Part 9
TRAFFIC CONTROL FOR BICYCLE FACILITIES

June 15, 2011
2009 MUTCD Format Revisions

- Paragraphs are numbered
- Guidance is italicized
- No more metric
- Definitions relocated to Part 1

- Standards remain bold
- Options and support remain unformatted
Section 1A.13 Definitions of Headings, Words, and Phrases in this Manual

01. **Standard:** When used in this Manual, the text headings of Standard, Guidance, Option, and Support shall be defined as follows:

A. **Standard**—a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device. All Standard statements are labeled, and the text appears in bold type. The verb “shall” is typically used. The verbs “should” and “may” are not used in Standard statements. Standard statements are sometimes modified by Options. Standard statements shall not be modified or compromised based on engineering judgment or engineering study.

B. **Guidance**—a statement of recommended, but not mandatory, practice in typical situations, with deviations allowed if engineering judgment or engineering study indicates the deviation to be appropriate. All Guidance statements are labeled, and the text appears in unbold type. The verb “should” is typically used. The verbs “shall” and “may” are not used in Guidance statements. Guidance statements are sometimes modified by Options.

C. **Option**—a statement of practice that is a permissive condition and carries no requirement or recommendation. Option statements sometime contain allowable modifications to a Standard or Guidance statement. All Option statements are labeled, and the text appears in unbold type. The verb “may” is typically used. The verbs “shall” and “should” are not used in Option statements.

D. **Support**—an informational statement that does not convey any degree of mandate, recommendation, authorization, prohibition, or enforceable condition. Support statements are labeled, and the text appears in unbold type. The verbs “shall,” “should,” and “may” are not used in Support statements.

- Standards are requirements that **SHALL** be followed unless there is an Option
- Guidance is recommended and **SHOULD** be followed
- Options **MAY** be followed and are sometimes modifications to Standards and Guidance
PART 9 - TRAFFIC CONTROL FOR BICYCLE FACILITIES

- 9A: General
- 9B: Signs
- 9C: Markings
- 9D: Signals
Standard:
Bicycle Lane—a portion of a roadway that has been designated for preferential or exclusive use by bicyclists by pavement markings and, if used, signs.

Revised Definition of Bike Lane

- Old: required signs and markings
- New: requires markings; signs optional
Delaware Revision:

- **Old DE MUTCD Option:** Fluorescent Yellow-Green (FYG) may be applied in cases where there is a need to draw additional attention, based on engineering judgment.

- **New DE MUTCD Guidance:**
  - FYG should be used in school zones and other areas where pedestrians are a “significant operational issue” such as beach areas.
  - *(From Part 7):* FYG should be used for bike warning signs.

Guidance: **DRAFT**

02 (DE Revision) Fluorescent yellow should be used for all bicycle-related warning signs.
Revised standard

- **Minimum lateral offset requirement = 2 feet**
  - Had been 3 feet
  - Maximum lateral offset and mounting height removed
Section 9B.03 – STOP and YIELD Signs

Option: **DRAFT**

03A (DE Revision) In situations where a shared-use path intersects with a roadway in a manner that a STOP (R1-1) or YIELD (R1-2) sign for bicyclists may be seen or confused by motorists, a STOP (SR1-16-DE) or YIELD (SR1-17-DE) sign for bicyclists may be used.

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**Delaware Revision:**

- When a STOP or YIELD sign for bicyclists may be seen or confused by motorists, a SR1-16-DE (STOP) or SR1-17-DE (YIELD) sign for bicyclists may be used.
West Park Drive and Rockland Road
Section 9B.03 – STOP and YIELD Signs

West Park Drive and Rockland Road

1st improvement attempt: Sign rotated and shielded
2nd improvement attempt:
STOP sign replaced with SR-1-17-DE Bicycle YIELD sign
Revised standard

- **Bicycle lane regulatory signs are no longer required**
  - Had been required at periodic intervals
  - If used, the R3-17 may still be supplemented with the AHEAD or ENDS plaque
Delaware Revision:

