

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 Numbers: 474, 475, 476, 477 NPA MUTCD Section Number: Sections 6D.01 to 6D.06

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 6D. 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 6D.01: NCUTCD agrees with NPA content (no changes recommended)
- NPA #474, Section 6D.02: Changes recommended based on Council action in spring 2021
- NPA #475, Section 6D.03: Changes recommended based on Council action in spring 2021
- NPA # N/A, Section 6D.04: NCUTCD agrees with NPA content (no changes recommended)
- NPA #476, Section 6D.05: NCUTCD agrees with NPA content (no changes recommended) NPA #477, Section 6D.06: Changes recommended based on Council action in spring 2021

CHAPTER 6D. FLAGGER CONTROL

Section 6D.01 Comments: NCUTCD agrees with 6D.01 as presented in the NPA.

Section 6D.01 Qualifications for Flaggers

Guidance:

Because flaggers are responsible for public safety and make the greatest number of contacts with the public of all highway workers, they should be trained in proper traffic control practices and public contact techniques. Flaggers should be able to satisfactorily demonstrate the following abilities:

- A. Ability to receive and communicate specific instructions clearly, firmly, and courteously;
- B. Ability to move and maneuver quickly in order to avoid danger from errant vehicles;
- C. Ability to control signaling devices (such as paddles and flags) in order to provide clear and positive guidance to drivers approaching a TTC zone in frequently changing situations;

- D. Ability to understand and apply <u>proper</u> traffic control practices, sometimes in stressful or emergency situations; and
 - E. Ability to recognize dangerous traffic situations and warn workers in sufficient time to avoid injury.

Section 6D.02 Comments: NCUTCD generally agrees with 6D.02, but recommends revisions to the criteria for flashing lights on the paddle in accordance with NCUTCD recommendation 20A-RW-01.

Section 6D.02 STOP/SLOW Paddle for Hand-Signaling

Guidance:

The STOP/SLOW paddle should be the primary and preferred hand-signaling device because the STOP/SLOW paddle gives road users more positive guidance than red flags.

Standard:

The STOP/SLOW paddle (W20-8) shall have an octagonal shape on a rigid handle. When used at night, the STOP/SLOW paddle shall be retroreflectorized.

Option

A STOP/STOP or a SLOW/SLOW paddle may be used in certain situations (see Section 6D.05), provided the device meets the size and shape requirements for the STOP/SLOW paddle. *Guidance:*

The STOP/SLOW paddle should be fabricated from light semi-rigid material. Support:

The optimum method of displaying a STOP or SLOW message is to place the STOP/SLOW paddle on a rigid staff that is tall enough that when the end of the staff is resting on the ground, the message is high enough to be seen by approaching or stopped traffic. Option:

The STOP/SLOW paddle may be modified to improve conspicuity by incorporating either white or red flashing lights on the STOP face, and either white or yellow flashing lights on the SLOW face. The flashing lights may be arranged in anyeither of the following patterns:

- A. Two white or red lights, one centered vertically above and one centered vertically below the STOP legend; and/or two white or yellow lights, one centered vertically above and one centered vertically below the SLOW legend;
- B. Two white or red lights, one centered horizontally on each side of the STOP legend; and/or two white or yellow lights, one centered horizontally on each side of the SLOW legend;
- C. One white or red light centered below the STOP legend; and/or one white or yellow light centered below the SLOW legend;
- D. A. A series of eight or more small white or red lights no larger than 1/4 inch in diameter along the outer edge of the paddle, arranged in an octagonal pattern at the eight corners of the border of the STOP face; and/or a series of eight or more small white or yellow lights no larger than 1/4 inch in diameter along the outer edge of the paddle, arranged in a diamond pattern along the border of the SLOW face with one light at each point of the diamond; or
- E. A series of white lights forming the shapes of the letters in the legend. [revise per 20A-RW-01]

Standard:

If flashing lights are used on the STOP face of the paddle, their colors shall be all white or all red. If flashing lights are used on the SLOW face of the paddle, their colors shall be all white or all yellow. [revise per 20A-RW-01]

If more than eight flashing lights 1 are used, the lights shall be arranged such that they clearly convey the octagonal shape of the STOP face of the paddle and/or the diamond shape of the SLOW face of the paddle.

If flashing lights are used on the STOP/SLOW paddle, the flash rate shall be at least 50, but not more than 60, flashes per minute.

Section 6D.03 Comments: NCUTCD generally agrees with 6D.03, but recommends correcting the intent in the second Standard statement by relocating 'retroreflectorized' to the end of the sentence.

Section 6D.03 Flag for Hand-Signaling

Guidance:

Use of flags should be limited to emergency situations.

106 Standard

Flags, when used, shall be red or fluorescent orange-red in color, shall be a minimum of 24 inches square, and shall be securely fastened to a staff that is approximately 36 inches in length.

Guidance:

The free edge of a flag should be weighted so the flag will hang vertically, even in heavy winds.

Standard:

When used at nighttime, flags shall be retroreflectorized red or fluorescent orange-red and shall be retroreflectorized.

Section 6D.04 Comments: NCUTCD agrees with 6D.04 as presented in the NPA.

Section 6D.04 Flashlight for Hand-Signaling

121 Option:

When flagging in an emergency situation at night in a non-illuminated flagger station, a flagger may use a flashlight with a red glow cone to supplement the STOP/SLOW paddle or flag. **Standard:**

When a flashlight is used for flagging in an emergency situation at night in a non-illuminated flagger station, the flagger shall hold the flashlight in the left hand, shall hold the paddle or flag in the right hand as shown in Figure 6D-1, and shall use the flashlight in the following manner to control approaching road users:

A. To inform road users to stop, the flagger shall hold the flashlight with the left arm extended and pointed down toward the ground, and then shall slowly wave the flashlight in front of the body in a slow arc from left to right such that the arc reaches no farther than 45 degrees from vertical.

