTORY:

- Approved by Technical Committee: 06/21/2018

*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.*

### SUMMARY:

This proposal provides installation criteria and guidance for the application of pedestrian signal heads at traffic control signals.

### DISCUSSION

Practitioners are facing increased demand to accommodate pedestrians with general guidance. Often, engineers must balance the pressure for pedestrian accommodations against budget constraints. The MUTCD plays a key role in helping the practitioner. Throughout the country there is a lack of uniformity on the provision of pedestrian signal heads at traffic control signals. Some States install pedestrian signals at nearly every traffic signal where other States have far fewer installations. There are many signalized intersections across the Country where there is regular pedestrian activity without any provision of pedestrian signal heads. This proposal bridges that gap by providing clear installation criteria. This proposal adds Standard language that requires pedestrian signal installation for situations with the greatest need for pedestrian signal timing while providing enough flexibility for engineers to consider the unique requirements of every location.

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37 Standard language in the current manual could be confusing to practitioners. The Standard  
38 language in 4D.02, Provisions for Pedestrians, uses *Engineering Judgement* to determine when  
39 pedestrian signal heads shall be provided. The Standard language in 4I.02, Application of  
40 Pedestrian Signal Heads, defines four specific conditions when pedestrian signal heads shall be  
41 used. To reduce any potential confusion both statements were combined into a single Standard  
42 statement. Section 4I.02 was deleted and the Standard language from 4I.02 was moved to  
43 Section 4D.02 and the old Standard in 4D.02 was deleted. In addition, a fifth Standard condition  
44 was added which requires pedestrian signal heads when there are existing pedestrian  
45 accommodations, such as, crosswalks, pedestrian access ramps, or sidewalks. This change  
46 provides clear guidance on when pedestrian signal heads need to be installed

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48 New Guidance language was provided in Section 4D.02 to clarify the need to consider pedestrian  
49 signal heads when there is documented pedestrian demand. In addition, new Option language  
50 was provided to allow vehicular signal faces to be used for pedestrians under limited conditions.

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52 The new Standard, Guidance and Option in Section 4D.02 provide the practitioner with enough  
53 guidance so that the old Guidance in Section 4I.02 is no longer needed and thus was deleted.

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55 There will be concern that this proposal creates an unfunded mandate to install pedestrian signals  
56 where they are not needed. This is not the case. Although, this proposal will now require  
57 pedestrian signals at some locations where none exist, this proposal does not require pedestrian  
58 signals in all situations at traffic signals. This proposal will provide practitioners with objective  
59 criteria for the provision of pedestrian signal heads.

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61 This is an important and timely issue that the MUTCD needs to take the lead on.

## 62 63 **RECOMMENDED MUTCD CHANGES**

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65 The following present the proposed changes to the current MUTCD within the context of the  
66 current MUTCD language. Proposed additions to the MUTCD are shown in blue underline and  
67 proposed deletions from the MUTCD are shown in ~~red strikethrough~~. Changes previously  
68 approved by NCUTCD Council (but not yet adopted by FHWA) are shown in green double  
69 underline for additions and ~~green double strikethrough~~ for deletions. In some cases, background  
70 comments may be provided with the MUTCD text. These comments are indicated by  
71 **[highlighted light blue in brackets]**.

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PART 4. SIGNALS

Section ~~4D.03~~ **4D.02 Provisions for Pedestrians** [Numbering from Section 4D.03 to 4D.02 revised as per 14A-STC-01 approved in June 2014]

Support:

01 Chapter 4E contains additional information regarding pedestrian signals and Chapter 4F contains additional information regarding pedestrian hybrid beacons.

*Guidance:*

~~02—The design and operation of traffic control signals should take into consideration the needs of pedestrian as well as vehicular traffic.~~

**Standard:**

02 **The design and operation of traffic control signals shall take into consideration the needs of pedestrian as well as vehicular traffic.** [In the 2009 Manual this was a Standard statement which was changed to Guidance, as approved per 14A-STC-01 in June 2014. We are proposing to change the *should* to a *shall* and make this a standard statement again to emphasize the importance of pedestrians]

~~03 If engineering judgment indicates the need for provisions for a given pedestrian movement, signal faces conveniently visible to pedestrians shall be provided by pedestrian signal heads (see Chapter 4E) or a vehicular signal face(s) for a concurrent vehicular movement.~~ [The old Standard statement, which was modified per 14A-STC-01 in June 2014 by moving paragraph 2 to Guidance, is deleted and replaced with the Standard statement from 4I.02 to reduce the ambiguity between the two Standard statements. The statement in Section 4I.02 is relocated to Section 4D.02, as shown below.]

