

National Committee on Uniform Traffic Control Devices

17200 West Bell Road No.1135 * Surprise, Ariz. 85374 Telephone (623) 214-2403 * e-mail: ncutcd@aol.com

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4	ATTACHMENT NO. 3
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6	RW Item No. 7
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9	National Committee on Uniform Traffic Control Devices
10	RWSTC RECOMMENDATION
11	REVISIONS FOLLOWING SPONSOR COMMENTS SHOWN IN YELLOW
12	TECHNICAL COMMITTEE, NOUTOD D
13	TECHNICAL COMMITTEE: NCUTCD Regulatory/Warning Signs Technical
14 15	Committee
16	DATE OF ACTION: 12-2-07, revised 12-10-07, revised 12-16-07, Revised 11-30-08,
17	revised 12-1-08, revised 12-30-08
18	RWSTC APPROVAL DATE: 1-7-09
19	RWSTC APPROVAL FOLLOWING SPONSOR COMMENTS: 6-19-09
20	TRANSMITTAL TO SPONSORS DATE: March 2, 2009
21	COUNCIL APPROVAL DATE: June 20, 2009
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23	TOPIC: Synthesis of Signs, Regulatory Signs, U-TURN SIGNAL, SSR-31.
24	, , , , , , , , , , , , , , , , , , ,
25	AFFECTED PORTIONS OF MUTCD:
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27	• 2003 MUTCD - Sections 2B.45 and 4D.06, Figure 2B-19, and Table 2B-1 or
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29	 NPA Section 2B.59 and 4D.10, Figure 2B-30, and Table 2B-1
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31	The changes proposed are shown to the 2003 MUTCD.
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DISCUSSION:

The Synthesis of Non-MUTCD Signing (by FHWA) identified seventy-four signs or categories of signs that are not in the MUTCD but were in common use by various States, local governments and Canada. The Synthesis of Non-MUTCD Signing recommended that these signs be considered for inclusion in the MUTCD. Forty two (42) of these signs were Regulatory Signs. The Regulatory and Warning Sign Technical Committee (RWSTC) reviewed 10 of these signs in June 2006 and 10 in January 2007. The remaining 22 signs were reviewed by RWSTC for merit at the June 2007 meeting; and of these, the task force was charged with providing new language to the MUTCD for 6 of the 22 for consideration by RWSTC at the January 2008 meeting. The U-TURN SIGNAL sign is one of these 6 under consideration.

SSR-31 U-TURN SIGNAL



Recommended design R10-XX

U-Turn Signal: Section 4D.06 of the 2003 MUTCD requires that if the left-turn signal face does not simultaneously display the same color of the circular signal indication as the signal faces for the adjacent through movement, a LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12) sign or a LEFT TURN SIGNAL – YIELD ON GREEN (symbolic green ball (R10-21) sign (see Figure 2B-19) shall be used.

At certain locations, left turns are prohibited or are not geometrically possible but U-turns are allowed and controlled with a separate protected-only mode signal phase. To properly communicate that the separate signal face only applies to U turners, at least 2 States have developed signs similar to the R10-10 "left turn signal" sign but with the legend U Turn Signal.

64 **RECOMMENDATION:** Add the U Turn Signal sign to Section 2B.45 and Figure 2B-65 19, Traffic Signal Signs to allow for their use. 66 67 NOTE: The Signals Technical Committee reviewed and approved the change to part 4D. 68 on 1-8-09 69 70 Note: Proposed changes to the MUTCD are shown in underline red and removed 71 text are shown in strikethrough red. 72 73 RECOMMENDED WORDING to the 2003 MUTCD: 74 75 Section 2B.45 Traffic Signal Signs (R10-1 through R10-21 R10-XX) 76 77 Option: 78 79 80 To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-XX may be used to regulate road users. 81 82 83 84 85 86 Guidance: When used, Traffic Signal signs should be located adjacent to the signal face to which they apply. Standard: Traffic Signal signs applicable to pedestrian actuation (see Figure 2B-18) shall be 87 mounted immediately above or incorporated in pedestrian pushbutton units (see Section 88 4E.08). 89 90 Support: 91 92 93 94 95 96 97 98 Traffic Signal signs applicable to pedestrians include: A. CROSŠ ON ĞREÊN LIGHT ONLY (R10-1); B. CROSS ON WALK SIGNAL ONLY (R10-2); C. PUSH BUTTON FOR GREEN LIGHT (R10-3); and D. PUSH BUTTON FOR WALK SIGNAL (R10-4). Option: The following signs may be used as an alternate for the R10-3 and R10-4 signs: A. TO CROSS STREET (arrow), PUSH BUTTON WAIT FOR GREEN LIGHT (R10-100 3a); and 101 B. TO CROSS STREET (arrow), PUSH BUTTON WAIT FOR WALK SIGNAL (R10-102

