CORRESPONDENCE/MEMORANDUM *State of Wisconsin*

Date: November 16, 2026

To: Users of the Traffic Engineering, Operations & Safety (TEOpS) Manual

From: Brian Porter
State Traffic Engineer

Subject: NOVEMBER 2026 ISSUANCE

Listed below and placed in the BTO Manuals Library website are changes and additions to the Traffic Engineering, Operations & Safety Manual. Please make your coworkers aware of the following changes and that they can be found at http://wisconsindot.gov/Pages/doing-bus/local-gov/traffic-ops/manuals-and-standards/trans.aspx.

The Traffic Engineering, Operations and Safety Manual can be found at:
http://wisconsindot.gov/Pages/doing-bus/local-gov/traffic-ops/manuals-and-standards/teops/default.aspx

The following changes to the TEOpS Manual have been made:

- UPDATE 1-5-5 Table of Contents
- MOVE 2-1-7 to 2-3-8
- UPDATE 2-2 Regulatory Signs – Major changes to reflect new WMUTCD in 2-2-4, 2-2-4.5, 2-2-5, 2-2-12, 2-2-13, 2-2-15, 2-2-19, 2-2-20, 2-2-25, 2-2-45, 2-2-51, 2-2-53, 2-2-54,
- UPDATE 2-3 Warning Signs - Major changes to reflect new WMUTCD in 2-3-10, 2-3-14, 2-3-18, 2-3-19, 2-3-30, 2-3-35, 2-3-36, 2-3-40, 2-3-41, 2-3-43, 2-3-45, 2-3-50, 2-3-51, 2-3-54, 2-3-55, 2-3-60, 2-3-64, 2-3-70. Add 2-3-5, 2-3-6, 2-3-8 (moved from 2-1-7). Delete 2-3-25, 2-3-49
- UPDATE 2-4 Guide Signs – Conventional - Changes to reflect new WMUTCD in 2-4-40, 2-4-43, 2-4-44, 2-4-45.1, 2-4-49, 2-4-50, 2-4-51, 2-4-53, 2-4-65. Delete 2-4-45.2
- Changes to reflect new WMUTCD in 2-6-21, 2-6-35, 2-6-36, 2-6-54, 2-6-60, 2-6-61, 2-6-65
- UPDATE 2-6 Guide Signs – Freeway - Very minor changes to reflect new WMUTCD in 2-10-1, 2-10-2, 2-10-3.
- UPDATE 2-15 Comprehensive Guiding Policies - Changes to reflect new WMUTCD in 2-15-1.1, 2-15-3, 2-15-5, 2-15-6, 2-15-7, 2-15-12, 2-15-16, 2-15-36, 2-15-51, 2-15-52, 2-15-53, 2-15-56, 2-15-60, 2-15-62. Add 2-15-45, 2-15-54
- UPDATE 12-4-1 Safety Certification Process - This information was previously published in the FDM and moved over as the procedural steps are not applicable to design teams that use the FDM but more applicable to the traffic engineers that use the TEOPS.
- UPDATE 13-5 Speed Limits - All sections updated, including Temporary WZ speed limits

For any questions regarding the transmittal or the manual library, please contact Emily Silverson (emily.silverson@dot.wi.gov).

1-5-1 Subject Numbering System — June 2005

DEFINITIONS

Chapter: A main divisional unit of this manual, addressing one of the major functions of traffic engineering or supporting functions.

Section: A grouping of related subjects within a chapter.

Subject: A specific guideline, policy or procedure.

SUBJECT NUMBERING

The manual is divided into topical chapters with each chapter having one or more sections that are divided into specific treatments of material, called subjects.

Chapters, sections and subjects are all numbered.

Chapter numbers are numbered consecutively, generally without gaps. Sections and subjects are numbered consecutively or sometimes with gaps--5, 10, 15, 20--to allow for future insertions of material at the most appropriate locations within the chapter or to follow the MUTCD numbering system.

Chapters 2 through 10 are allotted to subjects related to traffic control devices covered in the corresponding Parts 2 through 10 of the MUTCD.

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2-2-4 STOP and YIELD Signs for Separated Turn Lanes August 2026

PURPOSE

The WMUTCD, Section 2B.06 through 2B.18 provides general guidance for the determination of STOP or YIELD sign usage to determine the right-of-way at intersections. The WMUTCD also states that for signalized intersections, a STOP or YIELD sign **shall** ~~only~~ be used if there is a ~~separated~~ channelized turn lane that is not controlled by the traffic signal.

In addition to separate, unsignalized turn lanes at signalized intersections, WisDOT has also installed roundabouts with ~~separated~~ channelized turn lanes where the approaching, right-turning traffic can utilize a "bypass" lane to avoid going through the roundabout circle altogether.

Questions about whether to use a STOP or YIELD sign or no control for these applications has led to an inconsistent practice throughout the State. The purpose of this policy is to provide guidance on the signing treatments that are available and when they *should* be used, to help achieve a better consistency of practice statewide.

POLICY AND GUIDELINES

Signalized Intersections with ~~Separated~~ Channelized (Unsignalized) Turn Lane

1. Right turn lane with dedicated, long parallel receptor lane on the receiving roadway; typically, a STOP or YIELD sign would not be used. An added lane warning sign (W4-6) *should* be used in these cases. If traffic or crash problems persist, a YIELD sign *may* be used.
2. If there are two or more receptor lanes on the receiving roadway, a YIELD sign *should* be used. If traffic or crash problems persist, a STOP sign *may* be used in lieu of the YIELD sign.
3. If there is only one receptor lane on the receiving roadway, a STOP sign *should* be used. A YIELD sign *may* be used in lieu of a STOP sign where there is wider pavement and an available recovery area.
4. If channelized right turn with two lanes or more ~~double separated right turn lanes~~ are used at a signalized intersection, traffic signal control **shall** be utilized.
5. If ~~traffic~~ operational or crash problems persist with any YIELD sign control, STOP signs or signal control *should* be considered.

Roundabouts with Separated Right Turn Lanes

1. YIELD signs *should* be used for both single and double separated right turn lanes at roundabouts.
2. If traffic or crash problems persist with any YIELD sign control, STOP signs *should* be considered.

SIGNING IMPLEMENTATION

1. The guidelines listed in WMUTCD ~~Part~~ Section 2B *should* be followed for newly installed intersections.
2. For existing intersections with signing not meeting these guidelines, there is no compliance date for making these changes. However, opportunities *should* be utilized through improvement projects, knockdowns or routine sign replacements to bring the signing up to the current guidelines.

2-2-4.5 STOP and YIELD Signs on Driveways and Private Roads August 2026

GENERAL

The Department uses regulatory and warning signs conservatively, as recommended in the Manual on Uniform Traffic Control Devices (Section 2A.20). This conservative use is important to retain the effective impact of signs on driver behaviors; used in excess, regulatory and warning signs tend to lose their effectiveness. There is the concern that a proliferation of unnecessary STOP or YIELD signs at driveways and private roads will lead to their disregard and could cause potential safety issues at locations where STOP or YIELD signs are necessary.

Oftentimes the Department is requested to install and/or maintain STOP or YIELD signs for driveways and private roads. The Department is not obligated to provide STOP or YIELD signs for many of these locations, by

basis of Wisconsin Statutes and the WMUTCD.

AUTHORITY

The following Wisconsin State Statutes establish relevant rules of the road that drivers must obey without requiring a sign to be posted and describe the authority to place signs, and the WMUTCD Sections provide standards and guidance for installations of these signs.

Chapter 346, Rules of the Road

s. 346.02 (7) Applicability of Provisions Requiring Signposting.

> …Whenever a particular section does not state that signs are required, such section is effective even though no signs are erected or in place.

s. 346.18 (4) Entering Highway from Alley or Non-highway Access.

> The operator of a vehicle entering a highway from an alley or from a point of access other than another highway **shall** yield the right-of-way to all vehicles approaching…

s. 346.18 (7) (b) Entering Alley or Driveway from Highway

> The operator of any vehicle crossing a sidewalk…**shall** yield the right-of-way to any pedestrian…on the sidewalk.

s.346.41 (1) Display of Unauthorized Signs and Signals Prohibited

> No person **shall** place, maintain or display upon or in view of any highway...any unauthorized sign…which: (a) purports to be…an official traffic sign…

WMUTCD, 1D.02, Responsibility and Authority for ~~Placement of~~ Traffic Control Devices.

> 2 All regulatory traffic control devices **shall** be supported by laws, ordinances, or regulations.
>
> 3 Traffic control devices… **shall** be placed only as authorized by a public authority or the official having jurisdiction…

Any unauthorized sign placed on the highway right-of-way by a private organization or individual constitutes a public nuisance. All unofficial and nonessential traffic control devices, signs, or messages *should* be removed.

> ~~All regulatory traffic control devices **shall** be supported by laws, ordinances, or regulations.~~

These statutory provisions clarify that signs are not required to affect a requirement to comply with rules of the road, and it is apparent that a motorist is not required to comply with rules of the road, and it is apparent that a motorist is not required to stop before entering a street or highway from a driveway. STOP signs are not required in these situations. The following policy is established consistent with the stated objective of conservatively using regulatory signs to retain their effectiveness.

POLICY

1. STOP signs or YIELD signs **shall not** be erected on state highway right-of-way at driveways, except as noted below:
    a. STOP or YIELD signs **shall** be installed and maintained by WisDOT at driveways to state, county or municipal parks, and state forest, driveways on school grounds, and driveways to county institutions. These intersections often appear to be driveways, but are defined as highways under s.340.01(22).
    b. If a private driveway operates and functions like a public street, the Regions *may* provide a temporary exception to allow a STOP or YIELD sign while working to encourage the local government to make the intersecting road a public roadway.
    c. When there are demonstrated operational or safety issues resulting from a lack of a STOP or YIELD sign, and best efforts of the region to locate the STOP or YIELD sign off the state highway right-of-way do not work, a permit *may* be granted by the Region to allow the STOP sign in the highway right-of-way. The permit *should* be documented using the standard application/permit to work on highway right-of-way (DT 1812 form). The owner of the STOP or YIELD sign **shall** be responsible for the installation and long-term maintenance of the sign.
2. For pre-existing STOP or YIELD signs installed at driveway connections to state highways, not consistent with this policy and located in the right-of-way of the state highway, the Region *should*

remove the sign from the right-of-way. Before removal, make every effort to work with the driveway owner, as opportunities permit, to relocate privately owned STOP or YIELD signs off the state highway right-of-way. An ideal time for working with property owners for relocation of STOP or YIELD signs would be during an improvement project or if any other work is being performed on the right-of-way.

3. STOP or YIELD signs for private driveways connecting to state highways *should* be located off the state highway right-of-way in a location that is reasonably close to the ideal starting point. The WMUTCD, Section ~~2A~~2B.18 states that a STOP sign *should* not be placed farther than 50 feet from the edge of pavement of the intersected roadway~~may be located a maximum of 50 feet from the mainline roadway edgeline~~.
4. When privately owned STOP or YIELD signs are allowed in the highway right-of-way, the proper size STOP or YIELD sign for that particular state trunk highway **shall** be used, in accordance with TEOpS 2-2-5. In addition, the owner of the private road or driveway **shall** install STOP or YIELD in accordance with the WMUTCD, Sections 2B.04, 2B.05, 2B.06, 2A.15, 2A.16 and 6G.01.

2-2-5 Size of STOP Signs on Roadways — August 2026

PURPOSE

The intent of this policy is to establish minimum STOP sign sizes on WisDOT roadway. These guidelines are applicable for intersections with single-lane conventional State Trunk Highways, intersections with multi-lane conventional State Trunk Highways and intersections with Expressways.

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate highways are freeways with the interstate route designation.

Expressways are divided arterial highway facilities that have partial control of access, generally with grade separations at major intersections.

Conventional highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

INSTALLATION GUIDELINES

The following minimum sizes **shall** be used for the installation of STOP signs on WisDOT system roadways.

1. A 36” STOP sign size **shall** be used for all STH/STH intersections, regardless of the number of approach lanes on each STH.
2. A 36” STOP sign size **shall** be used for all roadways intersecting multi-lane conventional state trunk highways and expressways.
3. A 36” STOP sign size **shall** be used for multi-lane conventional roadways intersecting single-lane conventional state trunk highways.
4. A 30” STOP sign size **shall** be used for single-lane conventional roadways intersecting single-lane conventional state trunk highways.
5. Additional STOP sign size criteria for bypasses are contained in TEOpS 2-15-53 (Bypass Signing).

If there are demonstrated or perceived problems at these intersections, the Regions have the option of increasing the STOP sign size. A traffic engineering study can be used to identify problems at intersections. Justification *may* be based on unusual roadway geometrics, crash problems, or sight restrictions.

2-2-12 In-Street Pedestrian Crossing Signs — August 2026

PURPOSE

The WMUTCD section 2B.20 allows usage of in-street pedestrian crossing signs to remind motorists of laws regarding pedestrian right-of-way at an unsignalized location. While these signs *may* be useful to remind motorists of traffic/pedestrian right-of-way laws, it is important to develop and use additional application standards to promote consistency, safety and efficiency of the roadway. Local units of government have requested to install this signing. This policy provides guidance on the usage of these signs on state maintained roadways.

POLICY

Local units of government **shall** request, in writing, permission to install and maintain in-street pedestrian crossing signs on DOT permitted crosswalks on state maintained highways. A map **shall** be provided to the ~~District~~ Region by the local unity of government showing the proposed locations of the in-street pedestrian crossing signs. Upon District review, approval or denial *should* be made by a letter to the local unit of government. If approval is given, the District *should* also provide a copy of the R1-6 standard sign plate with the approval letter so consistency is maintained in the design and manufacture of the signs.

The following guidelines **shall** be used by the District to determine whether a roadway crossing would qualify for in-street pedestrian crossing signs.

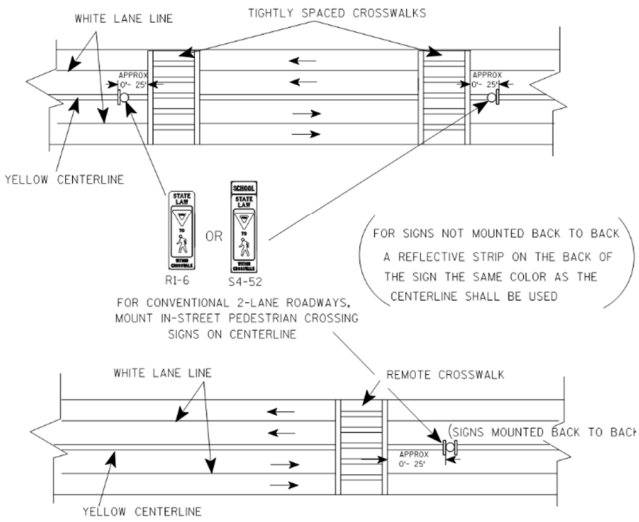
GUIDELINES

1. The local unit of government **shall** be responsible for all liability costs.
2. Only the R1-6, in-street YIELD TO PEDESTRIANS WITHIN CROSSWALK sign **shall** be allowed only on roadways with posted speeds of 40 mph or less.
3. The R1-6, in-street YIELD TO PEDESTRIANS WITHIN CROSSWALK sign message shall only be used in Wisconsin since State Statute 346.24 requires drivers ~~must~~ to yield to a pedestrian in a crosswalk. The R1-6a, STOP FOR PEDESTRIANS WITHIN CROSSWALK, sign **shall not** be used.
4. Existing in-street pedestrian crossing signs that do not conform to this policy **shall** be removed. Notification to communities **shall** be made by written letter. If existing non-permitted signing is not removed, WisDOT will remove the sign(s).
5. The in-street YIELD TO PEDESTRIAN sign *should* only be used as a supplement to the standard pedestrian crossing sign (W11-2) with diagonal down arrow (WF16-7L/R) or standard school warning sign (S1-1) with diagonal down arrow (W16-7L/R). As an exception, the in-street YIELD TO PEDESTRIAN WITHIN CROSSWALK sign *may* be used alone provided there are no sight restrictions.
6. The in-street YIELD TO PEDESTRIAN sign **shall** only be used as an in-street sign, not on the outside shoulder or parking lane.
7. The in-street YIELD TO PEDESTRIAN sign **shall** only be used at marked and maintained crosswalk approaches that are not controlled by a STOP sign or traffic signal. Signs *should* be restricted to key locations, such as high-volume pedestrian crosswalks, to avoid overuse. The minimum spacing of signs **shall** be every other block, where there are several consecutive marked and maintained pedestrian crossings.
8. The sign locations **shall not** impede traffic movements (through or turning). Signs *may* have to be temporarily removed due to maintenance operations or oversized loads. WisDOT is not responsible for sign removal or reinstallation costs.
9. Only one sign, in each direction of a two-way street approach or back-to-back signs, will be allowed for each crosswalk approach.
10. For pedestrian crossing applications, the signs **shall** have a black legend on yellow background the design on the R1-6 sign plate **shall** be used.
11. For school crossing applications, the signs **shall** include the SCHOOL plaque and **shall** have black legend on fluorescent yellow-green background. The design on the S4-52 sign plate **shall** be used.
12. The reduced size in-street school warning sign (S1-1) with reduced size AHEAD sign (WF16-9P) or reduced size diagonal down arrow sign (WF16-7L/R) *may* be used in lieu of in-street pedestrian crossing signs for school applications as shown in the WMUTCD, sections 7B.02 and 7B.03.
13. Supports **shall** be freestanding (maximum 2” square or 2” round post), meeting Manual for Assessing Safety Hardware (MASH) breakaway standards. The maximum mounting height **shall** be 2 feet to the bottom of the sign. The sign **shall** be securely attached to the pavement if left in place for more than 24 hours. Sign support bases **shall not** be bolted or cored into the pavement.
14. Communities *may* use the following mounting devices. Mounting devices not included in this list **shall** be approved by the District Traffic section, prior to use:
    a. *Impact Recovery Systems* Mount or Portable models (portable model #103QR or fixed model #101NS).
    b. *Safe-Hit* Surface Mount or Potable models (portable model #ST948PCD44WX or fixed model

#ST948SMP44WX).

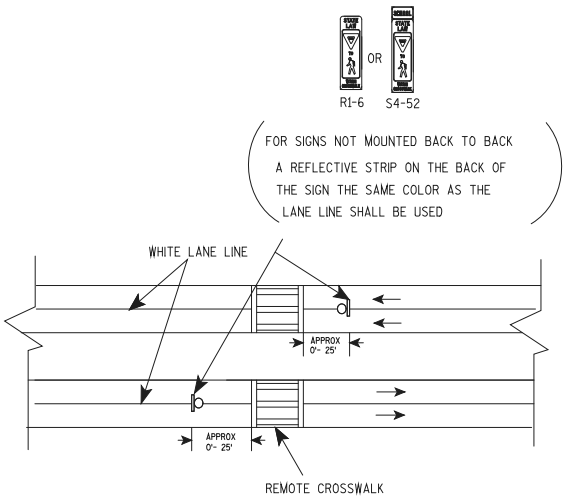
15. For signs not mounted back-to-back, a reflective strip the same color as the centerline or lane line **shall** be used to warn traffic approaching from the opposite direction.
16. The local unit of government **shall** be responsible for manufacture, liability, installation and maintenance costs, which includes removal prior to snowfall and re-installation in the spring. If signs are not removed prior to November 1, WisDOT will remove and charge the local unit of government for all costs associated with removal. The in-street pedestrian crossing signs **shall not** be installed prior to April 1.
17. The local unit of government **shall** affix an identification label to the back of each sign, per Wisconsin State Statute 86.19(5).

TYPICAL PLACEMENT OF IN-STREET PEDESTRIAN CROSSING SIGN



FOUR LANE UNDIVIDED SECTION

TYPICAL PLACEMENT OF IN-STREET PEDESTRIAN CROSSING SIGNS



FOUR LANE DIVIDED SECTION

2-2-13 Location of Speed Limit Signs August 2026

PURPOSE

The following is to provide policy guidelines for distance between and proper location of speed limit signs. The policy pertains to signing on freeways, expressways, and conventional highways.

BACKGROUND (AUTHORITY)

The Wisconsin Statutes in Section 346.57 discusses Speed Restrictions. The statutes require certain statutory limits to be posted. Refer to this statute for locations that require Speed Limit signs to be posted.

TEOpS 13-5 discusses the statutory and approval process and setting limits. Refer to this section for information on these issues.

The WMUTCD Section 2B.21 discusses location of Speed Limit signs.

Note: Reduce speed ahead sign requirements and placement is covered under a separate TEOpS 2-3-30, “Reduced Speed Ahead” signing.

POLICY

Based on the requirements in the MUTCD Section 2B.21, the following **shall** be the location where speed limit signs **shall** be placed:

1. Speed limit signs **shall** be placed at points of change from one speed limit to another and when leaving a zoned area such as a town, village, city, or municipality to return to rural speed.
2. After a school zone, where speed limit was reduced.

The following chart or table indicates MINIMUM criteria for each specific speed limit:

70/65/60/55/50 mph (Freeways)

1. After each interchange
2. Beginning and end of freeway segment
3. Changes in speed zone (double mark—outside and inside shoulder for reductions from 70 or 65 to 65/60/55/50 mph)

65/60/55/50 mph (Expressways)

1. After each interchange
2. At state or county highways
3. Changes in speed zone (consider double marking outside and inside shoulder)
4. Beginning and end of expressway section

Note: An expressway is defined as a divided arterial highway facility that has partial control of access and generally with grade separations at major intersections.

55 mph (Conventional Highways)

1. Leaving a zoned area less than 55 mph such as a town, village, city or municipality
2. After every state highway in a rural area
3. Typically, after major intersections with higher volumes
4. Reminder signs *should* be spaced approximately every 15 miles, when signs under criteria 1, 2, or 3 do not provide a reminder within 15 miles

50/45 mph (Conventional Highways)

1. At points of change from one speed limit to another
2. After major intersections with higher volumes
3. Every ½ mile (maximum distance between reminder signs)

Note: Engineering judgment *should* be used when placing every ½ mile to coordinate with other criteria above such as after major intersections to avoid unnecessary duplication.

40 mph and BELOW (Conventional Highways)

1. After major intersections with higher volumes
2. **Maximum** distance between reminder signs
    a. 40 mph = 2000 feet
    b. 35 mph = 1500 feet
    c. 30 mph = 1000 feet
    d. 25 mph = 1000 feet

Note: Field conditions *may* require varying from these criteria for these speed and highway categories.

SIZE OF SIGNS

See TEOpS 2-1-35 for optimum size of signs.

DOUBLE MARKING

Double marking (right and left side) for the first set of signs **shall** be employed for any reduction from 70 or 65 mph and *should* be employed for other speed limit reductions on divided highways.

WORK ZONE TRAFFIC CONTROL SPEED LIMIT SIGNS

The spacing shown in this policy does not apply to work zone traffic control speed limit changes. See work zone standard detail drawings for applicable requirements.

2-2-15 NO TURNS (R3-3) Signs—Freeways August 2026

In the early 1970s there was some special concern expressed about wrong-way movements on the freeway system. Some of the concern was being generated by the Federal Highway Administration, and some of it was local in nature. As a result, standardized signing practices were developed and implemented throughout the state on the freeway system. Along with some other extensive signing, NO TURNS signs were installed in the areas between the merging roadways at on-ramps on all freeways. These signs were intended to discourage illegal U-turns, whether made purposefully or by accident. There was subsequently some feedback from the State Patrol that the signing improvements were effective in reducing wrong-way movements.

Unfortunately, the NO TURNS signs in the merging area are in a rather vulnerable location and have no doubt suffered more than their share of knockdowns, thus incurring maintenance costs, and costs and damages to the public. Over the years, the public has come to understand and accept the restrictive nature of the freeway roadways, which make U-turns difficult.

Consequently, it has been determined that there is no longer a need for the sign, and it can be eliminated.

There *may* be some specific locations with peculiar geometrics or conditions, or where an awareness of unusual driving habits, would seem to make the retention of these signs desirable. In these cases, the R3-3 sign *may* still be used. Consultation with the State Patrol or other enforcement agencies *may* be desirable in these instances.

2-2-19 No U-Turn Sign (Freeway/Expressway median Crossover Sign Placement) August 2026

GENERAL

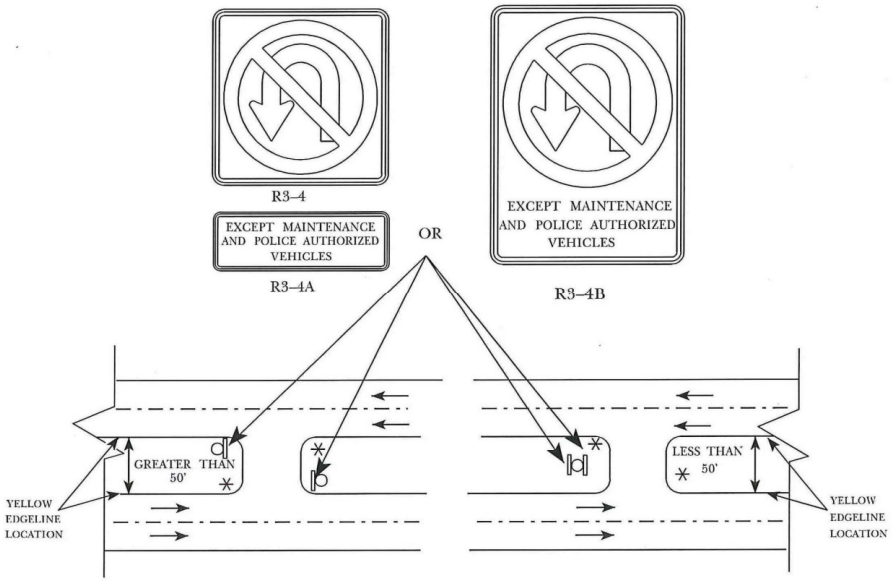
The WMUTCD Section 2B.26 gives some guidance and options for the placement of No U Turn Signs (R3-4 sign with R3-4a plaque, or R3-4B sign). However, the WMUTCD is lacking on guidance for the placement of these signs in median crossovers. Guidance as to the proper number and placement of these signs in the median is important. The median width plays a role in the effective placement of the signs.

GUIDANCE/POLICY

The following guidelines/policy apply to these signs:

1. The Region have the option of using the R3-4 sign with R3-4A supplemental plaque or the combination R3-4B sign for these applications.
2. If used for freeway and expressway median crossovers with a width of 50 feet or greater (distance from yellow edgeline to yellow edgeline), separate No U-Turn signs **shall** be installed on the far side of the median crossover facing traffic.
3. If used for freeway and expressway median crossovers with a width of less than 50 feet (distance from yellow edgeline to yellow edgeline), the No U-Turn signs *may* be mounted back-to-back in the center of the median. Vegetation or other sight obstructions *should* be considered to ensure visibility of the signs all year.
4. A yellow delineator *should* be placed on the left side of the through roadway on the near side of the crossover for each roadway (see Figure 1).
5. Any existing median crossover No U-Turn signs not conforming to this policy will be allowed to remain in place until the end of their useful life. Useful life ends when the sign message no longer meets legibility or condition standards. Existing signs *may* be removed prior to the end of their useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or when projects make removal practical.

Figure 1. Median Crossover Signing and Delineation



2-2-19.1 No U-Turn Signs (Controlled Intersection Placement) April 2010

BACKGROUND

Historically, Wisconsin State Law has not allowed U-turns at intersections controlled by traffic control signals or intersections controlled by an officer. Effective January 1, 2010, the State law was changed to make U-turns legal at intersections that do not have signs prohibiting the maneuver. Traffic engineering experience has shown that the permitting of U-turns at controlled intersections can be a safe and beneficial traffic maneuver. From an economic standpoint, the permitting of U-turns can reduce costs and issues connected with access control where highway projects result in median closings because reasonable access to the businesses can be possible via U-turns. It is noteworthy to point out that all other states allow U-turns at intersections to one degree or another.

For dual left turn applications, Wisconsin State Statute 346 states that U-turns would be made from the innermost left turn lane in the same fashion as a left turn. Vehicles on the intersecting streets turning right on red will need to yield to the U-turning vehicle. Statute 346 also states that backing is not permitted as part of a U-turn maneuver, therefore a motorist will need to have knowledge of the turning radius of their vehicle. A U-turn is also prohibited on undivided highways for crest and vertical curve locations where the sight distance is less than 500 feet.

Usage of ~~turn~~ movement prohibition signs, specifically No U-turn Signs, is covered in WMUTCD Section 2B.26. However, the MUTCD does not get into specific engineering criteria as to when signs *should* be used. Motorists are not necessarily familiar with state statute language and signing *may* be appropriate at certain intersections to prohibit U-turns, due to motorist safety issues or to help enforce the state statute. Wisconsin State Statute 346 gives maintaining governments the authority to prohibit U-turns at specific intersections. Intersections where U-turns are prohibited **shall** be signed.

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections and driveways.

Conventional highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

QUALIFYING CRITERIA FOR SIGNING

1. No U-Turn (R3-4 signs) **shall** be installed at the following signal and stop controlled intersections where U-turns are prohibited:

a. Intersections where there are existing no left turn signs: The no U-turn (R3-4) sign **shall** be installed at these locations in conjunction with the no left turn (R3-2) sign. The combination no left turn/no U-turn (R3-18) sign *may* be utilized for these locations instead.

b. Intersections where there are signalized right turns that operate simultaneously with protected left turn movements. The no U-turn (R3-4) sign *may* be utilized for these locations instead.

c. Signalized intersections that are interconnected to a railroad crossing and operate with advance (not simultaneous) pre-emption. The no U-turn (R3-~~0~~4) sign **shall** be installed on any divided highway approach that crosses the railroad tracks.

2. No U-turn (R3-4) signs *may* be installed at other signal and stop controlled intersections that have demonstrated the following operational issues:

a. Intersections with less than 500 feet of sight distance and demonstrated crashes attributed to U-turns that are above the statewide average for that type of intersection.

b. Intersections with dual left turn lanes and demonstrated problems with motorists making U-turns from the outside left turn lane. For this issue, the lane control sign (R3-8IL) *should* be used to emphasize that U-turns *may* only be made from the inside left lane. For overhead signing applications, the R3-5U *may* be installed in place of the R3-5L.

c. Intersections with a deficient truck turning radius that present repeated problems with trucks backing up to complete a U-turn, signs and/or signals being damaged or other safety or operational issues cause by the deficient truck turning radii. Intersections *may* have signing to just restrict trucks in making U-turns. For these applications, the standard no U-turn (R3-4) sign with supplemental truck plaque (M4-4) sign would be used.

d. Temporary signalized intersections during improvement projects where left turns *may* be restricted or eliminated.

e. Intersections that have poor geometrics and there are demonstrated crashes attributed to U-turns that are above the statewide average for that type of intersection. Examples would be skewed intersections or nearby railroad crossings.

3. Eliminations of signs. In the past, many signalized intersections were signed mainly from requests by law enforcement due to repeated problems with illegal U-turns at intersections and the signs aided in enforcement of the law. The Region *should* make efforts to review these intersections, based on the criteria outlined in items 1 and 2 above, and adjust or remove signs as necessary.

GUIDANCE FOR FIELD PLACEMENT OF SIGNS

1. Installation of no U-turn signs at controlled intersections can be challenging due to lack of space to install signs and the presence of many other signs. A minimum of on no U-turn sign **shall** be installed at each intersection approach where the U-turn move is prohibited. Below is a hierarchy of where the sign *should* be installed:

a. Primary choice is mounting of the no U-turn (R3-4) sign on the far side median signal pole if it does not conflict with any other signs (keep right, etc.).

b. Secondary choice is to install the no U-turn (R3-4) sign side-by-side with the keep right sign on the far side median signal pole. This *may* be accomplished by a separate post or bracket system. If a bracket system is used, the no U-turn sign *should* be mounted to the left of the keep right sign.

c. Third choice is to install the no U-turn (R3-4) sign on a nearside median signal pole.

d. Fourth choice is to install the no U-turn (R3-4) sign underneath the keep right on the far side median signal pole. This option is the last desirable because the no U-turn sign will be lower than the minimum 5-foot mounting height as specified by the WMUTCD.

2. A second no U-turn (R3-4) sign *may* be installed in advance of the intersection approach for areas where compliance is still a problem that is resulting in safety issues or if visibility of the mandatory no U-turn sign is compromised due to intersection geometrics or the presence of other signs.

3. Placement of the ground mounted R3-8UU sign mentioned in 2B above *should* be in advance of the near median signal head in the median at a minimum distance of 150 feet back from the signal.

2-2-20 Intersection Lane Control Sign August 2026

PURPOSE

The WMUTCD sections 2B.26 through 2B.35 provide standards and guidance for the usage of intersection lane control signs, mandatory movement lane control signs, optional movement lane control signs, and advanced intersection lane control signs. This policy provides requirements and guidance to the proper use of the signs on state maintained highways.

DEFINITIONS

1. Intersection lane control signs (R3-5 through R3-8 and R3-20L or LL and R3-20R or RR) include mandatory movement lane control signs, optional movement lane control signs, and advanced intersections lane control signs.
2. Mandatory movement lane control signs are as follows:
    a. R3-5, R3-5A, and R3-5XL series contain an arrow and word ONLY
    b. R3-7 series indicate RIGHT (CENTER or LEFT) LANE MUST TURN RIGHT (CENTER or LEFT).
3. Optional movement lane control signs (R3-6 series) indicate a combination arrow.
4. Advanced intersection lane control signs (R3-8 series) indicates the configuration of all lanes ahead. The R3-20 series signs indicate the start of a turn lane with the text LEFT (RIGHT) TURN LANE (tilting down arrow).

