

DEPARTMENT OF TRANSPORTATION
DIVISION OF TRANSPORTATION SOLUTIONS

Statutory Authority: 17 Delaware Code, Sections 134 and 141; 21 Delaware Code, Chapter 41
(17 Del.C. §§134, 141 and 21 Del.C. Ch. 41)
2 DE Admin. Code 2402

ORDER

2402 Delaware Manual on Uniform Traffic Control Devices

Under Title 17 of the Delaware Code, Sections 134 and 141, as well as 21 Delaware Code Chapter 41, the Delaware Department of Transportation (DelDOT) sought to adopt a revised Delaware version of the Federal Manual on Uniform Traffic Control Devices (MUTCD). This revision of the Delaware MUTCD will supersede any previous versions and is required by revisions to the Federal version of the MUTCD.

The Department accepted written comments on the draft changes to the Delaware MUTCD from April 1, 2011 through April 30, 2011. Copies of the Draft Delaware MUTCD were obtained by reviewing or downloading a PDF copy at the following web address: <http://regulations.delaware.gov/register/april2011/proposed/MUTCD.pdf>.

Summary of the Evidence and Information Submitted

A single comment was received regarding these proposed changes to the MUTCD. In addition, the Department staff determined that certain other changes, non-substantive in nature, should also be made to the Draft.

The table accompanying this Order summarizes the official public comments that were submitted to DelDOT based on the Draft Delaware MUTCD proposed regulation in the April 2011 edition of the Delaware Register. Each of these suggested changes are listed in the table below, along with the proposed action taken by DelDOT.

Findings of Fact

Based on the record in this docket, I make the following findings of fact:

1. The proposed amendments to the Delaware version of the MUTCD are useful and proper, as amended pursuant to the comment period process required under the Administrative Procedures Act.
2. The adoption of these proposed changes to the MUTCD for Delaware is in the best interests of the State of Delaware.

Decision and Effective Date

Based on the provisions of Delaware law and the record in this docket, I hereby adopt the amended MUTCD, as set forth in the version attached hereto, to be effective on July10,2011.

IT IS SO ORDERED this 14th day of June, 2011.

Cleon L. Cauley, Sr., Deputy Secretary
Delaware Department of Transportation

Page	Sec/Fig	Para.	Public Comment	Response
3B-63	3B-18	05A	How is "high pedestrian activity" defined? Would this also include any marked crosswalks at schools? If so, then this should be stated clearly.	<i>No revision required</i> Justification: DelDOT considered this comment but decided that engineering judgment should be used to determine if a location is considered to have high pedestrian activity since it is dependent on the context of the area.
3B-63	3B-18	15B	Add that the transverse solid white lines should be offset at least 3 inches from the patterned pavement or aesthetic treatment.	<i>No revision required</i> Justification: This issue will be covered in details or special provisions that are included with construction contracts

3H-1	3H.01	3	Since the retroreflective sheeting/bands are useful only when vehicle headlights are shining on them, the channelizing devices used to supplement pavement markings should be the same color as the pavement markings.	<i>No revision required</i>
6F-26	6F.59	04B	For the minimum letter size on the detour signs, use the word "shall" instead of "should" on the first and third line.	<i>No revision required</i>
6F-33	6F.63	05	Modify this with requiring the top of the top surface to be 36 inches above the ground to conform with the draft PROWAG.	<i>No revision required</i>
6F-38	6F.68	01B and 01C	For the Type 2 Barricades, term them "Pedestrian Barricades" so that it is clear that they will only be used for the pedestrian channelization.	<i>No revision required</i>
6F-41	6F.74	02	Reword this sentence as "The top of this bottom edging should protrude at least 6 inches above the surface of the sidewalk or pathway, with the bottom of the edging a maximum of 2 inches above the surface. There shall also be a continuous top surface or upper rail 36 inches above the surface. Support members shall not protrude into the sidewalk or pathway." The 36 inches conforms with the draft PROWAG.	<i>No revision required</i>

In addition to the official comments received, DeIDOT also made a number of additional changes to the Draft version of the Delaware MUTCD in the period since it was posted on the Delaware Register. Many of the changes were editorial, or were corrections of errors that were discovered during the internal review process. Each modification, along with the justification for the change, is listed below:

Page	Sec/Fig	Para.	DeIDOT Comment / Proposed Change	Modification
I-1	Intro	--	Add a Table of Contents	<i>Table of contents from the Federal MUTCD added back in.</i> Justification: Ease of reference for users of the manual
2C-34	2C.50	01	Non-Vehicular Warning Signs, sign W11-11-DE (duck crossing) is not specified in the text	<i>Text was modified accordingly to reference the sign</i> Justification: Missing text reference within the Manual.
3B-1	3B.01	11A	Center line markings are sometimes needed on subdivision roads, especially on multi-lane approaches to state-maintained roadways.	<i>Text was modified to provide an exception to use center line markings on subdivision street approaches to state-maintained roadways.</i> Justification: DeIDOT may want to place a short centerline on subdivision street approaches to state maintained roadways

