

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

FINAL

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), adopted a Delaware version of the Federal Manual on Uniform Traffic Control Devices (MUTCD). The Department issues this Order adopting revisions to Parts 1, 2, 3, 4, 6, 7, and 9 of the Delaware MUTCD.

The Department published the proposed revisions in the November 1, 2017 Delaware *Register of Regulations*, pages 412 to 418. The Department took written comments on these draft revisions to the Delaware MUTCD from November 1, 2017 to December 1, 2017.

After substantial comments and changes, the Department published the updated proposed revisions in the March 1, 2018 Delaware *Register of Regulations*, pages 695 to 711. The Department took written comments on these draft revisions to the Delaware MUTCD from March 1, 2018 through April 2, 2018. No comments were received.

Summary of the Evidence and Information Submitted

The proposed revisions to the 2011 version of the Delaware MUTCD, Revision 3 dated May 2018, are listed in the table below.

Findings of Fact

1. The public was given notice and the opportunity to provide comments in writing concerning the proposed revisions to the 2011 version of the Delaware MUTCD.
2. The proposed revisions to the 2011 version of the Delaware MUTCD are useful and proper and the Department believes that the adoption of these revisions is appropriate.

Decision and Order Concerning the Regulations

NOW THEREFORE, under the above-described statutory authority, and for the reasons set forth above, the Secretary of the Delaware Department of Transportation does hereby ORDER that these revisions to the Delaware MUTCD be adopted and promulgated as set forth below.

The effective date of this Order is ten days from the date of its publication in the Delaware *Register of Regulations*, in accordance with 29 Del.C. §10118(g).

Jennifer Cohan, Secretary
Delaware Department of Transportation
4/9/2018

Pages	Sec/Fig/Table	Para.	DelDOT Comment / Proposed Change	Modification
1A-3	Section 1A.07	01A	Add option for traffic control devices and applications based on engineering judgment and approval of DelDOT Chief Engineer.	<i>Text added.</i> Justification: Clarified approval process for traffic control devices that do not comply with standard statements.
1A-14	Section 1A.13	03	Add definition of bicycle box.	<i>Text added.</i> Justification: Concept of bicycle box is being introduced into the DE MUTCD.

2B-3	Table 2B-1	-	Add a footnote for ONE WAY (R6-1) signs to allow smaller signs on multi-lane conventional roads and expressways based on engineering judgment.	<i>Table modified.</i> Justification: Excessively large ONE WAY signs takes away from the visibility and message of the STOP sign on the minor street approach and other more important sign messages.
2B-3	Table 2B-1	-	Add option for 24" x 24" DO NOT ENTER sign to be used on the back side of 36" STOP signs at development access points.	<i>Table modified.</i> Justification: Reduces the number of required sign assemblies at development entrances where DO NOT ENTER signs are required.
2B-10	Section 2B.06	02	Add guidance for use of STOP signs on minor-street approaches.	<i>Text added.</i> Justification: The DE MUTCD provides minimum volume thresholds for major street approach but not minor street approach volumes for the installation of STOP signs. This guidance statement will allow for the omission of STOP signs on very low volume approaches based on engineering judgement.
2B-14	Section 2B.11	01E	Incorporate FHWA Official Interpretation – R1-5 Sign text into manual.	<i>Text added.</i> Justification: Updated text to reflect the FHWA official interpretation of the R1-5 series.
2B-38	Section 2B.37	03C	Provide guidance regarding spacing between DO NOT ENTER and WRONG WAY signs.	<i>Text added.</i> Justification: Numerous instances across the state where DO NOT ENTER AND WRONG WAY signs are being installed too close together.
2B-6 2B-78 2B-79	Table 2B-1 Figure 2B-33 Section 2B.72	08A	Added IT CAN WAIT! plaque as an option	<i>Text added and figure modified.</i> Justification: Revised to reflect use of educational plaque
2C-2 2C-5 2C-35 2C-36	Table 2C-1 Table 2C-2 Section 2C.50 Figure 2C-11	01	Change designation for the Duck Crossing sign from W11-11-DE to W11-3-DE.	<i>Table modified, text added, and figure modified.</i> Justification: Revised to reduce potential confusion regarding sign designations for the Duck Crossing (originally W11-11-DE) sign and the Golf Cart (W11-11) sign.
2C-17	Figure 2C-3	-	Remove signs W1-11R and W13-1P from figure; keep text referring to these signs as an option.	<i>Figure modified.</i> Justification: W11-1R and W13-1P signs are often misused based on their depiction in Figure 2C-3d
2C-2 2C-5 2C-33 2C-34 2C-39	Table 2C-1 Table 2C-2 Section 2C.49 Figure 2C-10 Section 2C.60	06A 01A	Create new sign called W11-1-DE with text "IN LANE". Provide guidance about preferred width of shoulder. Add new sign to list of vehicular traffic warning signs on Page 2C-33.	<i>Text added and figure modified.</i> Justification: Updated to reflect DeIDOT's desire to discontinue the use of the Share the Road plaque.
2D-3 2D-4 2E-6	Section 2D.05 Section 2E.14	01 04 07A	Revise text regarding lettering style to match original federal text.	<i>Text modified.</i> Justification: FHWA rescinded use of Clearview font.