POLICY

1. Mandatory movement lane control signs (Figures 1, 2 and 3)

    R3-5, R3-5A, and R3-5XL series signs **shall** be used as overhead signs directly over the lane to which they apply.

    R3-7 series signs **shall** only be used as ground mounted signs. The RIGHT (LEFT) LANE MUST TURN RIGHT (LEFT) **shall** be installed whenever there is a mandatory turn lane and **shall** be accompanied by pavement marking arrows/only per 3B.20 of the WMUTCD. A mandatory turn lane is one where a through lane becomes a mandatory turn lane and the driver must change lanes to continue straight. An R3-7 series sign *should* be placed in advance of the intersection and repeated at the intersection depending on space availability for signs and the speed limit of the roadway. For higher speed roadways, 45 MPH or higher place the sign a minimum of 400’ prior to the intersection and repeat the sign at the intersection. For lower speed roadways, 40 MPH and below, place the sign a minimum of 300’ prior to the intersection and repeat the sign if necessary. An option to the R3-7 series ground mounted sign is an overhead R3-5 series sign (ONLY, ARROW). NOTE: The R3-8 series sign *may* be used in lieu of the R3-7 series sign when there is only one lane approaching an intersection and the roadway widens into separate turn lane(s).

2. Optional movement lane control signs

    R3-6 series signs indicate a combination arrow and are installed overhead. The word OK **shall not** be used on the sign.

3. Advanced intersection lane control signs (Figures 4, 5, 6, 7, 8, 9 and 10)
    R3-8 signs show the configuration of all lanes ahead. This sign *should* be placed in advance of the tapers for the turn lanes to allow for drivers to read the sign and change lanes accordingly. This sign is required for complex intersections where it *may not* be apparent to the driver what each lane movement is. Examples where it is not apparent include horizontal and vertical curves approaching an intersection or lack of physical barrier channelization. Examples of complex intersections include dual rights and dual lefts. At other locations, it is an optional sign.
    R3-20L or LL and R3-20R or RR signs which indicate LEFT (RIGHT) TURN LANE and tilted down arrow are intended to be placed at the start of the taper for the turn lane. This sign is required:
    a. For dual left turns where there is a median physical separation.
    b. At single or dual turn lanes where there is a physical separation between the left turn lane and through lane. Note: If the R3-20 sign is used between the through lane and turn lane per Figure 7, the advanced sign is optional.

    The R3-20 series sign is not necessary at other locations unless there is a horizontal curve where the driver cannot distinguish the turn lane taper from the through lane.

4. Mandatory turn lane downstream of an intersection (Figure 3)
   An R3-7 series sign, RIGHT (LEFT) LANE MUST TURN RIGHT (LEFT) **shall** be used where a lane becomes a mandatory turn lane after an intersection. Option—overhead sign R3-5 series sign is recommended for higher speed facilities in lieu of the ground mounted R3-7 series sign.

Figure 1. Mandatory Movement Lane Control Signs

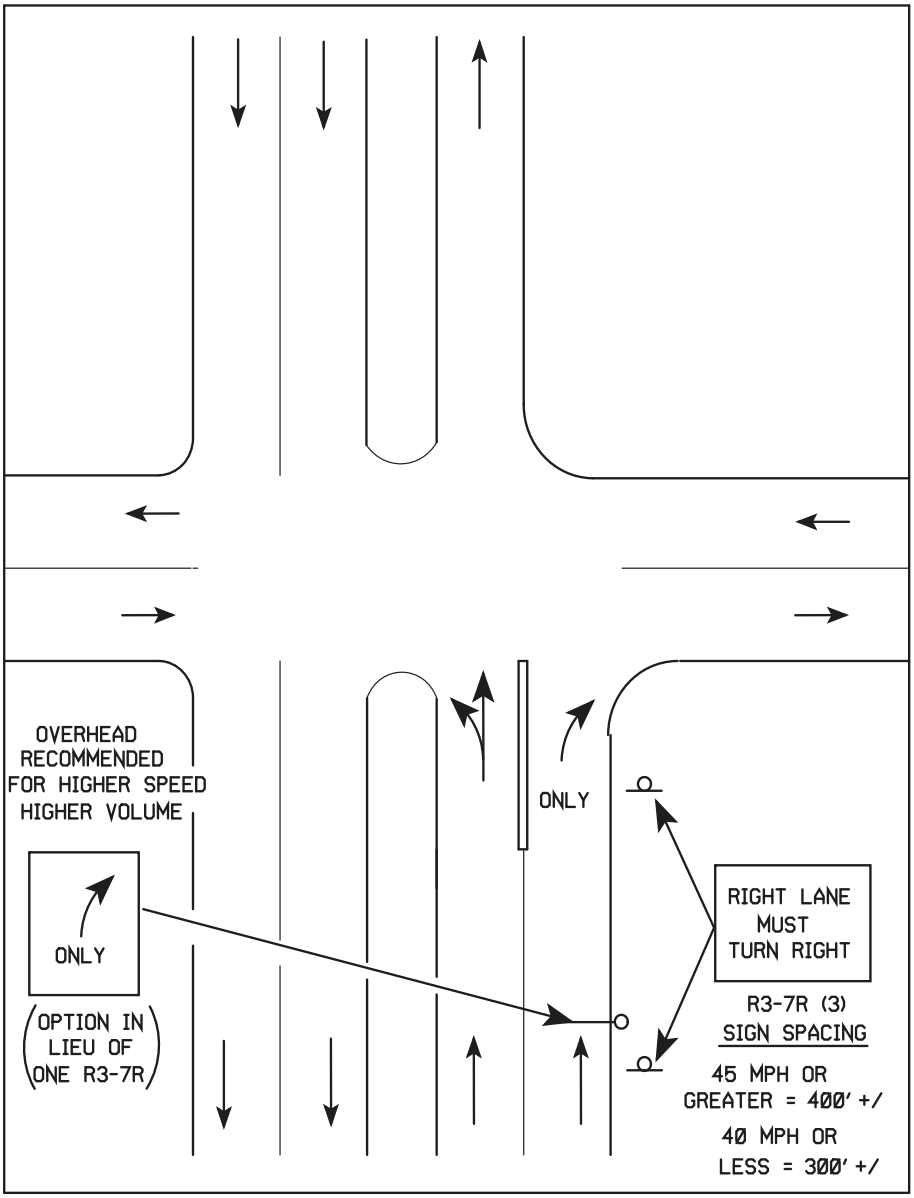


Figure 2. Mandatory Movement Lane Control Signs

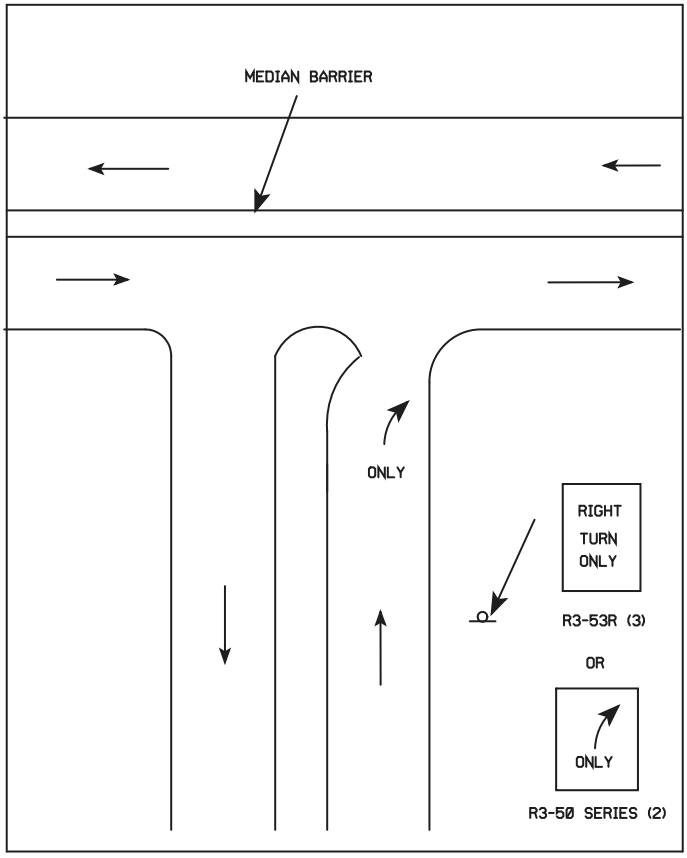


Figure 3. Mandatory Turn Lane After Intersection

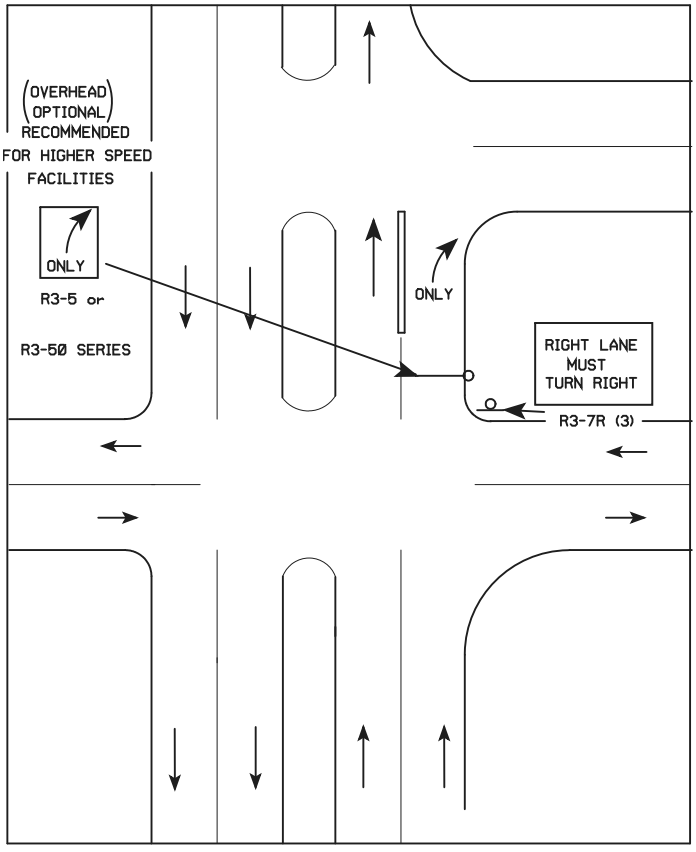


Figure 4. Advanced Intersection Lane Control Signs

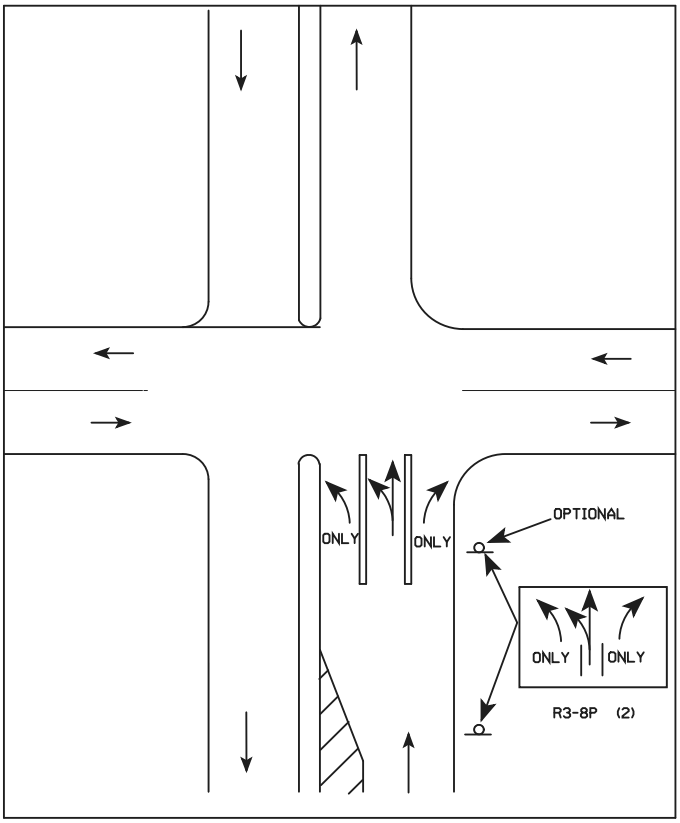


Figure 5. Advanced Intersection Lane Control Signs

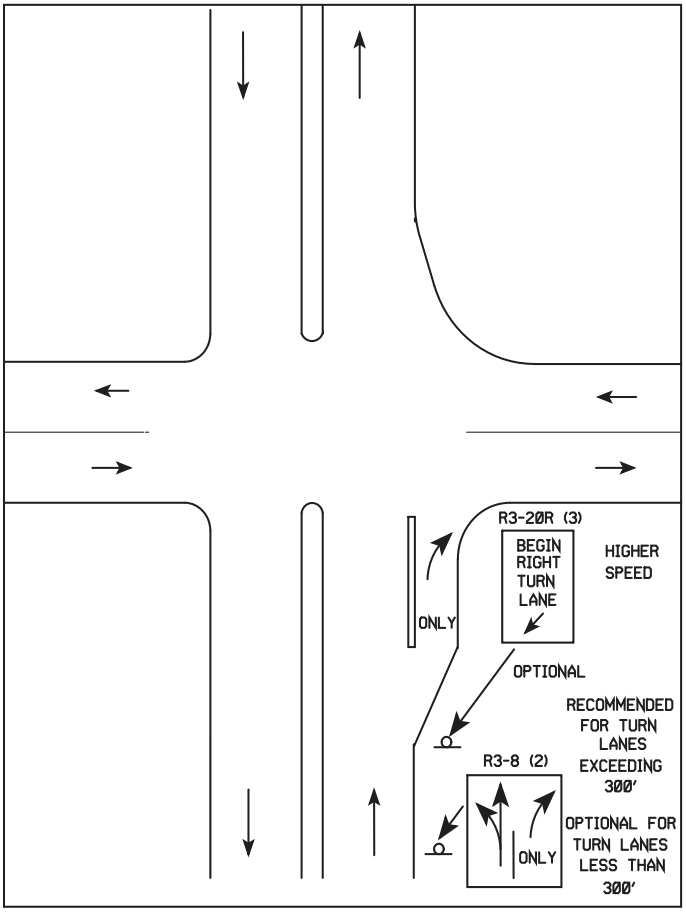


Figure 6. Advanced Intersection Lane Control Signs (Overhead Lane Control Signs)

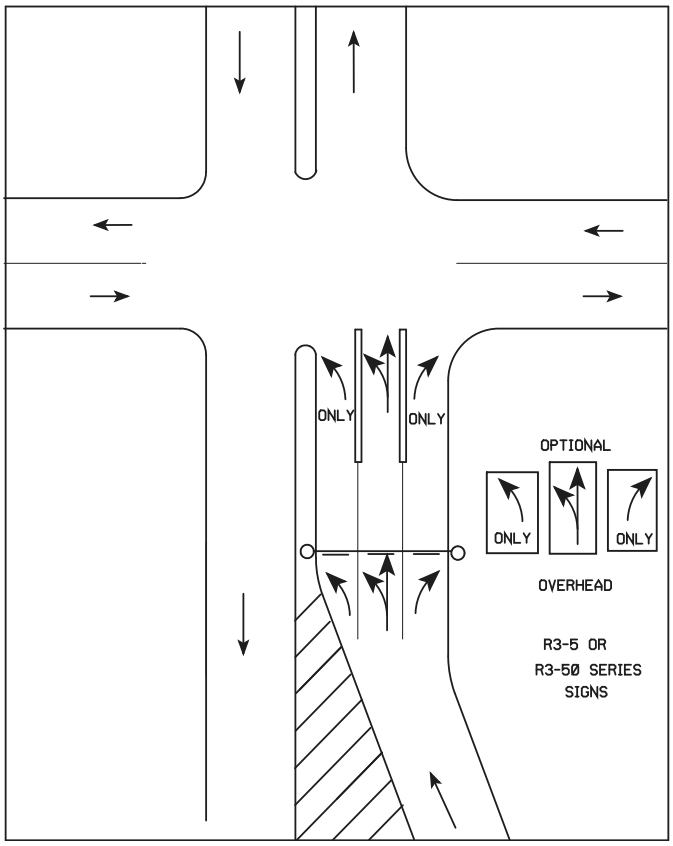


Figure 7. Advanced Intersection Lane Control Signs

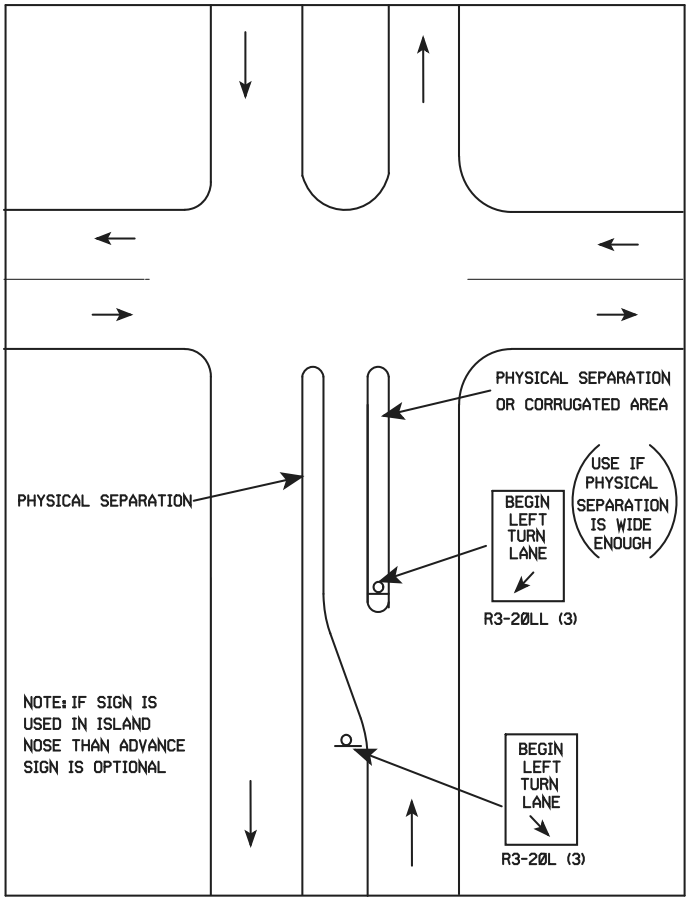


Figure 8. Advanced Intersection Lane Control Signs

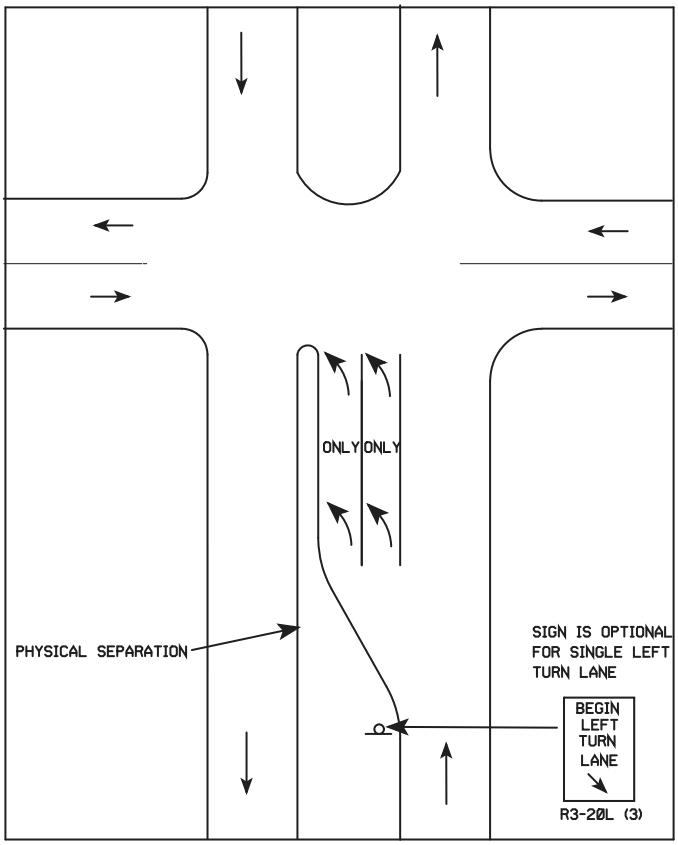


Figure 9. Advanced Intersection Lane Control Signs (Left Turn Lane on Curve)

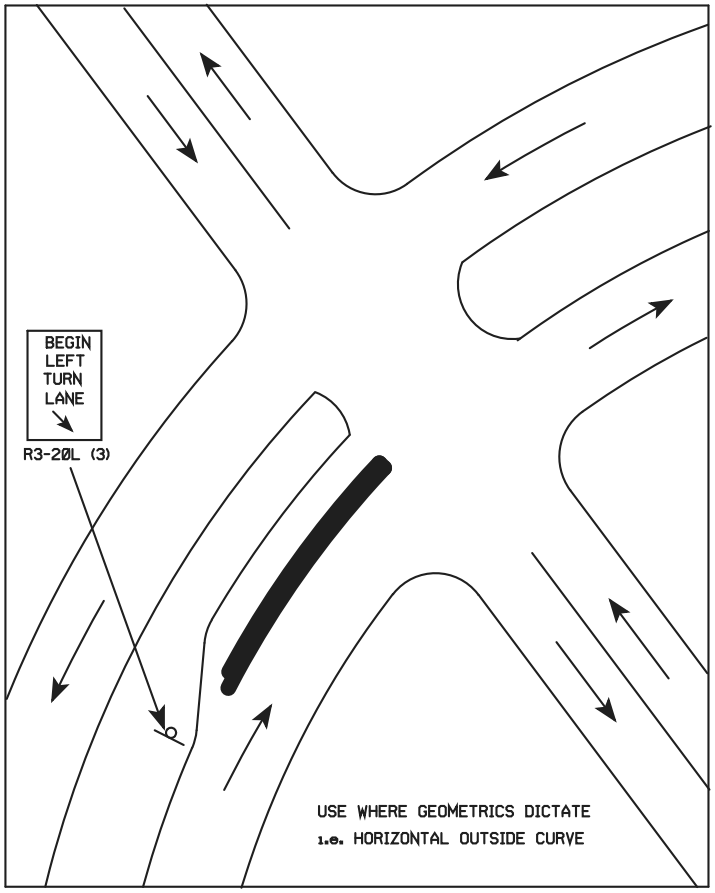
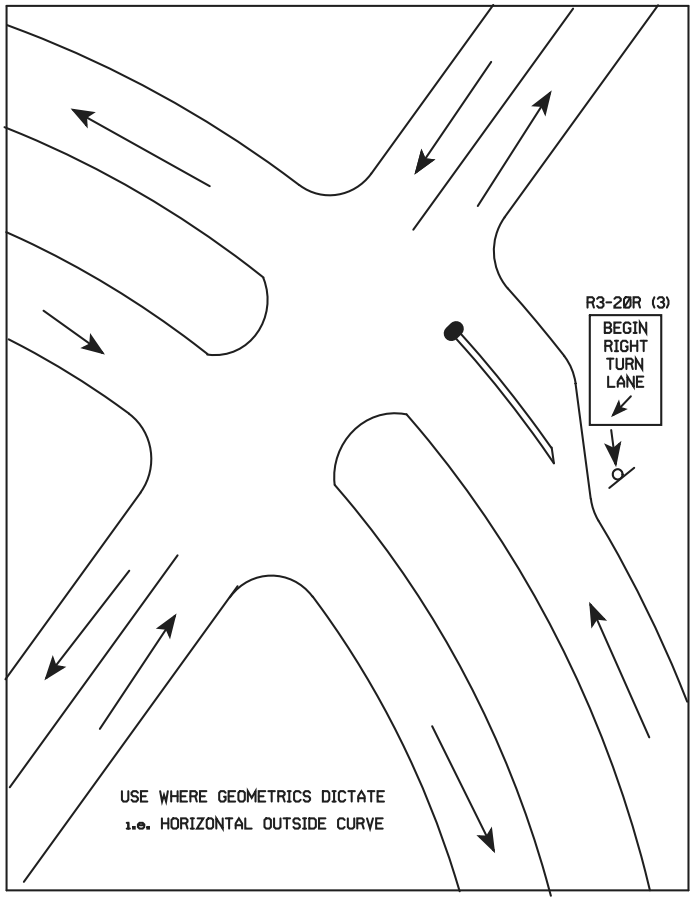


Figure 10. Advanced Intersection Lane Control Signs (Right Turn Lane on Curve)



2-2-25 Clipped Corner Do Not Enter Signs August 2026

PURPOSE

The following is to provide policy guidelines for the use of Clipped Corner Do Not Enter (R5-1C) signs.

BACKGROUND

Historically WisDOT has used Clipped Corner Do Not Enter (R5-1C) signs on the back side of stop signs in order to preserve the shape of the stop sign at ramp terminals and intersections where space for mounting a Do Not Enter (R5-1) sign is limited.

The WMUTCD 2A.05 discusses the shapes of signs and contains language stating that modifications to sign shapes, such as cutting off the left and right points of a diamond, **shall not** be allowed.

The WMUTCD 2A.05 also provides methods that should be considered in lieu of mounting a sign on the back of another sign that would obscure the exclusive shape of the sign:

- Install the signs on separate mountings to maintain the exclusive shape.
- Increase the size of the sign with the exclusive shape so the sign installed on the back does not obscure its shape.
- Increase the mounting height of the sign with the exclusive shape to allow the installation of a back-mounted sign below the bottom edge while still ensuring the minimum required mounting height for the lower sign.

POLICY

If a Do Not Enter (R5-1) sign is placed back to back with a STOP or YIELD sign it **shall not** compromise the shape of the STOP sign or YIELD sign and shall not protrude beyond the edge of the stop sign or yield sign

shape.

Where none of the options listed in the background above are feasible and placing a Do Not Enter sign in a particular location is of utmost importance to prevent wrong way driving, engineering judgement *may* be used to determine that the benefit gained from having an appropriately located Do Not Enter (R5-1) sign outweighs any negative effects of modifying the shape of a Do Not Enter (R5-1) sign. When such situations occur, the Clipped Corner Do Not Enter (R5-1C) *may* be utilized.

2-2-28 Restricting Pedestrians and Non-Motorized Vehicles on Expressways and Freeways August 2013

PURPOSE

The operation of non-motorized vehicles or pedestrians on high-speed multi-lane facilities are incompatible uses that create hazards. The Department *may* prohibit certain traffic on freeways or expressways. To apply these restrictions on traffic, the Department is required to erect and maintain official signs giving notice of the prohibition.

This subject provides guidance on the official signs that *may* be used to give notice of restrictions on the use of controlled access highways, expressways and freeways.

AUTHORITY

State Statute 349.105 provides the authority to prohibit certain traffic on expressways and freeways. The authority in charge of maintenance of an expressway or freeway *may*, by order, ordinance or resolution, prohibit the use of such expressway or freeway by pedestrians, persons riding bicycles or other non-motorized traffic or by persons operating mopeds or motor bicycles. The state or local authority adopting any such prohibitory regulation **shall** erect and maintain official signs giving notice thereof on the expressway or freeway to which such prohibition applies.

DEFINITIONS

State Statute 990.01 (9a) Freeway means a highway with full control of access and with all crossroads separated in grade from the pavements for through traffic.

State Statute 990.01 (7a) Express highway or expressway is a divided arterial highway for through traffic with "full" or "partial" control of access and generally with grade separations at intersections. "Full" control of access means that the authority to control access is exercised to give preference to through traffic by providing access connections with selected public roads only and by prohibiting crossings at grade or direct private driveway connections. "Partial" control of access means that the authority to control access is exercised to give preference to through traffic to a degree that, in addition to access connections with selected public roads, there *may* be some crossings at grade and some private driveway connections.

Listings of declared freeways and expressways are available from the Region Planning Section.

POLICY FOR HIGHWAYS CLOSED TO CERTAIN TRAFFIC

Freeways

Freeways **shall** be closed to use by pedestrians, by persons riding bicycles or other non-motorized traffic and by persons operating mopeds or motor bicycles. Any exceptions to open freeway segments to use by pedestrians, by persons riding bicycles or other non-motorized traffic and by persons operating mopeds or motor bicycles *may* only be approved by the Director of the Bureau of Traffic Operations and listed in this policy.

Freeway exceptions (approved by Director, Bureau of Traffic Operations): none, as of October 1, 2007.

Expressways

Expressways *should* be open to use by pedestrians, by persons riding bicycles or other non-motorized traffic and by persons operating mopeds or motor bicycles. A general exception to open use of expressways is for those expressways with a parallel trail for pedestrians, persons riding bicycles or other non-motorized traffic and by persons operating mopeds or motor bicycles. In those cases, the Department **shall** prohibit that traffic from using the expressway and erect and maintain signs giving notice of the prohibition. Any other exceptions to close expressway segments to use by pedestrians, by persons riding bicycles or other non-motorized traffic and by persons operating mopeds or motor bicycles *may* only be approved by the Director of the Bureau of Traffic Operations and listed in this policy.

Expressway exceptions (approved by Director, Bureau of Traffic Operations): USH 10, Wood County, from CTH BB to CTH N

SIGN INSTALLATION POLICY

The R5-57 sign (see Figure 1) **shall** be erected on each ramp leading from a crossroad or frontage road to a restricted freeways or expressway within approximately 100 feet of the point where the ramp leaves the crossroad, and at other locations where pedestrian entrance has occurred or *may* reasonably be anticipated.

Transition from expressway to freeway

For areas that transition from a non-restricted expressway to a restricted freeway, the R5-57 sign *should* be placed after the last at-grade intersection and the R5057B sign (see Figure 2) BEYOND NEXT EXIT *may* be used to supplement the R5-7 sign. The R5-57 sign *should* be placed on all freeway on-ramps after this point.

Figure 1



Figure 2



2-2-30 Engine Brake Signing — January 2018

PURPOSE

One method of slowing the motion of a vehicle is to use the compression of the engine as part of vehicle braking. This method is often referred to as compression braking or exhaust braking. Engine braking can produce excessive, undesirable noise when muffler systems are not functioning as designed or are otherwise inadequate.

Noise from engine braking in vehicles with inadequate muffler systems has led some communities to take actions to restrict the noise. Compression braking is typically an unavoidable result of operating a vehicle that the driver cannot prevent or fully disengage. However, for some vehicles there are driver choices as to whether or when engine compression braking is used. Objectionable noise levels *may* be produced by any car or truck when using compression braking and often are related to equipment failure or aftermarket modifications.

There are several advantages to compression braking on vehicles and especially on large trucks. In addition to assisting deceleration, when a truck engine brake system is engaged, it helps prevent the conventional truck air brakes from overheating, thus saving on the normal wearing life of the truck air brakes. This is especially true on roadways with steep downgrades with long distances, where the safety of the truck can be enhanced using engine brakes.

Communities have installed or requested signing on state highways to address noise concerns associated with use of compression braking. The Department controls traffic signs on highways maintained by the state. Local governments do not have the authority to erect signs on those highways except when written permission is provided by the Department.

The Department supports efforts to deal with excessive noise from all vehicles and encourages enforcement of laws requiring effective mufflers (for example, State Statute Section 347.39). The use of signs specific to engine or compression braking has become popular among many communities, although it is unclear whether those

signs are effective or necessary. Generally, the Department does not allow installation of traffic signs on state highways that have not been shown to be necessary or effective. In the case of engine braking, the Department has chosen to work with communities and allow limited use of these signs on state highways under certain conditions, despite the lack of evidence that they are effective in reducing noise problems.

POLICY

The Department *may* permit local governments to place signs on highways under WisDOT jurisdiction subject to the requirements included here:

1. Requests for a permit to allow these signs must be in writing to the WisDOT Regional Office and *should* contain the following information
    a. Locations where signs are to be installed, including state highway route number and distance to the nearest public roadway intersection
    b. Sign offset (distance from edge of travel lane) and type of post to be used
    c. Assurance that sign will be free standing (not attached to other signs)
2. The local government **shall** be responsible for supplying, installing, and maintaining the signs in conformance with the permit. The local government **shall** furnish their identification sticker on the sign.
3. The local government must be committed to actively enforce the requirements of the signs with local law enforcement personnel.
4. Only the standard ENGINE BRAKE MUFFLERS REQUIRED sign (R10-64) *may* be used on highways under state maintenance responsibility and those signs *may* be installed only on conventional highways at or near the corporate limits of the community (see Figure 1). This sign **shall not** be used on freeways, expressways, interchange ramps, or site-specific locations on conventional highways.
    a. For freeway locations going through communities, engine brake signs *may* be permitted on conventional state highways after the entry point to the conventional highway from the freeway, provided signs are already approved at the city/village limits.
    b. Engine brake signs *may* be allowed for urbanized townships provided they have the means to enforce it. Documentation **shall** be provided by the local law enforcement indicating that the ordinance will be enforced throughout the township. Urbanized townships are defined by having at least two of the following features:
        i. Urban cross section
        ii. Residential development abutting the highway that meets the definition of “semi urban district” as defined in Wisconsin State Statutes 346.57(1)(b)
        iii. Reduced speed zone
        iv. Qualify for an unincorporated community sign.

    For qualifying urban townships, only 1 sign is allowed in each direction on any given state highway. The signs **shall** be installed at the township limits.
    c. The local government must obtain the approval of the appropriate Regional office for the location of the sign. The sign language **shall** meet the requirements of the WisDOT R10-64 sign plate as described in item 4.
    d. Any other signs related to use of engine braking installed on highways under WisDOT jurisdiction within or for the local government that do not meet the requirements of this policy *should* be replaced by the local government, as opportunities arise (knockdowns, improvement projects or replacement due to age) to comply with this policy.