3B-36	3B.06	05A	The volume is listed as 400 vehicles per hour, but should be vehicles per day.	<i>Text was modified accordingly</i> Justification: Typographical error
3B-54 3B-56	Fig 3B-15F & H	-	RPMs should be placed on the left side of the solid lane line	<i>Figures modified accordingly</i> Justification: Revised placement of RPMs eliminates the potential for reducing the effective lane width between RPMs
3B-63 3B-65	3B.18 3B-19	05, 15	Shall statement for use of "piano key" markings should be clarified to reference "state-maintained" roadways only.	<i>Text was modified to clarify that piano keys are required on state-maintained roadways only. Fig 3B-19 was modified to expand notes to reference non-state maintained roads</i> Justification: Clarification of statement.
3B-71	3B.20	21	Clarify placement of arrows when a stop line is not present (i.e., where no stop line is present, location of arrows should be dimensioned from the edge of the intersecting roadway)	<i>Text was modified to clarify the placement of arrows when a stop line is not present.</i> Justification: Clarification of revision
3B-71	3B.20	16-17	Insert paragraphs to provide option and standards regarding use of YIELD AHEAD word pavement markings (unintentionally deleted)	<i>Text was modified to include YIELD AHEAD word pavement markings.</i> Justification: Typographical error to correct accidental deletion
3B-23	3B-10 (5 of 5)	-	Figure 3B-10A (Sheet 5 of 5) should be replaced with Figure 3B-10 (Sheet 5 of 5)	<i>Figures were modified accordingly</i> Justification: Typographical error
4D-14	4D.11	07A & 07B	Move text to next section (4D.12 paragraph 18A?)	<i>Text modified to read "Paragraph deleted"</i> Justification: Clarified text by the removal of the reference to backplates.
4D-16	4D.12	19A & 19B	Text from paragraphs 07A, 07B should also be shown before or after paragraph 19 for sake of consistency	<i>Text has been copied from Section 4D.11 paragraphs 07A and 07B.</i> Justification: Typographical error / clarification
6C-4	6C.04	06A	DE Guidance for signing supplemental flagging contradicts federal Standard for signing all flagger stations	<i>Text was modified by deleting paragraph 6A.</i> Justification: DeIDOT decided that it would be prudent to retain the flexibility provided by the Federal version of the Manual.
6C-6	6C-2	Fig.	revise shifting taper dimension to reflect DE Guidance of full "L"	<i>Figure was modified by adding a note stating that "A shifting taper length of L is preferred on state maintained roads" to match the DE Guidance.</i> Justification: Additional clarification needed on figure
6E-2	6E.03	02	When stop paddle is 24 inches wide, letters should be 8 inches high, not 6. Also add "DE Revision" to start of paragraph.	<i>Text was modified accordingly.</i> Justification: Typographical errors
6E-11	6E.08	04	DE Guidance for signing supplemental flagging contradicts federal Standard for signing all flagger stations	<i>Text was modified by deleting paragraph 06A in Section 6C.04</i> Justification: DeIDOT acknowledges that using flaggers to assist with construction access constitutes a flagger station; therefore, flagger signs are required in accordance with the federal Standard.
6F-1	6F.01	06	Modify/move paragraph 06 (the DE Revision) to paragraph 05A	<i>Text modified accordingly</i> Justification: Typographical error