2D-3 2D-21 2D-28	Table 2D-1 Figure 2D-7 Section 2D.41	08A	Add DART Beach Bus Park & Ride (D2-2-DE) sign to Figure 2D-7 and as an option in Section 2D.41, paragraph 08A.	<i>Text and figure modified.</i> Justification: Sign provides guidance regarding the distance to Park & Rides serving the DART Beach Bus
2D-29	Section 2D.43	07A 08A	Incorporate Interim Guidance – Overhead Street Signs Mounted on Traffic Signals memo	<i>Text modified.</i> Justification: Smaller letter heights are sufficient to convey information to motorists and problems with mounting large signs on signal mast arms and span wires.
2I-2 2I-13 2I-14	Table 2I-1 Figure 2I-8 Section 2I.09	01A 09A	Change “DISABLED VEHICLES” in sign D12-4-DE to “TRAFFIC PROBLEMS” and update text accordingly in Section 2I.09. Create new plaque “TRAFFIC ALERT WHEN FLASHING” as an optional supplement to the D12-1-DE sign, and update text accordingly in Section 2I.09	<i>Text and figure modified.</i> Justification: Revised to reflect current practices; TRAFFIC PROBLEMS conveys are more comprehensive message compared to DISABLED VEHICLES.
2K-3 2K-6	Figure 2K-1 Section 2K.07	02	Add reference to Standards for Agricultural Tourism Attraction Guide Signs memo; delete existing guidance	<i>Text and figure modified.</i> Justification: Standards for Agricultural Tourism signs have been modified.
3B-4	3B.01	11C	Add guidance for centerline markings on roadways with on-street parking	<i>Text modified.</i> Justification: Previous DE MUTCD guidance did not account for roadways with on-street parking.
3B-4 3B-37	3B.01 3B.08	11D 03A	Add guidance for maintaining center line and edge line striping along roadways at the intersection with minor roadways or driveways with an ADT of 200 vehicles per day or lower.	<i>Text modified.</i> Justification: This guidance statement will allow the center line and edge line to be maintained at low volume driveways based on engineering judgement.
3B-58	Section 3B-13 Figure 3B-15F Figure 3B-15G Figure 3B-15H	01.B.6	Remove RPMs from turn lanes on Figure 3B-15F and 3B-15H. Remove Figure 3B-15G. Create new Figure 3B-15G for RPM application for two-way left-turn lanes with 80’ spacing through the two-way left-turn lane and 40’ spacing approaching the intersection. Remove 48’ RPM spacing from Figure 3B-15F. Remove any text regarding 20’ RPM spacing (note 2 in multiple figures) along conventional roadways. Revise spacing for all RPMs to 40’ or 80’ for conventional roadways.	<i>Text and figures modified.</i> Justification: Excessive use of RPMs along conventional roadways; clarification needed for usage of RPMs along two-way left-turn lanes.

