

ATTACHMENT NO. 15

Deleted: RW No. 13

Approved by NCUTCD Council January 20, 2006

Deleted: APPROVED IN NCUTCD GENERAL SESSION ON JANUARY 20, 2006

**National Committee on Uniform Traffic Control Devices  
TECHNICAL COMMITTEE RECOMMENDATIONS**

TECHNICAL COMMITTEE: **Regulatory and Warning Signs TC**

DATE OF ACTION: 1/19/2006

Deleted: 18

REQUEST NUMBER:

TOPIC: Regulatory and Warning Signs at Roundabouts

DISCUSSION: Roundabouts are being increasingly used throughout the country. The markings committee has developed a roundabout markings chapter. Before this can be approved, new MUTCD language for signing at roundabouts must be developed.

RECOMMENDED WORDING:

- = text proposals and deletions
- = figure proposals
- = changes on 1/18/06 by task force and RWSTC
- = changes on 1/18/06 by RWSTC sent to Markings for concurrence

*It is recommended that Item 68 of Section 1A.13 Definitions of Words and Phrases in This Manual be revised as follows:*

**xx. Circulatory Roadway**—the roadway within a roundabout on which traffic travels in a counterclockwise direction around an island in the center of the roundabout.

**68. Roundabout Intersection**—a generally circular intersection with yield at entry, which allows a vehicle on the circulatory roadway to proceed, and deflection of the approaching vehicle counter-clockwise around a central island, a distinctive circular intersection with yield control of all entering traffic and deflection of the approaching vehicle counterclockwise around the central island, channelized approaches, and appropriate geometric curvature, such that travel speeds on the circulatory roadway are typically less than 50 km/h (30 mph).

Deleted: give

Deleted: the right-of-way

**xx. Splitter Island**—a median island used to separate opposing directions of traffic entering and exiting a roundabout.

*It is recommended that the Standard in Section 2B.09 YIELD Sign Applications be revised as follows:*

**Section 2B.09 YIELD Sign Applications**

...  
**Standard:**

A YIELD (R1-2) sign shall be used to assign right-of-way at the entrance to a roundabout **intersection**. **YIELD signs at roundabouts shall be used to control the approach roadways and not the circulatory roadway.**

*It is recommended that **Section 2B.10 STOP Sign or YIELD Sign Placement** be revised as follows (It should be noted that Section 2B.10 as modified below is not the version in the currently published version of the 2003 MUTCD; the NCUTCD approved modifications at the June 2004 meeting.):*

#### **Section 2B.10 STOP Sign or YIELD Sign Placement**

**Standard:**

The STOP or YIELD sign shall be installed on the near side of the intersection and on the right side of the approach to which it applies. When the STOP or YIELD sign is installed at this required location and the sign visibility is restricted, a Stop Ahead sign shall be installed in advance of the STOP sign, or a Yield Ahead sign shall be installed in advance of the YIELD sign (see Section 2C.29).

**YIELD signs shall be placed on both the left and right sides of approaches to roundabout intersections with more than one lane on the signed approach where raised splitter islands are available on the left side of the approach.**

The STOP or YIELD sign shall be located as close as practical to the intersection it regulates, while optimizing its visibility to the road user it is intended to regulate.

YIELD signs and STOP signs shall not be mounted on the same post.

Guidance:

Other than a DO NOT ENTER sign, no sign should be mounted back-to-back with a STOP or YIELD sign in a manner that obscures the shape of the STOP or YIELD sign.

Support:

Figure 2A-2 shows examples of some typical placements of STOP signs and YIELD signs.

Section 2A.16 contains additional information about separate and combined mounting of other signs with STOP or YIELD signs.

Guidance:

Stop lines, when used to supplement a STOP sign, should be located at the point where the road user should stop. Yield lines, when used to supplement a YIELD sign, should be located at a point where the road user should yield (see Section 3B.16).

Where two roads intersect at an acute angle, the STOP or YIELD sign should be positioned at an angle, or shielded, so that the legend is out of view of traffic to which it does not apply.

Where there is a marked crosswalk at the intersection, the STOP sign should be installed in advance of the crosswalk line nearest to the approaching traffic.

Except at roundabouts **intersections**, where there is a marked crosswalk at the intersection, the YIELD sign should be installed in advance of the crosswalk line nearest to the approaching traffic.