Figure 1. R10-64 Sign



2-2-35 Littering Signs — September 2000

PURPOSE

The intent of this guideline is to eliminate signs that inform the public about fines for littering since the signs are not necessary for the guidance or warning of traffic.

Signs with the message $500 FINE FOR THROWING LITTER OR TRASH ON HIGHWAYS KEEP WISCONSIN

CLEAN (R5-56) have been installed on state highways in the past. The purpose of these signs was to discourage littering and to reinforce to motorists the maximum statutory fine for littering on highways. While littering has the potential to create safety hazards as well as diminishing the quality of state highways, there is reason to believe that usage of these signs has a minimal effect on curbing littering problems. The State Patrol has mentioned that these signs have little effect on the motoring public, the law is very difficult to enforce, and citations have very rarely been given out. The State Patrol does not object to removing these signs. Due to previous cutbacks in resources and funding, these signs had previously been declared nonessential. Given the limited effectiveness of the signs, it has been determined these signs are not necessary.

POLICY

Littering signs (R5-56) are declared nonessential on state highways. As a result, the following actions are expected:

1. No new littering signs **shall** be erected on state highways.
2. Littering signs that have been installed on state highways will be allowed to remain in place until the end of their useful life, when they are to be removed and not replaced. Useful life ends when the sign message no longer meets legibility or condition standards. Littering signs *may* be removed prior to the end of the signs' useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects make removal practical.

2-2-40 Seatbelt Signs — January 2018

PURPOSE

Over the years seatbelt signs have been installed to reinforce to motorists the importance of fastening safety belts and to remind motorists that there are penalties for people not fastening safety belts. These signs were placed at various locations on state highways and in rest areas, waysides, and weigh stations. It is typically expected that many motorists now know the importance of buckling up by means of media advertisements and safety campaigns. Consequently, it has been determined that these signs are no longer necessary.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two-lane or multilane facilities.

POLICY

1. No new seatbelt signs **shall** be erected.
2. Seatbelt signs that have been installed will be allowed to remain in place until the end of their useful life, when they *should* be removed and not replaced. Useful life ends when the sign message no longer meets legibility or condition standards. Seatbelt signs *may* be removed prior to the end of the signs' useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects make removal practical.

2-2-41 Community Parking Restriction Signs — December 2008

PURPOSE

Oftentimes, municipalities will adopt ordinances for the prohibition or restriction of parking on certain roadways during certain periods of time. Wisconsin State Statutes 349.13(1e)(c)(2) gives municipalities the authority to enact ordinances and post signs at or reasonably near the corporate limits of the municipality on all state and county trunk highways and connecting highways.

The intent of posting signs is to inform motorists that 24-hour parking limitations, night parking regulations or snow emergency regulations are in effect in the municipality. It is the responsibility of the motorist to contact the governing body to determine the specifics of the actual ordinance. Posting of signs allows law enforcement to effectively enforce the municipal parking ordinances.

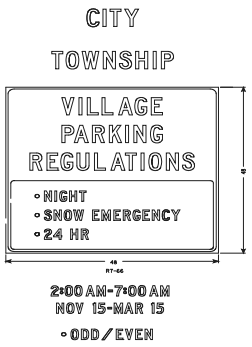
POLICY

The following rules **shall** apply for local governments requesting community parking restriction signs on highways under WisDOT jurisdiction:

1. The local government must pass a parking ordinance prior to requesting the sign(s).
2. The local government **shall** submit a written request to the WisDOT Regional Office for a permit to install and maintain the signs. The permit may be in the form of a letter.
   This request for a permit from the local government *should* contain the following items:
   a. Sign message in accordance with items 4 and 8 of this policy
   b. Sign offset (distance from edge of travel lane)
   c. Where sign is proposed to be located
   d. Type of post used
   e. Assurance that sign will be freestanding (not attached to other signs)
   f. Copy of local government parking ordinance.

   Once the permit is granted, the local government is responsible for supplying, installing and maintaining these signs in conformance with the permit.
3. It **shall** be the responsibility of the local law enforcement personnel to enforce the ordinance or the sign(s).
4. The sign message shall meet the requirements of the WisDOT R7-66 municipal parking sign plate (see Figure 1). See item 8 for approved supplemental messages. The local government must obtain the approval of the appropriate WisDOT Regional Office for the location(s) of the sign(s).
5. The R7-66 sign shall only be used on conventional highways at or near the corporate limits of the community. This sign shall not be used at site-specific locations on conventional roadways, freeways, expressways or interchange ramps.
6. Municipal parking signs not meeting the layouts outlined in this policy will be allowed to remain in their place until the end of their useful life. At that time, they should be removed and replaced with signs conforming to this policy. Useful life ends when the sign message no longer meets legibility or condition standards. Municipal parking signs may be removed prior to the end of the signs' useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects make removal practical.
7. For townships, the signs should be placed at the boundary of built-up areas where the ordinance applies.
8. A maximum of three supplemental message **shall** be used on a sign. The six approved supplemental messages are:
   a. NIGHT
   b. SNOW EMERGENCY
   c. 24 HR
   d. X:XX AM – X:XX AM (example: 2:00 AM – 7:00 AM)
   e. DATE – DATE (example: NOV 15 – MAR 15)
   f. ODD / EVEN

Figure 1



2-2-45 Move Over or Slow Down Signs — August 2026

PURPOSE

The intent of this guideline is to restrict the usage of signs that inform the public about Moving Over or Slowing Down for Stopped Emergency Vehicles to locations that are most helpful to motorists.

Signs with the message "MOVE OVER OR SLOW DOWN FOR STOPPED VEHICLES WITH FLASHING

LIGHTS" (R5-60) are installed on state highways as a reminder to motorists to slow down or move over for emergency/law enforcement vehicles that are on the roadway. These signs were installed in a partnership between Bureau of Traffic Operations and Bureau of Transportation Safety to educate motorists of this law. While signs can be a useful tool to help re-enforce a law, education and enforcement are also effective and essential tools that must be used with highway signing. These signs are primarily focused to motorists entering the state and *may* be unfamiliar with the Move Over or Slow Down Law. As for a reminder tool, other, more effective educational efforts have been employed in lieu of signs. These educational efforts often consist of public service announcements through the media, reminders included in DMV vehicle registration notices and driver education. However, due to budgetary concerns and the concern about over signage, signs *should* only be installed in locations that are the most effective for motorists.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional Highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two lane or multilane facilities.

POLICY

1. Any requests to install "MOVE OVER OR SLOW DOWN FOR STOPPED VEHICLES WITH FLASHING LIGHTS" (R5-60) signs **shall** be reviewed by the statewide Traffic Incident Management Committee and approved by the State Traffic Engineer prior to installation.
2. "MOVE OVER OR SLOW DOWN FOR STOPPED VEHICLES WITH FLASHING LIGHTS" (R5-60) signs **shall** be installed in all rest areas and weigh stations serving freeways and expressways.
3. The following mainline locations have been approved for installation of "MOVE OVER OR SLOW DOWN FOR STOPPED VEHICLES WITH FLASHING LIGHTS" (R5-60). Signs **shall** be installed at these locations:

    SW Region:
    - IH 39 northbound in Rock County north of the state line
    - IH 39 northbound in Dane County north of USH 51 in Madison
    - IH 39 northbound in Columbia County north of IH 90-94
    - IH 39 southbound in Columbia County south of IH 90-94
    - IH 39 southbound in Dane County south of USH 12-18
    - IH 90 eastbound in La Crosse County east of the state line
    - IH 90 eastbound in Monroe County east of IH 94
    - IH 90 westbound in Columbia County west of IH 39
    - IH 90 westbound in Monroe County west of IH 94
    - IH 94 eastbound in Dane County east of IH 39-90
    - IH 94 westbound in Monroe County west of IH 90
    - USH 18 westbound in Dane County west of Dairy Ridge Rd
    - USH 151 northbound in Grant County north of the state line
    - USH 151 northbound in Dane County north of IH 39-90-94

    SE Region:
    - IH 41 northbound in Washington County north of USH 45
    - IH 43 northbound in Milwaukee County at Holt Ave
    - IH 43 northbound in Ozaukee County north of STH 60
    - IH 94 eastbound in Milwaukee County east of 84th St
    - IH 94 westbound in Kenosha County west of the state line
    - IH 94 westbound in Waukesha County west of the Milwaukee County line
    - USH 12 westbound in Walworth County west of the state line
    - STH 119 westbound in Milwaukee County east of IH 94

    NE Region
    - IH 41 southbound in Outagamie County south of the Brown County line
    - IH 43 southbound in Brown County south of STH 172

- USH 10 westbound in Winnebago County west of IH 41
- USH 41 northbound in Brown County north of CTH B
- USH 41 southbound in Marinette County south of Marinette
- USH 41 southbound in Brown County south of CTH B
- STH 29 westbound in Brown County west of IH 41

NC Region

- IH 39 northbound in Portage County at Stevens Point
- IH 39 southbound in Marathon County south of Business 51
- IH 39 southbound in Portage County at Stevens Point
- USH 51 northbound in Marathon County north of STH 29
- USH 45 southbound in Vilas County south of the state line
- STH 29 eastbound in Marathon County east of USH 51
- STH 29 westbound in Marathon County west of USH 51
- STH 29 eastbound in Shawano County east of STH 55
- STH 29 westbound in Shawano County west of STH 22
- STH 153 westbound in Marathon County east of IH 39

NW Region

- IH 94 eastbound in Saint Croix County east of the state line
- IH 94 eastbound in Eau Claire County east of USH 53
- IH 94 westbound in Dunn County west of STH 29
- USH 2 eastbound in Douglas County south of Superior
- USH 53 northbound in Chippewa County north of STH 29
- STH 29 eastbound in Chippewa County east of USH 53

2-2-50 Spacing of Reminder Signs — January 2007

EMERGENCY STOPPING ONLY

The R8-7 EMERGENCY STOPPING ONLY sign **shall** be used on expressways and freeways only. The R8-7 sign *should* be placed at random intervals of about 15 miles, generally being located just beyond the signing required after an interchange.

SLOWER TRAFFIC KEEP RIGHT

The R4-3 SLOWER TRAFFIC KEEP RIGHT sign *may* be used on multiple-lane roadways to reduce unnecessary weaving. If used on conventional highways, it *should* be erected just beyond the beginning of a multiple-lane pavement and selected locations where there is a tendency on the part of the motorist to drive in the left-hand lane (or lanes) below the normal speed of traffic. If used on freeways and expressways, the sign **shall** be erected at random intervals of about 7 ½ miles, generally just beyond the signing required after an interchange. It *should* not be used on the approach to an interchange or through an interchange area. Successive signs **shall** be alternated between the median and the right-hand side of the roadway.

2-2-51 Except Right Turn Signals — August 2026

PURPOSE AND BACKGROUND

The RIGHT TURN NO STOP sign is occasionally used below a STOP sign for intersections where an engineering study indicates that right turns do not have to stop. Many of these intersections are in urban areas with high right turning traffic volumes and oftentimes have a lack of space to construct a pork chop island with a separated free flow right turn lane. FHWA has previously discouraged the usage of the RIGHT TURN NO STOP sign, and as a result the Department used it very sparingly after exhausting all other traffic control strategies.

The WMUTCD ~~now~~ allows the usage of a supplemental plaque below a STOP sign at intersections that allow a right turn to free flow.

POLICY

The EXCEPT RIGHT TURN (R1-10P sign) is approved for usage on WisDOT maintained roadways, provided the following policy criteria are met:

1. An engineering study of the intersection is performed and it is determined that the geometrics and traffic

volumes make it possible for free-flowing right turns.
2. Existing locations should be reviewed periodically to see if geometric conditions can be changed (upcoming improvement project) or if the traffic volumes are still applicable. Discussion with local officials may result in developing other control strategies. At some locations, it may be possible to install right-turn channelization.
3. RIGHT TURN NO STOP (R1-51) signs should be replaced with the EXCEPT RIGHT TURN (R1-10P) signs as opportunities permit (improvement projects, knockdown replacement and replacement due to age).

2-2-53 Signing for Flashing Yellow Arrow Traffic Signals August 2026

PURPOSE AND BACKGROUND

The WMUTCD allows the usage of a flashing yellow left turn arrow that is intended to provide a safer, more efficient left turn for motorists. National studies have indicated that drivers have fewer crashes with the flashing yellow left-turn arrow than with the traditional yielding left-turn indication.

FHWA has indicated that flashing yellow arrow educational signing for motorists is normally not needed, since the obvious intent of the flashing yellow arrow is to yield to oncoming motorists. This is the reason why no signing for flashing yellow arrows is included in the WMUTCD. Previously, WisDOT has utilized signing for intersections because flashing yellow arrows were new to Wisconsin, and the signs aided in motorist education efforts. However, with continued expansion of the usage of flashing yellow arrow signals, the need for signs has been mitigated to the point where they are now only needed for locations with demonstrated operational and safety issues. This policy will address the installation of signing for flashing yellow arrow signals to address any problem areas.

QUALIFYING CRITERIA FOR SIGNING

The LEFT TURN YIELD ON FLASHING YELLOW ARROW (R10-12A) ~~sign has been designed for usage on WisDOT maintained roadways~~ can be used~~,~~ provided the following policy criteria are met:

1. The LEFT TURN YIELD ON FLASHING YELLOW ARROW (R10-12A) sign, **shall** only be used for intersection locations with demonstrated operational or safety issues, per approval of the Region Traffic and Safety Engineer.
2. The LEFT TURN YIELD ON FLASHING YELLOW ARROW (R10-12A) signs located at intersections that do not have operational or safety issues *should* be removed is opportunities permit (traffic signal work by electricians, corridor signing projects, knockdowns, etc.

GUIDELINES FOR FIELD INSTALLATION OF SIGNS

If signs are warranted at an intersection, the following guidelines *should* be utilized for installation:

1. Primary choice for mounting of the LEFT TURN YIELD ON FLASHING YELLOW ARROW (R10-12A) sign is the far side overhead signal that has a flashing left yellow arrow indication.
2. Secondary choice for mounting of the LEFT TURN YIELD ON FLASHING YELLOW ARROW (R10-12A) sign is the far side ground mounted signal that has a flashing left yellow arrow indication.
3. Third choice for mounting of the LEFT TURN YIELD ON FLASHING YELLOW ARROW (R10-12A) sign is the near side ground mounted signal that has a flashing left yellow arrow indication.

2-2-54 Stop for School Bus Flashing Red Lights State Law Sign August 2026

PURPOSE

Wisconsin State Statute 346.48 mandates that motorists approaching a school bus from the front or rear **shall** stop when the bus is displaying the flashing red lights. The exception to this is oncoming motorists would not have to stop if there is a physical separation in the median, as in the case of divided highways. Oftentimes, requests come to the WisDOT Region offices to install signs for areas where motorist compliance is problematic. Typically, these are areas where there are multiple school bus stops and the sight distance does not warrant the placement of the SCHOOL BUS STOP AHEAD (S3-1) warning sign. In the past, the STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW *R59-51) sign has been installed for these problem areas. However, due to a lack of statewide guidance, these signs have been used inconsistently.

~~WMUTCD Section 2B.0254 allows the customization of regulatory signs to aid in the enforcement of other laws~~

~~or regulations. Therefore, t~~The STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW (R59-51) sign has been designed to reinforce Wisconsin State Statute 346.48 and aid law enforcement for problem areas. Listed below are criteria that *should* be followed when considering the placement of these signs.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided or undivided roadway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional highways are defined as divided or undivided roadway facilities that have limited access with no grade separations at intersections. These highways *may* be two-lane or multi-lane facilities.

POLICY

Below are policy criteria that *should* be applied when considering installations of the STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW (R-59-51) sign.

1. For installation of the STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW (R59-51) sign on expressways, TEOpS 2-3-55 *should* be followed.
2. If a specific school bus stop has a sight distance less than the minimum visibility distance for warning signs per the ~~WMUTCD~~ TEOpS 2-3-6 Table 1, the SCHOOL BUS STOP AHEAD (S3-1) warning sign *should* be used.
3. The STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW (R59-51) sign *may* be used for segments of conventional highways that have the following criteria:
    a. Multiple stops on a segment of roadway
    b. Documented compliance problems exist,
    c. Sight distance is not a factor that would not allow the use of warning signs for most of the stops in the segment of roadway.
4. If the STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW (R59-51) sign is warranted, it *should* be installed at the beginning of the segment and *may* be repeated every five miles if the segment is greater than 5 miles or after major intersections (at the discretion of the Region Traffic Engineer).
5. In considering the usage of this sign, the Regions are encouraged to obtain a school bus route map or other information supplied by the school district to identify the locations of the stops. The Region *should* contact the school districts annually to determine where stops are no longer made so that signing can be adjusted accordingly.

2-3-5 Advance Placement of Warning Signs November 2026

PURPOSE

The following policy provides modified distances for the advance placement of warning signs (as compared to WMUTCD Table 2C-3).

BACKGROUND

WisDOT's longstanding concern is that drivers are distracted far too often and that detection and recognition of a sign may not occur until a driver is very close to the sign. When this occurs, a slightly increased distance between the location of the warning sign and the condition is helpful for drivers to be able to successfully decelerate. We have not found the following advance placement distances to be too far, such that drivers might forget the warning because of other driving distractions. The longer distances found in the table below also alleviate sign spacing and sign clutter issues, especially as a driver approaches an intersection.

POLICY

Table 1 provided advance placement distances based on speed limits.

Table 1: Advance Placement Distance

Posted or 85th Percentile Speed	Condition A: Speed reduction and lane changing in heavy traffic	Condition B: Deceleration to the listed advisory speed for the condition							
		0 mph	10 mph	20 mph	30 mph	40 mph	50 mph	60 mph	70 mph
20 mph	225 ft	100 ft	N/A	_	_	_	_	_	_
25 mph	325 ft	150 ft	100 ft	N/A	_	_	_	_	_
30 mph	460 ft	200 ft	150 ft	100 ft	_	_	_	_	_
35 mph	565 ft	250 ft	200 ft	175 ft	N/A	_	_	_	_
40 mph	670 ft	300 ft	275 ft	250 ft	175 ft	_	_	_	_
45 mph	775 ft	400 ft	350 ft	300 ft	250 ft	N/A	_	_	_
50 mph	885 ft	550 ft	425 ft	400 ft	325 ft	225 ft	_	_	_
55 mph	990 ft	750 ft	500 ft	475 ft	400 ft	300 ft	N/A	_	_
60 mph	1,100 ft	1,000 ft	575 ft	550 ft	500 ft	400 ft	300 ft	_	_
65 mph	1,200 ft	1,000 ft	650 ft	625 ft	575 ft	500 ft	375 ft	100 ft	_
70 mph	1,250 ft	1,000 ft	650 ft	625 ft	575 ft	500 ft	375 ft	375 ft	_
75 mph	1,350 ft	1,000 ft	650 ft	625 ft	575 ft	500 ft	375 ft	375 ft	100 ft

2-3-6 Determination of Sight Distance for Warning Signs ~~August~~ November 2026

PURPOSE

The WMUTCD provides guidance for the installation of several types of vehicular and non-vehicular warning signs. Some of these signs include the SCHOOL BUS STOP AHEAD, SNOWMOBILE CROSSING, fire truck, side road and crossroad warning signs. The WMUTCD states that many of these types of warning signs *should* be used where the road user's sight distance is restricted, or the condition, activity or entering traffic would be unexpected.

This table on minimum visibility distances references Table 9-7, (Design Intersection Sight Distance – Case B1, Left Turn From Stop) of the 2018 AASHTO Policy on Geometric Design of Highways and Streets. This table provides an added factor of safety beyond the traditional stopping sight distances.

Table 1. Minimum Visibility Distance	
Posted or 85th Percentile Speed (MPH)	**Minimum Visibility Distance (ft)**
25	280
30	335
35	390
40	445
45	500
50	555
55	610
60	665
65	720
70	775

2-3-8 Vehicle Speed Feedback Signs (moved from 2-1-7) ~~August~~ November 2026

PURPOSE

The WMUTCD 2C.13 allows usage of Vehicle Speed Feedback Signs to measure and display individual speeds at a specific location. These signs are commonly referred to as “dynamic speed display signs,” “speed display signs,” “driver feedback signs” or “your speed is” signs. The signs are activated by radar to detect and display individual vehicle speeds to the vehicle driver. The expectation is that the driver will compare their speed with the legal posted speed and adjust accordingly. These sign installations *may* be portable installations that are installed on a temporary basis or *may* be permanent installations attached to new or existing signing. Local units of government have requested to install this signing. This policy provides guidance on the usage of these signs on state-maintained roadways.

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections and driveways.

Conventional Highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

POLICY

Requests to install and maintain vehicle speed feedback signs on DOT-maintained roadways (excluding connecting highway) **shall** be submitted using WisDOT’s vehicle speed feedback sign application/permit form (DT2175). Each request **shall** include a map showing the proposed location of the vehicle speed feedback sign(s). If approval is granted, the applicant **shall** conform to all provisions listed which includes only purchasing signs on WisDOT’s approved products list to maintain consistency of the devices used across the state.

QUALIFYING CRITERIA

The following criteria **shall** be used by the Region to determine whether a roadway would qualify for vehicle speed feedback signs.

1. Vehicle speed feedback signs *may* be allowed in the following locations on the state highway system:
    a. School speed limit zones
        i. When used in conjunction with a school speed limit, the vehicle speed feedback sign **shall** have a yellow-green background with black legend and border.
    b. Reductions in speed zones within a community
        i. When used in conjunction with a regulatory speed limit, the vehicle speed feedback sign **shall** have a yellow background with black legend and border.
    c. Work zone speed limit areas

   d. When used in conjunction with a work zone speed limit, the vehicle speed feedback sign **shall** have an orange background with black legend and border.

2. Portably mounted vehicle speed feedback signs *may* be permitted at locations where they can safely be deployed for a time not to exceed eight days.
3. Vehicle speed feedback signs for work zones *may* be allowed for the duration of the project. The decision to utilize vehicle speed feedback signs for construction work zones is determined through the work zone transportation management plan process.
4. Dynamic speed display signs for work zones *may* be allowed for the duration of the project. The decision to utilize dynamic speed display signs for construction work zones is determined through the work zone transportation management plan process.
5. Except for work zone areas, vehicle speed feedback signs **shall not** be allowed on freeways and expressways, including ramps.
6. The usage of vehicle speed feedback signs *should* be limited to maintain the effectiveness of the device. These signs *should* be limited to one sign per approach of speed transition zones such as at municipal limits, school zones, speed limit transition points or where increased visibility of speed limits is necessary (e.g., pedestrian crossings, visibility concerns). Transition points from expressways to conventional highways *may* be permitted.
7. Vehicle speed feedback sign installations **shall** comply with WMUTCD 1D.11 regarding crashworthiness.
8. When permanent mounted vehicle speed feedback plaques are used, they **shall** be placed downstream (typically 100'-200') of the first regulatory speed limit sign (R2-1) in the speed zone or school speed assembly sign (S4-51) sign.
9. The local unit of government **shall** be responsible for installing and maintaining an WMUTCD compliant speed limit sign (R2-1) which **shall** be mounted directly above the W13-20AP vehicle speed feedback plaque.
10. Mounting heights **shall** comply with WMUTCD 2A.15.
11. Non-permitted vehicle speed feedback signs that do not conform to this policy **shall** be removed. Notification to communities **shall** be made by written letter. If non-permitted signs are not removed, WisDOT will remove the sign(s) at the owner's expense.
12. Previously permitted vehicle speed feedback signs that conformed to a previous version of this policy **shall** be allowed to remain in place until the end of their useful life. Attempts *should* be made to make the previously permitted signs conform to as much of this policy as possible.
13. The local unit of government **shall** be responsible for manufacture, liability, installation and maintenance costs of the sign post, vehicle speed feedback sign and the speed limit sign it is mounted with.
14. The local unit of government **shall** affix an identification label to the back of each sign, per Wisconsin State Statute 86.19(5).
15. WisDOT reserves the right to remove or move vehicle speed feedback signs in the event of a speed zone change, maintenance work or improvement project. WisDOT will notify the local unit of government, in writing, of the work and all costs associated with moving or removing the dynamic message speed signs. All costs for such moves **shall** be paid by the local unit of government.

USAGE CRITERIA

1. Vehicle speed feedback signs installed in permanent speed zones *should* operate 24 hours a day, 7 days a week.
2. Vehicle speed feedback signs installed on a temporary speed zone *should* operate for the time that the speed zone is in effect (e.g. school zones or work zones).
3. For work zones, the vehicle speed feedback signs *should not* be overused.

SIGN DESIGN CRITERIA

1. The W13-20AP sign plate **shall** be used for permanent applications.
2. The size of the W13-20AP and the R2-1 it is mounted with **shall** follow the sizing guidelines contained in TEOpS 2-1-35. The width of the W13-20AP *should* match the width of the R2-1 mounted above it. It is

permissible to use a wider W13-20AP if the correct width cannot be procured.

3. The changeable message portion of the sign **shall** display the speed of the approaching vehicle as "XX" in miles per hour. The following standards apply to the changeable message portion of the sign:
    a. The changeable legend displaying the speed of the approaching vehicle **shall** be a yellow luminous legend on a black opaque background.
    b. The vehicle speed displayed on the changeable portion of the sign **shall** be displayed as an integer.
    c. The vehicle speed feedback sign and plaque **shall not** flash (including flashing red or blue or white lights), strobe, change color, use alternative messages (e.g., "SLOW DOWN", "TOO FAST"), or use other animated elements (e.g., graphics/faces) integrated into the changeable legend display.
    d. A threshold speed setting *should* be set at 20 mph below and above the posted speed.
    e. For speeds measured over or below the speed threshold setting, the dynamic speed display sign **shall** go blank.
    f. When no vehicles are approaching, the changeable display **shall not** display a legend.

Figure 1. Example Installation



2-3-10 Use of Chevrons ~~February 2018~~November 2026

GENERAL

The W~~is~~MUTCD classifies the chevron as an alignment sign, but it is basically a delineator with a directional connotation, which is the aspect of the sign that relegates its use to horizontal curves. It is not to be used at roadway width transitions, lane drops, or approaches to narrow bridges. It is also not to be used singly, because that will not adequately develop the directional message. Another inappropriate use is in a cluster at the end of a T-intersection.

Chevrons (W1-8) signs *may* be used in combination with the large night arrow (W1-6) sign or without the large night arrow sign. WMUTCD Table 2C-~~45 of the WisMUTCD~~ provides guidance as to when chevron signs are used.

~~The WisMUTCD,~~ WMUTCD Table 2C-~~5~~6 contains spacing criteria for installations of chevrons, which has been included as part of this policy.

GUIDANCE

The following guidelines apply to these signs:

1. It is desirable to position one chevron directly ahead of an approaching vehicle while the vehicle is on the approach tangent, and begin spacing in both directions from that point.
2. Extend to the point of curvature, and to the point of tangency; do not alter the spacing to meet these

points, however.

3. A minimum of three signs **shall** be used, even if they extend beyond the point of curvature. Also, per the W~~is~~MUTCD, the spacing of chevron signs *should* be such that the road user has at least two in view, until the change in alignment eliminates the need for the signs.
4. Chevron signs **shall not** be placed on the far side of a T-intersection to warn drivers that a through movement is not possible.
5. Chevron signs **shall not** be used to mark obstructions within the roadway.
6. Follow the spacing table below, making adjustments for conflicts with driveways, signs, etc. The chevron spacing shown below are maximum distances between chevrons. Chevrons *may* be spaced closer to address curves with tighter radius measurements.

Chevron signs **shall** be mounted at a 4-foot minimum height (measured from the bottom of sign to the elevation of the near edge of traveled way). They **shall** be aimed toward traffic rather than located perpendicular to the curve.

The chevron sign *may* be used only where an emerging or demonstrated crash problem exists. On highways to be reconstructed it is unlikely that crashes will be expected to occur on the re-alignment. Therefore, chevron signs *should not* normally be specified on new construction, unless required by WMUTCD Table 2C-~~45 of the WisMUTCD~~.

CHEVRON ALIGNMENT SIGN SPACING

Posted Advisory Speed (mph)	~~Maximum~~ Spacing (feet)
15 mph or less	40
20	80
25	80
30	80
35	120
40	120
45	120
50	160
55	160
60	160
65	200

7. Existing signs not installed at this spacing *should* be adjusted when opportunity permits, due to improvement projects, knockdowns or if problems are present.

2-3-14 Hill Blocks View Signs ~~June 2005~~November 2026

PURPOSE

The W~~is~~MUTCD ~~section~~ 2C.1~~68~~ says the Hill Blocks View sign (W7-6) *may* be used in advance of a crest vertical curve to advise road users to reduce speed as they approach and traverse the hill as only limited stopping sight distance is available. If used, it *should* be supplemented by an advisory speed (W13-1) plaque indicating the recommended speed for traveling over the hillcrest based on available stopping sight distance. See ~~WisMUTCD section 2C.36~~TEOpS 2-3-6 Table 1 for the visibility chart for various speeds. Advisory speed plaque speed is based on available visibility distance. This policy provides guidance on when these signs *may* be considered for usage of state-maintained highways.

TRUCK ENTRANCE signs have been commonly used for driveways with limited sight distance; however, their usage is exclusive to driveways or side streets with high truck traffic volumes.

POLICY

While guidance on crossroad and side road warning sign usage and criteria are provided in the W~~is~~MUTCD, less guidance is provided on driveways. This policy provides for the use of HILL BLOCKS VIEW sign where driveways are after a crest vertical curve. Signs such as BLIND ENTRANCE and HIDDEN DRIVEWAY are not in the WisMUTCD. However, the HILL BLOCKS VIEW sign is an approved sign in the WisMUTCD. It has been general practice not to provide warning signs for driveways. The HILL BLOCKS VIEW sign is intended for use in lieu of the BLIND ENTRANCE or HIDDEN DRIVEWAY signs, both of which are not approved in the W~~is~~MUTCD.

GUIDELINES

The following step-by-step criteria *should* be used to determine if a HILL BLOCKS VIEW sign is warranted for driveways:

1. First, the driveway must have inadequate sight distance per the visibility chart in ~~the WisMUTCD section 2C.372C.37~~TEOpS 2-3-6 Table 1 when determining the need for the sign due to a crest vertical curve. Vision problems due to horizontal curvature or vegetation **shall not** warrant use of this sign.
2. The volume of the driveway **shall** be a minimum of 50 ADT (25 in, 25 out). A typical one-family residence generates about 10 trips per day and therefore would not qualify for the sign. Note: a side road with 100 ADT or greater requires a type B1/B2 intersection as opposed to a type C/D intersection which would be used for under 100 ADT. 50 ADT provides for a driveway for a small business.
3. Verify that the volumes exceed 50 ADT at least once per week or 50 days per year.

NOTE: Crash history – if the driveway does not meet the volume criteria above, but a crash analysis indicates there is a crash history at the driveway location, a sign *may* be considered.

Location of the sign *should* be per ~~WisMUTCD Table 2C-42C-4~~TEOpS 2-3-5 Table 1.

2-3-18 Merge Sign Locations ~~March 2016~~November 2026

PURPOSE

This policy will define merge sign locations on all freeways and expressways.

POLICY

Merge signs *should* be placed in accordance with Condition A, Table 1 ~~2C-4~~ of the ~~WisMUTCD~~TEOpS 2-3-5. This distance **shall** be measured in an upstream direction, starting at the theoretical gore.

In some cases, particularly existing ramps at tight urban interchanges, this distance *may not* be achievable, due to substandard geometrics. In these cases, the merge signs will have to be installed where they can be accommodated.

2-3-19 Divided Highway Warning Signing ~~September 2009~~November 2026

GENERAL

The W~~is~~MUTCD Sections 2C.20~~2~~ and 2C.21~~3~~ covers the usage of the divided highway warning signs (W6-1 and W6-2 signs). However, the WisMUTCD guidance is very general in nature and does not tie into specific factors such as posted speed and length of divided section. Oftentimes for shorter segments with lower speeds, the DIVIDED HIGHWAY AHEAD warning signs *may* be deleted. This policy will provide for a statewide policy for consistent usage.

POLICY

Below is the statewide policy for the usage of divided highway signs.

1. The DIVIDED HIGHWAY AHEAD (W6-1) warning sign *should* be installed in advance of two-lane-to-four-lane transitions that are physically divided by a median. Standard Detail Drawing 15C21-3 shows a typical installation of this sign.
2. The DIVIDED HIGHWAY AHEAD (W6-1) sign *should* only be used in transition to a section of highway that is divided, not a specific intersection.
3. The DIVIDED HIGHWAY AHEAD (W6-1) warning sign *should not* be used for locations where there is two-way traffic to single-lane divided.
4. If posted speeds are 45 mph or above, the DIVIDED HIGHWAY AHEAD sign *may* be used if the divided area is greater than 1,000 feet. The signs would be used at the beginning of the divided section only.
5. A DIVIDED HIGHWAY ENDS (W6-3) sign *should* be used at the end of the divided highway section, in accordance with Standard Detail Drawing 15C21-3, to give warning and notice that traffic is now two lanes.

~~2-3-25 Single Diagonal Arrow Signs February 2018~~

~~GENERAL~~

~~Section 2C-25 of the Wisconsin MUTCD allows the use of the Double Diagonal Arrow sign (W12-1D) to advise~~

drivers that traffic is permitted to pass on either side of an obstruction. Section 2C-25 of the Wisconsin MUTCD further allows the use of a sign with a single diagonal arrow (W12-1L/R) to advise drivers that traffic is only permitted on one side of an obstruction. In practice, WisDOT has also utilized W12-1L/R signs to warn drivers of lane reduction situations that have experienced an above-average crash rate. This policy will establish guidelines for the use of W12-1L/R signs.