				<i>Text modified.</i>
3B-59	3B.16	01E	Add guidance for stop lines at stop-controlled approaches with an ADT of 100 vehicles per day or lower.	Justification: This guidance statement will allow for the omission of stop lines on very low volume approaches based on engineering judgement. Adding a minimum volume threshold for the installation of stop lines would reduce the costs to construct intersections with low-volume approaches; for example, at access points to new development or roadside businesses.
3B-60	3B.16	10	Add text to reference bicycle boxes in Part 9.	<i>Text modified.</i> Justification: Added Bicycle Boxes based on recommendations from the NCUTCD.
4D-14 4D-15 4D-17	Section 4D.11 Section 4D-12	07A-07D 18-19B	Change Guidance for use of signal backplates on signal heads mounted on mast arms and where an engineering study indicates their need. Add Standard for two-inch wide yellow retroreflective border on backplates and tether wire on signal heads with backplates on span wire.	<i>Text modified.</i> Justification: Text updated to be consistent with the DelDOT Traffic Design Manual.
4E-7 to 4E-10	Section 4E.08 Figure 4E-3 Figure 4E-4	04 06A	Add text to Section 4E.08 paragraph 04 with additional criteria regarding 10" guidance at landing area and extension. Revise wording in Section 4E.08 paragraph 06A. Update depictions of landing areas and pedestrian pushbuttons in Figure 4E-3 and Figure 4E-4.	<i>Text and figures modified.</i> Justification: Corrected issues with landing areas in Figure 4E-4. Updated for current practice in Delaware for Figure 4E-3.
6E-11	Section 6E.08	01A 01B 04A	Add Standard to prohibit flagger stations on Interstates, Freeways, and Expressways. Add Option for use of flaggers to support emergencies and incidents. Add Guidance for location of flagger stations for moving operations on two-lane, two-way roadways.	<i>Text added.</i> Justification: Reflects DelDOT's current standard practice.
6F-1 6F-11	Section 6F.01 Section 6F.03	02 03 05 18	Add reference to AASHTO's <i>Manual for Assessing Safety Hardware</i> (MASH) when referring to NCHRP Report 350	<i>Text modified.</i> Justification: AASHTO's MASH is an update to NCHRP Report 350
6F-11	Section 6F.04	04 – 06	Add Guidance, Option, and Standard for use of ballasts and sandbags with temporary sign stands.	<i>Text added.</i> Justification: Reflects DelDOT's current standard practice.

6F-3	Table 6F-1	03, 13 & 13A	Add the following signs to Table 6F-1 and Figure 6F-5: M4-9-DE1 (48"x36" I/F/E, 30"x24" Other), M4-9b-DE (9"x12"), and M4-9b-DE1 (9"x12"). Update text in Section 6F.59 to include new signs.	<i>Text, table and figures modified.</i>	
6F-20	Figure 6F-5		Update the TA-28 and TA-29 to show new smaller signs.	Justification: There have been reports that motorists have confused pedestrian / bicycle detour signs for vehicular detour signs. The smaller version of these signs for pedestrians / bicyclists are intended to reduce driver confusion	
6F-26	Section 6F.59				
6H-79	Figure 6H-28				
6H-81	Figure 6H-29				
6F-24	Section 6F.50	02A	Replace Share the Road plaque with W11-1-DE.	<i>Text modified.</i> Justification: Text updated to reflect DelDOT's current standard practice to discontinue the use of the Share the Road plaque, as discussed in the <i>Bicycle Warning Sign and Share the Road Plaque</i> memorandum.	
6F-29	Section 6F.60	30D	Add Guidance for placement of portable changeable message sign and drums to accommodate bicycles to the extent possible on conventional roads.	<i>Text added.</i> Justification: Reflects DelDOT's current standard practice.	
6F-37	Section 6F.67	01	Add Standard for base color of drums (orange).	<i>Text added.</i> Justification: Reflects DelDOT's current standard practice.	
6G-10	Section 6G.13	04A	Update text to include reference to <i>Traffic Control Within Intersections</i> memorandum.	<i>Text modified.</i> Justification: The memorandum describes DelDOT's current standard practice.	
6G-12	Section 6G.14	05 06	Add Standard to prohibit use of flaggers on Interstates, Freeways, and Expressways. Add Option for use of flaggers to support emergencies or incidents	<i>Text added.</i> Justification: Reflects DelDOT's current standard practice.	
6G-16	Section 6G.22	All	Create new section based on <i>Interim Guidance – Rolling Road Blocks</i> memorandum.	<i>Section added.</i> Justification: The memorandum describes DelDOT's current standard practice.	
6G-17	Section 6G.23	All	Create new section based on <i>Interim Guidance – Installing and Removing TTC Devices</i> memorandum.	<i>Section added.</i> Justification: The memorandum describes DelDOT's current standard practice.	
6G-19	Section 6G.24	All	Create new section based on <i>Interim Guidance – Aerial Work</i> memorandum.	<i>Section added.</i> Justification: The memorandum describes DelDOT's current standard practice.	
6H-38	Figure 6H-11A	01	Include Note 2 (Standard) from Figure 6H-11 in Figure 6H-11A	<i>Figure modified.</i> Justification: Modifications to regulatory signs (e.g., new STOP signs and new intersection traffic control types/operations), albeit temporary, require DelDOT Traffic's formal approval and Traffic Control Device Authorization.	