At a roundabout intersection, to prevent circulating vehicles from yielding unnecessarily, the face of the YIELD sign should not be visible from the circulatory roadway.

An additional YIELD sign should be placed on the left side of a roundabout approach with more than one lane where a raised splitter island is available on the left side of the approach.

Option:

An additional YIELD sign may be placed on the left side of a roundabout approach with one lane where a raised splitter island is available on the left side of the approach.

At wide-throat intersections or where two or more approach lanes of traffic exist on the signed approach, observance of the right-of-way control may be improved by the installation of an additional STOP or YIELD sign on the left side of the road and/or the use of a stop or yield line. At channelized intersections or at divided roadways separated by a median, the additional STOP or YIELD sign may be placed on a channelizing island or in the median.

*It is recommended the following Standard and Support statements be added to Section 2B.19 Turn Prohibition Signs (R3-1 through R3-4, and R3-18):*

**Standard:**

The No Left Turn (R3-2) sign, the No U-Turn (R3-4) sign, and the R3-18 sign shall not be used at approaches to roundabouts to indicate that drivers shall not turn left onto the circulatory roadway of a roundabout.

Support:

At roundabouts, the use of No Left Turn and No U-Turn signs to prohibit left turns onto the circulatory roadway might confuse drivers about the possible legal turning movements around the roundabout. The ONE WAY (R6-1 and R6-2) sign and/or the Roundabout Chevron Directional (R6-4) sign are the appropriate signs to indicate the travel direction within a roundabout.

*It is recommended that the following Option statement be added to Section 2B.20 Intersection Lane Control Signs (R3-5 through R3-8):*

Option:

At roundabouts, the Intersection Lane Control Signs (R3-5, R3-6, and R3-8) may display any of the arrow symbol options shown in Figure 2B-X.

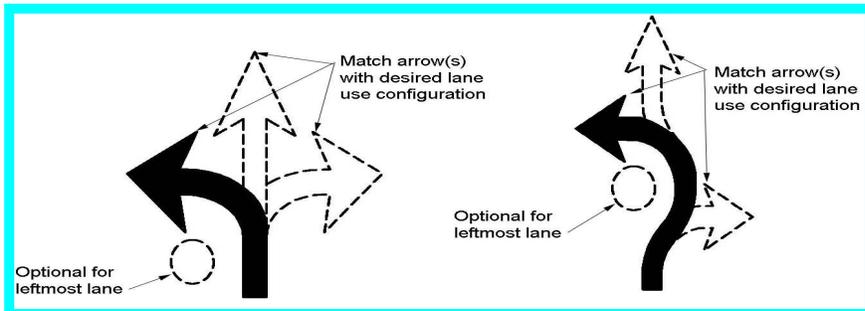
*It is recommended that the following figure be added to Chapter 2B between existing figures 2B-4 and 2B-5:*

**Figure 2B-X Intersection Lane Control Sign Arrow Options for Roundabouts**

Commented [MMM1]: This issue is covered three paragraphs up.

Deleted: the arrow symbols used in

Deleted: use



*{Sections 2B.20 to 2B.23 may need other changes. There may be a need to add street or place names to the regulatory signs. This issue needs to be worked out with GMI, since it is sort of a guide issue but also sort of a regulatory issue.}*

*It is recommended the following Option and Support statements be added to Section 2B.37 ONE-WAY Signs (R6-1 and R6-2):*

**Option:**

Where the central island of a roundabout allows for the installation of a sign, the ONE-WAY sign may be used instead of or in addition to the Roundabout Chevron Directional (R6-4) Sign (See Section 2B.XX *{new section for Roundabout Chevron Directional Sign}*) to direct traffic counter-clockwise around the central island.

**Guidance:**

When used on the central island of a roundabout, the mounting height to the bottom of the ONE WAY sign should be at least 1.2 m (4 ft) above the level of the near edge of the traveled way.

**Support:**

The circulatory roadway is considered part of the intersection and designating it separately as a one-way roadway may be confusing to road users. This is especially true at roundabouts on one-way streets. The use of ONE WAY signs on the circulatory roadway of a roundabout might give the incorrect interpretation that the cross street is a one-way street. The Roundabout Chevron Directional Sign might reduce this confusion.