- In urban areas BIKE LANE sign placement should be based on:

  \[ L = 2WS \]

  - \( L \) = spacing between signs
  - \( W \) = width of road
  - \( S \) = 85\textsuperscript{th}-percentile speed

- Also subject to engineering judgment and site specific constraints
Section 9B.04 - Bicycle Lane Signs and Plaques

EXISTING

College Ave at Cleveland Ave, Newark
Section 9B.04 - Bicycle Lane Signs and Plaques

NEW

College Ave at Cleveland Ave, Newark
Option: **DRAFT**

03 *(DE Revision)* Where motor vehicles traveling in a shared though/right-turn lane or in a through lane leading to a channelized right-turn lane without storage must cross bicycle traffic in an adjacent bicycle lane to turn right at an intersection, the RIGHT TURNS MUST YIELD TO BIKES (R4-4-DE) sign (see Figure 9B-2) may be used to inform both the motorist and the bicyclist of this turning maneuver.

**Guidance:**

04 *(DE Revision)* Refer to Figures 9C-1B, 9C-1D, 9C-5 for examples of placement of the R4-4-DE sign in situations where motor vehicles in a shared though/right-turn lane must cross bicycle traffic in an adjacent bicycle lane to turn right.

**Delaware Revision:**

- Where vehicles must cross bicycle traffic to enter a right turn lane, the RIGHT TURNS MUST YIELD TO BIKES sign may be used

- Several figures (shown later) are provided to show typical placement
Section 9B.06 - Bicycles May Use Full Lane Sign (R4-11)

New Section

• Bicycles May Use Full Lane (R4-11) sign may be used where no bicycle lane exists or adjacent shoulder and travel lane is too narrow

Delaware Revision:

• In Delaware, the sign may be used on designated bike routes
Delaware Revision:

- Use of MAY USE FULL LANE sign based on engineering judgment; typically for designated bike routes with “narrow lanes”
- Delaware defines a narrow lane as 14 ft or less, with no shoulder
  - Such lanes are too narrow for a bicycle and vehicle to travel side-by-side
The option also remains to use a Bicycle Warning (W11-1) sign along with a SHARE THE ROAD (W16-1P) plaque (see Section 9B.19)

- Selection of signs based on engineering judgment
- Potential applications:
  - Designated Bike Route
  - Narrow single lane of travel without shoulder
  - Approaches to designated Bike Routes
  - Single lane or multiple lanes of travel without shoulder or with a shoulder < 4 feet wide
Section 9B.06 - Bicycles May Use Full Lane Sign (R4-11)

End of Bicycle Lane Example

LEFT TURN (Use R4-11)
Narrow Lane: 14-foot or less, with no shoulder

THROUGH (Use W16-1P)
Narrow Shoulder: < 4-foot

Cleveland Ave, Newark
Section 9B.06 - Bicycles May Use Full Lane Sign (R4-11)

Narrow Lane: 14-foot or less, with no shoulder

Moose Lodge Rd, Kent County
The RIDE WITH TRAFFIC plaque should only be used with the Bicycle Wrong Way sign.

**Delaware Revision**

The RIDE WITH TRAFFIC plaque should only be used in locations with documented problems or based on engineering judgment.
Section 9B.09 - Selective Exclusion Signs

Standard:

02 If used, Selective Exclusion signs shall clearly indicate the type of traffic that is excluded.

Support:

03 Typical exclusion messages include:
   A. No Bicycles (R5-6),
   B. No Pedestrians (R9-3),
   C. No Skaters (R9-13), and
   D. No Equestrians (R9-14).

Standard: **DRAFT**

05 (DE Revision) Pursuant to Delaware Code Title 17, Chapter 1, §179, a NO NON-MOTORIZED TRAFFIC (R5-7) sign shall be placed at the entry point of all controlled-access highways where the use of non-motorized vehicles is prohibited.