6H-66 & 6H-67	Figure 6H-21A	-	Create new typical application (TA-21A) for turn lane closure (left-turn or right-turn lane). Include shoulder closure taper transitioning into in-place left or right turn lane closure.	<i>Figure added.</i> Justification: A right-turn lane closure is a very common MOT application; yet, TA-21 is primarily intended for thru lane applications and TA-23 is a relatively uncommon double left-turn lane closure.
6H-71	Figure 6H-23	-	Shift signs and sign dimensions A and B on the eastbound approach back.	<i>Figure modified.</i> Justification: The former sign dimensions erroneously depicted the stop line as the primary point of measure; however, the beginning of the turn lane closure taper is the appropriate reference point.
7B-1 7B-4 7B-7 7B-9	Table 7B-1 Figure 7B-1 Figure 7B-3 Figure 7B-5	-	Update name and size of overhead school speed limit sign in Table 7B-1. Update overhead school speed limit sign in Figures 7B-1, 3, and 5.	<i>Table and figures modified.</i> Justification: Previously, sign read "School Speed XX Limit When Flashing". Sign has been updated to read "School Speed Limit XX When Flashing" as described in <i>Interim Guidance – Overhead School Speed Limit XX When Flashing Sign</i> memorandum.
7B-7 7B-9 7B-13	Figure 7B-3 Figure 7B-5 Section 7B.15	17 & 18	Update school speed limit assembly signs with flashing beacons in Figures 7B-3 and 7B-5. Remove paragraph 18 in Section 7B.15, as paragraph 16 is sufficient for the description and location of the beacons, and paragraph 18 is incorrect.	<i>Text and figures modified.</i> Justification: Flashing beacons on school speed limit sign assembly has been updated to comply with MUTCD standards. Previously, both flashing beacons were located on top of the assembly, an arrangement which should only be used at railroad crossings.
7B-10	Section 7B.12	04A	Add paragraph 04A to Section 7B.12 to include R1-5 series signs.	<i>Text modified.</i> Justification: Updated text to reflect the FHWA official interpretation of the R1-5 series described in <i>FHWA Official Interpretation – R1-5 Sign</i> memorandum.
9B-2 9B-5 9B-8	Table 9B-1 Figure 9B-2(1) Section 9B.11	06 - 09	Add text and update table and figure for new EXCEPT BICYCLES R3-7bP plaque.	<i>Text, table, and figure modified.</i> Justification: Added plaque based on recommendations from the <i>NCUTCD Except Bicycles Plaque</i> and <i>FHWA Interim Approval #18</i> memorandums.
9B-3 9B-11 9B-15	Table 9B-1 Section 9B.19 Figure 9B-3 Figure 9B-5	02	Remove W16-1P sign from Table 9B-1 and Figure 9B-3 (no longer related to bicycles). Add W11-1-DE sign to Figure 9B-3. Replace paragraph 02 with Option for W11-1-DE instead of SHARE THE ROAD plaque.	<i>Text, table, and figures modified.</i> Justification: New Bicycle IN LANE warning sign added based on DelDOT's current practice. Text updated to reflect DelDOT's current standard practice to discontinue the use of the Share the Road plaque, as discussed in the <i>Bicycle Warning Sign and Share the Road Plaque</i> memorandum.
9B-4 9B-13	Section 9B.04 Section 9B.21	01A 01A	Add Guidance for use of Bike Lane (R3-17) and Bicycle Route (M1-8) signs.	<i>Text added.</i> Justification: Reduce overuse of signs.