The symbol sign R10-2a may be used as an alternate to sign R10-2. Where symbol-type pedestrian signal indications are used, an educational sign (R10-3b) may be used to improve pedestrian understanding of pedestrian indications at signalized intersections. Where word-type pedestrian signal indications are being retained for the remainder of their useful service life, the legends WALK/DONT WALK may be substituted for the symbols on the educational sign R10-

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3b, thus creating sign R10-3c. The R10-3d sign may be used if the pedestrian clearance time is sufficient only for the pedestrian to cross to the median. The diagrammatic sign R10-4b may also be used as an alternate to sign R10-4. At intersections where pedestrians cross

R10-4b may also be used as an alternate to sign R10-4. At intersections where pedestrians cross in two stages using a median refuge island, the word message "CROSS TO MEDIAN" may be placed on the near corner of the refuge island along with the educational plaque.

Traffic Signal signs (see Figure 2B-19) may be installed at certain locations to clarify signal control. Among the legends for this purpose are LEFT ON GREEN ARROW ONLY (R10-5), STOP HERE ON RED (R10-6 or R10-6a) for observance of stop lines, DO NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions, USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to Lane Control signals, LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12), and LEFT TURN SIGNAL YIELD ON GREEN (symbolic green ball) (R10-21) (see Section 4D.06).

In situations where traffic control signals are coordinated for progressive timing, the Traffic Signal Speed (II-1) sign may be used (see Section 2D.47).

Standard:

The NO TURN ON RED (R10-11a, R10-11b) sign (see Figure 2B-19) shall be used to prohibit a right turn on red (or a left turn on red from a one-way street to a one-way street).

Option:

A symbolic NO TURN ON RED (R10-11) sign (see Figure 2B-19) may be used as an alternate to the R10-11a and R10-11b signs.

Guidance:

If used, the NO TURN ON RED sign should be installed near the appropriate signal head.

A NO TURN ON RED sign should be considered when an engineering study finds that one or more of the following conditions exists:

- A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);
- B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;
- C. An exclusive pedestrian phase;
- D. An unacceptable number of pedestrian conflicts with right-turn-on-red maneuvers, especially involving
- children, older pedestrians, or persons with disabilities; and
- E. More than three right-turn-on-red accidents reported in a 12-month period for the particular approach.

Where turns on red are permitted and the signal indication is a RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign (see Figure 2B-19) should be installed adjacent to the RED ARROW signal indication.

Option:

In order to remind drivers who are making turns to yield to pedestrians, especially at intersections where right turn on red is permitted and pedestrian crosswalks are marked, a TURNING TRAFFIC MUST YIELD TO PEDESTRIANS (R10-15) sign may be used (see Figure 2B-19).

A supplemental R10-20a plaque (see Figure 2B-19) showing times of day (similar to the S4-1 plaque shown in Figure 7B-1) with a black legend and border on a white background may be mounted below a NO TURN ON RED sign to indicate that the restriction is in place only during certain times.

Standard:

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The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-19) shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4F.02).

Option:

A U-TURN YIELD TO RIGHT TURN (R10-16) sign (see Figure 2B-19) may be installed near the left-turn signal face if U-turns are allowed on a protected left-turn movement on an approach from which drivers making a right turn from the conflicting approach to their left are simultaneously being shown a right-turn GREEN ARROW signal indication.

A U-TURN SIGNAL (R10-XX) sign (see Figure 2B-19) may be installed near adjacent to the signal face that exclusively controls a u-turn movement.

Section 4D.06 Application of Steady Signal Indications for Left Turns

Support:

Left-turning traffic is controlled by one of four modes as follows:

A. Permissive Only Mode—turns made on the CIRCULAR GREEN signal indication after yielding to

oncoming traffic and pedestrians;

B. Protected Only Mode—turns made only when the left-turn GREEN ARROW signal indication is

displayed;

- C. Protected/Permissive Mode—both modes occur on an approach during the same cycle;
- D. Variable Left-Turn Mode—the operating mode changes among the protected only mode and/or the
- protected/permissive mode and/or the permissive only mode during different periods of the day.