Revised section

- New signs for No Skaters (R9-13) and No Equestrians (R9-14)

Delaware Revision:

- A NO NON-MOTORIZED TRAFFIC (R5-7) sign shall be placed at the entry point of all controlled access highways where non-motorized vehicles are prohibited.
Option:
02 Where it is not intended for bicyclists to be controlled by pedestrian signal indications, the R10-4, R10-24, or R10-26 sign (see Figure 9B-2 and Section 2B.52) may be used.

Guidance:
03 If used, the R9-5, R10-4, R10-24, or R10-26 signs should be installed near the edge of the sidewalk in the vicinity of where bicyclists will be crossing the street.

Option:
04 If bicyclists are crossing a roadway where In-Roadway Warning Lights (see Section 4N.02) or other warning lights or beacons have been provided, the R10-25 sign (see Figure 9B-2) may be used.

Revised section

• New signs for bicycle crossings not controlled by pedestrian indications
Signal Indication for Bicycle Crossing Controlled by Pushbutton

US 1, College Park, MD
Option: **DRAFT**

03 (DE Revision) A supplemental plaque may be used to clarify the specific type of surface condition or emphasize the need for caution, such as the CYCLES USE CAUTION (W10-12P-DE) plaque (See Section 8B.25).

**Delaware Revision**

- The CYCLES USE CAUTION (W10-12p-DE) sign specifically listed as an option for use in locations where cyclists should pay extra attention to specific conditions
- Typical usage will be in conjunction with other surface warning signs: BUMP (W8-1), DIP (W8-2), PAVEMENT ENDS (W8-3), Skewed Grade Crossing (W10-12), etc.
Option:

The combined Bicycle/Pedestrian (W11-15) sign (see Figure 9B-3) may be used where both bicyclists and pedestrians might be crossing the roadway, such as at an intersection with a shared-use path. A TRAIL X-ING (W11-15P) supplemental plaque (see Figure 9B-3) may be mounted below the W11-15 sign.

Revised section

- New combined Bicycle/Pedestrian (W11-15) sign and TRAIL X-ING (W11-15P) plaque for shared-use paths
- Other warning plaques may also be used:
Section 9B.18 - Bicycle Warning and Combined Bicycle/Pedestrian Signs (W11-1 and W11-15)

OLD

NEW

Issac Branch Trail at President Dr, Dover
Revised section

- PATH NARROWS (W5-4a) sign replaces BIKEWAY NARROWS sign
  - Sign may only be used on shared-use paths

Delaware Revision

- The SHARE THE ROAD (W16-1P) plaque may be used
  - on roads with no shoulder or a shoulder < 4’
  - At junctions with designated bike routes
Option:

01 Bike Route Guide (D11-1) signs (see Figure 9B-4) may be provided along designated bicycle routes to inform bicyclists of bicycle route direction changes and to confirm route direction, distance, and destination.

02 If used, Bike Route Guide signs may be repeated at regular intervals so that bicyclists entering from side streets will have an opportunity to know that they are on a bicycle route. Similar guide signing may be used for shared roadways with intermediate signs placed for bicyclist guidance.

03 Alternative Bike Route Guide (D11-1c) signs may be used to provide information on route direction, destination, and/or route name in place of the “BIKE ROUTE” wording on the D11-1 sign (see Figures 9B-4 and 9B-6).

04 Destination (D1-1, D1-1a) signs, Street Name (D3) signs, or Bicycle Destination (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c) signs (see Figure 9B-4) may be installed to provide direction, destination, and distance information as needed for bicycle travel. If several destinations are to be shown at a single location, they may be placed on a single sign with an arrow (and the distance, if desired) for each name. If more than one destination lies in the same direction, a single arrow may be used for the destinations.

Guidance:

05 Adequate separation should be made between any destination or group of destinations in one direction and those in other directions by suitable design of the arrow, spacing of lines of legend, heavy lines entirely across the sign, or separate signs.