9B-5	Figure 9B-2(1)		Eliminate use of the R4-4. Replace all references to R4-4 with R4-4-DE. Modify text to allow optional use of R4-4-DE for all weaving movements between bicycles and right-turning vehicles.	<i>Table and figures modified.</i>
9B-6	Section 9B.05	01 - 04		Justification: Application of both sign messages was confusing.
9B-7				
9C-2	Figure 9C-1			
9B-15	Figure 9B-5			
9C-2	Figure 9C-1			
9C-3	Figure 9C-1A			
9C-4	Figure 9C-1B			
9C-6	Figure 9C-1D			<i>Figures modified.</i>
9C-7	Figure 9C-1E	-	Remove optional signs from figures.	Justification: Optional signs shown on figures have led to the overuse of optional signs.
9C-8	Figure 9C-1F			
9C-13	Figure 9C-4			
9C-14	Figure 9C-4A			
9C-15	Figure 9C-5			
9C-16	Figure 9C-6			
9C-17	Figure 9C-6A			<i>Figure removed.</i>
9C-9	Figure 9C-1G	-	Remove Figure 9C-1G	Justification: Figure is no longer needed since the use of raised pavement markers is changing in Part 3 and will no longer be used along dotted lines.
9C-10	Section 9C.04	03A	Modify the Guidance text to include "should" condition.	<i>Text modified.</i> Justification: Clarified Guidance statement.
9C-12	Section 9C.04	15 – 21	Add paragraphs 15 – 21 in Section 9C.04. Add Figures 9C-4B and 9C-4C.	<i>Text and figures added.</i> Justification: Text and figures added to depict common practice in Delaware for right-turn lane treatments where space does not exist to provide a dedicated bicycle lane to the left of a right-turn only lane, as described in the <i>Interim Guidance; Part 9, Right-Turn Lane Markings for Bicycles</i> memorandum.
9C-15	Figure 9C-4B			
9C-16	Figure 9C-4C			
9C-23	Section 9C.08	01 – 07	Add new section and figures.	<i>Text and figures added.</i> Justification: Added Bicycle Boxes based on recommendations from the <i>NCUTCD Bicycle Box</i> and <i>FHWA Interim Approval #18</i> memorandums.
9C-25	Figure 9C-10			
9C-26	Figure 9C-11			

***Please Note: Due to the size of the final regulation, the Delaware Manual on Uniform Traffic Control Devices is not being published here. A PDF version is available at the following location:**

DE MUTCD Revision 3 - Part 1 - General

<http://regulations.delaware.gov/register/may2018/final/MUTCDPart1General.pdf>

DE MUTCD Revision 3 - Part 2 - Signs

<http://regulations.delaware.gov/register/may2018/final/MUTCDPart2Signs.pdf>

DE MUTCD Revision 3 - Part 3 - Markings

<http://regulations.delaware.gov/register/may2018/final/MUTCDPart3Markings.pdf>

DE MUTCD Revision 3 - Part 4 - Highway Traffic Signals

<http://regulations.delaware.gov/register/may2018/final/MUTCDPart4HighwayTrafficSignals.pdf>

DE MUTCD Revision 3 - Part 6 - Temporary Traffic Control

<http://regulations.delaware.gov/register/may2018/final/MUTCDPart6TemporaryTrafficControl.pdf>

DE MUTCD Revision 3 - Part 7 - School Areas

<http://regulations.delaware.gov/register/may2018/finalMUTCDPart7SchoolAreas.pdf>

DE MUTCD Revision 3 - Part 9 - Bicycle Facilities

<http://regulations.delaware.gov/register/may2018/final/MUTCDPart9BicycleFacilities.pdf>

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