Option:

In areas having a high percentage of elderly drivers, special consideration may be given to the use of protected only mode left-turn phasing, when appropriate.

The required left-turn signal faces and operation for an approach shall be determined by the selected mode of left-turn operation, as follows:

A. Permissive Only Mode—The signal indications for permissive only mode left turns shall be provided by the signal faces controlling the through movement, or by a permissive-only left-turn signal face that is either a shared signal face or a separate signal face. A permissive-only shared signal face, regardless of where the permissive-only left-turn signal face is positioned and regardless of how many adjacent through signal faces are provided, shall always simultaneously display the same color of circular indication that the adjacent through signal face or faces display.

A separate permissive-only left-turn signal face sometimes displays a different color of circular signal indication than the adjacent through signal faces display.

If a separate left-turn signal face is provided for permissive only left turns, it shall meet the following requirements:

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1. During the permissive left-turn movement, the left-turn signal face shall display a CIRCULAR GREEN signal indication.

- 2. If the CIRCULAR GREEN and CIRCULAR YELLOW signal indications in the left-turn signal face are visibility-limited from the adjacent through movement, the left-turn signal face shall not be required to simultaneously display the same color of circular signal indication as the signal faces for the adjacent through movement.

 3. If the CIRCULAR GREEN and CIRCULAR YELLOW signal indications in the left-turn signal face are visibility-limited from the adjacent through movement, the display of a CIRCULAR GREEN signal indication for a permissive left-turn movement while the signal faces for the adjacent through movement display CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement shall be permitted.
- 4. If the left-turn signal face does not simultaneously display the same color of circular signal indication as the signal faces for the adjacent through movement, a LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12) sign or a LEFT TURN SIGNAL—YIELD ON GREEN (symbolic green ball) (R10-21) sign (see Figure 2B-19) shall be used.
- B. Protected Only Mode—The left-turn signal face shall be capable of displaying one of the following sets of signal indications:
- 1. Left-turn RED ARROW, YELLOW ARROW, and GREEN ARROW signal indications only.
- At least one left-turn signal face shall be provided in addition to the two approach signal faces required in Section 4D.15 for the major movement. Only one of the three colors shall be illuminated at any given time. A signal instruction sign shall not be required with this set of signal indications. If used, it shall be a LEFT ON GREEN ARROW ONLY sign (R10-5).
- 2. CIRCULAR RED, left-turn YELLOW ARROW, and left-turn GREEN ARROW signal indications. At least one left-turn signal face shall be provided in addition to the two approach signal faces required in Section 4D.15 for the major movement. Only one of the three colors shall be illuminated at any given time. Unless the CIRCULAR RED signal indication is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s), a LEFT TURN SIGNAL sign (R10-10) shall be used.
- 3. CIRCULAR RED, CIRCULAR YELLOW, CIRCULAR GREEN, and left-turn GREEN ARROW signal indications. This four-section signal face shall be used only when the CIRCULAR GREEN and left-turn GREEN ARROW signal indications begin and terminate together. During each interval, the circular signal indication shall be the same color as the signal indication on the signal face(s) for the adjacent through traffic.

Option:

A U-TURN SIGNAL (R10-XX) sign (see Figure 2B-19) may be installed near adjacent to the signal face that exclusively controls a u-turn movement.

C. Protected/Permissive Mode—The signal indications for protected/permissive mode left turns shall be provided in either a shared signal face or a separate signal face. Any protected/permissive left turn signal face that always simultaneously displays the same color of circular signal indication that the adjacent through signal faces display shall be considered to be a shared signal face, regardless of where the left-turn signal face is positioned and regardless of how many adjacent through signal faces are provided. Any protected/permissive left-turn signal face that sometimes displays a different color of circular signal indication than the adjacent through signal faces display shall be considered to be a separate signal face. The requirements for each type of signal face are as follows:

1. If a shared signal face is provided, it shall be considered an approach signal face, and shall meet the following requirements:

(a) During the protected left-turn movement, the signal face shall simultaneously display a left turn GREEN ARROW signal indication and a circular signal indication that is the same color as the signal indication for the adjacent through lane on the same approach as the protected left turn. During the protected left-turn movement, the signal faces for through traffic on the opposing approach shall simultaneously display CIRCULAR RED signal indications.