The ONE WAY sign ~~may~~ **might** be necessary in states that have defined a roundabout as a series of T-intersections.

*It is recommended that a new Section (suggest Section 2B.39 with others being renumbered) be added to Chapter 2B as follows:*

**Section 2B.XX Roundabout Chevron Directional Sign (R6-4)**

**Standard:Guidance:**

Where the central island of a roundabout allows for the installation of a sign, the Roundabout Chevron Directional sign ~~should~~ **shall** be used in the central island to direct

traffic counter-clockwise around the central island, except as noted in the option in Section 2B.37.

**Standard:**

The Roundabout Chevron Directional sign shall be a horizontal rectangle with at least 2 black chevrons on a white background. No border shall be used on the Roundabout Chevron Directional sign.

The Roundabout Chevron Directional Sign shall be used only at roundabouts and other circular intersections.

**Guidance:**

When used on the central island of a roundabout, the mounting height to the bottom of the Roundabout Chevron Directional sign should be at least 1.2 m (4 ft) above the level of the near edge of the traveled way.

**Option:**

On high-speed approaches, on approaches with limited visibility, or in other circumstances as determined by engineering judgment, the number of chevrons within the Roundabout Chevron Directional sign may be increased and/or more than one Roundabout Chevron Directional sign may be used to improve visibility.

*It is recommended that the following sign image be added to Figure 2B-11:*



R6-4

*It is recommended that a new Section (suggest Section 2B.40 with others being renumbered) be added to Chapter 2B as follows:*

**Section 2B.XX Roundabout Circulation Sign (R6-5)**

**Guidance:**

At roundabouts with no reasonable place to mount a Roundabout Directional Chevron (R6-4) sign or a ONE WAY (R6-1) sign in the central island, the Roundabout Circulation (R6-5) sign should be placed below the YIELD (R1-2) sign on each approach.

**Option:**

The Roundabout Circulation sign may be placed below the YIELD (R1-2) sign on approaches to roundabouts to supplement a Roundabout Directional Chevron (R6-4) sign and/or a ONE WAY (R6-1) sign in the central island.

The Roundabout Circulation sign may be used at other circular intersections.

**Commented [LAR2]:** The use of 2 chevrons results in a 36x24 sign, assuming 18x24 for each chevron. This is the same width as a ONE WAY sign.

**Formatted:** Highlight

**Formatted:** Highlight

**Formatted:** Highlight

**Deleted:** where signs can be mounted in the central island

*It is recommended that the following sign image be added to Figure 2B-11:*



R6-5

*It is recommended the following Standard statement be added to Section 2C.09 One-Direction Large Arrow Sign (W1-6):*

**Standard:**

**The One-Direction Large Arrow sign (W1-6) sign directing traffic to the right shall not be used in the central island of a roundabout.**

It is recommended that **Section 2C.37 Intersection Warning Signs (W2-1 through W2-6)** be revised as follows:

Option:

A Cross Road (W2-1) symbol, Side Road (W2-2 or W2-3) symbol, T-Symbol (W2-4), or Y-Symbol (W2-5) sign (see Figure 2C-8) may be used in advance of an intersection to indicate the presence of an intersection and the possibility of turning or entering traffic. The Circular Intersection (W2-6) symbol sign **accompanied by an educational TRAFFIC CIRCLE (W16-12p) plaque (see Figure 2C-8)** may be installed in advance of a circular intersection.

**The Circular Intersection symbol sign may be accompanied by an educational plaque, such as ROUNDABOUT (W16-XXp) or TRAFFIC CIRCLE (W16-12p) (see Figure 2C-8)**

The relative importance of the intersecting roadways may be shown by different widths of lines in the symbol.

An advance street name plaque (see Section 2C.49) may be installed above or below an Intersection Warning sign.

Guidance:

The Intersection Warning sign should illustrate and depict the general configuration of the intersecting roadway, such as cross road, side road, T-intersection, or Y-intersection.

Intersection Warning signs, other than the Circular Intersection symbol (W2-6) sign and the T-intersection symbol (W2-4) sign, should not be used on approaches controlled by STOP signs, YIELD signs, or signals. **The Circular Intersection symbol (W2-6) sign should be installed on the approach to a YIELD sign controlled roundabout intersection.**

Where the side roads are not opposite of each other, the symbol for the intersection should indicate a slight offset.