GUIDANCE

The following guidelines apply to these signs:

LANE REDUCTIONS

1. Single Diagonal Arrow signs *should* be used as a bank of signs, not as a single sign installation. A minimum of 3 signs *should* be used.
2. Signs *should* be installed along the entire length of the lane reduction taper, as space is available and geometrics allow. The signs *should not* extend beyond the beginning or end of the taper.
3. Single Diagonal Arrow signs are typically used on conventional roadways. On freeways and expressways, Type 5 pavement marking arrows ("pushover arrows") are typically used for this purpose.
4. Follow the spacing table below, adjusting for conflicts with driveways, signs, etc. The spacings shown below are maximum distances between signs.

Single Diagonal Arrow signs *should* be mounted at a 4-foot minimum height (measured from the bottom of sign to the elevation of the near edge of traveled way). They **shall** be located perpendicular to the through traffic lanes.

The Single Diagonal Arrow sign *may* be used only where an emerging or demonstrated crash problem exists. On highways to be reconstructed it is unlikely that crashes will be expected to occur on the re-alignment. Therefore, Single Diagonal Arrow signs *should not* normally be specified on new construction, unless an existing geometric situation is not being rectified by the project.

SINGLE DIAGONAL ARROW SIGN SPACING

Posted Speed (mph)	Maximum Spacing (feet)
15 mph or less	40
20	80
25	80
30	80
35	120
40	120
45	120
50	160
55	160
60	160
65	200
70	200

5. Existing signs not installed at this spacing *should* be adjusted when opportunity permits, due to improvement projects, knockdowns or if problems are present.

MEDIAN ISLANDS

1. R4-7 "KEEP RIGHT" signs *should* be used to mark the beginning of medians. However, at some smaller median island locations, KEEP RIGHT signs would block the driver's view of other regulatory or warning signs or traffic signal faces. In these situations, Single Diagonal Arrow signs *may* be used to mark the beginning of medians.
2. When used to mark the upstream end of a median island, Single Diagonal Arrow signs *should* be mounted at a 2-foot minimum height (measured from the bottom of sign to the elevation of the near edge of traveled way).

2-3-27 BUMP and ROUGH ROAD Signs January 2013

PURPOSE

This policy provides guidance on the use of BUMP (W8-1) signs, BUMPS (W8-1A) signs, DIP (W8-2) signs and ROUGH ROAD (W8-8) signs.

DEFINITIONS

A sharp rise or depression is defined as a roadway deficiency that is sufficiently abrupt to create considerable discomfort to passengers, to cause shifting of the cargo, or to deflect a vehicle from its true course at normal roadway driving speeds.

A minor rise or depression is defined as a roadway deficiency that is noticeable enough to divers to cause a minor discomfort, but not enough of a deficiency to be a safety hazard.

POLICY

1. For sharp rises or depressions in the profile of the roadway, the BUMP or DIP sign *should* be installed both in advance of the condition and at the location of the rise or depression. The BUMP or DIP sign installed at the location of the rise or depression **shall** have the diagonal downward arrow sign (W16-7L or W16-7R) installed below it. The BUMP or DIP sign installed in advance of the condition **shall** have the AHEAD (W16-9P) installed below it.
2. For minor rises or depressions in the profile of the roadway, the BUMP or DIP sign *may* be installed both in advance of the condition and at the location of the rise or depression. The BUMP or DIP sign installed at the location of the rise or depression **shall** have the diagonal downward arrow (W16-7L or W16-7R) sign installed below it. The BUMP or DIP sign installed in advance of the condition **shall** have the AHEAD (W16-9P) sign installed below it. If the condition is the result of pavement buckling, BUMP signs **shall** be installed both in advance of the condition and at the location of the condition on higher-speed roadways (45 mph posted speed and above).
3. For segments of roadways with multiple sharp rises or depressions, the ROUGH ROAD sign or BUMPS sign *should* be installed in advance of the segment. The advanced location of the ROUGH ROAD sign or BUMPS sign **shall** be supplemented with the NEXT XX MILES (W57-51) plaque. The BUMP or DIP sign *should* be installed at locations of rises or depressions. The BUMP or DIP sign installed at the location of the rise or depression **shall** have the diagonal downward arrow (W16-7L or W16-7R) sign installed below it.
4. For segments of roadways with multiple minor rises or depressions, the ROUGH ROAD sign or BUMPS sign *may* be installed in advance of the segment. The advanced location of the ROUGH ROAD sign or BUMPS sign **shall** be supplemented with the NEXT XX MILES (W57-51) plaque. The BUMP or DIP sign *should* be installed at locations of rises or depressions. The BUMP or DIP sign installed at the location of the rise or depression **shall** have the diagonal downward arrow (W16-7L or W16-7R) sign installed below it.
5. Type A flashing lights or orange flags *may* be used on the advanced sign assembly, depending on the severity of the bump or dip.
6. Signs *should* have a yellow background. Orange background signs *should* only be used if the roadway deficiencies are construction related.

2-3-30 Speed Reduction Signs (Reduced Speed Ahead) ~~March 2016~~November 2026

PURPOSE

This guidance is to establish the appropriate use and location of the speed reduction sign in relation to the speed limit sign for the lower speed zone. This policy pertains to signing on freeways, expressways and conventional highways.

BACKGROUND (AUTHORITY)

The W~~is~~MUTCD in Section 2C.~~40~~-~~38~~ covers the usage of the Reduced Speed Limit Ahead sign (W3-5 sign). The WisMUTCD Section 2C, Guidelines for Advanced Placement of Warning Signs, Table 2C-~~3~~4, Condition B, addresses the placement of advanced warning signs ~~with minimum~~ distances. However, based upon experience and from the establishment of a “comfortable braking distance,” these distance guidelines have been increased per the chart contained herein.

POLICY

General Speed Reductions

A speed reduction (W3-5) sign **shall** be erected in advance of downward changes of the speed limit from 70, 65, 60 or 55 mph regardless of the amount of reduction, and from 50 mph or below for reductions of 15 mph or more. The speed reduction sign **shall not** be used for reductions of 10 mph or less for speeds of 50 mph or below.

~~School Speed Reductions~~

~~In accordance with Section 7B.16 of the WisMUTCD, a Reduced School Speed Limit Ahead Sign (S4-5) *should* be installed in advance for reductions of 15 mph or more (from posted speed limit to school speed limit).~~

1. **Sign Spacing in Advance of Reduced Speed Zone:** Signs **shall** be placed to provide adequate time for the driver to perceive, identify, decide and perform the speed reduction. The following table establishes the minimum distances to be used for the speed reduction signs. The table was developed by modifying the distance chart for Advanced Placement of Warning Signs, Table 2C-~~34~~, Condition B of the WisMUTCD, (deceleration to listed advisory speed). The modifications provide more time for the driver to respond, as opposed to the warning signs when a driver is required to decelerate to a specific speed, based on a road condition. The increased distance between the speed reduction sign and the speed limit sign provides additional time to decelerate. This is consistent with the guidance in the WisMUTCD, Section 2C-~~45~~ which indicates that engineering judgement *should* be applied when locating warning signs so that they provide an adequate Perception-Reaction Time (PRT).~~the time necessary for Perception, Identification/understanding, Emotion/decision making, and Volition/execution of decision (PIEV) is higher for signs that involve more driver judgment, as opposed to warning signs.~~ In particular, the comfortable braking distance and therefore the execution distance is being increased to the following:

SPEED REDUCTION SIGN DISTANCE IN ADVANCE OF SPEED LIMIT SIGN
MINIMUM DISTANCES (in feet)

From Speed Limit	To Speed Limit 65	55	50	45	40	35	30	25	20	15
70	700	700	700							
65		700	700	700	-	-	-	-	-	
60		600	600	600	-	-	-	-	-	
55	-		500	500	500	550	600	600	600	600
50	-	-	-	-		550	550	600	600	600
45	-	-	-	-	-		450	475	500	525
40	-	-	-	-	-	-		425	450	475
35	-	-	-	-	-	-	-		375	400
30	-	-	-	-	-	-	-	-		325

2. **Sizes of Signs:** Size of signs **shall** be in accordance with TEOpS 2-1-35.
3. **Double Marking:** Double marking (right and left side) **shall** be employed for any reduction from 70 mph or 65 mph and *may* be employed for other speed limit reductions, especially on divided or multi-lane highways and for added emphasis. If a double-marked REDUCED SPEED AHEAD sign assembly (R2-5A and W13-1W) is replaced on one side of the roadway with a W3-5 SPEED REDUCTION sign, the R2-5A and W13-1W sign on the other side of the roadway **shall** also be replaced with a W3-5 SPEED REDUCTION sign.
4. **Phase in Period:** Signs *should* be adjusted to conform to this guideline when opportunities arise, such as knockdowns or damage, when other work is occurring nearby, or projects make removal practical.
5. **School Speed Reductions:** In accordance with WMUTCD Section 7B.05, a Reduced School Speed Limit Ahead Sign (S4-5) *should* be installed in advance for reductions of 15 mph or more (from posted speed limit to school speed limit).
~~5.~~ **Work Zone Traffic Control Speed Limit and Reduced Speed Ahead Signs:** The spacing shown in this policy does not apply to work zone traffic control speed limit changes. See the Work Zone Standard Detail Drawings for applicable requirements. If a Digital Speed Reduction System is utilized in a work zone, the SPEED REDUCTION (WO3-5) sign *may* be omitted.

2-3-35 Advisory Speed on Curves ~~July 2012~~November 2026

PURPOSE

To establish uniformity and consistency when determining the proper advisory speed for turns and curves and subsequent installation of advisory speed plaques.

BACKGROUND

The W~~is~~MUTCD provides requirements for the proper use of horizontal alignment signing, Advisory Speed plaques, Truck Rollover Warning signs, Advisory Exit and Ramp Speed signs. They are contained in the following sections:

1. Horizontal Alignment signs – W~~is~~MUTCD Sections 2C.0~~56 and 2C.07~~

2. Truck Rollover Warning signs – W~~is~~MUTCD Section 2C.11~~3~~
3. Advisory Speed Plaques – W~~is~~MUTCD Section 2C.59~~08~~
4. Supplemental warning plaques – W~~is~~MUTCD Section 2C.5~~73 and 2C.54~~
5. Advisory Exit, Ramp and Curve speed signs – W~~is~~MUTCD Section 2C.124
6. Horizontal Alignment Sign Usage – W~~is~~MUTCD Table 2C-~~45~~

On state trunk highways it is required that all curves and turns less than posted or statutory speed be signed in advance, with curve warning signs for curves 35 mph or above, or turn warning signs for turns 30 mph or less. The W~~is~~MUTCD (Sections 2C.06 and 2C.07) has instructions related to signing curves, turns, winding roads, etc. ~~The WisMUTCD states in Section 2C.06 that if the roadway is less than 1000 ADT, an advisory speed plaque *should* be used to supplement the curve or turn warning sign where the posted speed varies from the curve speed by 10 mph or more.~~

The W~~is~~MUTCD Table 2C-~~65~~ states that advisory speed plaques are:

1. ~~Recommended~~ Optional where the difference between the speed limit and advisory speed is 5 mph.
~~1.~~2. Recommend where the difference between the speed limit and advisory speed is 10 mph.
~~2.~~3. Required where the difference between speed limit and advisory speed is ~~10~~ 15 mph or more.

~~**WisMUTCD Table 2C-5. Horizontal Alignment Sign Selection**~~

~~**Type of Horizontal Alignment Sign**~~	~~**Difference Between Speed Limit and Advisory Speed**~~				
	~~**5 mph**~~	~~**10 mph**~~	~~**15 mph**~~	~~**20 mph**~~	~~**25 mph or more**~~
~~Turn (W1-1), Curve (W1-2), Reverse Turn (W1-3), Reverse Curve (W1-4), Winding Road (W1-5), and Combination Horizontal Alignment/Intersection (W1-10) (see Section 2C.07 to determine which sign to use)~~	~~Recommended~~	~~Required~~	~~Required~~	~~Required~~	~~Required~~
~~Advisory Speed Plaque (W13-1P)~~	~~Recommended~~	~~Required~~	~~Required~~	~~Required~~	~~Required~~
~~Chevrons (W1-8) and/or One Direction Large Arrow (W1-6)~~	~~Optional~~	~~Recommended~~	~~Required~~	~~Required~~	~~Required~~
~~Exit Speed (W13-2) and Ramp Speed (W13-3) on exit ramp~~	~~Optional~~	~~Optional~~	~~Recommended~~	~~Required~~	~~Required~~

Figure 1. Application of Traffic Control Devices for Changes in Horizontal Alignment (WMUTCD Table 2C-4)

Table 2C-4. Application of Traffic Control Devices for Changes in Horizontal Alignment

A - Determination of the Need for Devices for Changes in Horizontal Alignment[1]

Roadway Type	AADT			
	Less than 1,000	1,000-2,999	3,000-3,999	Greater than 3,999
Freeways and Expressways	Required	Required	Required	Required
Arterial or Collector without Pavement Markings	Optional	Recommended	Required	Required
Arterial or Collector with Pavement Markings[2]	Optional	Recommended	Recommended	Required
All other roadways	Optional	Optional	Optional	Optional

[1] If devices are determined to be needed, the selection of the device(s) is based on Chart B below.

[2] An arterial or collector is considered to have pavement markings when either a center line, edge lines, or both are present.

B - Selection of Devices for Changes in Horizontal Alignment

Speed Differential[3]	Devices for Change in Horizontal Alignment[3]
5 mph	Pavement markings or advance horizontal alignment warning sign on paved roadways. Advance horizontal alignment warning sign on unpaved roadways.[4]
10 mph	Advance horizontal alignment warning sign
15 mph	Delineators[5] and advance horizontal alignment warning sign
20 mph or more	Chevrons[5] and advance horizontal alignment warning sign

[3] The provisions for the use of Horizontal Alignment warning signs and devices are contained in Section 2C.06. The need for devices is determined by Chart A above.

[4] A roadway is considered to have pavement markings when either a center line, edge lines, or both are present.

[5] Section 2C.06 contains information about the use of a One Direction Large Arrow (W1-6) sign in place of or to supplement delineators and chevrons.

INTRODUCTION

The determination and posting of advisory speeds for changes in horizontal alignment is a universal practice throughout the nation. It was initially tried by the State of Missouri in 1937 followed shortly thereafter by a number of other state highway departments. The preeminent research was done by R. A. Moyer and D. S. Berry (1) published by the Highway Research Board in 1940 as a recommendation for signing changes in roadway alignment. Curve advisory speed posting was adopted as a suggested option in the 1948 *Manual on Uniform Traffic Control Devices* (2).

The initial research by Moyer and Berry established the basic need, procedures and criteria for determining advisory speeds. The use of a ball-bank Indicator was recommended as an acceptable instrument for establishing a “safe speed” on a horizontal curve. Their recommendations were the following ranges of values:

Table 1. Recommended Criteria for Curve Advisory Speed Determination
(Source: Moyer and Berry, 1940, Ref. 1)

Speeds (mph)	Ball Bank Reading	Side Friction Factor
≤ 20	14°	0.21
25 – 30	12°	0.18
≥ 35	10°	0.15

The Moyer/Berry research also indicated that the curve “safe speed” could be computed using the standard curve formula if the curve radii and super elevation were known using the above noted equivalent side friction factors. While they noted the advisory speed as being the “safe speed” for the curve, the advisory speed actually represented the comfortable speed that the curve could be driven without experiencing lateral acceleration discomfort.

This procedure and criteria for advisory speed determination has become nearly universally accepted in the highway engineering profession and typically is used by most transportation agencies. However, there has been concern that the ball-bank method of determining advisory speeds *may* be outdated and not the best procedure. The need to update the procedures and criteria has been noted by the highway community for a number of

years. Recognizing the age of the research, minor variations have been made in the criteria and its application in some roadway jurisdictions (3).

Many motorists also have observed that advisory speed signing is overly conservative and many exceed the posted advisory speeds. Another factor is that current vehicles have suspension and steering systems that are significantly improved providing better stability, cornering capabilities and driving comfort compared with typical vehicles at the time of the initial research.

The following guidelines establish ~~new~~ values that satisfy the motorists' needs. The current research has been reviewed with three methods addressed to determine an acceptable advisory speed. The recommended criteria have been adjusted to represent the current driving practices. While it is recognized that most roadways are posted with advisory speeds based on the older criteria, it appears logical to raise the values to provide realistic postings that are compatible with driving practices.

~~The provisions of the WisMUTCD encourage a restudy of the horizontal alignment signing. The WisMUTCD has a liberal compliance period of at least 10 years to implement the new horizontal alignment signing, so the engineering studies for curve advisory speeds can be done over a period of several years on a systematic basis with appropriate publicity so the public understands the revisions. Drivers will have to modify their driving habits so they do not incorrectly assume that posted advisory speeds can be driven at a higher speed. However, an adequate factor of safety is addressed in the new criteria so drivers even assuming a higher speed is acceptable *should not* be subjected to undue hazards. The older postings, while usually a lower speed, can remain in place until the new engineering study is completed and signs installed. It will be desirable to change all advisory speed plaques along a roadway at the same time to minimize motorist confusion.~~

DISCUSSION

There are several areas of concern/discussion:

- The ball-bank indicator method *may not* be current nor the best method for determining advisory speeds (5).
- The current practice results in advisory speeds that are too conservative and are far below the 85th percentile speed of drivers traversing the curves (5) (6) (7).
- Current vehicle suspension and cornering capabilities are substantially better than those of vehicles that were used to determine the older criteria (8). As a result, drivers today can comfortably drive curves at speeds higher than those that would have been comfortable with older vehicles.
- The criteria for curve advisory speeds *should* be comparable to the design criteria in the AASHTO *Policy on Geometric Design for Highways and Streets* (9).
- The curve advisory speed practices in some jurisdictions have deviated from an adequate and universally accepted criteria resulting in posted advisory speeds well below prevailing curve speeds (3)(6). This results in inconsistent curve advisory speed postings from one jurisdiction to another.
- The current criteria do not consider truck advisory speeds and truck roll-over considerations (10) (11).
- Some inconsistencies have been noted in comparing current ball bank criteria with side friction factors used for curve design (8).

The research generally documented that drivers are often exceeding the existing posted advisory speeds by 7 to 10 miles per hour. An increase of 2 degrees for ball-bank indicator readings and comparable side friction factors is equivalent to 8 to 10 miles per hour increase in advisory speeds. The application of an accelerometer that measures lateral acceleration provides a direct determination of side friction factors and accommodates new instrumentation for advisory speed determinations. Minor adjustments in the relationship between ball-bank readings and side friction factors makes the ball-bank procedure and accelerometer determinations comparable. The use of the horizontal curve design speed equation remains an acceptable procedure using the newly recommended side friction factors.

There appears to be no reason to limit the advisory speed determination methods but instead recognize that any of the three methods are acceptable:

- The traditional ball-bank indicator
- Design speed equation or
- Accelerometer.

There is a fourth method called the Compass Method by Texas Transportation Institute (TTI), but requires extensive field work (measuring points throughout the curve), so is not being considered for WisDOT. The expansion of acceptable determination methods and change in criteria *should* offset current procedural deviations with the new WisMUTCD requirements encouraging wider and universal application of acceptable advisory speeds. The recommended criteria for advisory speed determinations are as follows:

Table 2. Recommended Criteria for Curve Advisory Speed Determination
(Source: Adapted from Carlson and Mason 1999, Ref. 8)
Revised by WISDOT to include Truck Advisory data

Speeds (mph)	Ball Bank Reading	Lateral Acceleration (g)
≤ 20	16º	0.28
25 – 30	14º	0.24
≥ 35	12º	0.21
Truck (All Speeds)	10	0.17

The new criteria are comparable to the current AASHTO design criteria. Some research has proposed higher values, but those values result in advisory speeds that exceed the observed speeds of drivers in curves, are above comfortable lateral acceleration levels, and reduce the margin of safety. Studies show that maximum side friction factors developed between passenger car tires and wet pavement in poor condition can be as low as approximately 0.35 at high speeds (9) (14).

For large trucks, there is a potential danger of overturning if the truck enters a curve at too high of a speed. For sharp curves, such as loop exit ramps, it *may* be necessary to post truck advisory speeds. Current research indicates that truck-overturning situations are limited and inconsistent when side friction factors are less than 0.35 (12). Theoretically, truck advisory speeds could be determined based on a side friction factor of 0.21, or a ball-bank reading of 12 degrees, and still provide a reasonable overturning safety factor below the 0.35 overturning threshold. But this assumes that the truck follows the exact radius of the curve, which is unlikely in actual practice. Most drivers make steering corrections as they traverse a curve, sometimes steering a radius larger than the actual curve radius, sometimes steering a radius sharper that the actual curve radius. It must be recognized that if the truck is steered on a radius of ⅔ to ¾ of the actual curve radius, then the safety factor below the overturning threshold nearly disappears. As a result, it is recommended that the criteria for posting truck advisory speeds be based on a side friction factor of 0.17, or a ball-bank reading of 10 degrees, for all speed ranges to ensure a reasonable overturning safety factor. This would result in truck advisory speeds below the advisory speeds determined for passenger cars.

For New Construction Projects the following option *may* be used in lieu of the ball bank indicator method:

Method 1: Determining Advisory Speeds Using the Design Speed Equation

The design of highway curves is based on the relationship between design speed, radius of curvature, super elevation, and side friction (centripetal acceleration). The mathematical relationship between these variables is given by the equation (9):

$$V = \sqrt{15R(0.01e + f)}$$

Where: V = Design speed (mph)

R = Curve radius (feet)

e = Super elevation (%)

f = Side friction factor

The same equation can be used to calculate the advisory speed for a curve, if the curve radius and super elevation are known. The side friction factor is the same as lateral acceleration (measured in “g’s”), and is based on driver comfort. For highway design, side friction factors are set by AASHTO geometric design policies, and are generally in the range of 0.08 to 0.30 depending on design speed. As previously discussed, recent studies have suggested that the values in the current design manual are overly conservative, and when this equation is used to determine the advisory speed for a curve, the lateral acceleration rates contained in Table 2 can be used. This equation *may* have to be solved iteratively because the value for the side friction factor, *f*, is different for different ranges of advisory speed, *V*. For example, suppose that a curve has a 200-foot radius and a super elevation of 4%. If it is initially assumed that the value of the lateral acceleration is 0.21 (applicable for passenger car advisory speeds of 35 mph or more), the calculated advisory speed is 27 mph. This means that the lateral acceleration value *should* have been 0.24 (applicable for advisory speeds of 25 to 30 mph), and the advisory speed is recalculated as 29 mph. Calculated advisory speeds *should* be rounded to the nearest 5 mph increment, so a 30 mph advisory speed would be used for this curve. The rounded passenger car advisory speeds calculated for various combinations of super elevation and curve radius are shown in Table 3.

Table 3. Rounded Passenger Car Advisory Speeds (mph) Based on Design Speed Equation

Radius (ft)	Super elevation (%)				
	-2	2	4	6	8

100	20	20	20	20	20
200	25	30	30	30	30
400	35	35	40	40	40
600	40	45	45	50	50
800	50	55	55	55	60
1000	55	60	60	65	65

In some cases, the curve radius and super elevation can be taken from as-built plans for a roadway that has been constructed fairly recently. However, it must be considered that a roadway that has been in service for many years *may* have been resurfaced one or more times since original construction. As a result of resurfacing, the super elevation of the curve *may* have changed, and the original plans *may* no longer be representative of field conditions. In other cases, the original plans *may* no longer be available.

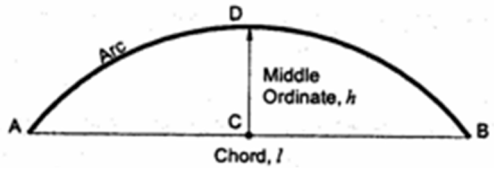
If aerial photography is available, the curve radius can be determined by comparing circular curve templates with the aerial photograph. In the field, the approximate curve radius can be determined by the chord and middle ordinate method of measurement. This is illustrated in Figure 2. To determine the curve radius, measure a chord of any convenient length (usually 100 feet), straight across from one point on the edge of the road to another point on the edge of the road within the curve (line AB in Figure 2) where the curvature is uniform. Also measure the middle ordinate from the center of the chord to the edge of the road (line CD in Figure 2). The radius of the curve can be calculated as:

$$R = \frac{l^2}{8h} + \frac{h}{2}$$

Where: R = Curve radius (feet)
l = Chord length (feet)
h = Middle ordinate (feet)

The precision of this calculation is obviously limited by the ability to accurately measure the middle ordinate which would be as small as 1.25 feet (assuming a chord of 100 feet) for a curve with a radius of 1000 feet.

Figure 2. Measurement of Curve Chord and Middle Ordinate



(Source: Northwestern University Center for Public Safety)

The super elevation can be measured in the field using a 4-foot carpenter's level. As illustrated in Figure 3, position the level across the lane. With one end of the level on the road surface, measure the vertical distance from the road surface to the other end of the level. The cross slope of the roadway can then be calculated as the vertical distance divided by the length of the level. The super elevation *should* be measured in several locations along the curve, since it *may* vary. Also, the super elevation *should* be measured separately for each lane of the roadway.

Figure 3. Measuring Super elevation with a Carpenter's Level
(Source: Northwestern University Center for Public Safety)



Another method for determining the super elevation in the field is to stop a vehicle equipped with a ball-bank indicator (discussed in the next section) on the curve and read the degrees of deflection on the ball-bank. The super elevation is calculated as:

$$e = (\tan D) \times 100\%$$

Where: e = Super elevation (%)

D = Degrees of deflection on ball-bank indicator

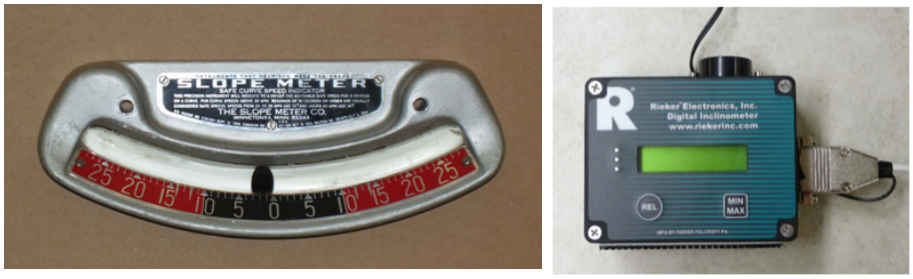
Again, this measurement *should* be made at several locations within the curve, and *should* be measured separately for each lane.

Method 2: Ball-Bank Indicator Method

Advisory speeds *may* be determined in the field using a vehicle equipped with a ball-bank indicator and an accurate speedometer. The simplicity of this technique has led to its widespread acceptance as a guide to determining advisory speeds for changes in horizontal alignment. Figure 4 shows a typical ball-bank indicator.

The ball-bank indicator consists of a curved glass tube, which is filled with a liquid. A weighted ball floats in the glass tube. The ball-bank indicator is mounted in a vehicle, and as the vehicle travels around a curve the ball floats outward in the curved glass tube. The movement of the ball is measured in degrees of deflection, and this reading is indicative of the combined effect of super elevation, lateral (centripetal) acceleration, and vehicle body roll. The amount of body roll varies somewhat for different types of vehicles, and *may* affect the ball-bank reading by up to 1°, but generally is insignificant if a standard passenger car is used for the test. Therefore, when using this technique, it is best to use a typical passenger car rather than a pickup truck, van, or sports utility vehicle.

Figure 4. Ball-bank Indicator



To ensure proper results, it is critical that the following steps be taken before starting test runs with the ball-bank indicator:

- Inflate all tires to uniform pressure as recommended by the vehicle manufacturer
- Calibrate the test vehicle's speedometer
- Zero the ball-bank indicator

The vehicle speedometer *should* be calibrated to ensure proper and consistent test results. This can be done by checking the vehicle speed with a radar or laser speed meter, or by timing the vehicle over a measured distance (such as milepost spacing). Alternatively, a moving radar unit can be used to measure speed while conducting the ball-bank test runs rather than relying on the vehicle's speedometer.

The ball-bank indicator must be mounted in the vehicle so that it displays a 0° reading when the vehicle is

stopped on a level surface. The positioning of the ball-bank indicator *should* be checked before starting any test. This can be done by stopping the car so that its wheels straddle the centerline of a two-lane highway on a tangent alignment. In this position, the vehicle *should* be essentially level, and the ball-bank indicator *should* give a reading of 0°. It is essential that the driver and recorder be in the same position in the vehicle when the ball-bank indicator is set to a 0° reading as they will be when the test runs are made because a shift in the load in the vehicle can affect the ball-bank indicator reading.

Starting with a relatively low speed, the vehicle is driven through the curve at a constant speed following the curve alignment as closely as possible, and the reading on the ball-bank indicator is noted. On each test run, the driver *should* reach the test speed at a distance of at least ¼ mile in advance of the beginning of the curve, and maintain the same speed throughout the length of the curve. The path of the car *should* be maintained as nearly as possible in the center of the innermost lane (the lane closest to the inside edge of the curve) in the direction of travel. If there is more than one lane in the direction of travel, and these lanes have differing super elevation rates, drive in the lane with the lowest amount of super elevation. Because it is often difficult to drive the exact radius of the curve and keep the vehicle at a constant speed (cruise-control helps to maintain a constant speed), it *may* take several test runs in each direction be made to more accurately determine the ball-bank reading for any given speed. On each test run, the recorder must carefully observe the position of the ball throughout the length of the curve and record the deflection reading that occurs when the vehicle is as nearly as possible driving the exact radius of the curve.

If the reading on the ball-bank indicator for a test run does not exceed an acceptable level (as indicated by the recommended criteria in Table 2), then the speed of the vehicle is increased by 5 mph and the test is repeated. The vehicle speed is repeatedly increased in 5 mph increments until the ball-bank indicator reading exceeds an acceptable level. The curve advisory speed is set at the highest test speed that does not result in a ball-bank indicator reading greater than an acceptable level.

Figure 5 is an example of a data collection form that can be used to record the results of ball-bank indicator test runs. In the example in Figure 5, test runs were started at 25 mph, with ball-bank indicator reading of about 6°. This is well below the suggested criteria of 14° for a speed of 25 mph. The speeds of the test runs were gradually increased until the speed of 35 mph gave readings of 10° to 12°. These are the highest readings attained without exceeding and the suggested criteria of 12° for a speed of 35 mph or more. This study would result in posting an advisory speed of 35 mph for both directions of travel for this curve. Several alternative field data collection and supervisor approval forms are shown in the Appendix.

Figure 5. Sample Ball-Bank Indicator Data Collection Form

BALL-BANK INDICATOR STUDY						
LOCATION: ***STATE ROUTE 43***						
COUNTY: ***DAVIS***			SECTION:			
POSTED SPEED (MPH): ***55***			PAVEMENT CONDITION: ***DRY***			
DATE:			VEHICLE: ***2008 CHEVROLET IMPALA***			
DRIVER: ***SEYFRIED***			RECORDER: ***PLINE***			
REMARKS:						
DIRECTION OF TRAVEL	PHOTO LOG MILE		SPEED (MPH)	BALL-BANK READING (DEGREES)		
	START CURVE	END CURVE		RUN 1	RUN 2 IF NEEDED	RUN 3 IF NEEDED
NORTH	***8.32***	***8.65***	***25***	***6***	***7***	***6***
			30	***9***	***10***	***10***
			35	***12***	***12***	***11***
			40	***15***	***13***	***14***
SOUTH	***8.65***	***8.32***	***25***	***6***	***6***	***5***
			30	***9***	***8***	***9***
			35	***11***	***10***	***11***
			40	***13***	***14***	***14***

Method 3: Accelerometer

An accelerometer is an electronic device which can measure the lateral (centripetal) acceleration experienced by a vehicle as it travels around a curve. Typically, method 1 and 2 are used. However, if the Region has an accelerometer, this method is acceptable to use as an alternative to the ball-bank indicator method.

Establishing Advisory Speeds

Using any of the three methods noted above *should* result in the same advisory speed for a curve. It is important to reiterate that the advisory speed criteria are based on driver comfort, not safety. A sufficiently skillful driver *may* be able to traverse a curve on dry pavement at a speed considerably higher than the advisory speed without exceeding the friction capabilities of the pavement. However, most drivers would choose not to drive at a higher speed because they would experience uncomfortable levels of lateral acceleration.

The W~~is~~MUTCD indicates that ~~the "advisory speed **shall** be determined by an engineering study that follows established engineering practices"~~ "Except in emergencies or when the condition is temporary, an Advisory Speed or Confirmation Advisory Speed plaque **shall not** be installed until the advisory speed has been determined by an engineering study" (Section 2C.~~5908~~). The Manual further defines an engineering study as ~~"the comprehensive analysis and evaluation of available pertinent information, and the application of appropriate principles, Standards, Guidance, and practices as contained in this Manual and other sources, for the purpose of deciding upon the applicability, design, operation, or installation of a traffic control device. An engineering study **shall** be performed by an engineer, or by an individual working under the supervision of an engineer or sign shop supervisor, through the application of procedures and criteria established in this policy. An engineering study **shall** be documented"~~ "the analysis and evaluation of available pertinent information including, but not limited to, the safety and operational efficiency of all road users, and the application of appropriate principles, provisions, and practices as contained in this Manual and other sources, for the purpose of deciding upon the design (see Section 1D.03), use, installation, or operation of a traffic control device. An engineering study shall be performed by a professional engineer (see definition in this Section) with appropriate traffic engineering expertise and/or experience in traffic engineering studies, or by an individual working under the supervision of such an engineer, through the application of procedures and criteria established by the engineer. An engineering study shall be documented in writing." (W~~is~~MUTCD Section 1C.02~~A.13~~).