Revised section

- Several new Bike Route Guide signs added
  - New Bike Destination and Distance Signs (D1 series)
  - Alternative Guide Sign (D11-1c) may be used instead of D11-1.
Delaware Revisions

- Fig 9B-5 modified to show:
  - the SHARE THE ROAD (W16-1P) plaque and the W11-1 sign
  - The optional use of the SR1-16-DE Bike STOP sign
Revised Figure

- Showing appropriate use of Bicycle Guide Signing based on updated FHWA MUTCD
Delaware Revisions

- Fig 9B-7 modified to show:
  - “Piano key” crosswalk
  - Double yellow centerline approaching path crossing
  - Yield line and R1-5 sign
  - The optional use of the SR1-16-DE Bike STOP sign
  - The optional use of advance warning signs on path *(note that Yield ahead is not shown)*
Revised standard

- **Bicycle Route (M1-8a) sign shall contain route designation and pictograph or words associated with the route or agency with jurisdiction**

- In the old DE MUTCD, M1-8-DE and M1-8a-DE signs (with arrows) were permitted
- Under new DE MUTCD they will not be.
- Use M6 series plaques instead (see next slide)
Section 9B.22 - Bicycle Route Sign Auxiliary Plaques

Guidance:

If used, Junction (M2-1), Cardinal Direction (M3 series), and Alternative Route (M4 series) auxiliary plaques (see Figure 9B-4) should be mounted above the appropriate Bike Route Guide signs, Bicycle Route signs, or U.S. Bicycle Route signs.

If used, Advance Turn Arrow (M5 series) and Directional Arrow (M6 series) auxiliary plaques (see Figure 9B-4) should be mounted below the appropriate Bike Route Guide sign, Bicycle Route sign, or U.S. Bicycle Route sign.

Route sign auxiliary plaques carrying word legends that are used on bicycle routes should have a minimum size of 12 x 6 inches. Route sign auxiliary plaques carrying arrow symbols that are used on bicycle routes should have a minimum size of 12 x 9 inches.

Option:

With route signs of larger sizes, auxiliary plaques may be suitably enlarged, but not such that they exceed the width of the route sign.

A route sign and any auxiliary plaques used with it may be combined on a single sign.

Destination (D1-1b and D1-1c) signs (see Figure 9B-4) may be mounted below Bike Route Guide signs, Bicycle Route signs, or U.S. Bicycle Route signs to furnish additional information, such as directional changes in the route, or intermittent distance and destination information.

Revised section

• Clarified use and sizes of auxiliary plaques and introduced new plaques
  • Junction (M2-1)
  • Cardinal Direction (M3 series)
  • Alternative Route (M4 series)
  • Advance Turn Arrow (M5 series)
  • Directional Arrow (M6 series)
Sections 9B.21 and 9B.22

CORRECT

Middleton Dr, Wilmington

INCORRECT

SR 15 at SR 8, Dover

CORRECT

Moose Lodge Rd, Kent County
Section 9B.24 - Reference Location Signs and Intermediate Reference Location Signs

Support:

There are two types of reference location signs:

A. Reference Location (D10-1, 2, and 3) signs show an integer distance point along a shared-use path; and
B. Intermediate Reference Location (D10-1a, 2a, and 3a) signs also show a decimal between integer distance points along a shared-use path.

New section

- Reference Location signs for use on shared paths only
- May use signs with (D10-2) or without (D-10-2a) a decimal integer
- **Shall contain 4.5 inch white numerals on a min. 6 inch green background with white border**
- Shall have min. mounting height of 2 feet
New section

- New Mode-Specific Guide signs to indicate permitted user types on shared-use paths
- Previously only had restricted use signs
Section 9B.26 - Object Markers

Option:  **DRAFT**

01 (DE Revision) Fixed objects adjacent to shared-use paths may be marked with Type 1, Type 2, or Type 3 object markers (see Figure 9B-3) such as those described in Section 2C.63. If the object marker is not intended to also be seen by motorists, a smaller version of the Type 3 object marker may be used (see Table 9B-1). A Type 3 object marker not intended to be seen by motorists may also be narrower than the minimum width specified in Table 9B-1, to eliminate any potential overhang.