03 **At signalized locations, pedestrian signal heads shall be used in conjunction with vehicular traffic control signals when any of the following conditions are met, unless the crossing is prohibited or as provided in the Option in paragraph 1:**

**A. If a traffic control signal is justified by an engineering study and meets either Warrant 4, Pedestrian Volume or Warrant 5, School Crossing (see Chapter 4C);**

**B. If an exclusive pedestrian signal phase is provided with all conflicting vehicular movements being stopped;**

**C. At an established school crossing at any signalized location;**

**D. Where engineering judgment determines that multi-phase signal indications (as with split-phase timing) would tend to confuse or cause conflicts with pedestrians using a crosswalk guided only by vehicular signal indications;**

**E. There are existing pedestrian accommodations at the intersection, such as, crosswalks, pedestrian access ramps, or sidewalks.** [The Standard statement from 4I.02 was moved to this section because 4I.02 is proposed for deletion. A fifth condition “E” was added requiring pedestrian signal heads where there are existing pedestrian accommodations]

*Guidance:*

04 05 Pedestrian signal heads (or vehicular signal heads as described in the Option in paragraph 1) should be used when there is documented pedestrian demand or evidence of pedestrian demand.

05 06 Accessible pedestrian signals (see Sections 4E.09 through 4E.13) that provide information in non-visual formats (such as audible tones, speech messages, and/or vibrating surfaces) should be provided where determined appropriate by engineering judgment.

120 *06 07 Where pedestrian movements regularly occur, pedestrians should be provided with sufficient*  
121 *time to cross the roadway by adjusting the traffic control signal operation and timing to provide*  
122 *sufficient crossing time every cycle or by providing pedestrian detectors.*

123 *07 08 If it is necessary or desirable to prohibit certain pedestrian movements at a traffic control*  
124 *signal location, No Pedestrian Crossing (R9-3) signs (see Section 2B.51) should be used if it is*  
125 *not practical to provide a barrier or other physical feature to physically prevent the pedestrian*  
126 *movements.*

127 Option:

128 08 If the sum of the vehicular yellow change and red clearance interval time satisfies the  
129 pedestrian clearance time, then vehicular signal faces for a concurrent vehicular movement that  
130 are conveniently visible to pedestrians may be used instead of pedestrian signal heads.

131 09 Pedestrian signal heads may be used under other conditions based on engineering  
132 judgement.

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## 134 CHAPTER ~~4E~~. PEDESTRIAN CONTROL FEATURES

135 [Renumbered from Chapter 4E to Chapter 4I, as per 14A-STC-01, approved June 2014]

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### 137 Section ~~4I.014E.01~~ Pedestrian Signal Heads

138 Support:

139 01 Pedestrian signal heads provide special types of traffic signal indications exclusively  
140 intended for controlling pedestrian traffic. These signal indications consist of the illuminated  
141 symbols of a WALKING PERSON (symbolizing WALK) and an UPRAISED HAND  
142 (symbolizing DONT WALK).

143 *Guidance:*

144 02 *Engineering judgment should determine the need for ~~separate pedestrian signal heads (see~~*  
145 *~~Section 4D.03~~ and accessible pedestrian signals (see Section 4E.09)*

146 Support:

147 03 Chapter 4F contains information regarding the use of pedestrian hybrid beacons and Chapter  
148 4N contains information regarding the use of In-Roadway Warning Lights at unsignalized  
149 marked crosswalks.

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151 ~~Section 4I.024E.03 Application of Pedestrian Signal Heads~~ [Renumbered from Section 4E.03  
152 to 4I.02, as per 14A-STC-01, approved June 2014]

153 **Standard:**

154 01 ~~Pedestrian signal heads shall be used in conjunction with vehicular traffic control~~  
155 ~~signals under any of the following conditions:~~

156 ~~A. If a traffic control signal is justified by an engineering study and meets either~~  
157 ~~Warrant 4, Pedestrian Volume or Warrant 5, School Crossing (see Chapter 4C);~~

158 ~~B. If an exclusive signal phase is provided or made available for pedestrian~~  
159 ~~movements in one or more directions, with all conflicting vehicular movements~~  
160 ~~being stopped;~~

161 ~~C. At an established school crossing at any signalized location; or~~

162 ~~D. Where engineering judgment determines that multi-phase signal indications (as~~  
163 ~~with split-phase timing) would tend to confuse or cause conflicts with pedestrians~~  
164 ~~using a crosswalk guided only by vehicular signal indications~~

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*Guidance:*

~~02—Pedestrian signal heads should be used under any of the following conditions:~~

- ~~A.—If it is necessary to assist pedestrians in deciding when to begin crossing the roadway in the chosen direction or if engineering judgment determines that pedestrian signal heads are justified to minimize vehicle pedestrian conflicts;~~
- ~~B.—If pedestrians are permitted to cross a portion of a street, such as to or from a median of sufficient width for pedestrians to wait, during a particular interval but are not permitted to cross the remainder of the street during any part of the same interval; and/or~~
- ~~C.—If no vehicular signal indications are visible to pedestrians, or if the vehicular signal indications that are visible to pedestrians starting a crossing provide insufficient guidance for them to decide when to begin crossing the roadway in the chosen direction, such as on one way streets, at T intersections, or at multi phase signal operations~~

*Option:*

~~03—Pedestrian signal heads may be used under other conditions based on engineering judgment.~~