Therefore, the establishment of advisory speeds must follow standard procedures developed and adopted by the engineering personnel of an agency. All field work used for determining the advisory speeds must be performed under the supervision of an engineer or sign shop supervisor. Finally, the data collected and analysis

performed must be preserved in written documentation. The Appendix contains a sample curve advisory speed study supervisor approval form that can be used to document the field data collection.

The maximum comfortable operating speed on a curve can be determined using any of the three methods discussed above (design speed equation, ball-bank indicator, or accelerometer). The advisory speed for the curve *should* be set at the 5-mph increment nearest to this maximum comfortable speed. The advisory speed to be posted *should not* be arbitrarily reduced below the comfortable speed determined using these methods, because an unrealistically low advisory speed will lose credibility among drivers, and create inconsistencies that *may* lead drivers into traveling at too high a speed through other curves.

Advisory speed plaques are only used in conjunction with appropriate warning signs, and never alone. Turn, Curve, Reverse Turn, Reverse Curve, and Winding Road signs are used in locations where it is desirable to warn drivers of changes in the horizontal alignment of the roadway. The W~~is~~MUTCD indicates that the use of Turn or Reverse Turn signs *should* be limited to changes in alignment where the advisory speed is 30 mph or less. The Curve or Reverse Curve signs are intended for use where the advisory speed is greater than 30 mph.

Where a Reverse Curve warning sign or a Winding Road warning sign is used, the advisory speed *should* be based on the curve with the lowest comfortable operating speed. However, if one curve in the series has a dramatically lower comfortable speed, it would be desirable to place a separate warning sign with the appropriate advisory speed for that individual curve.

In some cases, there *may* be other factors that influence the selection of the advisory speed in addition to the comfortable operating speed on the curve. Available sight distance or deceleration distance (on an exit ramp) *may*, in some cases, require an advisory speed lower than the comfortable operating speed for the curve.

Truck Advisory Speeds

The appropriate warning signs for truck rollover concerns require more than just determination of truck advisory speeds. Large trucks, tank trailers and truck freight trailers have a high center of gravity and are susceptible to rollover crashes on a sharp curve. The loop ramps on freeway interchanges and direct freeway-to-freeway connections are sometimes subject to truck rollover problems. The potential for such crashes *may* increase because of radius of horizontal curvature, inadequate deceleration length or deficient specific signing. Truck rollover theoretically can occur when the lateral acceleration exceeds 0.30, but no calculated lateral acceleration less than 0.35 has been determined in any truck rollover collisions. A Ball Bank reading of 10 degrees (side friction = 0.17) be used to provide a reasonable factor of safety. This value is about half the critical side friction factor accommodating those occasions where the truck *may* exceed the posted truck advisory speed or the truck travels a curve radius that is less than the actual roadway curvature. These criteria will generally produce a truck advisory speed that is approximately 5 mph less than the advisory speeds determined for passenger cars, except for the lower speed ranges.

The W~~is~~MUTCD, Section 2C.11~~3~~, Section 2C.12~~4~~ and Table 2C-~~45~~ (Figure 1 of this policy), covers the use of the Truck Rollover Warning sign (W1-13), Advisory Exit Speed sign (W13-2), and the Advisory Ramp Speed sign (W13-3). The application of these signs **shall** be based on an engineering study that considers the roadway and operational characteristics that *may* contribute to a loss of vehicle control and potential truck rollovers. It is suggested that the engineering study for Truck Rollover Warning signs address the following considerations;

1. Speed data and advisory speed determinations.
2. Traffic characteristics.
3. Roadway geometrics.
4. Recommended traffic control devices.

It *should* be noted that any posted Advisory Speed for the Truck Rollover signing *should* reflect the truck advisory speed determination. The W~~IS~~MUTCD provides a number of other devices that can be used in conjunction with the above signs to address truck rollover consideration such as:

- Chevron Alignment signs (W1-8)
- Combination Horizontal Alignment/Advisory Speed sign (W1-1a and W1-2a)
- One Direction Large Arrow sign (W1-6)
- Combination Horizontal Alignment/Advisory Exit and/or Advisory Ramp Speed Signs (W13-6 and W13-7).

See TEOpS 2-3-36 for policies related to exit advisory speed signage.

Additionally, the warning can be enhanced with enlarged signing, a TRUCK header panel, or flashing beacons. The traffic engineering study *should* address the recommended signing for the specific field conditions.

POLICY

FIELD REVIEW OF CURVES AND TURNS

1. The setting of advisory speeds on existing curves and turns *should* be performed by the ball-bank indicator method for existing roadways utilizing Table 2 above.
2. The Accelerometer (Method 3) *may* be used as an alternative to the ball-bank indicator for Regions that have this device.
3. For ramps that have problems with truck rollovers and/or have the tippy truck signs installed, the truck ball bank reading of 10 degrees *should* be used.
4. For new construction, the design speed chart (Table 3) noted above *may* be used where the super elevation and radius are known.

Curve signing determined on the basis of calculated values *should* always be verified in the field by the ball bank method.

SIGNING IMPLEMENTATION

1. For consistency of motorist expectation, signing field changes *should* be organized where entire routes are done at approximately the same time. Breakpoints *should* occur in the route at locations where the highway travels through a community that has a speed zone reduction.
2. Signing field changes *should* be incorporated into improvement projects as much as possible. Roadway segments on each side of the improvement project *should* terminate at a STH/STH or municipal limit breakpoint.
3. Table 2C-~~45~~ in the WisMUTCD (see Figure 1 of this policy) **shall** be utilized in the determining the proper treatment of horizontal alignment sign(s).
4. For advisory speed reductions of ~~25~~ 20 mph or greater, chevrons (W1-8 signs) *should* be used. For these advisory speed reductions, a night arrow (W1-6 sign) *may* be used to supplement the chevrons for advisory speed reductions of 25 mph or greater.
5. For advisory speed reductions that are greater than ~~5~~ 10 mph and less than ~~25~~ 20 mph, the usage of the night arrow (W1-6 sign) is the first choice of sign that *should* be used. For these advisory speed reductions, chevrons (W1-8 signs) are typically used in locations where there are demonstrated problems.
6. For a Winding Road (W1-5 sign)/Advisory speed (W13-1sign) application, where night arrows (W1-6 signs) and/or chevrons (W1-8 signs) are required on specific curves, the first curve in the series **shall** be signed with the night arrow and/or chevrons. Subsequent curves in the winding road series **shall** be signed with night arrows and /or chevrons if recommended/required by Table 2C-~~45~~ in the W~~is~~MUTCD (see Figure 1 of this policy).
7. For a Reverse Curve (W1-4 sign)/Advisory speed (W13-1 sign) application, the curves in the series **shall** be signed with night arrows and /or chevrons if recommended/required by Table 2C-5 in the WisMUTCD (see Figure 1 of this policy).
8. Turn warning signs **shall** be used where advisory speeds have been determined to be 30 mph or less.
9. Regulatory speed limit signs are normally not posted on ramps. For application of warning signs on service interchange ramps (non-freeway to freeway), relative to W~~is~~MUTCD Table 2C-~~45~~, a 10-mph reduction from the mainline posted speed *should* be used.
10. Each direction on the roadway *should* be evaluated independently of the other direction in the determination of the proper horizontal alignment signing.

~~PHASE IN COMPLIANCE~~

- ~~In order to allow for resources to make the changes to the advisory speeds, the following **shall** apply:~~
- ~~When signing is replaced with an improvement project, the advisory speeds **shall** be established based on the new policy. This can either be accomplished by one of the methods noted in this policy.~~
- ~~For other sections of roadway, the changes **shall** be made for an entire segment of highway between~~

~~two cities, towns or villages. Curve and turn advisories *should not* be changed for one isolated location; rather for an entire segment between communities or within a county.~~

- ~~Phase in period – December 31, 2019 (WisMUTCD Compliance Date).~~

~~**ACKNOWLEDGMENTS**~~

~~NCUTCD – Regulatory and Warning Signs Technical Committee and Task Force and Bob Seyfried, Northwestern University Center for Public Safety.~~

REFERENCES

1. Guidelines for the Determination of Advisory Speeds (NCUTCD Task force from the Regulatory and Warning Signs Technical Committee.)
2. *Manual on Uniform Traffic Control Devices for Streets and Highways,* Public Road Administration, Washington, D.C., August 1948, page 39 and 53.
3. Paul J. Carlson and John M. Mason, "Relationship Between Ball Bank Indicator Readings, Lateral Acceleration Rates and Vehicle Body-Roll Rates", *Transportation Research Record 1658*. Washington DC: Transportation Research Board, January 1999.
4. *A Policy on Geometric Design of Highways and Streets,* American Association of State Highway and Transportation Officials, Washington, D. C., 2004.
5. R. Milstead, X. Qin, B. Katz, J. Bonneson, M. Pratt, J. Miles, and P. Carlson, "Procedures for Setting Advisory Speeds on Curves, Federal Highway Administration, Washington D.C., 2011.

APPENDIX

SAMPLE FIELD DATA COLLECTION FORMS

1. Curve Advisory Speed Calculations
2. Ball-Bank Indicator Test Supervisor Approval
3. Ball-Bank Indicator Study Form
4. Ball-Bank Indicator Test Summation
5. Curve Advisory Speed Determination Field Data Sheet

Advisory Speed Approval

Jurisdiction: _____

Location: _____

From: _____ to: _____

Project No. /Title: _____

Advisory Speed Study Attached:

Ball Bank Indicatory Study _____ Date: _____

Speed Formula Calculations_____ Date: _____

Accelerometer Readings _____ Date: _____

Completed By: _____ Date: _____

Study Approval:

Name: _____ Title: _____

Date: _____

Curve Advisory Speed Calculations
Method # 1

Sheet ___of____

Completed By: _____ Date: _____

Jurisdiction: _____

Location: _____

From: _____ To: _____

Project No. /Title: _____

$$V = \sqrt{15R(0.01e + f)}$$

DIRECTION OF TRAVEL	CURVE BEGIN STA.	CURVE END STA.	CURVE RADIUS (ft)	SUPER-ELEVATION (%)	SIDE FRICTION	ADVISORY SPEED (mph)	WARNING SIGN

Remarks: _____

Study Approval:

Name: _____ Title: _____
Date: _____

BALL-BANK INDICATOR STUDY						
LOCATION:						
COUNTY:			SECTION:			
POSTED SPEED (MPH):			PAVEMENT CONDITION:			
DATE:			VEHICLE:			
DRIVER:			RECORDER:			
REMARKS:						
DIRECTION OF TRAVEL	PHOTO LOG MILE		SPEED (MPH)	BALL-BANK READING (DEGREES)		
	START CURVE	END CURVE		RUN 1	RUN 2 IF NEEDED	RUN 3 IF NEEDED

BALL BANK INDICATOR TEST SUMMATION
(OPTIONAL)

Jurisdiction: _____ Date: _____

Location: _____

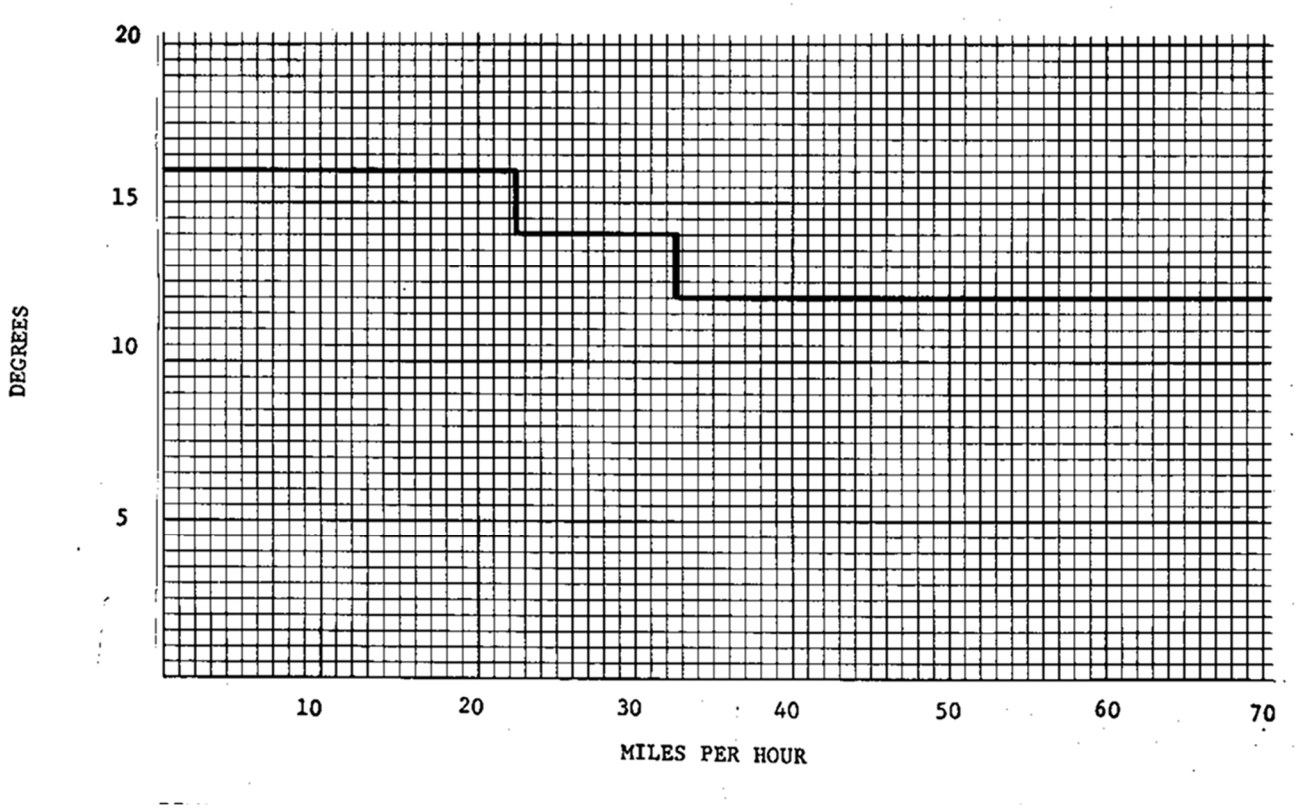
Weather: _____ Road Surface: _____

Driver: _____ Recorder: _____

Vehicle: _____ Posted Speed Limit: _____

Direction: _____ Begin Curve: _____ End Curve: _____

Show each vehicle test run as a dot on the graph



SUMMARY FOR A SECTION OF ROADWAY

CURVE ADVISORY SPEED DETERMINATION FIELD DATA SHEET	
Highway:	**County:**
Section:	**Date:**
Posted Speed (mph):	**Pavement Condition:**
Vehicle:	**Driver/Recorder:**
Remarks:	
BALL BANK READINGS: 12 degrees for speeds of 35 mph or more 14 degrees for speeds of 25 to 30 mph 16 degrees for speeds of 20 mph or less	

Direction of Travel	Curve Direction		Beg. Curve	End Curve	Tangent Length	Ball Bank Reading	Advisory Speed (mph)		Curve Warning Sign	
	LT	RT	MP	MP	Miles	Degrees	Current	Recom-mended	Sign No.	Size

2-3-36 Ramp Warning Signs ~~August~~ November ~~2009~~2026

PURPOSE

The W~~is~~MUTCD in Section 2C.12~~36~~ sets forth standards for Exit, Ramp and Curve advisory speed signs, which *may* be used to advise motorists of the maximum recommended speed on a ramp. In usual practice, the speed and condition warned of is just beyond the gore of the ramp. Other guidance in 2C.12~~36~~ indicates that where additional advisory speed indication is needed on the ramp well beyond the gore area, a standard warning sign with an ADVISORY SPEED plaque (W13-1) is to be used.

To provide for the uniformity of the application of the EXIT, RAMP, and CURVE advisory speed signs, the following use and application guidelines are prescribed where ramp speed control is determined to be necessary.

~~The WisMUTCD, Table 2C-4~~2C-4TEOpS 2-3-5 Table 1, provides advanced placement distances for EXIT, RAMP, and CURVE advisory speed signs along with other warning signs such as STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD and ROUNDABOUT AHEAD. This is determined by the posted or 85th percentile speed and then ~~suing~~ using the table~~Table 2C-4 in the WisMUTCD~~ to determine the appropriate sign placement distance. Oftentimes for ramps there is no posted speed and speed studies are not normally performed. Utilization of the posted speed on the mainline roadway instead can result in an unreasonable placement distance that is too far back and the sign *may* end up on the mainline roadway, especially for shorter exit ramps. Ultimately, this can lead to inconsistencies in sign placement. Guidance is necessary for the placement of these signs.

POLICY

STOP AHEAD (W3-1), YIELD AHEAD (W302), SIGNAL AHEAD (W3-3) AND ROUNDABOUT AHEAD (W2-6 and W2-6P) Signs

The following methods *may* be utilized to determine the appropriate placement of STOP AHEAD, YIELD AHEAD, SIGNAL AHEAD and ROUNDABOUT AHEAD warning signs on ramps. ~~Table 2C-4~~2C-4TEOPS 2-3-5 Table 1 *should* be used for placement of the signs.

1. Assumption of a 10 mph reduction from the mainline speed for the placement of the signs.
2. For ramps of a short length (where utilization of TEOPS 2-3-5 Table 1~~Table 2C-4~~ cannot be met), placement of the signs *should not* exceed a distance of 50 feet upstream of the EXIT gore sign (E5-1 or E5-1A).

EXIT Advisory Speed Sign (W13-2)

The EXIT SPEED sign will normally be used at:

1. Off-ramps on freeways and expressways when the ramp connects to a conventional state trunk highway or local crossroad.
2. Ramp connections between freeways where the guide signing establishes that the ramp is an exit. The EXIT DIRECTION sign will have an exit number panel. Ramps between freeways, which are not identified with an exit number on the EXIT DIRECTION sign *should* be signed with a CURVE or TURN sign with appropriate advisory speed when reduced speed is necessary.

The following methods *may* be utilized to determine the appropriate placement of EXIT ADVISORY SPEED signs. TEOPS 2-3-5 Table 1~~WisMUTCD Table 2C-4~~ *should* be used for placement of the signs.

1. Assumption of a 10 mph reduction from the mainline speed for the placement of the signs.
2. Utilization of a ball bank indicator or design speed equation, shown in TEOpS 2-3-35, to determine the start of curvature and the appropriate exit speed.

~~Modified~~ EXIT ADVISORY SPEED Signs (W13-2A and W13-2B)

The ~~modified~~ exit advisory speed signs (~~see Figures 1 and 2~~W13-5 and W13-8) *may* be used at the following locations, provided the following criteria are met:

1. For advisory speeds of 30 mph or less for off-ramps on freeways and expressways or ramp connections between freeways where the guide signing establishes that the ramp is an exit.
2. Existing locations where there are run-off-the-road crashes as a result of a sharp horizontal alignment. The signs *may* also be installed in new locations that are perceived to be potential problem areas. The usage of signs in new locations **shall** be approved by the Region Traffic Engineer.

RAMP ADVISORY SPEED Sign (W13-3)

The RAMP ADVISORY SPEED sign will normally be used at:

1. Ramps along freeways or expressways that provide access to safety rest areas, scales, scenic outlooks and tourist information centers where traffic must return directly to the freeway or expressway upon leaving the facility.
2. Ramps from local roads or conventional state trunk highways serving as connections to freeways or expressways, or to other conventional highways.

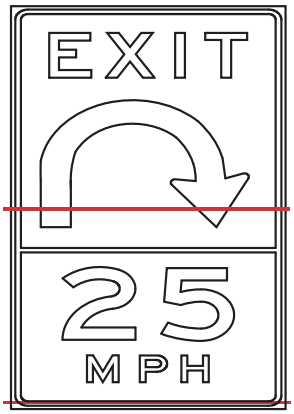
~~CURVE ADVISORY SPEED Sign (W13-5)~~

~~The CURVE ADVISORY SPEED sign (W13-5) **shall not** be used on WisDOT roadways. For curve delineation on ramps, the standard curve warning sign (W1-2L or W102R) with ADVISORY SPEED plaque (W13-1) *should* be used. The standard curve warning sign with advisory speed plaque gives motorist s more positive guidance as to the direction of the curve versus the W13-5 sign.~~

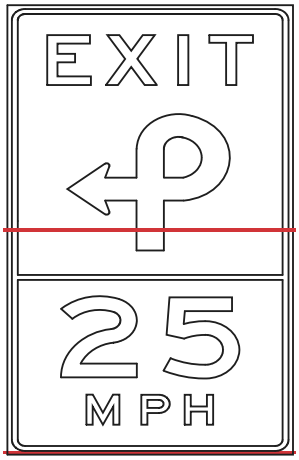
General Criteria

In accordance with directions prescribed in Section 2C.12~~36~~, the EXIT SPEED or RAMP ADVISORY SPEED sign *should* be posted along the deceleration lane. Final locations *should* be carefully established which are devoid of visual conflicts with other signs or physical roadway elements, such as bridge columns. Practically, the sign locations *should* be midway along the deceleration lane, but moved closer to the beginning of the ramp taper for conditions requiring significant reductions in speed. The distance values of TEOPS 2-3-5 Table 1~~Table 2C-4~~, Condition B, for general warning sign placement suggest desirable minimum values, but will have to be modified in order to keep the sign “along the deceleration lane” and far enough away from the EXIT DIRECTION signs to avoid its being hidden or obscured. Approach speeds *may* be assumed to be the posted speed limit.

~~**Figure 1.** W13-2A Sign~~



~~**Figure 2.** W13-2B Sign~~



2-3-38 NO PASSING ZONE Signs April 1996

NO PASSING ZONE (W14-3) signs **shall** be placed at the beginning of all no passing zones whether for sight restrictions, narrow bridges, passing lanes, divided highway and approaches or intersectional except as provided below. In making the pennant mandatory on state trunk highways in the early 1970s, it was the intent of the administration that they *should* be installed at all zones, including barrier lines at intersections. This is implied in a memo to all Regions on April 18, 1973.

Where a no passing zone related to sight conditions occurs at a stop sign-controlled or signal-controlled intersection, the zone will be broken for the intersection and resume on the other side. The continuation of the zone beyond the intersection does not require another W14-3 to be installed.

In communities where the state trunk highway is maintained by the Department, it is not necessary to install

W14-3 signs at the beginning of no passing zones or barrier lines that occur within speed zones of 35 mph or less.

2-3-40 Trail Crossing Signs ~~September 2010~~November 2026

PURPOSE

This policy provides guidance on the use of TRAIL CROSSING signs where emphasis is needed to alert motorists of recreational vehicles crossing highways. In order for a trail crossing to be signed under this policy, the trail itself must be federal, state, or locally authorized and open to the public.

TRAIL CROSSING signs covered under this policy include the following signs:

1. SNOWMOBILE CROSSING (W11-6) sign
2. BICYCLE CROSSING (W11-1) sign
3. EQUESTRIAN CROSSING (W11-7) sign
~~4. BRIDLE PATH sign (W11-56) sign~~
~~5.~~4. TRAIL CROSSING, symbol message (W11-15) sign*
~~6.~~5. TRAIL CROSSING, word message (W11-15a) sign**

*The TRAIL CROSSING symbol message (W11-15) sign is normally used to sign trails that have predominantly pedestrian and bicycle usage.

**The TRAIL CROSSING word message (W11-15a) sign is normally used to sign trails that have other groups using the trail in addition or besides pedestrian and bicycle usage.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separations at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

POLICY

1. Trail crossing signs are not permitted on freeways.
2. Trail crossing signs **shall** be installed for all 65 mph expressway trail crossings, whether there is a sight restriction or not. This only applies to non-intersection crossings on 65mph expressways (see Item 4 below).
3. Trail crossing signs ~~*may*~~ **shall** be placed on ~~all other~~ highways with a posted speed of 45 or greater provided there is deficient sight distance per TEOPS 2-3-6 Table 1~~Section 2c.46 of the WisMUTCD~~. Trail crossing signs *may* be placed on highways with a posted speed of 40 or less provided there is deficient sight distance per TEOPS 2-3-6 Table 1. Sections 2C.54 and 2C.55~~49 and 50~~ of the W~~is~~MUTCD also give additional criteria when trail crossing signs *may* be desirable.
4. Trail crossing signs *may* also be used to alert motorists to unexpected entries of recreational vehicles, pedestrians or bicyclists in the roadway.
5. Trail crossing signs *should* only be used for non-intersection crossings. There *may* be extreme cases where there is a demonstrated crash history or site problems at intersections that would warrant trail crossing signs in addition to the crossroad or side road warning signing.
6. STOP signs (18” x 18”) are required on the recreational trail per the Wisconsin DNR trails handbook and they are required per the WisMUTCD for any shared-use path where bicyclists are required to stop. The trail owner **shall** install the STOP signs on the recreational trail prior to the installation of the trail crossing warning signs on the roadway.
7. Because the trail STOP signs are in the STH right-of-way, the Region **shall** issue a permit, in form of a letter, to the trail owner for the placement of the STOP signs on the trail. The permit *should* make it clear that the trail owner is responsible for the initial installation and long-term maintenance of the signs.

2-3-41 Deer (Wildlife) Crossing Signing ~~August~~ November ~~2009~~2026

GENERAL

Deer crashes have historically been one of the highest crash types on state highways ~~in recent years~~. There are a number of factors which *may* influence the deer crash rate, including herd population, herd migration, herd location, roadside vegetation management, roadway factors (speed limits, lighting, etc.), driver education, use of

deer crossing deterrent devices (reflectors, scent boxes, vehicle whistles, wildlife underpasses, etc.), active warning devices such as motion detectors/warning light or static warning signs. Traditionally, static warning signs have been installed in areas with higher deer-vehicle crashes (DVCs). There has been much debate over the usage of static deer crossing signs and their effectiveness. Many transportation professionals recognize the fact that warning signs are most effective *result in alteration of speed and/or path choice) when there is an obvious danger ahead (example would be curve or turn). The use of warning signs that alert drivers to sporadic or general possibilities *deer crossing and slow children moving signs) have been shown to not have a consistent impact on driver behavior. The widespread use or sign proliferation also reduces the effectiveness of the sign and leads to driver disregard. Several states and agencies have performed studies to assess the effectiveness of static deer crossing warning signs. The studies have concluded that the usage of static deer crossing warning signs do not generally reduce vehicle speeds (one measure of warning sign effectiveness). As a result, the studies have yielded no reduction in DVCs.

SUPPORTING DOCUMENTATION

Static sign studies have been performed by the following states and/or agencies:

1. *Assessing the Effectiveness of Deer Warning Signs*. Published by Kansas Department of Transportation and University of Kansas at Lawrence, April 2006,
2. *Wildlife—Vehicle Collision and Crossing Mitigation Measures: A Toolbox for the Montana Department of Transportation*. Published by Montana Department of Transportation and Montana State University, May 2007.
3. *An Ecological Landscape Study of Deer-Vehicle Collisions in Kent County, Michigan*. Published by Kent County Road Commission and White Water Associates, Inc., January 2004.
4. *Deer Crossing Signs and Technologies*. Published by Deer-Vehicle Crash Information Clearinghouse (DVCIC), Maintained by Texas Transportation Institute, www.deercrash.com
5. *Deer Signs Research Study*. Published by Minnesota Department of Transportation and University of Minnesota, www.lrrb.gen.mn.us/pdf/200413.pdf

Several dynamic types of deer crossing signs are currently being explored as potential countermeasures and are discussed in the studies listed above. These types of signs have been designed to activate when deer are detected near the roadway. Studies are taking place in Indiana, Minnesota, Montana, Pennsylvania, Utah and Washington. The development of methods to control car/deer collisions is continuing to evolve, and over time policies such as this will be subject to change. At present, due to funding limitations, WisDOT is not utilizing dynamic deer crossing warning sign systems. However, WisDOT is periodically reviewing studies from other states and municipalities as they progress. WisDOT will consider issuing a permit to an entity to pursue the usage of dynamic deer crossing signs.

One effective countermeasure pointed out in the Kansas study is the usage of public awareness techniques to educate the motoring public regarding the seasonal and time of day characteristics of deer-vehicle crashes. This could be accomplished effectively through the different types of media outlets.

The above data and analysis applies to other animals that occur sporadically about the roadway such as, but not limited to, turtles.

POLICY

Based upon the findings of various studies mentioned above, WisDOT will implement the following policy for usage of static deer or wildlife crossing warning signs:

1. No new static deer or wildlife crossing warning signs will be installed on state highways.
2. Static deer or wildlife crossing signs that are currently in place will be allowed to remain until the end of their useful life or when opportunities for removal are available. These opportunities would include sign knockdowns and improvement projects.

2-3-43 Parallel On-Ramp Lane Reduction Signing ~~July 2012~~November 2026

BACKGROUND AND PURPOSE

At some interchange locations, long parallel (acceleration) entrance ramps are constructed to allow vehicles ample distance to get up to the mainline travel speeds, thus helping to eliminate slowing down of the mainline traffic. Questions have arisen as to whether warning signs, such as the LANE ENDS symbol (W4-2 sign) *should* be utilized. The W~~is~~MUTCD, Section 2C-472 states that LANE ENDS signs *should not* be installed in advance of the downstream end of an acceleration lane. ~~It *should* also be noted that the WisMUTCD, Section 2C-42 states that a LANE ENDS sign *may* be installed on a freeway entrance ramp. These would~~ There *may* be cases

where the signs would be beneficial, which can be determijned by exercising engineering judgment ~~in certain locations~~. In the absence of specific guidance in the W~~is~~MUTCD, this policy will provide additional guidance as to where the LANE ENDS sign *may* be utilized for long parallel entrance ramps.

GUIDELINES

The following is guidance relating to the usage of the LANE ENDS (W4-2) sign on long parallel (acceleration) ramps:

1. Issues with motorists not realizing that the entrance ramp is not a mainline or auxiliary exit lane. This could be exhibited by last-minute merge movements or braking.
2. Slowing down and last of mainline traffic caused by last-minute lane changes.
3. Crash issues relating to the last-minute, quick lane changes or braking.
4. The LANE ENDS (W4-2) sign *should not* be used on all parallel entrance ramps. Parallel entrance ramps *should* be evaluated on a case-by-case basis.
5. Parallel entrance ramps that have been previously signed *should* be evaluated as opportunities permit (improvement projects, routine sign replacements, knockdowns, etc.). This *should* be done prior to removing any signs. Any parallel entrance ramps not meeting the above guidance criteria *should* have the LANE ENDS (W4-2) sign removed.

2-3-45 Icy Bridge Deck Signing ~~April 1989~~November 2026

GENERAL

The Regional Traffic Engineer *may* use the BRIDGE ICES BEFORE ROAD (W8-13)~~MAY BE ICY (W8-64)~~ sign on bridges which display problems caused by the formation of ice.

The use of the BRIDGE ICES BEFORE ROAD~~MAY BE ICY~~ sign **shall** be based on Region discretion. The Region can be aided in this decision by checking with local maintenance and law enforcement officials to see if an ice problem exists at a bridge site. The Region can also analyze crash rates at the bridge site that are based on ice.

The WATCH FOR ICE ON BRIDGE and BRIDGE MAY BE ICY signs **shall** no longer be used. These existing ~~WATCH FOR ICE ON BRIDGE~~ signs *should* be replaced as they wear out.

~~2-3-49 Determination of Sight Distance for Warning Signs June 2015~~

~~**PURPOSE**~~

~~The WisMUTCD provides guidance for the installation of several types of vehicular and non-vehicular warning signs. Some of these signs include the SCHOOL BUS STOP AHEAD, SNOWMOBILE CROSSING, fire truck, side road and crossroad warning signs. The WisMUTCD states that many of these types of warning signs *should* be used where the road user's sight distance is restricted, or the condition, activity or entering traffic would be unexpected.~~

~~The May 25, 2011, WisMUTCD Section 2C.46, provides additional guidance regarding proper sight distance in determining the need for a warning sign. This table on minimum visibility distances references Table 9-6, pages 9-38 (intersection sight distance—left turn from stop) of the AASHTO Standard Highway and Street Design Manual. This table provides an added factor of safety beyond the traditional stopping sight distances.~~

~~**It *should* be noted that the minimum visibility table shown below is just for determination if the warning sign is needed.** These are not sign placement criteria. Sign placement criteria is provided in WisMUTCD Table 2C-4.~~

~~**Minimum Visibility Distance**~~

~~Posted or 85th Percentile Speed~~	~~Minimum Visibility Distance (ft.)~~
~~25 MPH~~	~~280~~
~~30 MPH~~	~~335~~
~~35 MPH~~	~~390~~
~~40 MPH~~	~~445~~
~~45 MPH~~	~~500~~
~~50 MPH~~	~~555~~
~~55 MPH~~	~~610~~
~~60 MPH~~	~~665~~
~~65 MPH~~	~~720~~

~~70 MPH 775~~

~~One question that has been commonly asked is "What are the acceptable field methods that can be utilized to determine the actual minimum visibility distance in order to provide accuracy and consistency?" Listed below are several guidelines that *may* be utilized to assist in this effort and to provide for a consistent application statewide.~~

~~**GUIDELINES**~~

~~Cone Method (Preferred)~~

1. ~~A 28" height cone *should* be used as a target at the location of the hazard (i.e. snowmobile crossings, pedestrian crossings and school bus stops). In lieu of a 28" height cone, a mailbox or other alternative methods approved by the Region *may* be used as a target.~~
2. ~~Set the Distance Measuring Instrument (DMI) when the entire cone is first visible and measure the distance to the cone.~~

~~Vehicle Visibility Method (Optional)~~

1. ~~For the installation of side road and crossroad warning signs, park on the side road and determine where mainline vehicle is first visible. Measure the distance between the mainline vehicle and the side road vehicle to determine minimum visibility distance.~~
2. ~~An optional method that *may* be used is to park at the intersection or crossing and count the seconds, starting when the mainline vehicle is first visible and equate the time to a distance. For example, at 60 mph, a vehicle travels approximately 88 feet per second. Therefore, at a minimum visibility distance of 665 feet, it would take 8 seconds for the vehicle to reach the intersection or crossing.~~

2-3-50 Horse Drawn Vehicles ~~January 2003~~November 2026

GENERAL

The use of highways by horse drawn vehicles is a common activity of some farming religious sects active in several regions of the state. These low-speed vehicles traveling on the roadway proper or on the shoulder introduces some hazards which are magnified because of the frailty of the horse drawn vehicles and the vulnerability of the occupants and the horse. In view of the potential for injury, HORSE DRAWN VEHICLE (W11-14) signs *should* be installed at locations which satisfy the following conditions:

1. The usage of the segment of the state trunk highway by horse drawn vehicles is on a frequent or recurring basis.
2. To the satisfaction of the region, the farmer(s) are using the state trunk highway only where other routes are not available or otherwise not safe or attractive. The Region *should* get input from the local highway and law enforcement officials and *should* make an effort to try and convince the religious sects to drive their horse drawn vehicles on the shoulder and not in the travel lane.
3. The Region *should* consider the shoulder width and configuration (i.e. rumble strips, etc.) and sight distance of the roadway in their decision on whether to sign the roadway.