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C. To alert or slow traffic, the flagger shall point the flashlight toward oncoming traffic and quickly wave the flashlight in a figure eight motion.

Figure 6D-1 Comments: NCUTCD agrees with Figure 6D-1 as presented in the NPA.

Figure 6D-1. Use of Hand-Signaling Devices by Flaggers PREFERRED METHOD **EMERGENCY SITUATIONS ONLY** STOP/SLOW Paddle Red Flag 18 inches 36 inches 24 inches TO STOP TRAFFIC TO LET TRAFFIC PROCEED TO ALERT AND SLOW TRAFFIC

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Section 6D.05 Comments: NCUTCD agrees with 6D.05 as presented in the NPA.

Section 6D.05 Flagger Procedures

146 Support:

The use of paddles and flags by flaggers is illustrated in Figure 6D-1.

Standard:

Flaggers shall use a STOP/SLOW paddle, a flag, or an Automated Flagger Assistance Device (AFAD) (see Sections 6L.02 through 6L.04) to control road users approaching a TTC zone. The use of hand movements alone without a paddle, flag, or AFAD to control road users shall be prohibited when controlling traffic in a one-lane two-way operation except when the control is provided by emergency responders at incident scenes as described in Section 6O.01 or provided by uniformed law enforcement officers.

The following methods of signaling with a paddle shall be used:

- A. To stop road users, the flagger shall face road users and aim the STOP paddle face toward road users in a stationary position with the arm extended horizontally away from the body. The free arm shall be held with the palm of the hand above shoulder level toward approaching traffic.
- B. To direct stopped road users to proceed, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body. The flagger shall motion with the free hand for road users to proceed.
- C. To alert or slow traffic, the flagger shall face road users with the SLOW paddle face aimed toward road users in a stationary position with the arm extended horizontally away from the body.

Option:

To further alert or slow traffic, the flagger holding the SLOW paddle face toward road users may motion up and down with the free hand, palm down.

Standard:

The following methods of signaling with a flag shall be used:

- A. To stop road users, the flagger shall face road users and extend the flag staff horizontally across the road users' lane in a stationary position so that the full area of the flag is visibly hanging below the staff. The free arm shall be held with the palm of the hand above shoulder level toward approaching traffic.
- B. To direct stopped road users to proceed, the flagger shall face road users with the flag and arm lowered from the view of the road users, and shall motion with the free hand for road users to proceed. Flags shall not be used to signal road users to proceed.
- C. To alert or slow traffic, the flagger shall face road users and slowly wave the flag in a sweeping motion of the extended arm from shoulder level to straight down without raising the arm above a horizontal position. The flagger shall keep the free hand down.

Guidance:

The flagger should stand either on the shoulder adjacent to the road user being controlled or in the closed lane prior to stopping road users. A flagger should only stand in the lane being used by moving road users after road users have stopped. The flagger should be clearly visible to the first approaching road user at all times. The flagger also should be visible to other road

users. The flagger should be stationed sufficiently in advance of the workers to warn them (for example, with audible warning devices such as horns or whistles) of approaching danger by out-of-control vehicles. The flagger should stand alone, away from other workers, work vehicles, or equipment.

Option:

In certain conditions, it may be more appropriate for a flagger to use a STOP/STOP or a SLOW/SLOW paddle to convey the appropriate message to approaching road users and avoid confusing those that are approaching the operation from the opposing direction.

Section 6D.06 Comments: NCUTCD recommends the following revisions to 6D.06:

- Reverting the first Guidance statement back to a Standard statement to reduce the likelihood
 of not considering stopping sight distance where there is a curve or some other sight
 restriction present.
- Adding an Option statement to reference engineering judgment for flagger station location in some geometric conditions.

Section 6D.06 Flagger Stations

Guidance Standard:

Except as provided in Paragraph 2, Fflagger stations should be located such that approaching road users will have sufficient distance to stop at an intended stopping point. [revert to Standard with edits for clarity]

Option:

If stopping sight distance is not achievable, a flagger station location may be modified based on engineering judgment. [new Option statement for clarity]

The distances shown in Table <u>6D-1</u>, which provides information regarding the stopping sight distance as a function of speed, may be used for the location of a flagger station. These distances may be increased for downgrades and other conditions that affect stopping distance. *Guidance:*

Flagger stations should be located such that an errant vehicle has additional space to stop without entering the work space. The flagger should identify an escape route that can be used to avoid being struck by an errant vehicle.

Standard:

Except in emergency situations, flagger stations shall be preceded by an advance warning sign or signs. Except in emergency situations, flagger stations shall be illuminated when flagging is used at night.

Table 6D-1. Stopping Sight Distance as a Function of Speed

Speed*	Distance
20 mph	115 feet
25 mph	155 feet
30 mph	200 feet
35 mph	250 feet
40 mph	305 feet
45 mph	360 feet
50 mph	425 feet
55 mph	495 feet
60 mph	570 feet
65 mph	645 feet
70 mph	730 feet
75 mph	820 feet

^{*} Posted speed, off-peak 85th-percentile speed prior to work starting, or the anticipated operating speed

 Table 6D-1 Comments:
 NCUTCD agrees with Table 6D-1 as presented in the NPA.

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