Standard:

02 Obstructions in the traveled way of a shared-use path shall be marked with retroreflectORIZED material or appropriate object markers.
03 All object markers shall be retroreflective.
04 On Type 3 object markers, the alternating black and retroreflective yellow stripes shall be sloped down at an angle of 45 degrees toward the side on which traffic is to pass the obstruction.

Section moved from old Section 9C.03

- Type 3 object markers for shared-use paths may be smaller than object markers for roadways

**Delaware Revision:**

- A Type 3 object marker may be narrower than the min. dimensions in Table 9B-1 (6 inches by 18 inches)
- However, the surface area of the narrow sign must still be at least 108 square inches
Section 9B.26 - Object Markers

INCORRECT

Issac Branch Trail at President Dr, Dover
CORRECT

Issac Branch Trail at President Dr, Dover
New standard

- **Bicycle lanes shall be defined by longitudinal pavement markings**
  - The definition of a bicycle lane has been changed: Signs may be used to supplement the markings, but are not required
Revised standard

- **A through bicycle lane shall not be used to the left of a left turn only lane**
  - Previously, standard only applied to right turn lane
  - Left bicycle lane should be placed to the right of left turn only lane
Delaware Revisions

• Several new and revised Figures for the DE MUTCD
  • 9C-1: Left-Turn Area, Heavy Turn Volumes, Parking, One-Way Traffic, or Divided Highway
  • 9C-1A: Right-Turn Area or Lane Drop
  • 9C-1B: At Intersection Departures with and without Acceleration Lanes
  • 9C-1C: At High-Speed Entrance Ramp Crossings
  • 9C-1D: At Minor Subdivision Entrance
  • 9C-1E: At Bypass Lane
  • 9C-1F: At Right In/Out Entrance
  • 9C-4: At a Right Turn Only Lane
  • 9C-4A: At a Right Turn Only Lane with Shoulder
  • 9C-5: At Transition of Parking Lane to Right Turn Lane
  • 9C-6A: At a Bus Pull-off Area and at Full-Width Shoulder
  • 9C-6B: At a Roundabout
Section 9C.04 - Markings for Bicycle Lanes

Figure 9C-1. Example of Intersection Pavement Markings—Designated Bicycle Lane with Left-Turn Area, Heavy Turn Volumes, Parking, One-Way Traffic, or Divided Highway  
(Delaware Revision)

Dotted line (optional)

Dotted lines

Figure 9C-1A. Example of Intersection Pavement Markings—Designated Bicycle Lane with Right-Turn Area, Lane Drop  
(Delaware Revision)

Dotted line (optional)

Max. 150 ft. *  
Refer to Fig. 3B-11

Min. 25 ft. *  
Min. 100 ft. **  
Min. 25 ft. *  
Min. 25 ft. *  

Dotted 5 in., lane line consisting of 2 ft. line segments and 8 ft. gaps  
(3 ft. line segments and 9 ft. gaps along expressways).

Dotted 10 in., lane line consisting of 2 ft. line segments and 8 ft. gaps  
(3 ft. line segments and 9 ft. gaps along expressways).
Section 9C.04 - Markings for Bicycle Lanes

Figure 9C-1B.
Example of Intersection Pavement Markings -
Designated Bicycle Lane at Intersection Departures
with and without Acceleration Lanes
(Delaware Revision)

Figure 9C-1C.
Example of Designated Bicycle Lane Crossing at
High Speed Entrance Ramp
(Delaware Revision)

* Should be installed only if shoulder is
designated as a continuous bicycle lane

DRAFT

Symbol and arrow centered
within full-width shoulder
at far side of intersection

SR1-16-DE

Placement based on
distance provided in
Table 2C-4, Condition B

W11-1
(optional)

Symbol head with shield

R3-17 *

Dotted 5 in. lane line
consisting of 2 ft. line
segments and 6 ft. gaps
(3 ft. line segments and
9 ft. gaps along expressways).

