NOTE: This is a recommendation by NCUTCD to FHWA to add or revise the content of the MUTCD. This proposal by itself does not constitute official standards or guidance. Regardless of NCUTCD approval status, any proposed change or revision has no legal or official status until specifically approved by FHWA through either the Interim Approval process or adoption into a new edition of the MUTCD.

TECHNICAL COMMITTEE: Bicycle Technical Committee

TOPIC: Buffered Bicycle Lanes

STATUS/DATE OF ACTION:

BTC Drafts: 01/09/2014
BTC Approval: 01/09/2014
MTC Concurrence: 01/09/2014
Transmitted to Sponsors: 03/25/2014
TC Revision: 06/28/2014
Council Approval: 06/28/2014 (v1.7)

ORIGIN OF REQUEST: FHWA

AFFECTED SECTIONS OF MUTCD: Section 1A.13, Chapter 9C

SUMMARY: The proposal revises Section 1A.13 – Definitions of Headings, Words, and Phrases in this Manual and Section 9C.XX to provide standards, guidance, and options for the installation of buffer areas between bicycle lanes and adjacent general-purpose lanes and/or bicycle lanes and parking lanes.

DISCUSSION
Crashes involving bicyclists and opening vehicle doors can cause severe injury. One countermeasure that has been employed to reduce the likelihood of this type of crash is to place a buffer area between the parking lane and bicycle lane.

Placing a buffer area between the bicycle lane and adjacent general-purpose lane provides greater separation between bicyclists and motor vehicles.

On existing roadways that are reconfigured to provide bicycle lanes, excess remaining width can result in excessively wide bicycle lanes that appear to be general-purpose
lanes or parking lanes. A buffer can prevent the configuration of bicycle lanes that may be so wide that they might be mistaken for a travel lane or parking lane.

Currently, buffered bicycle lanes can be installed as buffer-separated preferential lanes as defined in Section 1A.13 and in accordance with the Standards and Guidance in Section 3B.24 and Chapter 3D. The buffer area can be delineated by standard longitudinal pavement markings and may include chevron or diagonal markings.

Buffered bicycle lanes have been installed at numerous locations throughout the US, however, there is a lack of uniformity in the pattern of pavement markings and geometric configuration. This proposal will include Standards, Guidance and Options for the uniform installation of buffered bicycle lanes.

The NCUTCD Markings Technical Committee reviewed and concurred with this proposal in January and June, 2014.
RECOMMENDED MUTCD PROVISIONS/ REVISIONS

Note: Deletions from the 2009 MUTCD text are noted in strikethrough red, and insertions in underline blue.

The following definition is added to Section 1A.13 of the MUTCD:

Section 1A.13 – Definitions of Headings, Words, and Phrases in this Manual

Standard:

xx. Buffered Bicycle Lane—a bicycle lane that is separated from the adjacent general-purpose lane or parking lane by a pattern of standard longitudinal markings. The buffer area might include chevron or diagonal markings.

A new Section 9C.xx is inserted into Part 9 of the MUTCD:

Section 9C.xx. Buffered Bicycle Lanes

Support:

01 Pavement markings can designate a buffer area between a bicycle lane and adjacent general purpose lane and/or parking lane. A buffer area provides a greater separation between the bicycle lane and adjacent lanes than is provided by a single normal or wide lane line.

Option:

02 A bicycle lane buffer area may be used to separate a bicycle lane from an adjacent general-purpose lane and/or parking lane.

Standard

03 If used, a buffer between a bicycle lane and general-purpose lane or parking lane shall be delineated by standard normal width longitudinal pavement markings.

Guidance:

04 Consideration should be given to installing chevron or diagonal markings as appropriate in a bicycle lane buffer area. The use of chevron or diagonal markings in a bicycle lane buffer area should be based on engineering judgment and the Standards and Guidance in Section 3B, 24 and Figure 9C-x.

Option:

05 The chevron or diagonal markings may be omitted from narrow bicycle lane buffer areas less than 4 feet wide.
Figure 9C-x. Example of Markings for Buffered Bike Lanes

A - Buffer between bicycle lane and general purpose lane.

- Normal width solid single white lane line
- Dotted line optional
- White chevron markings if buffer space is 4 feet or wider
- Driveway or Minor Commercial Entrance
- Consider ending buffer on approach to intersection of side street or major commercial driveway

B - Buffer between bicycle lane and parking lane.

- Normal width broken single white lane line
- Parking space
- Buffer space
- White diagonal markings if buffer space is 4 feet or wider

Legend

→ Direction of Travel