(b) During the permissive left-turn movement, all signal faces on the approach shall display CIRCULAR GREEN signal indications.
(c) All signal faces on the approach shall simultaneously display the same color of

circular signal indications to both through and left-turn road users.
(d) A supplementary sign shall not be required. If used, it shall be a LEFT TURN YIELD ON GREEN (symbolic green ball) (R10-12) sign (see Figure 2B-19).

2. If a separate signal face is provided, it shall be considered a left-turn signal face, and shall meet the following requirements:

 (a) During the protected left-turn movement, the left-turn signal face shall display a left-turn GREEN ARROW signal indication. During the protected left-turn movement, the signal faces for through traffic on the opposing approach shall simultaneously display CIRCULAR RED signal indications.

(b) During the permissive left-turn movement, the left-turn signal face shall display a CIRCULAR GREEN signal indication.(c) If the CIRCULAR GREEN and CIRCULAR YELLOW signal indications in the

left-turn signal face are visibility-limited from the adjacent through movement, the

left-turn signal face shall not be required to simultaneously display the same color of circular signal indication as the signal faces for the adjacent through movement. (d) If the CIRCULAR GREEN and CIRCULAR YELLOW signal indications in the left-turn signal face are visibility-limited from the adjacent through movement, the display of a CIRCULAR GREEN signal indication for a permissive left-turn movement while the signal faces for the adjacent through movement display

295 296 297 298 299 300 301	CIRCULAR RED signal indications and the opposing left-turn signal face displays a left-turn GREEN ARROW for a protected left turn movement shall be permitted. (e) If the left-turn signal face does not simultaneously display the same color of circular signal indication as the signal faces for the adjacent through movement, a LEFT TURN SIGNAL—YIELD ON GREEN (symbolic green ball) (R10-21) sign (see Figure 2B-19) shall be used.
302 303 304 305 306 307 308 309 310 311 312 313 314	D. Variable Left-Turn Mode—If the protected only mode occurs during one or more periods of the day, and the permissive only mode or the combined protected/permissive mode occurs during other periods of the day, the requirements of Items A, B, and C in this Standard that are appropriate to that mode of operation shall be met, subject to the following: 1. The CIRCULAR GREEN and CIRCULAR YELLOW signal indications shall not be displayed when operating in the protected only mode. 2. The left-turn GREEN ARROW and left-turn YELLOW ARROW signal indications shall not be displayed when operating in the permissive only mode. Option: Additional appropriate signal indications or changeable message signs may be used to meet the requirements for the variable left-turn mode.
315	Figure 2B-19 – Add a UTURN SIGNAL (R10-XX) as shown above.
316 317 318	Table 2B-1 – Add R10-XX as shown above.
319 320	The NPA text is shown below for informational purposes
321 322	Section 2B.45 2B.59 Traffic Signal Signs (R10-1 through R10-21 R10-32P)
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323 324	Revisions shown in yellow from Bicycle Committee, approved by Council June 21, 2008
324	2008
324325326	2008 Option: To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-32P
324 325 326 327 328 329	2008 Option: To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-32P may be used to regulate road users. Guidance: When used, Traffic Signal signs should be located adjacent to the signal face to which they
324 325 326 327 328 329 330	Option: To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-32P may be used to regulate road users. Guidance: When used, Traffic Signal signs should be located adjacent to the signal face to which they apply: deleted as locations near signal faces are now specifically specified where appropriate
324 325 326 327 328 329 330 331	Option: To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-32P may be used to regulate road users. Guidance: When used, Traffic Signal signs should be located adjacent to the signal face to which they apply: deleted as locations near signal faces are now specifically specified where appropriate Standard:
324 325 326 327 328 329 330 331 332	Option: To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-32P may be used to regulate road users. Guidance: When used, Traffic Signal signs should be located adjacent to the signal face to which they apply: deleted as locations near signal faces are now specifically specified where appropriate Standard: Traffic Signal signs applicable to pedestrian actuation (see Figure 2B-29) or bicyclist
324 325 326 327 328 329 330 331	Option: To supplement traffic signal control, Traffic Signal signs R10-1 through R10-21 R10-32P may be used to regulate road users. Guidance: When used, Traffic Signal signs should be located adjacent to the signal face to which they apply: deleted as locations near signal faces are now specifically specified where appropriate Standard:

- 336 Traffic Signal signs applicable to pedestrians include:
- 337 A. CROSS ONLY ON GREEN LIGHT ONLY (symbolic circular green) (R10-1);
- 338 B. CROSS ONLY ON WALK (symbolic walk indication) SIGNAL ONLY (R10-2);
- 339 C. Push Button for GREEN LIGHT Walk Signal (R10-3); and 340
 - D. Push Button for WALK SIGNAL Green Signal (R10-4).