Min. 300 ft.
or as set forth in Figure 7-13 of the
DelDOT Road Design Manual.

Accel lane length should meet
requirements as set forth in
Figures 7-13 and 7-19 of the
DelDOT Road Design Manual.

W11-1
(optional)

W11-1
(optional)

R4-4-DE

RS-3P (optional)
R9-3P (optional)

If bicycle lane width < 8 ft.
use solid line.
If bicycle lane width ≥ 8 ft.
use 50-200 ft. dotted line (2 ft. line,
6-ft gap).

Min 50 ft.

30 ft.

50 ft.
Section 9C.04 - Markings for Bicycle Lanes

**Figure 9C-1D.** Example of Intersection Pavement Markings - Designated Bicycle Lane at Minor Subdivision Entrance (Delaware Revision)

Symbol and arrow should be placed at the beginning of the tangent section but centered with respect to the continuous full-width shoulder.

Beginning at a point where shoulder width at subdivision entrance widens to 8 ft. or greater, use 5 in. dotted line consisting of 2 ft. line segments and 6 ft. gaps (3 ft. line segments and 9 ft. gaps along expressways).

If shoulder width at subdivision entrance is less than 8 ft., use 5 in. solid line.

**Figure 9C-1E.** Example of Bicycle Lane Treatment at a Bypass Lane (Delaware Revision)

Dotted 6 in. lane line consisting of 2 ft. line segments and 6 ft. gaps (3 ft. line segments and 9 ft. gaps along expressways).

Symbol and arrow should be placed at the beginning of the tangent section but centered on the continuous full-width shoulder.

Note: Refer to the DelDOT Standards and Regulations for Subdivision Streets and State Highway Access for specific storage and taper lengths.
Section 9C.04 - Markings for Bicycle Lanes

Figure 9C-1F.
Example of Bicycle Lane Treatment at Right In/Out Entrance
(Delaware Revision)

- Symbol and arrow centered within full-width shoulder at far side of intersection.
- R1-2 (or STOP sign with stop line)
- Yield line (optional)
- W/11-1 (optional)
- Dotted 5 in. lane line consisting of 2 ft. line segments and 6 ft. gaps (3 ft. line segments and 9 ft. gaps along expressways).
- R3-3cP (optional)
- RS-1b (optional)
- R4-4
Delaware Revision:

- Preferred symbol for bicycle lanes on state-maintained roads is a helmeted bicyclist
- See figure 9C-3
Section 9C.04 - Markings for Bicycle Lanes

Figure 9C-4.
Example of Bicycle Lane Treatment at a Right-Turn Only Lane
(Delaware Revision)

- Dotted 4 in. lane line (6 in. dotted lane line along expressways) consisting of 2 ft. lane segments and 6 ft. gaps (3 ft. lane segments and 9 ft. gaps along expressways).
- Normal Line

Figure 9C-4A.
Example of Bicycle Lane Treatment at a Right-Turn Only Lane with Shoulder
(Delaware Revision)

- Normal Line
- Dotted 5 in. lane line consisting of 2 ft. line segments and 6 ft. gaps (3 ft. line segments and 9 ft. gaps along expressways).
- Shoulder

R9-3cP (optional)
R5-1b (optional)
R4-4

50 ft.
30 ft. Taper
Section 9C.04 - Markings for Bicycle Lanes

Examples of Right Turn Only Lane with Shoulder

State St at SR 10

SR 896
Section 9C.04 - Markings for Bicycle Lanes

Example of Combined Intersection Departure without Acceleration Lane and Right Turn Only Lane with Shoulder

State St at SR 10

Would remove the dotted line here based on the bottom of Fig 9C-1b
Section 9C.04 - Markings for Bicycle Lanes

Figure 9C-5. Example of Bicycle Lane Treatment at Parking Lane into a Right-Turn Only Lane  
(Delaware Revision)

**DRAFT**

Dotted lines (optional)

R4-4 at upstream end of right turn only lane

R9-3cP

BEGIN RIGHT TURN LANE YIELD TO BIKES (optional)

Figure 9C-6. Example of Pavement Markings for Bicycle Lanes on a Two-Way Street  
(Delaware Revision)

**R3-17**

R7 series sign (as appropriate)

Minor intersection

50 to 200 feet of dotted line if bus stop or heavy right-turn volume

Normal width solid white line

Example of application where parking is prohibited

If bicycle lane width < 8 ft., use solid line.  
If bicycle lane width ≥ 8 ft., use 50-200 ft. dotted line (2-ft. line, 6-ft. gap).