Each segment being used *should* be identified by the Region and/or County Highway Safety Committee and HORSE DRAWN VEHICLE signs **shall** be posted at the beginning of the segment. The Region has the option of adding the NEXT XX MILES (~~W57-5-1~~W7-3AP) sign to the HORSE DRAWN VEHICLE sign. The HORSE DRAWN VEHICLE sign **shall** be placed after every major intersection, such as a STH or CTH intersection.

The Region *should* be alert for discontinuance of usage and remove the signs under that condition.

2-3-51 Pedestrian Crossing Warning Signs ~~July 2018~~November 2026

PURPOSE

The W~~is~~MUTCD provides general guidance for the installation of pedestrian related warning signs. These signs are considered to be the W11-2 (pedestrian crossing sign), W11-9 (wheelchair crossing sign) and the S1-1 (school crossing sign assembly).

There are some standards and guidance contained in the W~~is~~MUTCD. However, there are several undocumented state practices involving the application of these types of signs. There is a need to encompass the guidance and standards from all of these resources into a single document that will be able to assist the

practitioner and provide for a consistent statewide application.

POLICY

Pedestrian Crossing Signs

1. Pedestrian crossing signs *should* be used where there are higher volumes of pedestrian activity and at mid-block crossings where crossings are unexpected or the visibility distance, as defined in TEOPS 2-3-6~~WisMUTCD section 2C.46~~ is deficient. Pedestrian crossings signs *may* be used at unsignalized and non-stop control intersections.
2. The Pedestrian Crossing Sign with AHEAD plaque (W16-9P) *may* be used in sight deficient areas where pedestrians walk along the edge of the roadway.
3. A Pedestrian Crossing Sign *may* be installed in locations without a crosswalk. For crosswalk markings, refer to TEOpS 3-2-3.
    a. A Pedestrian Crossing Sign *may* be installed in locations without a crosswalk.
    b. On state highways, crosswalks are maintained by the local unit of government by permit (DT 2136 form).
    c. A crosswalk *may* be installed without a pedestrian crossing sign for roadways with posted speeds of 40 mph or less.
    d. For roadways with posted speeds of 45 mph or higher, new marked crosswalks alone, without other measures to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, *should not* be installed across uncontrolled roadways (see W~~is~~MUTCD, Section 3C.02~~B.19, paragraph 09~~).
4. Pedestrian Crossing Signs located on WisDOT maintained roadways, **shall** be installed and maintained by WisDOT.
5. Pedestrian Crossing Signs **shall not** be utilized at a signalized or stop controlled intersection. The Wheelchair Crossing Sign *may* be used at a signalized or stop controlled intersection.
6. Pedestrian Crossing Signs *may* be used at an unsignalized right turn bypass. Another option at an unsignalized right turn bypass is to utilize the Yield Here to Pedestrians (R1-5 sign) at the crosswalk location.
7. The Pedestrian Crossing Sign (W11-2) and arrow plaque (W16-7L/R) **shall** be placed at the point of crossing.
8. For roadways with posted speeds of 45 mph or greater, the Pedestrian Crossing Sign (W11-2) with ahead plaque (W16-9P) **shall** be installed in advance of the crossing.
9. For multiple pedestrian crossings that are close together on roadways with posted speeds that are lower than 45 mph, the Pedestrian Crossing Sign (W11-2) with ahead plaque (W16-9P) *may* be used in lieu of signs at the point of crossing.
10. The W11-15 or W11-15a, Recreational Trail Crossing sign **shall** follow the parameters listed above similar to the W11-2 Pedestrian Crossing Sign.
11. The W11-9 Wheelchair Crossing Sign **shall** follow the parameters listed above similar to the W11-2 Pedestrian Crossing Sign, with the exception that it *may* be used at signalized and stop controlled intersections.

School Crossing Signs

1. School Crossing Signs *may* be used at signalized controlled intersections.
2. Regardless of posted speed, the School Crossing Assembly (S1-1 sign with S16-7L/R plaque) **shall** be installed at every crossing. If two crossings are at one intersection (far side and near side), both crossings do not need to be signed.
3. For multiple School Crossings, the advance warning sign is not required in advance of every crossing.
4. Engineering Judgment *should* be utilized to determine if the advance sign is required in advance of each crossing in a series.
5. For placement of School Crossing signs, refer to TEOpS 2-3-54.

Refer to TEOpS 4-5-1 for pedestrian actuated warning device options.

2-3-54 School Area Signing ~~December 2018~~November 2026

PURPOSE

~~The WisMUTCD has expanded the usage of signing for school areas.~~ This policy will summarize the standards

and guidance contained in W~~is~~MUTCD Part 7 and will address three specific applications of School Area signing on the state highway system. This policy pertains to signing on conventional highways and expressways.

BACKGROUND

Part 7 of the W~~is~~MUTCD and Wisconsin State Statute 118.08 provide support for the guidelines listed in this policy.

POLICY FOR SCHOOL AREA SIGNING

The installation of School Area signing on the State Highway System can be addressed with three different types of applications:

1. School Zone Signing. School Zones are school areas that would include buildings and/or grounds that border the roadway, but would have no specific crossing. The grounds *may* or *may not* have fencing. "School grounds" refers to public and private schools and their surrounding grounds where any of grades K through 12 are regularly taught during the normal school year.

   Sites that provide only 4-year-old kindergarten do not qualify for school zone signing, as these sites typically do not meet the minimum number of instructional hours required of schools. Additionally, many school districts operate their 4-year-old kindergarten as community based programs, and these sites are therefore subject to change from year to year.

   a. The S1-1 School Warning sign **shall** be installed in advance of the school grounds at the prescribed warning sign distance outlined in TEOPS 2-3-5~~WisMUTCD Table 2C-4~~.

   ~~b. The supplemental S16-9P AHEAD plaque **shall** be installed under the S1-1 School Warning sign.~~

   ~~c.~~b. The ~~R2-6P FINES HIGHER plaque~~S4-51 SCHOOL SPEED LIMIT sign **shall** be installed at or as near as practicable to the point where the school grounds begin.~~under the School Zone assembly (S1-1 Sign with S16-9P plaque).~~

   ~~d.~~c. The END SCHOOL ZONE (S5-2 Sign) **shall** be installed at the end of all school zones and areas. If there is a regulatory speed limit at the end of the school zone or area, the END SCHOOL ZONE (S5-2) sign *should* be mounted under the R2-1 sign. The mounting height of the END SCHOOL ZONE sign mounted under a speed limit sign *should* be 4' to the bottom of the secondary sign or 5' to the bottom of the lowest plaque in urban areas where there are pedestrians or parked cars.

2. School Advance Crossing Signing. The School Advance Crossing Signing is used to warn motorists that they are approaching a crossing where school children are present. The crossing *may* be in the same roadway where the school is located or *may* be on a neighboring roadway, based on the school's master plan of the school routes.

   a. The S1-1 School Warning sign **shall** be installed in advance of the school ~~grounds~~ crossing at the prescribed warning sign distance outlined in W~~is~~MUTCD Table 2C-34.

   b. The supplemental S16-9P AHEAD plaque **shall** be installed under the S1-1 School Warning sign.

   c. The R2-6aP FINES ~~HIGHER~~ DOUBLE plaque **shall** be installed under the School Zone assembly (S1-1 Sign with S16-9P plaque). The mounting height *should* be 4' to the bottom of the lowest plaque or 5' to the bottom of the lowest plaque in urban areas where there are pedestrians or parked cars.

   d. If the school crossing is located on a cross street in close proximity to the turning motorist, the S16-6P Advance Direction Arrow *should* be used in lieu of the S16-9P AHEAD plaque.

3. School Crossing Signing. The School Crossing signing is used at the location where the school children cross the roadway. Crosswalk marking is required whenever school crossing signs are used per the W~~is~~MUTCD. Crossing locations are established based on the school's route master plan as shown in the W~~is~~MUTCD, Section 7A.02.

   a. The S1-1 School Warning sign **shall** be installed at the crossing location.

   b. The S16-7L/R Diagonal down arrow warning sign **shall** be installed under the S1-1 School Warning sign.

4. End School Zone sign. Per the WisMUTCD, the End School Zone sign is required to be installed whenever the R2-6P FINES HIGHER plaque is installed underneath an S1-1 School Warning sign at the downstream end of an area where increased fines are imposed. Therefore, the S5-2 END SCHOOL ZONE sign **shall** be installed downstream of all signed school zones and school crossings.

If the school crossing is located on the same roadway as the school property, then the school advance assembly can function in a dual purpose as the advanced sign for the school bordering the roadway and the advance sign for the school crossing. The school advanced sign does not need to be duplicated for this situation (See Figures 2 and 3). The same is true for the end school zone sign.

POLICY FOR ADDITIONAL SIGNING FOR SCHOOL AREAS

Listed below are other signs covered in the WisMUTCD, Part 7, that are installed on the state highway system.

1. School Bus Stop Ahead (S3-1) Sign
   a. The word message SCHOOL BUS STOP AHEAD (S3-1 signs) **shall** no longer be used. The new sign is a School Bus / Children symbol that is fluorescent yellow green in color and is still the S3-1 sign code. The existing SCHOOL BUS STOP AHEAD word message signs in the field **shall** be replaced with the new symbol signs by no later than December 31, 2015.
   b.a. In order to determine if a School Bus Stop *qualifies* for a sign, the Minimum Visibility Distance table in TEOPS 2-3-6WisMUTCD Section 2C.36 *should* be used.
   c.b. If a School Bus Stop qualifies for a sign (based on the Minimum Visibility Distance outlined above), TEOPS 2-3-5 Table 1WisMUTCD Table 2C-4 **shall** be used to determine field placement of the sign(s).
2. Reduced School Speed Limit Ahead (S4-5 Sign).
   a. A Reduced School Speed Limit Ahead Sign (S4-5) **shall only** be installed for reductions of 15 mph or more.
   b. The distance table in TEOpS 2-3-30 *should* be used in determining the placement distance of the Reduced School Speed Limit Ahead Sign (S4-5) from the School Speed Limit (S4-51 Sign).
3. School Speed Limit (S4-51 Sign).
   a. Wisconsin State Statute 346.57 places a Statutory Fixed Speed Limit of 15 mph on schoowhen passing a school and at school crossings when children are present and the crossing is properly signed. Wisconsin State Statute 349.11 allows the Department of local units of government the authority to modify this speed restriction on their respective maintained roadways. WisDOT recommends that the school speed limit be 10 mph less than the speed limit of the roadway. Limiting the drop in speed to 10 mph lessens the potential for significant speed differential and the crashes associated with it. A speed reduction other than 10 mph *may* be determined to be appropriate through an Engineering and Traffic Investigation (see TEOpS 13-5-7).
   b. The School Speed Limit (S4-51 Sign) **shall** be installed at all school areas where the school property abuts the roadway. and crossings where the speed restriction is modified.
   b.c. Because accepted engineering practice dictates that speed zones are segment based and inappropriate to use for singular points along a roadway, the School Speed Limit (S4-51 Sign) *should not* be installed at singular school For school areas and crossings where school property is not abutting the roadway., the School Speed Limit (S4-51 Sign) *should* be installed in areas that are urban or have school children walking/crossing within the right-of-way If there are multiple closely spaced school crossings along a roadway (concentrated along a distance of 0.3 miles or more), the School Speed Limit (S4-51 Sign) *should* be installed.
   c. For school areas and crossings in fringe or rural areas, the School Speed Limit (S4-51 Sign) *may* be installed. However, the signs are generally not installed in these areas, unless school children are walking or crossing within the right-of-way. If the signs are installed in these areas, they *should* be 10 mph less than the posted speed limit of the roadway.
4. Flashing Beacons.
   a. The local unit of government *may* be allowed by permit to install a flashing beacon on one of the school area signs in each direction of roadway travel. RRFB's (Rectangular rapid flash beacons) *may* be allowed by permit on the school crossing sign assembly (S1-1 and S16-7L/R) only, since this would be the location of the physical crossing. Policy criteria for flashing beacon usage is covered in TEOpS 4-5-1 and the application/permit form (refer to conditions on DT 1877 form).

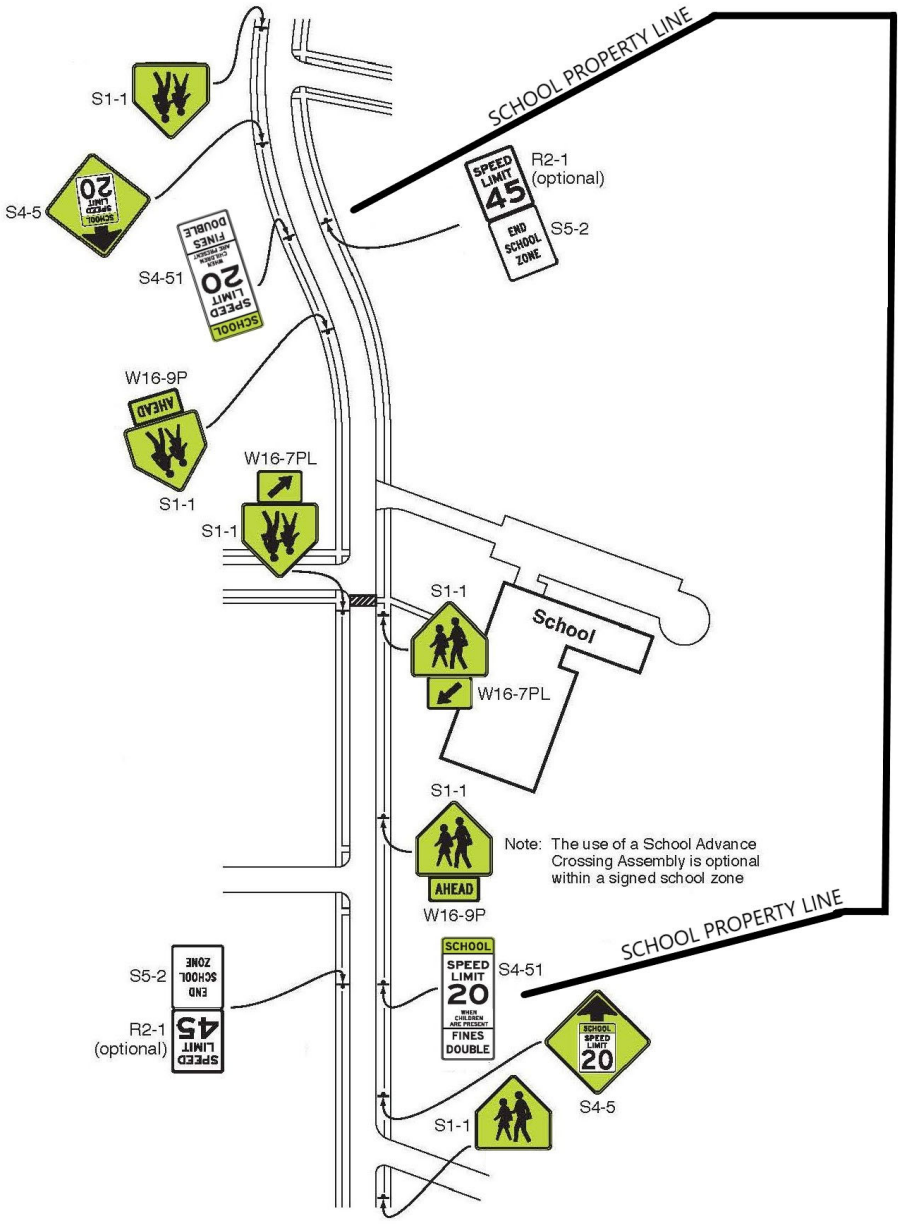


FIGURE 1
SCHOOL ZONE WITH CROSSING AND REDUCED SCHOOL SPEED ZONE SIGNS

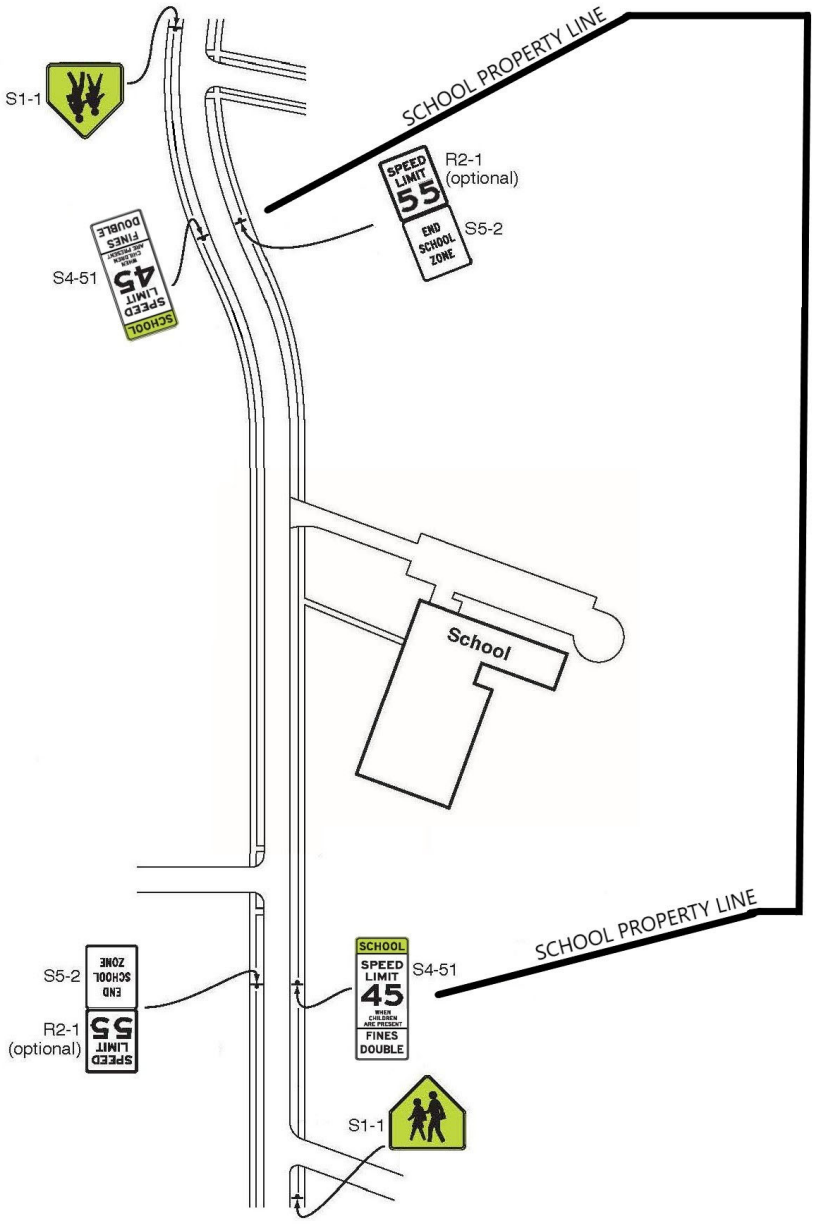


FIGURE 2
SCHOOL ZONE - NO CROSSING OR REDUCED SCHOOL SPEED ZONE AHEAD SIGNS

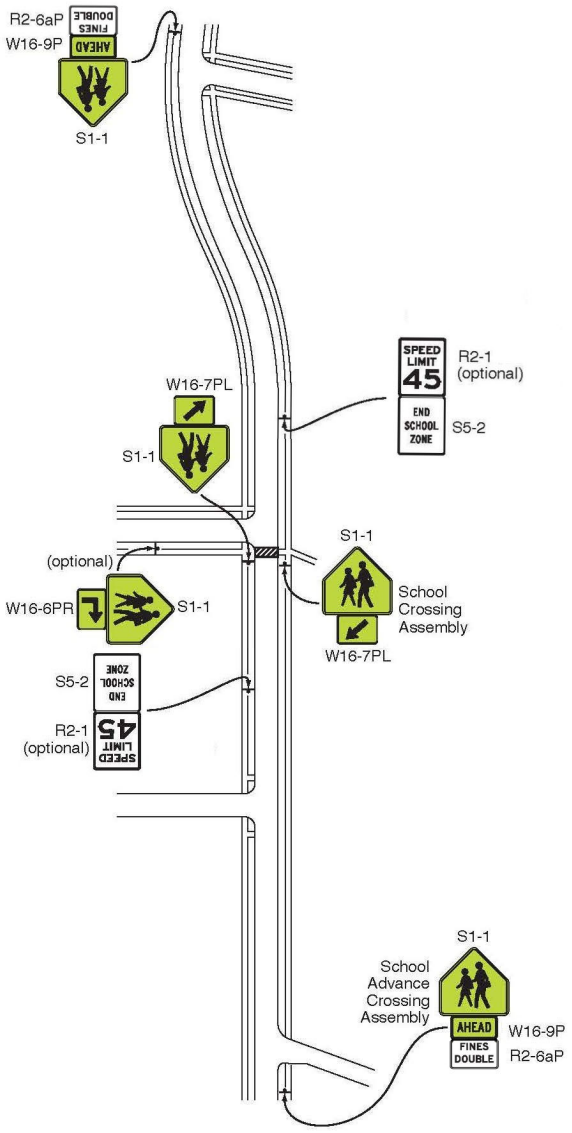


FIGURE 3
EXAMPLE OF SIGNING FOR A SINGULAR SCHOOL CROSSING OUTSIDE OF A SCHOOL ZONE

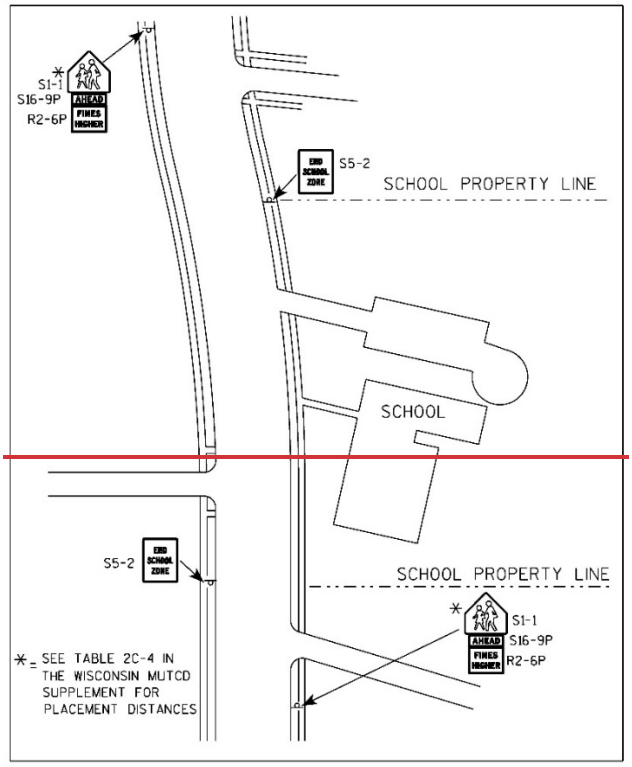


FIG. 1 RURAL SCHOOL WITHOUT CROSSING

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

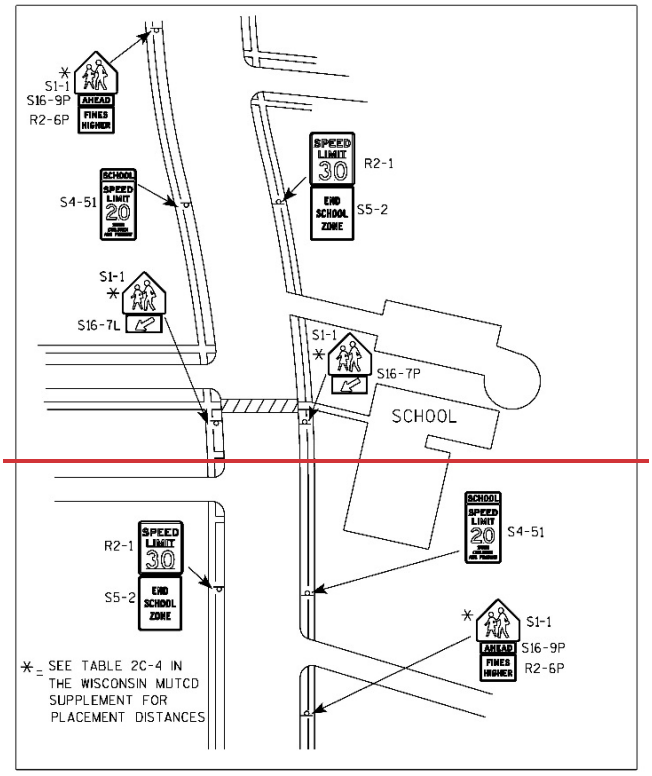


FIG. 2 URBAN SCHOOL CROSSING (WITHOUT REDUCED SCHOOL SPEED ZONE SIGNS)

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

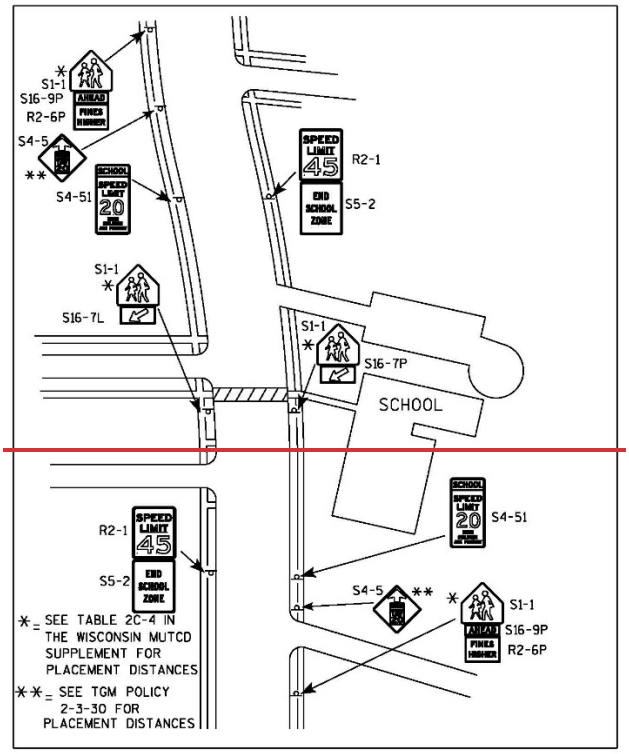


FIG. 3 URBAN SCHOOL CROSSING (WITH REDUCED SCHOOL SPEED ZONE SIGNS)

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

2-3-55 School Bus Stops on 65 mph Expressway ~~December 2013~~November 2026

PURPOSE

The W~~is~~MUTCD Section 7B.04~~-13~~ states that school bus stop signs are not intended to be used at every school bus stop location. It *should* be used where terrain and roadway features limit the approach sight distance and where there is no opportunity to relocate the stop to another location with adequate visibility. However, with the expanding usage of 65 mph multilane expressways, there is a natural safety concern about school buses stopping on these routes. This concern stems from the fact that motorists typically do not expect to encounter school buses stopping on 65 mph highways and also because of the higher operating speeds of traffic. Therefore, inadequate sight distance is not exclusively a factor. As a result, the crash potential on 65 mph expressways between school buses and other vehicles is increased. The purpose of this policy is to provide a consistent statewide policy on the signing of school bus stops on 65 mph expressways. **This policy only applies to expressways having 65 mile per hour speed limits and having school bus traffic either on or beside the expressway.**

DEFINITIONS

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections. This definition of expressway includes both designated and non-designated expressways.

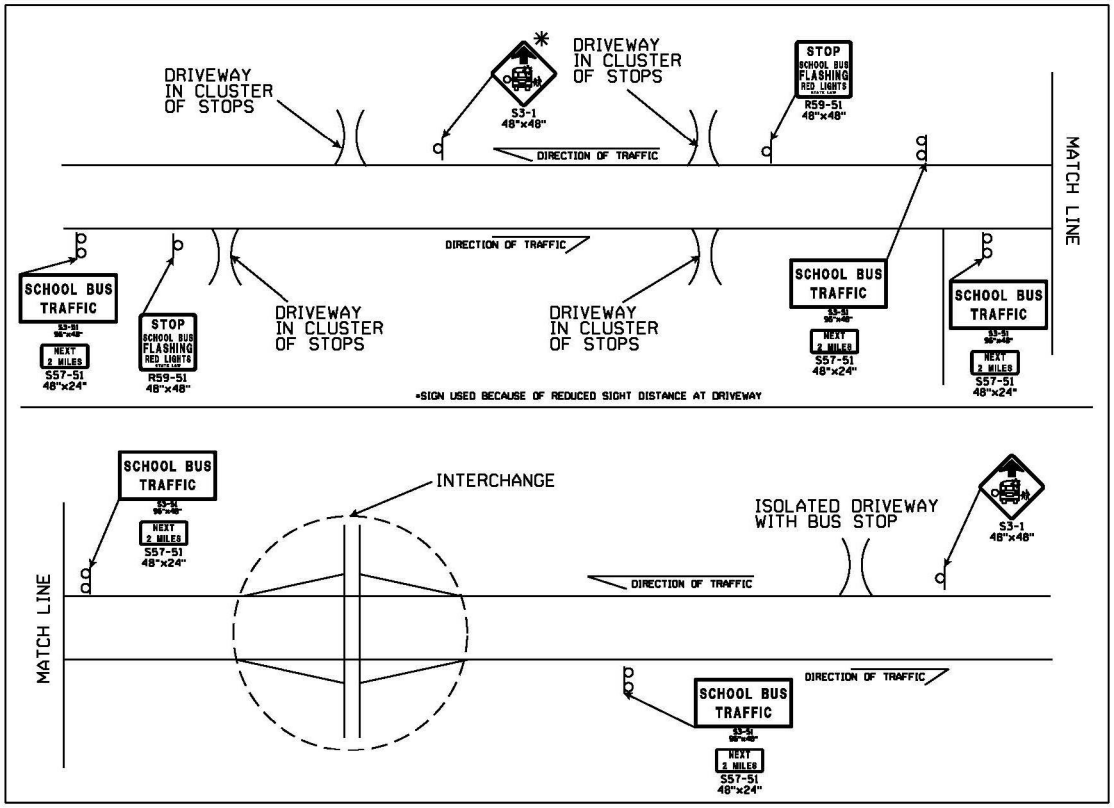
POLICY AND INSTALLATION GUIDELINES

For the application of this policy, the Region is encouraged to obtain a school bus route map or other information supplied by the school district to identify locations of the stops. The Region *should* contact school Districts each year as to where stops are no longer made so the signing can be adjusted accordingly, or where new stops are made. The Region *may* convey to the school officials that signs will be removed unless this information is provided. If the Region is not aware of stops, or the expectation of stops, the school bus stop signs will not be installed.

A map is provided by the Wisconsin Department of Public Instruction that shows all of the school district boundaries in the state. To order a copy of this map, the telephone number is 1-800-243-8782.

1. The "SCHOOL BUS TRAFFIC" (S3-51) sign, when required, *should* be placed on the right side of the roadway at the beginning of the segment of the expressway that includes the stops or driveways with potential stops. This sign is not intended to be used for isolated stops (see item #4 for isolated school bus stop signing). This sign **shall** be supplemented with the "NEXT __ MILES" (S7-3AP~~57-51~~) sign. For this sign, the Region *may* permit the school district the option of supplementing it with one or two flashing yellow beacons mounted directly above the sign. The beacons **shall** be activated by 365 day timers to accurately define the periods of school bus activity. The school district will be solely responsible for the installation, operation and maintenance of the flashing beacons. All existing flashing beacons that have been installed, operated and maintained by the Regions can continue to be operated and maintained by the Regions.
2. The "STOP FOR SCHOOL BUS FLASHING RED LIGHTS STATE LAW" (R59-51) sign *should* be used at the beginning of the segment of the expressway that includes the stops or driveways with potential stops. This sign *should* be erected after the "SCHOOL BUS TRAFFIC" (S3-51) sign outlined in item 1 above.
3. The "SCHOOL BUS TRAFFIC" (S3-51) sign *should* be repeated after every interchange and *may* be repeated after every State Trunk Highway, County Trunk Highway or after higher volume local road intersections. These signs **shall** be placed on the right side of the roadway only. Higher volume local road intersections are those serving retail shopping, commercial activity, recreational activity or other activities with high concentrations of entering/leaving traffic or heavy slow moving vehicle traffic. The S3-51 sign would not be installed after at-grade intersections of lower volume local roads that are dead ends or only serve individual property owners. The "NEXT __ MILES" (S7-3AP~~57-51~~) sign **shall** be used with these signs.
4. For individual school bus stops, within a cluster or isolated stops, the Region has the option of using the "SCHOOL BUS STOP AHEAD" (S3-1) warning sign at those selected stops. Criteria for this usage could be reduced sight distance, heavy volume of trucks, etc. The minimum site distance criteria for this facility is 720 feet, per the minimum visibility distance table for warning signs in ~~the WisMUTCD 2C-36~~TEOpS 2-3-6. If the Region elects to use these signs at selected stops, they *should* be placed a suggested minimum of 1000 feet in advance of the stop per TEOpS 2-3-5 ~~the WisMUTCD 2C-05~~. Flags and double marking of these signs are also optional.