Option:

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The following signs may be used as an alternate for the R10-3 and R10-4 signs:

- A. Push Button to Cross Street (arrow). PUSH BUTTON Wait for GREEN LIGHT Walk Signal (R10-3a); or
- B. Push Button to Cross Street (arrow), PUSH BUTTON WALK SIGNAL Wait for Green **Signal** (R10-4a).

The name of the street to be crossed may be substituted for the word STREET in the legends on the R10-3a and R10-4a signs.

The symbol sign R10-2a may be used as an alternate to sign R10-2. Where symbol-type pedestrian signal indications are used, an educational sign (R10-3b) may be used instead of the R10-3 sign to improve pedestrian understanding of pedestrian indications at signalized intersections. Where word-type pedestrian signal indications are being retained for the remainder of their useful service life, the legends WALK/DONT WALK may be substituted for the symbols on the educational sign R10-3b, thus creating educational sign R10-3c. The R10-3d educational sign may be used if to inform pedestrians that the pedestrian clearance time is sufficient only for the pedestrian to cross to the median at locations where pedestrians cross in two stages using a median refuge island. The diagrammatic sign R10 4b may also be used as an alternate to sign R10 4. At intersections where pedestrians cross in two stages using a median refuge island, the word message "CROSS TO MEDIAN" may be placed on the near corner of the refuge island along with the educational plaque. The R10-3e educational sign may be used where countdown pedestrian signals have been provided. In order to assist the pedestrian in understanding which pushbutton to push, the R10-3f to R10-3i educational signs that provide the name of the street to be crossed may be used instead of the R10-b to R10-3e educational signs.

The R10-24 or R10-26 sign (see Section 9B.11) may be used where a pushbutton detector has been installed exclusively for bicyclists to actuate a green phase for bicyclists, a special bicycle phase or a concurrent vehicular green phase.

The R10-25 sign (see Figure 2B-29) may be used where a pushbutton detector has been installed for pedestrians to activate In-Roadway Warning Lights (see Chapter 4N) or flashing beacons that have been added to the pedestrian warning signs.

Traffic Signal signs (see Figure 2B-30) may be installed at certain locations to clarify signal control. Among the legends that may be used for this purpose are LEFT ON GREEN ARROW ONLY (R10-5) (see Section 4D.19), STOP HERE ON RED (R10-6 or R10-6a) for observance of stop lines, DO NOT BLOCK INTERSECTION (R10-7) for avoidance of traffic obstructions, USE LANE(S) WITH GREEN ARROW (R10-8) for obedience to Lane Control

- edited for consistency signals (see Chapter 4M), added to assist reader LEFT TURN YIELD ON
- 376 GREEN (symbolic circular green ball) (R10-12), and LEFT TURN SIGNAL YIELD ON
- 377 GREEN (symbolic circular green ball) (R10-21) (see Sections 4D.18 and 4D.20), and LEFT
- 378 TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27).
- 379 Guidance:
- 380 If used, the LEFT ON GREEN ARROW ONLY (R10-5) sign, the LEFT TURN YIELD ON
- 381 GREEN (symbolic circular green) (R10-12) sign, the LEFT TURN SIGNAL YIELD ON
- 382 GREEN (symbolic circular green) (R10-21) sign, or the LEFT TURN YIELD ON FLASHING
- 383 RED ARROW AFTER STOP (R10-27) sign should be located adjacent to the left-turn signal
- 384 <u>face.</u>