*It is recommended that Figure 2C-8 be modified to remove the TRAFFIC CIRCLE plaque from below the W2-6 (Circular Intersection) sign. Further, it is recommended that a new ROUNDABOUT plaque (W16-XXp) and the TRAFFIC CIRCLE plaque be shown by themselves on the figure.*



*It is recommended the following Standard statement be added to Section 2C.38 Two-Direction Large Arrow Sign (W1-7)*

**Standard:**

**The Two-Direction Large Arrow sign (W1-7) sign directing traffic to the left and right shall not be used in the central island of a roundabout.**

The following section should be added to Chapter 2B as follows:

**Section 2B.XX Example Signing for Roundabouts**

**Support:**

Figures 2B.xx through 2B.zz illustrate examples of signing for roundabouts of various configurations.

Figure 2B.xx. Example of Signing for Mini-Roundabout

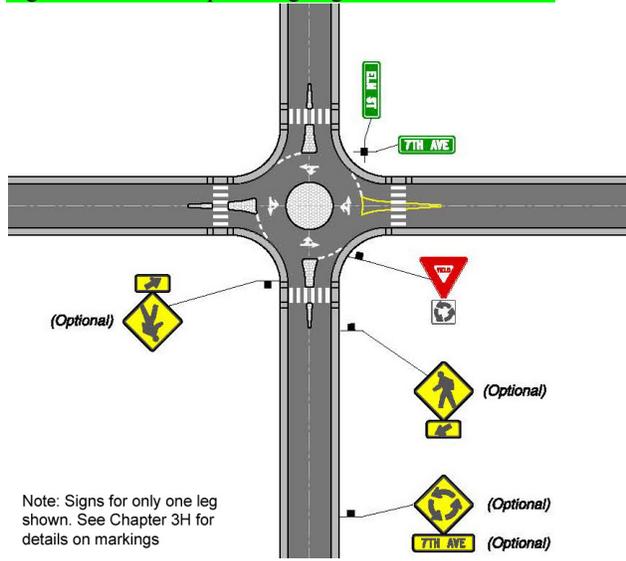
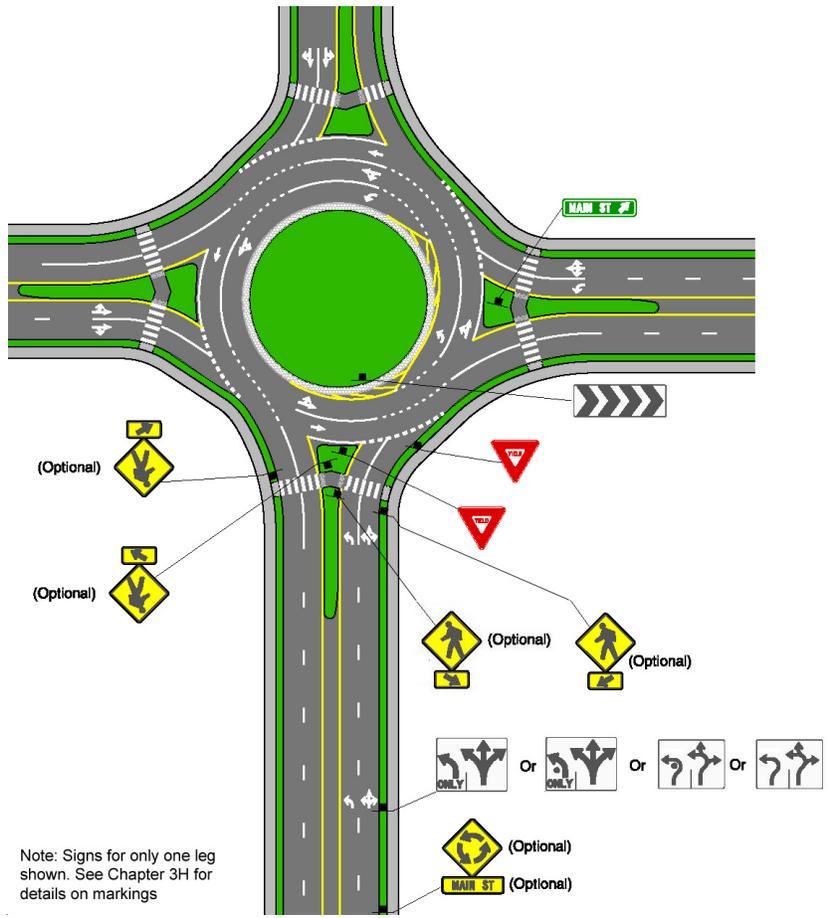