Figure 1.



2-3-60 Children at Play Signs ~~May 2011~~November 2026

GENERAL

Section 2C.0~~2~~3 of the W~~is~~MUTCD allows for the development of customized word messages on warning signs. These customized word messages *may* be developed to fulfill signing needs based on engineering study or engineering judgment. However, Section 2C.0~~1~~2 of the W~~is~~MUTCD states that the usage of warning signs *should* be kept to a minimum, as the unnecessary use of warning signs tends to breed disrespect for all signs. The over usage of signs *may* result in information overload for the motorist, which can impact safety.

BACKGROUND

Periodically, the Department receives requests to install the following types of Child Crossing Signs:

Children at Play

Watch For Children

Slow Children

Usage of these types of signs has been discouraged by the Federal Highway Administration, Institute of Transportation Engineers, and many other States and Local Units of government for the following reasons:

1. Signs lose credibility with motorists when they appear too often.
2. Warning signs are most effective when they warn of consistent, not occasional conditions. Children are not likely to be consistently playing at a particular location in the street at all times (unlike at playgrounds or parks).
   As a result, the signs mentioned above could lose their effectiveness.
3. These signs provide parents and children with a false sense of security that their children are safe when playing in or near the street.
4. Some before and after studies have indicated no reductions in vehicle speeds or crashes with the signs present.
5. Because these signs are typically warning signs, they are not enforceable.
6. In lieu of signing, more effective countermeasures *may* be employed to increase motorist visibility on the roadway. Some of these countermeasures could include:
   a. Restricting parking or trimming vegetation to increase sight distance.
   b. Education and awareness efforts.
   c. Installation of traffic calming devices for urban low-speed areas.

POLICY FOR CHILD CROSSING SIGNS

1. No new Child Crossing Signs **shall** be installed on State Highways.
2. Existing Child Crossing Signs on State Highways *may* be allowed to remain until the end of their useful life. Other opportunities such as knockdown damage, improvement projects or change in conditions *may* make it possible to have the signs removed earlier.

2-3-64 Type I Object Markers under Keep Right Signs ~~December 2011~~November 2026

GENERAL AND BACKGROUND

The W~~is~~MUTCD, Section 2C.70~~-64~~ allows the usage of a Type I Object Marker (~~W5-54-sign~~OM1-3) to emphasize the approach end of a median island. This can give the median island additional visibility during nighttime, poor weather conditions or situations where the pavement markings or curb and gutter is covered by snow. The Object Marker can be especially helpful in higher speed areas (45 mph and above) and areas where medians start. Typically, many of these areas *may* have a Keep Right (R4-7) sign installed. An advantage of installing a secondary object marker (~~W5-54-sign~~OM1-3) below the Keep Right will allow for increased visibility of the approach end of the median because the Object Marker (~~W5-54-sign~~OM1-3) is mounted at 4 feet, which is more in the line of sight for a motorist. The Object Marker (~~W5-54-sign~~OM1-3) is manufactured with fluorescent yellow sheeting, so it will reflect well at night and have better daytime conspicuity as well.

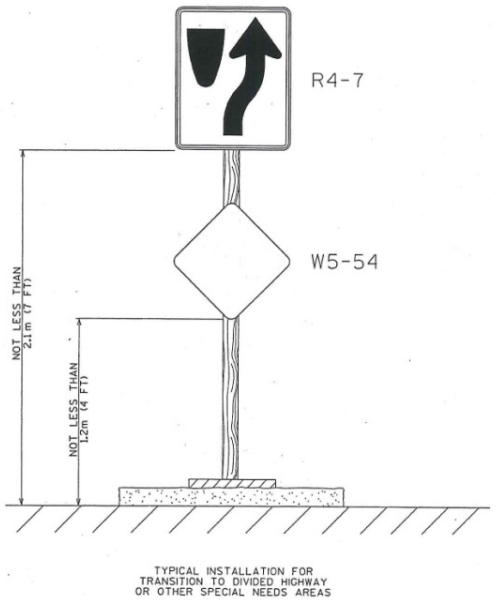
POLICY

1. The ~~W5-54-sign~~OM1-3 **shall** be placed below the Keep Right (R4-7 sign) at all 45 mph or higher posted speed limits where the highway transitions from an undivided to divided roadway (See Standard Detail Drawing 15C21-3).

2. The ~~W5-54 sign~~OM1-3 *should* be placed below the Keep Right (R4-7 sign) at the first median in a series of medians, where the posted speed in 45 mph or higher.
3. The OM1-3~~W5-54 sign~~ *may* be used (with or without the R4-7 sign) to emphasize approach ends of median islands for other areas that have exhibited problems with limited visibility or vehicle impacts.
4. The mounting height of the W5-54 sign **shall not** be less than 4 feet (see Figure 1).
5. The OM1-3~~W5-54 sign~~ *may* be placed on the back side of the post for the Keep Right (R4-7 sign), where additional emphasis is needed (typically areas with no curb and gutter). The OM1-3~~W5-54 signs~~ *should* be mounted back-to-back at the same mounting height.

~~**IMPLEMENTATION**~~

~~There is no formal phase-in period for installation of this signing. Signing field revisions *may* be accomplished through improvement projects or through the TMA process as Keep Right signs are routinely replaced. Signs *may* also be installed through the TMA process to address problem areas.~~



2-3-65 Rumble Strip Signing January 2018

GENERAL

In an effort to reduce run off the road and head-on collisions, the Department has implemented the usage of continuous rumble strips on rural two-lane roadways, in accordance with FDM 11-15-1. The rumble strips will be installed on the centerline location and the edgeline locations. The centerline and/or edgeline marking can either be applied within the rumble strip or to the side of the rumble strip.

The usage of centerline and shoulder rumble strips has proven to be quite effective since they were installed on STH 142, Kenosha County in 2006 as a test location. A 2005 NCHRP Report (Synthesis 339) has shown several states where crashes were reduced as a result of centerline rumble strips. However, the NCHRP report did indicate some potential concerns with the application of the centerline rumble strips. Motorists are not normally accustomed to continuous rumbles, especially on the centerline. There is the concern that upon running over a centerline rumble, a motorist could “react to the left” and thus move to the left of the centerline. There are also concerns from ambulance drivers that the driving over a centerline rumble would potentially cause monitors to malfunction.

Because the centerline rumbles are more unexpected to the motorist than edgeline rumbles, and in response to the concerns outlined above from the NCHRP report, WisDOT previously installed the Centerline Rumble Strip (W8-70 sign) on roadway segments having the centerline rumbles as an interim measure to assist in the education of motorists. Since that time, additional rural two-lane roadway segments have received centerline rumble strips, and motorists have become more accustomed to them. Therefore, these signs are no longer necessary.

The policy below will address the installation of centerline rumble strip warning signs on WisDOT maintained

roadways.

POLICY

1. The Centerline Rumble Strip (W8-70 sign) with a supplemental mileage plaque (W57-51 sign) **shall not** be installed.
2. Centerline Rumble Strip (W8-70 sign) with a mileage plaque (W57-51 sign) that have previously been installed on projects will be allowed to remain until the end of their useful life or when opportunities arise such as knockdown or damage or projects make removal practical.

2-3-70 Low Flying Plane Signs ~~November 2016~~November 2026

GENERAL AND BACKGROUND

Federal Aviation Regulations require aircraft, except when necessary for takeoff and landing, to maintain a minimum altitude of 1000' in congested areas, and 500' in other-than congested areas. Exceptions are also granted for certain restricted category aircraft, such as crop-dusting airplanes. These exceptions *may* cause airplanes to fly at a low altitude over the roadway, causing potential hazard or concern for motorists.

In the past, various signs have been installed to alert motorists to these low-flying aircraft. This policy will clarify when these signs *may* be installed, and establish a statewide standard sign for these locations.

POLICY

Low flying plane warning signs *may* be installed at locations where planes regularly fly at altitudes below 500' over or in the immediate vicinity of the roadway. Examples of these locations include airports with runways adjacent to the highway and fields with regular crop-dusting activities. FAA and Bureau of Aeronautics comments *may* also be taken into consideration.

Standard sign plate W11-57 has been developed for use at these locations. This sign *should* be installed per Condition B: Deceleration to the listed advisory speed (0 mph) in ~~Table 2C.4 of the WisMUTCD~~TEOpS 2-3-5 Table 1. No sign is necessary at the crossing itself.

IMPLEMENTATION

There is no formal phase-in period for installation of this signing. Existing non-standard signs will be allowed to remain in place until the end of their useful life. Useful life ends when the sign message no longer meets legibility or condition standards. Existing signs *may* be replaced prior to the end of their useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or when projects make replacement practical.

2-4-19.1 Business Route Marking — April 1997

The Business Route Marker is an auxiliary marker used to identify Business Routes which have been established pursuant to either Section 84.02(4) or 84.02(6) of the Statutes. The latter section terms them Alternate Routes, but they **shall** be signed as Business Routes.

Business route establishment begins with a locally initiated request to the Regional office. The Region **shall** require that the request come from a municipal official or body of the local community, not an association or chamber of commerce, etc. The Region **shall** request information on the appropriateness of the route, the unity of community regarding the location and service provided, the structural and geometric adequacy of the route, the adequacy of the traffic control, and such other factors as *may* be pertinent.

If the Region office finds the establishment to be in the interests of the motoring public it **shall** make a favorable recommendation to the State Traffic Engineer, who **shall** have the authority for approval.

When the approved route falls completely upon the existing state trunk highway and connecting highway system the Department will initially install and subsequently maintain all route marking.

When all or any portion of the approved route is on local streets or highways, including county trunk highways, the Department will agree to install the initial markers, but subsequent maintenance of the markers will be the responsibility of the community. The Department will however maintain those markers at the beginnings of the route which face traffic on the regular state trunk highway route.

Failure of the city or village to properly maintain the signs or to comply with other conditions of the approval will be cause for the Department to withdraw approval and remove the signs. Regional offices will be responsible for periodically inspecting the condition of all signs to ensure that they are kept in good condition.

If a business route is proposed related to a U.S. Highway designation the route has to have the approval of AASHTO. Please contact the central office Bureau of Traffic Operations for instructions regarding this approval.

2-4-33 Trailblazer Assemblies — April 1997

It *may* be desirable to provide trailblazing at key locations to enable unfamiliar motorists to find their way to certain major state trunk highways, particularly freeways. The Regions *should* analyze these needs and install or authorize the necessary signing. It is recommended that the trailblazing needs be discussed with the local officials and agreement reached as to the need for signing, the amount of signing and the details of locating and installing the signs. The Department *may* erect and maintain necessary signs on the STH system and on connecting highways, and *may* sell the signs to the local authority for installation on local streets. Locations on local streets *should* have Department approval. The Region is expected to inspect the signing periodically, regardless of who maintains it, and work out arrangements for correcting any deficiencies.

2-4-40 Historical Marker Guide Signs — ~~January 2018~~November 2026

GENERAL

All historical markers which have been approved by the State Historical Marker Committee and marked by the State Historical Society **shall** be signed in accordance with these guidelines.

1. Marker Adjacent to Any Highway. HISTORICAL MARKER ½ MILE (D5-63) signs, as appropriate, *should* be erected approximately one-half mile in advance of the marker. Distances other than ½ mile *may* be substituted where site conditions prevent using the distance of ½ mile. HISTORICAL MARKER (LEFT, OR RIGHT ARROW) (D5-64) signs **shall** be erected at the entrance to the marker.

   A wayside with a historical marker *should* have a HISTORICAL MARKER (DB5-69E) ~~sign~~ plaques installed below the WAYSIDE signs.

2. Marker Remote from the State Trunk Highway System. The historical marker must be located not more than 2 miles from the state trunk highway. The point where traffic must leave the state trunk highway to get to the marker **shall** ~~be a route giving~~ access to the marker by the most direct route. A HISTORICAL MARKER (LEFT OR RIGHT ARROW) sign would be installed in advance of the appropriate intersecting

roadway (See TEOpS 2-4-41). Signing for both directions of traffic *may* be provided at one location or signing *may* be provided for one direction of traffic at one location and for the other direction at another location. In either case, only a maximum of 4 signs per each marker *may* be erected on the state trunk highway. No signing *may* be used to direct traffic from one state trunk highway to a historical marker on another state trunk highway ~~Route~~route. The sign HISTORICAL MARKER (LEFT OR RIGHT ARROW), **shall not** be placed until the required signing (see Paragraph 1) on the local road has been installed by the maintaining authority.

All signs on the state trunk highway are furnished, erected and maintained by the Wisconsin Department of Transportation and all signs located on connecting streets or local streets are the responsibility of the maintaining authority.

2-4-41 Advance Supplemental Guide Signs November 2016

PURPOSE

The Department places signs to various traffic generating facilities on the state highway system. In the past, several of these facilities have been signed with advance guide signs (…½ Mile or Road To…½ Mile) located ¼ to 1 mile in advance of the required turn, and directional guide signs (Name of Facility with arrow) located 0-1000' from the turn. This practice has been inconsistent across the state. This policy will clarify when to install advance guide signs, and where both advance and directional guide signs *should* be located. This policy will not define which facilities *may* be signed for. Refer to TEOpS 2-15-3 for further information.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional Highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two lane or multilane facilities.

Traffic Generators are defined as any facility, activity, or special point of interest which attracts large numbers of people, the majority of whom are unfamiliar with the local area and/or access route.

POLICY

Facilities Adjacent to Any Highway

These facilities have a driveway directly off of a State or US Highway. These facilities *may* be located on conventional highways or expressways. Facilities adjacent to a highway that qualify for traffic signage are typically publicly owned and operated locations serving the motoring public. Examples of these facilities include Waysides and Historical Markers.

Advance guide signs for qualifying facilities *should* be installed approximately one-half mile in advance of the driveway. Other distances *may* be substituted where site conditions prevent using the distance of ½ mile.

Directional guide signs **shall** be installed at the entrance to the facility.

Facilities Remote from the State Trunk Highway System

These facilities do not have driveways on a State or US Highway; therefore, the motorist would be required to turn off of the highway onto a county or local road to access the facility. Many types of facilities *may* qualify for this type of signing.

Advance guide signs (Road To…1/2 Mile) *should not* be installed for these facilities.

Directional guide signs for qualifying facilities *should* be installed approximately 500' in advance of the appropriate intersecting roadway. This distance *may* be adjusted based on field conditions, but *should not* be less than 200' in rural areas or 100' in urban areas. A word message (Next Right, Second Left, etc.) *may* be used in place of an arrow where necessary.

IMPLEMENTATION

There is no formal phase-in period for installation of this signing. Existing signs will be allowed to remain in place until the end of their useful life. Useful life ends when the sign message no longer meets legibility or condition standards. Existing signs *may* be replaced prior to the end of their useful life when opportunities arise

such as knockdown or damage, when other work is occurring nearby, or when projects make replacement practical.

2-4-43 Conventional Road Intersections ~~August~~ November ~~2021~~2026

BACKGROUND AND PURPOSE

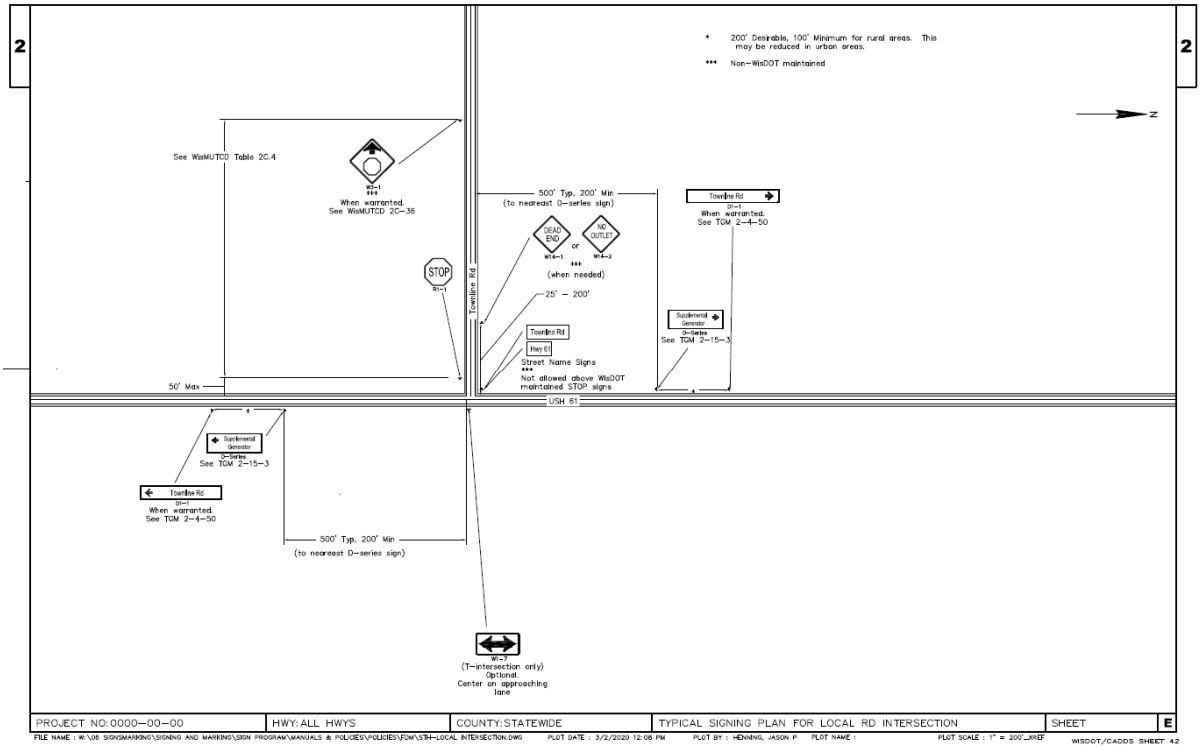
The WMUTCD Section 2D.29 to 2D.34 ~~29 to 2D-32~~ provides additional guidance on route assembly signs. TEOpS Section 2 covers the cities that ~~should~~*should* be on each sign:

* Refer to section 2-15-3 and 2-15-5 for names of cities that *should* be placed on Destination Signs
* Refer to Section 2-4-48 for unincorporated towns that *should* be on the D1-1 Signs.
* Refer to Section 2-15-36 for names of cities that *should* be placed on Distance Signs.

Policy

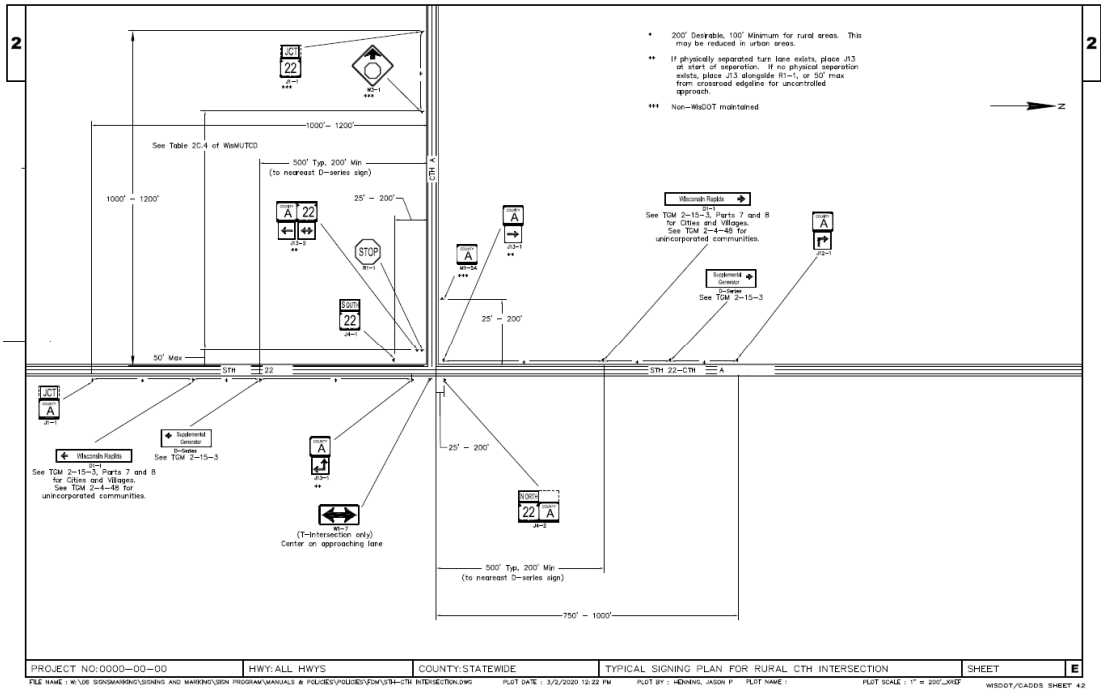
Local Approach to a STH

1. Install Destination signs (D1-series) and Supplemental Generators signs if warranted.
2. Double Night Arrow (W1-7) sign is optional.
3. Reassurance Assemblies (J4-series) *should* not be installed after these intersections.
4. Stop Sign (R1-1) or Yield Sign (R1-2) are required.
5. Install Speed Limit Signs (R2-1) 200’ for the intersection if it is required based on TEOpS 2-2-13.



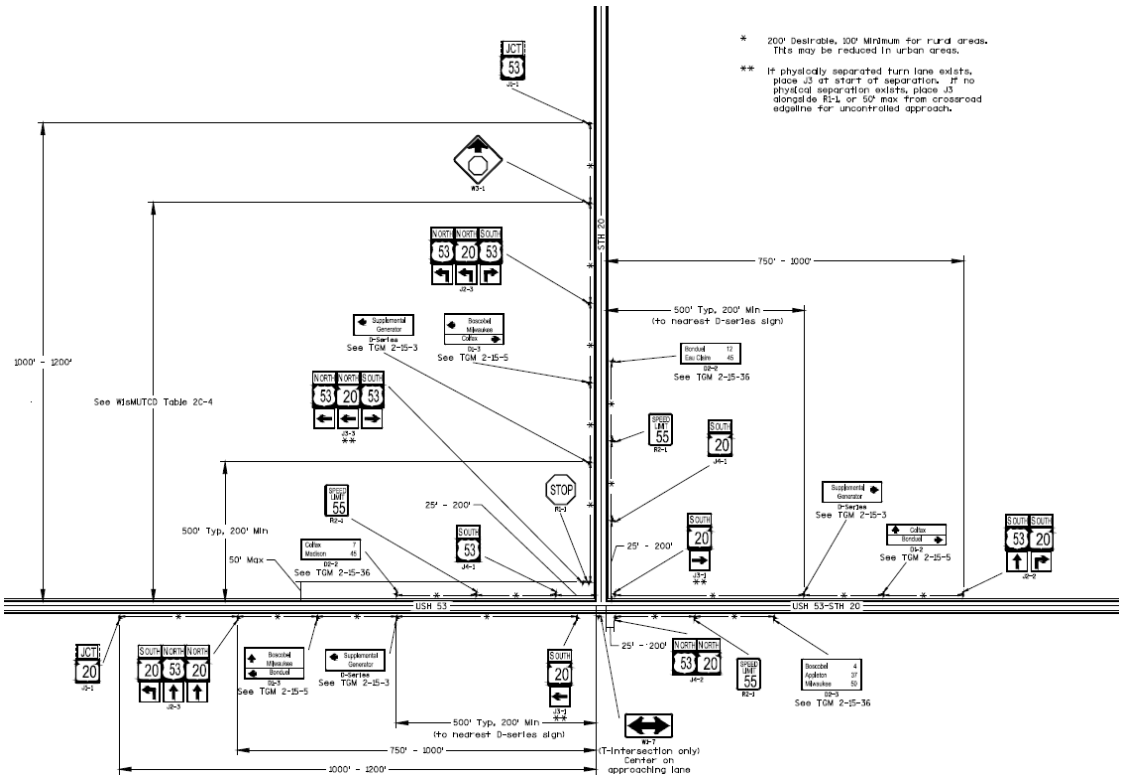
County Highway Approach to a STH

1. Install Destination signs (D1-series) and Supplemental Generators signs if warranted.
2. Double Night Arrow (W1-7) sign ~~should~~*should* be used at T intersections.
3. Route Assemblies (J-series) ~~should~~*should* be used:
    a. Junction to a ~~Couth~~ County Highway J1 and J13
    b. Concurrent with a County Highway J12 and J13
4. Reassurance~~s~~ Assembly (J4-series) ~~should~~*should* be installed.
5. Stop Sign (R1-1) and Route Assembly (J13-series) are required.
6. Install Speed Limit Signs (R2-1) 200’ for the intersection if it is required based on TEOpS 2-2-13.



STH/USH Highway Approach to a STH

1. Destination signs (D1-series) and Supplemental Generators signs ~~should~~*should* be used.
2. Double Night Arrow (W1-7) sign **shall** be used on all T intersections.
3. Route assembly (J-series) signs ~~should~~*should* be used.
4. Reassurance assembly (J4-series), Distance (D2-series) and speed limit signs (R2-1) ~~should~~*should* be installed after all state to state or us to state highways.
5. Stop Sign (R1-1) and Route Assembly (J3-series) are required. J3 ~~may~~*may* be moved back from the intersection 200' or raised to 8' if there are determined to be sight issues.
6. If it is an all way stop, ~~use~~ utilize~~the~~ R1-3-P ~~signs~~plaques.



2-4-44 Conventional Roads on Approaches to Interchanges ~~August~~ November ~~2021~~2026

BACKGROUND AND PURPOSE

The WMUTCD Section 2D-45 states that guide signing **shall** be utilized for multi-lane conventional roads approaching an interchange. The guide signs **shall** incorporate the destination, route shield and cardinal direction arrow.

"Enhanced" guide signs that incorporate the destination, route shield and cardinal direction arrow are referred to as Entrance Direction signs in the WMUTCD. However, it *should* be noted that the WMUTCD does not require the usage of Entrance Direction signs at all multi-lane conventional roads approaching an interchange. Entrance Direction signs can get quite large and costly to install and maintain. This *may* be especially true if there are right-of-way restrictions that require the usage of overhead guide signs.

However, there are applications on certain interchange crossroads where the enhanced type of Entrance Direction signs are valuable, specifically for arterial interchange crossroads with higher traffic volumes. Guide signing for collector/distributor types of interchange crossroads can, in most cases, be accomplished by traditional means with independent route assemblies (J-series) and destination/direction (D1-series) signs.

This policy will differentiate between the different types of guide signing for interchange crossroads (both single and multi-lane) and provide guidance as to the types of guide signing that *should* be used.

DEFINITIONS

Arterial interchange crossroads are defined as roadways used primarily by through traffic, usually on a continuous route or a highway designated as part of an arterial system.

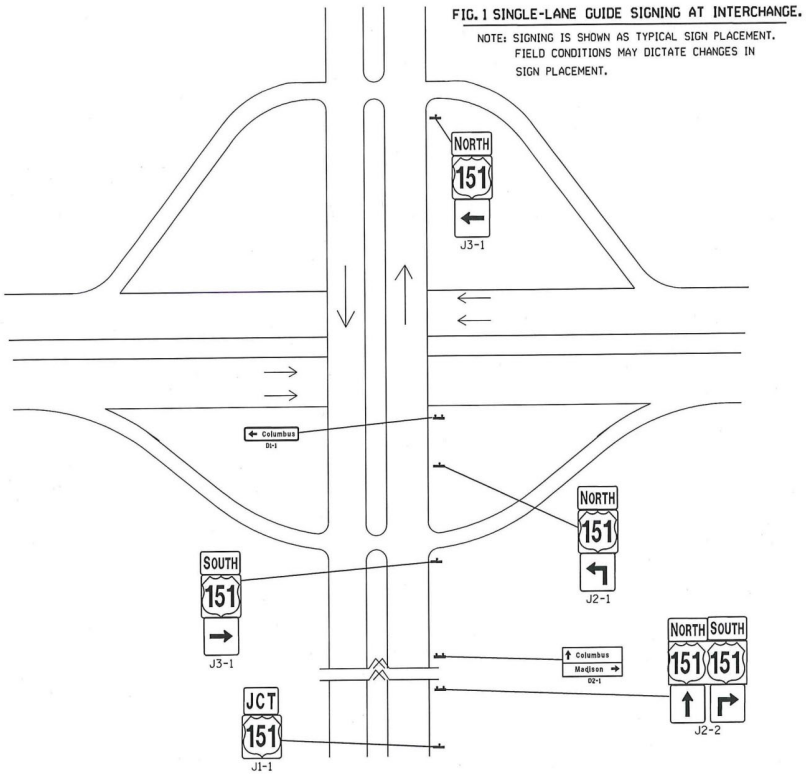
Collector/distributor interchange crossroads are defined as roadways that in rural areas connect small towns and local highways to arterials highways and in urban area provides land access and traffic circulation within residential, commercial, and business areas and connects local highways to the arterial highways.

POLICY

Single-lane Crossroad Approaches to Interchange (See Figure 1)

1. Traditional route assemblies (J-series) *should* be used.
2. Destination/Direction signs (D1-series) *should* be used.

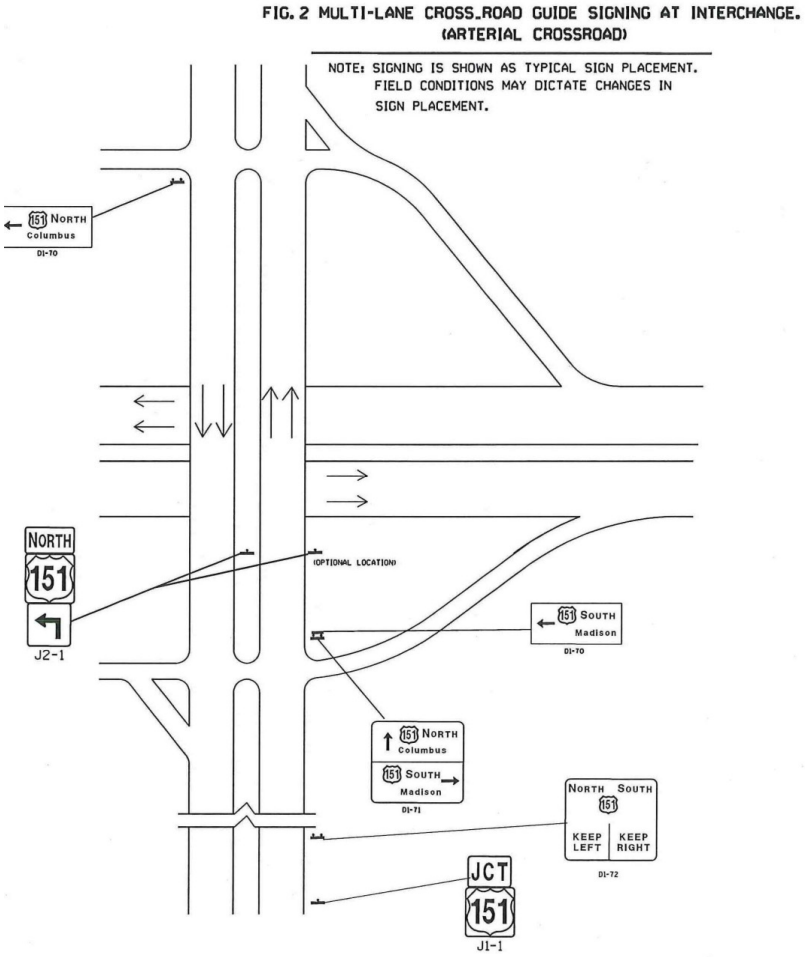
Figure 1. Single-lane Guide Signing at Interchange



Multi-lane **Arterial** Crossroad Approach to Interchange (See Figure 2)

1. The junction assembly (J1-series) *should* be the first sign used in the series.
2. The advanced Entrance Direction (D1-72 sign) *should* follow the junction assembly.
3. The Entrance Direction sign (D1-71) *should* be used to designate the direction of travel (left, right or ahead).
4. An advance left turn assembly (J2-series) *should* be used to provide guidance for the second ramp. The primary location of the advance left turn assembly *should* be in the median. The advance left turn assembly *may* be placed on the right side as an optional location.
5. An Entrance Direction sign (D1-70) *should* be used to provide guidance for the second ramp. It ~~should~~*should* be installed in the median unless space prohibits it. If space does not allow sign can be installed across in the median island or on the right side. Make sure visibility from the ramp is still adequate if installed on the right side.