Normal width solid white line

Signalized intersection

Example of application where parking is permitted

If bicycle lane width < 8 ft., use solid line.  
If bicycle lane width ≥ 8 ft., use 50-200 ft. dotted line (2-ft. line, 6-ft. gap).
Section 9C.04 - Markings for Bicycle Lanes

Figure 9C-6A.
Example of Pavement Markings for Bicycle Lanes with Bus Pull-off Area and Full-Width Shoulder (Delaware Revision)

Figure 9C-6B.
Example of Pavement Markings for Bicycle Lane Treatment at a Roundabout (Delaware Revision)
Option:

The Shared Lane Marking shown in Figure 9C-9 may be used to:

A. Assist bicyclists with lateral positioning in a shared lane with on-street parallel parking in order to reduce the chance of a bicyclist’s impacting the open door of a parked vehicle,
B. Assist bicyclists with lateral positioning in lanes that are too narrow for a motor vehicle and a bicycle to travel side by side within the same traffic lane,
C. Alert road users of the lateral location bicyclists are likely to occupy within the traveled way,
D. Encourage safe passing of bicyclists by motorists, and
E. Reduce the incidence of wrong-way bicycling.

New Section

• Shared Lane Markings ("Sharrow") assists bicyclists and motorists in determining the appropriate lateral position in shared or narrow lanes
Guidance:
02 The Shared Lane Marking should not be placed on roadways that have a speed limit above 35 mph.
02A (DE Revision) The Shared Lane Marking should only be placed on roadways with on street parking.

Support:
02B (DE Revision) Studies related to the Shared Lane Marking have primarily shown benefits in the reduction of “dooring” related crashes in urban areas where on-street parking is present and lateral positioning of bicycles is a concern. There have been no significant studies to date showing benefits from the placement of the Shared Lane Marking on rural or other types of roadways where parking does not exist and therefore driver comprehension of these markings on these roadways is a concern.

Standard:
03 Shared Lane Markings shall not be used on shoulders or in designated bicycle lanes.

- **Shared Lane Markings should not be used on roads with a speed limit above 35 mph**
- **Shared Lane Markings shall not be used on designated bicycle lanes or shoulders**

**Delaware Revision:**
- **Shared Lane Markings should only be used on roads with on-street parking**
Guidance:

04 If used in a shared lane with on-street parallel parking, Shared Lane Markings should be placed so that the centers of the markings are at least 11 feet from the face of the curb, or from the edge of the pavement where there is no curb.

- The Shared Lane Marking should be placed so that the center of the marking is at least 11 feet from the face of curb or from edge of pavement.
Guidance:

If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the Shared Lane Markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.

- While unusual, if ever used on a road without on-street parking and a narrow (<14’) lane, a Shared Lane Marking should be placed so that the center of the marking is >= 4 feet from face of curb or edge of pavement.
Delaware Revision:

- **Shared Lane Markings should be placed away from the door zone of parked vehicles and outside of vehicle wheel paths**

- **If used, Shared Lane Markings should be placed immediately after an intersection and at intervals of 250 feet max.**

- **Bicycles May Use Full Lane (R4-11) sign may be used to supplement (or as an alternative to) Shared Lane Markings**
(Nice idea, but violates Section 4D.06)
• Chapter 9D is very short – basically referring you back to Part 4

• Questions pertaining to signal indications for bikes can be directed to Steve Treut (a.k.a. “Socrates”) in the Traffic Section