Figure 2B.z.z. Example of Signing for Two-Lane Roundabout with Consecutive Double Lefts



It is recommended that a new example figure in 2B (perhaps in 2A) be developed showing a plan view of a single lane roundabout with the following signs shown:

- Right side yield sign
- Left side yield sign (optional)
- Circular Intersection sign (optional)
- Advanced Street Name Plaque above CI sign (optional)
- Pedestrian crossing sign (optional)
- Roundabout Chevron Directional Sign (with option of One-way sign)

It is recommended that a new example figure 2B (perhaps in 2A) be developed showing a plan view of a two-lane roundabout with the following signs shown:

- Right side yield sign
- Left side yield sign
- Circular Intersection sign (optional)
- Guide signs per GMI Signs Technical Committee
- Lane use control signs (standard and fishhook)
- Pedestrian crossing sign (optional)
- Roundabout Chevron Directional Sign (with option of One-way sign)

Both of the above figures should be coordinated with the GMI Signs Technical Comm.

*[Note: There may need to be some changes to Section 2C.46 Advisory Speed Plaque (W13-1). Right now, advisory speed plaques (ASPs) are allowed on any warning sign, including intersection warning signs like the circular intersection sign. ASPs are currently being used on the circular intersection sign at roundabouts by many practitioners. However, there is no guidance as to whether this sign should be used and no guidance on how the speed should be set (entering speed, through movement speed, left turn speed, etc.) The Roundabout Task Force discussed this issue for a while on Wednesday June 22, 2005. For a moment there was a proposal on the table to strictly prohibit the use of Advisory Speed Plaques at roundabouts. The logic was that since motorists may need to stop when yielding, ASPs aren't appropriate. However, others thought that the advisory speed was to advise of the speed to slow down to prior to reaching the yield sign (in order to be able to stop if necessary and in order to safely negotiate the roundabout). This is similar to how some jurisdictions use ASPs at signalized intersections (another condition where motorists may or may not need to stop). The decision was made to not make any changes since ASPs can already be used. Additional guidance was not recommended due to the fact that research hasn't been done to as to the appropriate speed.]*

*[Note: The double Advance Street Name Plaque (W16-8a) includes a left arrow (See Section 2C.49). This sign is currently allowed at roundabouts as a supplement to either the Circular Intersection sign or the Yield Ahead sign. When the GMI committee works out how they want to handle left arrows on guide signs on the approach to roundabouts, their recommendations should also be used for this sign.]*

**The following item was not approved by RWSTC and should be sent to the Markings Technical Committee for their consideration:**

**It is recommended that the following portion of Section 3B.17 Crosswalk Markings be revised as follows:**

Crosswalk lines should not be used indiscriminately. An engineering study should be performed before they are installed at locations away from highway traffic signals, roundabouts, or STOP signs.

*(Note: Another issue that has been identified is related to the need for Object Markers at Splitter islands, in particular the edge of the splitter island on exit of the roundabout. Section 3C.02 requires object markers for all "obstructions within the roadway". Section 3G.05 states, "Object markers may be installed alone or in combination with signs (such as KEEP RIGHT, KEEP LEFT, double arrows, or guide signs) located within the island." This language isn't clear as to whether or not it is generally suggesting that on islands, "object markers may be installed" or if it is only suggesting that object markers may be installed with signs or without. Perhaps the best solution is to somewhere state that object markers are not required at islands (either by stating that "islands" are not "obstructions" as listed in Section 3C.02 or by clearly stating in Section 3G.05 that "object markers may be installed on the leading edge of islands".)*

VOTE:            For                = Majority  
                  Opposed        = Ron Lipps and Rob Clayton  
                  Abstentions    = Roger Wentz

**Commented [MMM3]:** The existing language here conflicts with language proposed in the new Roundabout Markings Chapter (3H). This simple addition removes the conflict.