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- 385 Option:
 - If needed for additional emphasis, an additional LEFT TURN YIELD ON GREEN (symbolic circular green) (R10-12) sign with an AT SIGNAL (R10-31P) supplemental plaque (see Figure 2B-30) may be installed in advance of the intersection.
 - In situations where traffic control signals are coordinated for progressive timing, the Traffic Signal Speed (I1-1) sign may be used (see Section 2I.04).
- 391 Standard:
 - The NO TURN ON RED (R10-11a, R10-11b) sign (see Figure 2B-19) shall be used to prohibit Where a right turn on red (or a left turn on red from a one-way street to a one-way street) is to be prohibited, a symbolic NO TURN ON RED (symbolic circular red) (R10-11) sign (see Figure 2B-30) or a NO TURN ON RED (R10-11a, R10-11b) word message sign (see Figure 2B-30) shall be used.
- 397 Option:
 - A symbolic NO TURN ON RED (R10-11) sign (see Figure 2B-19) may be used as an alternate to the R10-11a and R10-11b signs. incorporated into previous paragraph
- 400 Guidance:
 - If used, the No Turn on Red sign should be installed near the appropriate signal head.
 - A No Turn on Red sign should be considered when an engineering study finds that one or more of the following conditions exists:
 - A. Inadequate sight distance to vehicles approaching from the left (or right, if applicable);
 - B. Geometrics or operational characteristics of the intersection that might result in unexpected conflicts;
 - C. An exclusive pedestrian phase;
 - D. An unacceptable number of pedestrian conflicts with right-turn-on-red maneuvers, especially involving children, older pedestrians, or persons with disabilities;
 - E. More than three right-turn-on-red accidents reported in a 12-month period for the particular approach; or

F. The skew angle of the intersecting roadways creates difficulty for older drivers to see traffic approaching from their left.

Where turns on red are permitted and the signal indication is a <u>steady</u> <u>added to increase</u> <u>accuracy</u> RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign (see Figure 2B-30) should be installed adjacent to the RED ARROW signal indication. Option:

A supplemental R10-20a plaque (see Figure 2B-30) showing times of day (similar to the S4-1P plaque shown in Figure 7B-1) with a black legend and border on a white background may be mounted below a No Turn on Red sign to indicate that the restriction is in place only during certain times.

Alternatively, a blank-out sign may be used instead of a static NO TURN ON RED sign, to display either the NO TURN ON RED legend or the No Right Turn symbol or word message, as appropriate, only at certain times during the day or during one or more portion(s) of a particular cycle of the traffic signal.

On signalized approaches with more than one right-turn lane, a NO TURN ON RED EXCEPT FROM RIGHT LANE (R10-11c) sign (see Figure 2B-30) may be post-mounted at the intersection or a NO TURN ON RED FROM THIS LANE (with down arrow) (R10-11d) sign may be mounted directly over the center of the lane from which turns on red are prohibited.

Standard:

The CROSSWALK STOP ON RED (symbolic circular red) (R10-23) sign (see Figure 2B-30) shall be used in conjunction with pedestrian hybrid signals (see Section 4F.02).

The EMERGENCY SIGNAL (R10-13) sign (see Figure 2B-30) shall be used in conjunction with emergency-vehicle traffic control signals (see Section 4G.02).

The EMERGENCY SIGNAL—STOP WHEN FLASHING RED (R10-14 or R10-14a) sign (see Figure 2B-30) shall be used in conjunction with emergency-vehicle hybrid signals (see Section 4G.04).

Option:

In order to remind drivers who are making turns to yield to pedestrians, especially at intersections where right turn on red is permitted and pedestrian crosswalks are marked, a TURNING TRAFFIC MUST YIELD TO PEDESTRIANS Turning Vehicles Yield to Pedestrians (R10-15) sign (see Figure 2B-30) may be used. this paragraph was relocated within this section to improve continuity

A U-TURN YIELD TO RIGHT TURN (R10-16) sign (see Figure 2B-30) may be installed near the left-turn signal face if U-turns are allowed on a protected left-turn movement on an approach from which drivers making a right turn from the conflicting approach to their left are a right-turn GREEN ARROW signal indication is simultaneously being shown displayed a right turn GREEN ARROW signal indication to drivers making a right turn from the conflicting approach to their left.

450	A RIGHT TURN ON RED MUST YIELD TO U-TURN (R10-30) sign (see Figure 2B-30)
451	may be installed to remind road users that they must yield to conflicting U-turn traffic on the
452	street or highway onto which they are turning right on a red signal after stopping.
453	Figure 2B-29 – Human Factors testing been done on Signs R10-3, R10-3a, R10-4, R10-4a
454	and R10-25 in Canada per FHWA. Shown in NPA preamble. RWSTC recommends
455	approval of Figure 2B-29
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458	R/WS TC to Sponsors, 2009-01-07
459	RWSTC APPROVAL 6-18-09
460	VOTE: For: Unanimous
461	Opposed:
462	Abstentions:
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464	Council Approval: June 20, 2009
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467	u: ssr-31 u-turn signal RW # 7 5-24-09, Revised 6-18-09, REVISED 6-19-09,
468	REVISED 6-20-09
469	