6F-6	6F.03	08B	Include a note stating that signs mounted at a height of 1 foot may be utilized for survey operations only or upon approval of DeIDOT Traffic.	<p><i>Text was modified in paragraph 08.B to state that one-foot mounting height will only be permitted upon approval from DeIDOT Traffic.</i></p> <p>Justification: DeIDOT prefers that signs be mounted at least 7 feet above the ground based on their tested crashworthiness. Signs mounted at 1 foot should only be used in special circumstances approved by DeIDOT Traffic.</p>
6F-14	6F.17	03A	Should be DE Guidance, not DE Support, renumber to 02A	<p><i>Text was modified accordingly</i></p> <p>Justification: Typographical error</p>
6F-49	6F.85	04	use of barrier based on engineering study (6F) or engineering judgment (6H)?	<p><i>Text was modified by deleting paragraph 4</i></p> <p>Justification: DeIDOT prefers to follow the federal Guidance in 6H, instead of 6F, which does not require documentation (i.e., an engineering study) for every application of temporary traffic barrier.</p>
6F-52	6F.86	5E	delete paragraphs 5E and 5F and modify paragraph 5A accordingly. We met with M&O and they prefer to maintain the current mowing cases and guidelines at this time and feel that the language in this section and in the typical applications may be too restrictive	<p><i>Paragraph 5F deleted and revised paragraph 5E to read "If a shadow vehicle is used for mowing operations along a two-way, two lane road, a Truck Mounted Attenuator may be omitted."</i></p> <p>Justification: The initial typical applications were too restrictive with the use of TMAs and shadow vehicles being Guidance instead of Options for off-roadway mowing operations, which typically have little to no encroachment on the adjacent traveled way.</p>
6F-8	6F-2	Fig.	Why provide allowance for 1 foot mounting for 1 hour duration when TA's state that signs may be eliminated for work durations of 1 hour or less.	<p><i>Figure was revised to add asterisk to state "1 ft mounting height only permitted with approval from DeIDOT Traffic". The signs in the Figure were also modified to say SURVEY CREW AHEAD</i></p> <p>Justification: DeIDOT prefers that signs be mounted at least 7 feet above the ground based on their tested crashworthiness. Signs mounted at 1 foot should only be used in special circumstances approved by DeIDOT Traffic.</p>
6F-50	6F-8	Fig.	Incorrect dimensions shown, should be 6 inches wide by 12 inches tall; Confused with 06B	<p><i>Figure text revised accordingly</i></p> <p>Justification: Typographical error</p>
6H-8 – 6H-11	6H-1A & 6H-1B	Fig. & Notes	Typical Application 1A and 1B – revert back to the original mowing case	<p><i>Deleted notes 5 and 7 from TA-1A and TA-1B, respectively, and correspondingly deleted the mowing notes from TA-4 and TA-17.</i></p> <p>Justification: The initial typical applications were too restrictive with the use of TMAs and shadow vehicles being Guidance instead of Options for off-roadway mowing operations, which typically have little to no encroachment on the adjacent traveled way.</p>
6H-36 - 6H-43	6H-11, 6H-11A, 6H-12	Fig. & Notes	TA-11, 11A, & 12, include minimum lane width needed to be maintained for open lane.	<p><i>Dimensions and notes modified in TA-11, TA-11A, and TA-12 will be modified to reflect 10' as Guidance with 9' as an Option, similar to TA-11B.</i></p> <p>Justification: Clarification to notes in Figure</p>

6H-41 & 6H-43	6H-11B & 6H-12	Fig.	Looked like the shoulder tapers in TA's 11B and 12 were at the same rate as the lane taper. You may want to make the shoulder tapers look different than the lane tapers in the manual.	<p><i>Figure modified by adjusting taper in TA-11B, TA-12 was not modified</i></p> <p>Justification: The taper depicted in TA-12 is originally from the federal MUTCD and it can be at the same rate as the adjoining, downstream lane closure taper, which is significantly less than L.</p>
6H-91 & 6H-93	6H-35 & 6H-35A	Fig.	Need to revisit the shadow vehicle and TMA requirements in TA-35 and TA-35A. Received comments during training from M&O that Shadow Vehicle 2 should not be optional and the TMA on Shadow Vehicle 3 should not be optional (TA-35)	<p><i>TA-35: Keep shadow vehicle 2 as optional and remove optional from the TMA callout for shadow vehicle 3.</i></p> <p><i>TA-35A: Keep shadow vehicle 4 as optional and remove optional from the TMA callout for shadow vehicle 5.</i></p> <p>Justification: DelDOT prefers the flexibility provided in the federal TA, which allows for optional shadow vehicles along the edge line (or lane line) immediately adjacent to the closed travel lane.</p>
7C-1	7C.03	02A	Put pavement markings adjacent to school speed limit zone signs/opposite to the "END SCHOOL ZONE" signs	<p><i>Text was modified in paragraph 02A to place the SCHOOL pavement marking at the speed limit sign or at the S1-1 sign w/o Speed Limit Sign</i></p> <p>Justification: This pavement marking location is compliant with the other sections of the MUTCD and is also consistent with DelDOT practice.</p>
9C-7	9C-1E	Fig.	Add striping dimensions for the bike lane (50' edge line and 30' taper)	<p><i>Figure modified accordingly</i></p> <p>Justification: Clarification in Figure</p>
9C-11	9C.07	02A, 02B	Add guidance statement and support indicating that Shared Lane Markings should only be used on roads with on-street parking	<p><i>Text was modified by adding two new paragraphs.</i></p> <p>Justification: DelDOT remains concerned about driver comprehension of the shared lane marking and wants to wait until additional study(ies) show benefits associated with the marking before using it on other roads.</p>

15 DE Reg. 106 (07/01/11) (Final)