Figure 2. Multi-lane Crossroad Guide Signing at Interchange (Arterial Crossroad)

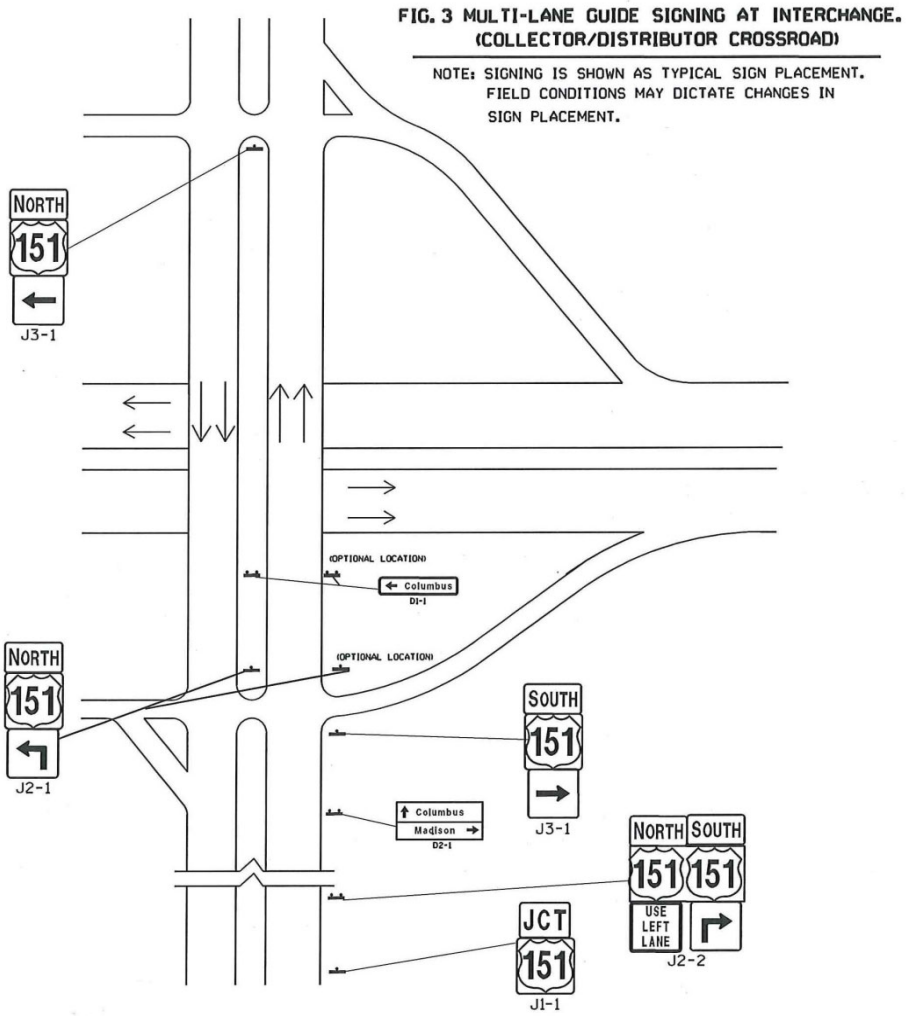


Multi-lane **Collector/Distributor** Crossroad Approach to Interchange (See Figure 3)

1. The junction assembly (J1-series) *should* be the first sign used in the series.
2. Advanced route assemblies (J2-series) *should* follow the junction assembly. The left movement *may* utilize an up arrow or the word USE LEFT LANE. The left lane portion of the advanced route assembly *may* be mounted in the median.
3. The traditional destination/direction sign (D1-series) *should* be used to designate the destination and direction of travel.
4. A route turn assembly (J3-series) *should* be installed for the first ramp.

5. An advance left turn assembly (J2-series) *should* be used to provide guidance for the second ramp. The primary location of the advance left turn assembly *should* be in the median. The advance left turn assembly *may* be placed on the right side as an optional location.
6. A route turn assembly (J3-series) *should* be installed for the second ramp.

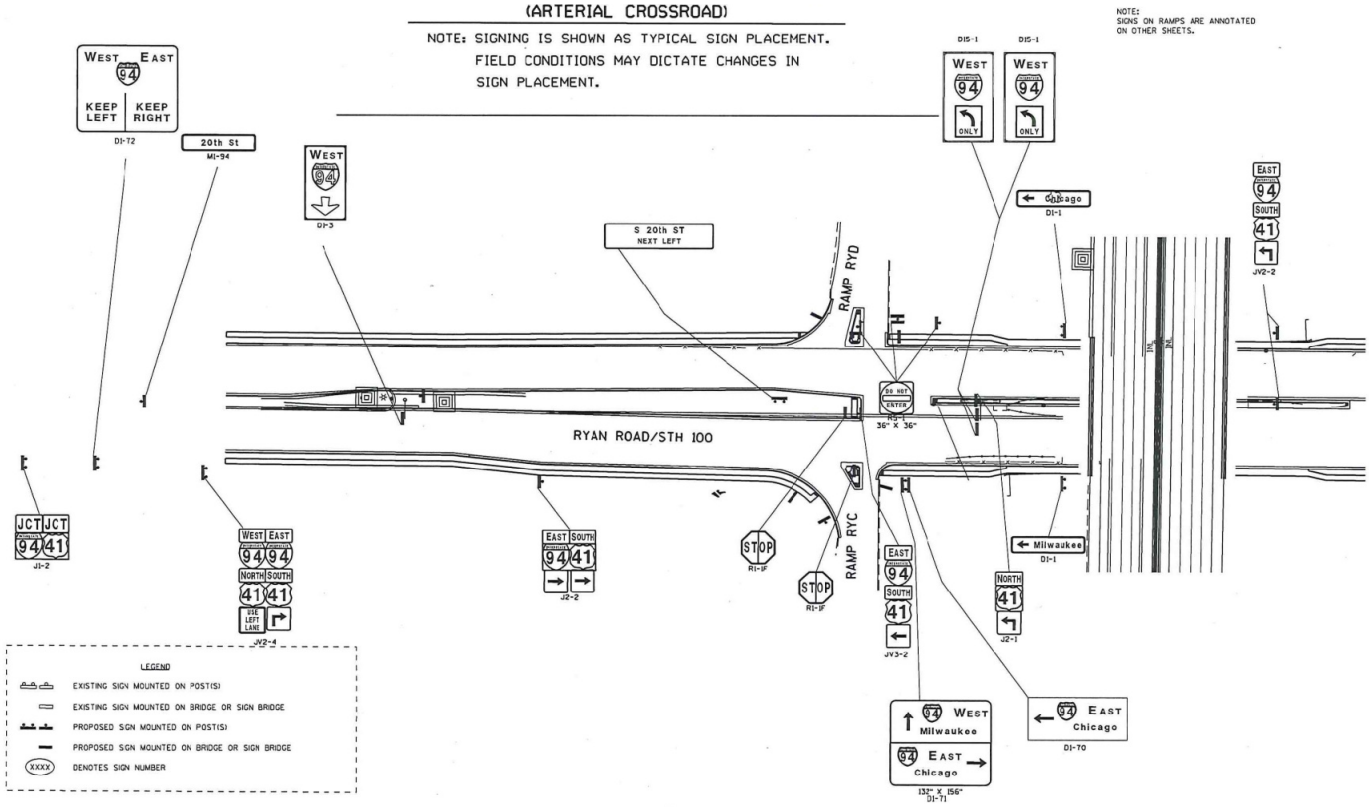
Figure 3. Multi-lane Guide Signing at Interchange (Collector/Distributor Crossroad)



Overhead Signing Options for Multi-lane Arterial Crossroad Approach to Interchange (See Figure 4)

Overhead guide signs *may* be used in lieu of the ground mounted Entrance Direction signs for some multi-lane arterial crossroad approaches to interchanges. Qualifying factors for overhead guide signs would be limited right-of-way that would prohibit the installation of ground mounted guide signs, high traffic volumes, dual/triple left turn lanes and look-ahead mandatory left-turn lanes.

Figure 4. Overhead Guide Signing Multi-lane Crossroad at Interchange



2-4-45.1 Emergency Hospital Signing ~~January 2018~~November 2026

PURPOSE

The purpose of the official Hospital sign is to designate hospitals with emergency care facilities. It is not intended for designating hospitals that cannot accept emergencies.

Signs (STANDARD SIGN D9-2 "H" symbol with appropriate arrow) will be furnished and maintained by the Department, on the state trunk highway system (if the state trunk highway does not lead directly past the hospital) for public and private hospitals meeting the ~~American Medical Association (AMA)~~ criteria in this policy. Thus signs would be warranted on a freeway or a state trunk highway that bypasses a community having a qualifying hospital. When a highway bypasses a municipality having a hospital, the Department will erect signs at appropriate locations on the bypass where motorists can best be directed into the municipality to the hospital.

Hospital signs and trailblazers on connecting streets and on local streets will not be furnished, erected, or maintained by the Department. At that point any further trailblazing is the responsibility of the local unit of government having maintenance jurisdiction over the highway carrying the route to the hospital.

No signing will be done on the state trunk highway system until signs have been erected on the local portion of the route to the hospital.

H signs *may* be erected only after being authorized by the Central Office, when the criteria in the following guidelines are met.

The following are guidelines for hospital signing:

1. A sign ~~may~~*may* be warranted for a public or private hospital which has continuous emergency care capability available 24 hours a day, 7 days a week by an emergency physician and emergency nursing staff physically present in the emergency department ~~as defined by the American Medical Association and which is in their categorized report. Attached to the policy is a listing of hospitals that have been approved by the American Medical Association for Emergency Care Facilities. Hospitals included on this list may be signed~~ provided they meet the rest of the criteria outlined in this policy.
2. A sign ~~may~~*may* be warranted on a freeway when the hospital is within a community contiguous to or near the freeway, or not more than 15 miles from the freeway.

3. A sign ~~may~~*may* also be warranted on a major highway which is not a freeway but which bypasses a community having a qualifying hospital.
4. On a freeway or other highway that bypasses a community having a hospital, a sign will be erected:
    a. Only at the point or points giving access to the most direct route to the hospital.
    b. Only once for traffic in each direction on a given highway.
5. Hospital signs will not be erected on State Trunk Highways leading directly into communities having hospitals except as those highways are HOSPITAL routes as described in item 6.
6. Hospital signs and trailblazers will be erected and maintained on the State Trunk Highway System by the Department but not until it receives assurance from the hospital administration that any Hospital Route Signs required on local roads and streets have been erected.
7. The name of the hospital will be utilized only in those cases where there is more than one hospital on the route~~, each of which appears on the list of hospitals,~~ which have approved emergency facilities, and each of which is approximately the same distance from the point at which the routes to the hospitals diverge. The hospital name sign will be utilized only at that divergence point, and not with other trailblazers between the beginning of the signed hospital route and the point of divergence, nor between the point of divergence and the hospital itself.
~~7.~~8. Any Emergency Medical Care Facilities are not called a “Hosptial” but qualify for Emergency Hospital signing **shall** be signed for as a Hospital per this policy.

The Department will remove signs from the state trunk highways when notified that a facility does not meet the criteria for an Emergency ~~Care Facility~~Hospital Signing ~~and are not included on the attached lists~~.

~~City~~	~~Region~~	~~Hospital~~
~~Antigo~~	~~NC~~	~~Langlade Hospital - An Aspirus Partner~~
~~Berlin~~	~~NC~~	~~Berlin Memorial Hospital~~
~~Eagle River~~	~~NC~~	~~Ministry Eagle River Memorial Hospital~~
~~Friendship~~	~~NC~~	~~Moundview Memorial Hospital & Clinics, Inc.~~
~~Marshfield~~	~~NC~~	~~Ministry Saint Joseph's Hospital~~
~~Merrill~~	~~NC~~	~~Ministry Good Samaritan Health Center~~
~~Park Falls~~	~~NC~~	~~Flambeau Hospital~~
~~Rhinelander~~	~~NC~~	~~Ministry Saint Mary's Hospital~~
~~Shawano~~	~~NC~~	~~Shawano Medical Center~~
~~Stevens Point~~	~~NC~~	~~Ministry Saint Michael's Hospital~~
~~Tomahawk~~	~~NC~~	~~Ministry Sacred Heart Hospital~~
~~Waupaca~~	~~NC~~	~~Riverside Medical Center~~
~~Wausau~~	~~NC~~	~~Aspirus Wausau Hospital~~
~~Weston~~	~~NC~~	~~Ministry Saint Clare's Hospital~~
~~Wild Rose~~	~~NC~~	~~Wild Rose Community Memorial Hospital~~
~~Wisconsin Rapids~~	~~NC~~	~~Riverview Hospital Association~~
~~Woodruff~~	~~NC~~	~~Howard Young Medical Center~~
~~Appleton~~	~~NE~~	~~Appleton Medical Center~~
~~Appleton~~	~~NE~~	~~St. Elizabeth Hospital~~
~~Chilton~~	~~NE~~	~~Calumet Medical Center~~
~~Fond du Lac~~	~~NE~~	~~Agnesian HealthCare / St. Agnes Hospital~~
~~Green Bay~~	~~NE~~	~~Aurora BayCare Medical Center in Green Bay~~
~~Green Bay~~	~~NE~~	~~Bellin Hospital~~
~~Green Bay~~	~~NE~~	~~St. Mary's Hospital Medical Center~~
~~Green Bay~~	~~NE~~	~~Green Bay - St. Vincent Hospital~~
~~Manitowoc~~	~~NE~~	~~Holy Family Memorial Inc.~~
~~Marinette~~	~~NE~~	~~Bay Area Medical Center~~
~~Neenah~~	~~NE~~	~~Children's Hospital of Wisconsin - Fox Valley~~
~~Neenah~~	~~NE~~	~~Theda Clark Medical Center~~
~~New London~~	~~NE~~	~~New London Family Medical Center~~
~~Oconto~~	~~NE~~	~~Bellin Health Oconto Hospital~~
~~Oconto Falls~~	~~NE~~	~~Community Memorial Hospital~~
~~Oshkosh~~	~~NE~~	~~Aurora Medical Center in Oshkosh~~
~~Oshkosh~~	~~NE~~	~~Mercy Medical Center~~
~~Ripon~~	~~NE~~	~~Ripon Medical Center Inc.~~

Sheboygan	NE	Aurora Sheboygan Memorial Medical Center
Sheboygan	NE	St. Nicholas Hospital
Sturgeon Bay	NE	Ministry Door County Medical Center
Two Rivers	NE	Aurora Medical Center of Manitowoc County
Amery	NW	Amery Regional Medical Center
Ashland	NW	Memorial Medical Center
Baldwin	NW	Western Wisconsin Health
Barron	NW	Mayo Clinic Health System - Northland in Barron
Black River Falls	NW	Black River Memorial Hospital
Bloomer	NW	Mayo Clinic Health System - Chippewa Valley in Bloomer
Chippewa Falls	NW	St. Joseph's Hospital
Cumberland	NW	Cumberland Healthcare
Durand	NW	Chippewa Valley Hospital
Eau Claire	NW	Mayo Clinic Health System in Eau Claire
Eau Claire	NW	Oakleaf Surgical Hospital
Eau Claire	NW	Sacred Heart Hospital
Grantsburg	NW	Burnett Medical Center
Hayward	NW	Hayward Area Memorial Hospital
Hudson	NW	Hudson Hospital & Clinics
Ladysmith	NW	Rusk County Memorial Hospital
Medford	NW	Aspirus Medford Hospital & Clinics, Inc.
Menomonie	NW	Mayo Clinic Health System - Red Cedar, Inc.
Neillsville	NW	Memorial Medical Center
New Richmond	NW	Westfields Hospital
Osceola	NW	Osceola Medical Center
Osseo	NW	Mayo Clinic Health System - Oakridge in Osseo
Rice Lake	NW	Lakeview Medical Center
River Falls	NW	River Falls Area Hospital
Shell Lake	NW	Indianhead Medical Center / Shell Lake
Spooner	NW	Spooner Health System
St. Croix Falls	NW	St. Croix Regional Medical Center
Stanley	NW	Ministry Our Lady of Victory Hospital
Superior	NW	St. Mary's Hospital of Superior
Whitehall	NW	Gundersen Tri-County Hospital & Clinics
Brookfield	SE	Wheaton Franciscan - Elmbrook Memorial Campus
Burlington	SE	Aurora Memorial Hospital of Burlington
Elkhorn	SE	Aurora Lakeland Medical Center in Elkhorn
Franklin	SE	Midwest Orthopedic Specialty Hospital
Franklin	SE	Wheaton Franciscan Healthcare - Franklin
Glendale	SE	Orthopaedic Hospital of Wisconsin
Grafton	SE	Aurora Medical Center in Grafton
Hartford	SE	Aurora Medical Center in Hartford
Kenosha	SE	Aurora Medical Center in Kenosha
Kenosha	SE	Kenosha - UHS, Inc.
Lake Geneva	SE	Mercy Walworth Hospital and Medical Center
Menomonee Falls	SE	Community Memorial Hospital of Menomonee Falls, Inc.
Mequon	SE	Columbia Center
Mequon	SE	Columbia St Mary's Inc. - Ozaukee Campus
Milwaukee	SE	Aurora Sinai Medical Center
Milwaukee	SE	Aurora St. Luke's Medical Center / South Shore
Milwaukee	SE	Children's Hospital of Wisconsin
Milwaukee	SE	Columbia St. Mary's Hospital Milwaukee
Milwaukee	SE	Froedtert Memorial Lutheran Hospital Inc.
Milwaukee	SE	Wheaton Franciscan Healthcare - St. Francis
Milwaukee	SE	Wheaton Franciscan - St. Joseph Campus
Oconomowoc	SE	Oconomowoc Memorial Hospital
Racine	SE	Wheaton Franciscan Healthcare - All Saints, Inc.
Summit	SE	Aurora Medical Center in Summit
Waukesha	SE	Waukesha Memorial Hospital
Wauwatosa	SE	Midwest Spine and Orthopedic Hospital and Wisconsin Heart Hospital
West Allis	SE	Aurora West Allis Medical Center
West Bend	SE	St. Joseph's Community Hospital of West Bend Inc.
Baraboo	SW	St. Clare Hospital & Health Services

Beaver Dam	SW	Beaver Dam Community Hospitals Inc.
Beloit	SW	Beloit Health System
Boscobel	SW	Gundersen Boscobel Area Hospital and Clinics
Columbus	SW	Columbus Community Hospital
Darlington	SW	Memorial Hospital of Lafayette Co.
Dodgeville	SW	Upland Hills Health Inc.
Edgerton	SW	Edgerton Hospital & Health Services
Fort Atkinson	SW	Fort HealthCare
Hillsboro	SW	Gundersen St. Joseph's Hospital & Clinics
Janesville	SW	Mercy Hospital and Trauma Center
Janesville	SW	St. Mary's Janesville Hospital
La Crosse	SW	Gundersen Lutheran Medical Center
La Crosse	SW	Mayo Clinic Health System - Franciscan Healthcare in La Crosse
Lancaster	SW	Grant Regional Health Center
Madison	SW	Meriter-Unity Point Health
Madison	SW	St. Mary's Hospital
Madison	SW	UW Hospital & Clinics
Mauston	SW	Mile Bluff Medical Center
Monroe	SW	Monroe Clinic
Platteville	SW	Southwest Health Center
Portage	SW	Divine Savior Healthcare
Prairie du Chien	SW	Prairie du Chien Memorial Hospital
Prairie du Sac	SW	Sauk Prairie Healthcare
Reedsburg	SW	Reedsburg Area Medical Center
Richland Center	SW	The Richland Hospital Inc.
Sparta	SW	Mayo Clinic Health System - Franciscan Healthcare in Sparta
Stoughton	SW	Stoughton Hospital Association
Tomah	SW	Tomah Memorial Hospital
Viroqua	SW	Vernon Memorial Healthcare
Watertown	SW	UW Health Partners Watertown Regional Medical Center
Waupun	SW	Waupun Memorial Hospital

2-4-45.2 Emergency Medical Care Signing Policy March 2016

PURPOSE

The purpose of emergency medical services signing is to provide direction for the motorist to the closest emergency medical care facility or hospital. The MUTCD, Section 2I.02 allows the usage of emergency medical care signing to facilities other than hospitals provided they meet certain criteria. The MUTCD also encourages states to develop guidelines for the usage of the Emergency Medical Services Sign. The Emergency Medical Care sign (D9-13C sign or E10-63 or E10-64 sign) provides direction to designated facilities other than hospitals that provide 24-hour emergency care.

Signs (Standard sign D9-13C with appropriate arrow or E10-63 or E10-64 sign) will be furnished and maintained by the Department on the state trunk highway system (if the state trunk highway does not lead directly past the emergency care facility) for emergency medical care facilities that meet the criteria specified in Section B of this policy. When a highway bypasses a municipality that has a qualifying emergency medical care facility, the Department will erect signs at appropriate locations on the bypass where motorists can best be directed into the municipality to the emergency medical care facility.

Signs and trailblazers on connecting streets and on local streets will not be furnished, erected, or maintained by the Department. At that point any further trailblazing is the responsibility of the local unit of government having maintenance jurisdiction over the highway carrying the route to the emergency medical care facility.

Signs *may* be erected only after being authorized by the Bureau of Traffic Operations, when the criteria in the following guidelines are met.

POLICY

The following are guidelines for emergency medical care facility signing:

1. A sign *may* be warranted for a public or private emergency medical care facility which has continuous emergency care capability as defined by the American Medical Association (AMA) and which is AMA Board Certified. Attached to the policy is a listing of emergency medical care facilities that are Board

Certified by the AMA. Emergency Medical Care facilities included on this list *may* be signed provided they meet the rest of the criteria outlined in this policy.

2. The following criteria **shall** be used to determine if an Emergency Medical Care facility qualifies for signing:

    a. Continuous 24-hour, 7 days per week emergency care capability.

    b. Emergency department facilities with a physician trained in emergency medical procedures on duty (or emergency care nurse on duty within the emergency department with a physician on call).

    c. Board certified by the American Medical Association and a licensed medical care facility by the State of Wisconsin.

    d. Equipped for radio voice communications with ambulances and other hospitals.

3. A sign *may* be warranted on a freeway when the emergency medical care facility is within a community contiguous to or near the freeway, or not more than 15 miles from the freeway.

4. A sign *may* also be warranted on a major highway which is not a freeway but which bypasses a community having a qualifying emergency medical care facility.

5. On a freeway or other highway that bypasses a community having an emergency medical care facility, a sign will be erected:

    a. Only at the point or points giving access to the most direct route to the facility.

    b. Only once for traffic in each direction on a given highway.

6. Emergency Medical Care signs *should not* be erected on the same State Trunk Highway within the same community having a qualifying hospital that is already signed. An exception can be made if the emergency medical care facility is closer to the state trunk highway as described in Item 8.

7. Signs and trailblazers *may* be erected and maintained on the State Trunk Highway System by the Department but not until after trailblazer signs on local roads and streets have been erected.

8. If a new hospital is signed on the same highway in a community that has emergency medical care facility signing, the existing emergency medical care facility signs **shall** be removed. An exception can be made if the emergency medical care facility is closer than the hospital at the same intersection or interchange. In this case, both facilities could be signed.

9. The name of the emergency care facility will not be utilized on the signing unless there is more than one facility on the route, each of which appears on the list of approved emergency medical care facilities, and each of which is approximately the same distance from the point at which the routes to the facilities diverge. The emergency medical care facility name sign will be utilized only at that divergence point, and not with other trailblazers between the beginning of the signed route and the point of divergence, nor between the point of divergence and the emergency medical care facility itself.

The Department will remove signs from the state trunk highways when notified that a facility does not meet the criteria for an Emergency Care Facility, and are not included on the attached list.

Summary of AMA Board Certified Emergency Medical Care Facilities

Updated October 2015

Hospital	Address	City	Region	Remarks
St. Mary's Care Center	Reiner Rd.	Sun Prairie	SW	
Mercy Hospital and Trauma Center	3400 Deerfield Dr.	Janesville	SW	
Pro Health Care	240 Maple Ave.	Mukwonago	SE	

2-4-48 Signing for Unincorporated Communities June 2021

PURPOSE

The purpose of this policy is to establish standards for the use of signs identifying or directing to unincorporated communities.

DEFINITIONS

Unincorporated communities are defined as historically named and recognized communities without official

boundaries or government, generally located within a township, which often will have a different name.

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

POLICY

Identifying Unincorporated Communities

Signs *may* be installed on conventional state trunk highways as near as possible to the generally recognized entrance to an unincorporated community, subject to WisDOT general signing criteria and the following guidelines.

1. The community *should* have a reasonable permanent population (a minimum of 50 people) within a reasonable geographic proximity (1/4 miles in each direction of a common intersection or ½ mile in diameter).
2. The request for signs request must come from residents and/or business owners within the unincorporated community and be approved in writing by the governing body of the township or municipality surrounding the unincorporated community.
3. Signs identifying unincorporated communities **shall not** be permitted on freeways or expressways.
4. These signs **shall** be made according to the unincorporated version of the DOT standard sign code I2-3.

Directing to Unincorporated Communities

Signs *may* be installed on expressways or conventional state trunk highways directing to an unincorporated community, subject to WisDOT general signing criteria and the following guidelines:

1. The unincorporated community must have unincorporated community signs on the state highway system.
2. The unincorporated community must be located within five miles of the State Highway intersection.
3. When the unincorporated community is located on a roadway other than a State Trunk Highway, signs identifying the community on that roadway must be in place prior to allowing any sign on a state highway directing to the community.
4. The sign(s) request must come from residents and/or business owners within the unincorporated community and be approved in writing by the governing body of the township or municipality surrounding the unincorporated community.
5. Signs directing to unincorporated communities **shall not** be permitted on freeways. Such signs *may* be permitted on expressway approaches to an at-grade intersection. They **shall not** be permitted on the expressway approaches to an interchange exit.
6. These signs **shall** be made according to the DOT standard sign code D1-1.

Existing unincorporated community signs that do not meet the WisDOT general signing criteria and above guidelines *may* remain until the end of their useful life. Useful life is defined as undamaged and legible to drivers. Once such non-conforming signs have reached the end of their useful life, they **shall** be removed and **shall not** be replaced.

2-4-48.1 Neighborhood Watch Signing — August 2009

PURPOSE

Wisconsin State Statute 66.0429 allows cities or villages to place Neighborhood Watch signs upon the highway right-of-way within its corporate limits. Per Statute, the program is required to be authorized by the law enforcement agency of the city or village and must be approved by the city council or village board. Furthermore, State Statute 66.0429 (2) states that the sign must be of a uniform design approved by the

Department of Transportation. Often times the Department is requested to provide a detail of the official sign.

Communities that have adopted such a program often request signing on the state highway system. The Department controls traffic signs on highways maintained by the state. Local governments do not have the authority to erect signs on those highways except when written permission is provided by the Department.

DEFINITIONS

Freeways are defined as arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional highways are defined as divided undivided roadway facilities that have limited access with no grade separations at intersections. These highways *may* be two lane or multilane facilities.

POLICY

The Department *may* permit local governments to place signs on highways under WisDOT jurisdiction subject to the requirements included here:

1. The city or village must have a neighborhood watch program in place that is authorized by the law enforcement agency of the city or village and approved by the city council or village board.
2. Requests for a permit to allow these signs must be in writing to the WisDOT Regional Office and *should* contain the following information:
    a. Locations where signs are to be installed, including State highway route number and distance to the nearest public roadway intersection
    b. Sign offset (distance from edge of travel lane) and type of post to be used
    c. Assurance that sign will be free standing (not attached to other signs)
    d. Documentation of city or village program.
3. The local government **shall** be responsible for supplying, installing, and maintaining the signs in conformance with the permit. The local government **shall** furnish their identification sticker on the sign.
4. The *recommended* sign for cities and villages is the NEIGHBORHOOD WATCH COMMUNITY sign (D12-50) (See Figure 1). There is a space for a 12” x 12” logo.
5. Acceptable logo designs are (See Figure 2):
    a. “Eye” style logo.
    b. Criminal logo.
6. There is no sunset date for signs already installed that do not conform to this policy. Rather, communities are encouraged to follow this consistent sign design.
7. The city or village must obtain the approval of the appropriate Regional office for location(s) of the signs(s).
8. Signs are only allowed at the corporate limits upon entering a community.
9. Per intent of State Statute 60.23 (17m) neighborhood watch signs **shall not** be allowed for townships on the state highway system. They *may* be placed on township maintained roadways and county roadways, if approved by the County Board.
10. For signs off the State Highway System, per State Statute 66.0429, WisDOT is required to approve the sign design.
11. Neighborhood Watch signs **shall not** be allowed on freeways, including ramps and 65 mph expressways.
12. Signs will be removed if official Neighborhood Watch program for the community no longer exists.

Figure 1

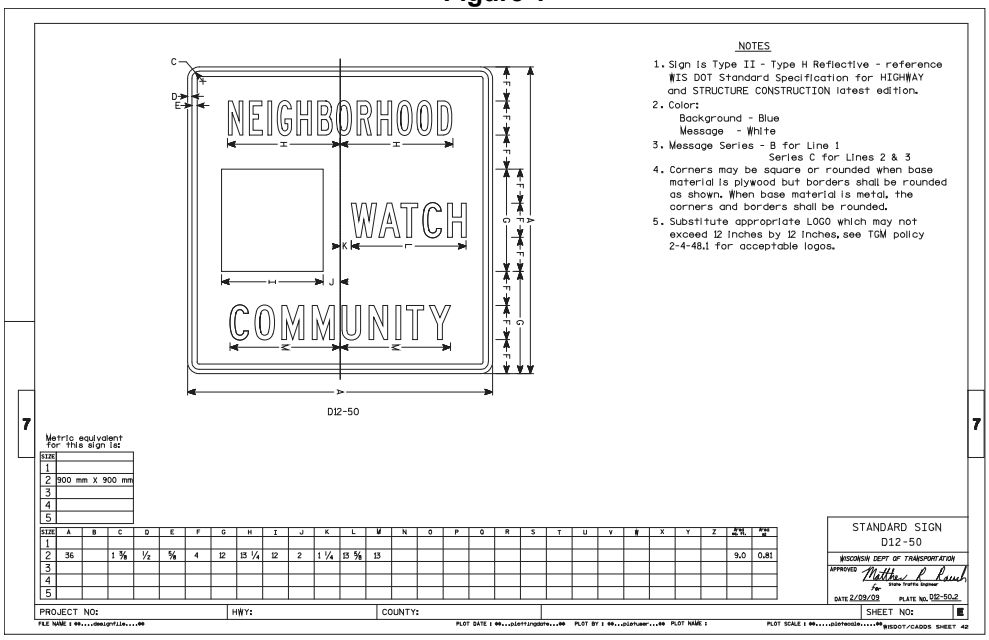


Figure 2 (Acceptable Logo Designs)



2-4-49 Street Name Signs ~~January 2015~~November 2026

PURPOSE

The WMUTCD, Section 2D.4~~53~~ states that street name signs *should* be installed in urban areas at all street intersections and rural areas to identify important roads that are not otherwise signed. Standards and guidance are contained in Section 2D.4~~53~~ of the WMUTCD regarding letter sizes, colors and retroreflectivity of the street name signs.

Traditionally, local units of government have installed ground mounted street name signs at intersections of WisDOT maintained roadways. These ground mounted street name signs are installed and maintained by the local unit of government, in accordance with the WMUTCD.

The WMUTCD, Section 2D.4~~53~~ also provides guidance and standards on the design of overhead street name signs at intersections. These types of overhead street name signs are commonly mounted on overhead traffic signal structures at the intersection. The overhead street name signs provide a lot of value in that they are larger and easier for the motorist to see (especially in urban environments where there are a lot of other competing signs, two or more travel lanes in each direction and closely spaced intersections). Now that the usage of traffic signal monotube arms have replaced the more traditional trombone arm traffic signal structure in Wisconsin, the attachment of overhead street name signs to the traffic signal structure has become much more practical.

The following policy criteria applies to both ground mounted and overhead street name signs that are installed on WisDOT roadways.

POLICY

Ground Mounted Street Name Signs

1. Local units of government are allowed to install ground mounted street name signs on WisDOT roadways. No permit is required for ground mounted street name signs.
2. Ground mounted street name signs **shall not** be installed on WisDOT maintained sign posts. Ground mounted street name signs **shall** be placed on their own supports and *should* be placed in the opposite quadrant as the STOP sign, typically on the left side so they do not obstruct the motorist's view of the STOP sign or any other signs.
3. The local unit of government **shall** pay for all costs associated with the manufacture, installation and maintenance of ground mounted street name signs.

Overhead Street Name Signs

1. WisDOT will install and maintain overhead street name signs on WisDOT maintained traffic signal monotube structures only. Overhead street name signs **shall not** be installed on WisDOT maintained trombone arm traffic signals.
2. In accordance with TEOpS 2-4-50, WisDOT **shall** also install advance crossroad name signs on divided roadways with posted speeds of 45 mph or greater and 2-lane conventional highways with posted speeds of 55 mph that are on the national Highway System. The Region has the option to additionally install advance crossroad name signing on divided roadways with posted speeds of less than 45 mph.
3. ~~For overhead street name signs mounted on traffic signal monotube arms, in addition to the overall sign size restrictions, the sign **shall** not exceed a lateral mounting distance of 15 feet from the upright (distance from upright to center of sign).~~ See SDD 9E-8 (sheets a-d) for the placement of overhead street name signs on traffic signal monotubes.
4. For WisDOT maintained overhead street name signs, only the standard M1-94H or M1-94S sign with white letters on green background will be allowed.
5. For existing overhead street name signs that have already been permitted on WisDOT maintained traffic signal monotube structures, WisDOT *may* assume the maintenance of the signs (permission needed from local unit of government), provided the signs meet WisDOT design standards. Otherwise, the signs would be grandfathered until they wear out and then replaced by signs that meet WisDOT design standards and maintained by WisDOT at that point.
6. For existing WisDOT maintained urban traffic signal monotube structures that do not currently have street name signs attached to them, the overhead street name signs *may* be installed as part of an improvement project. If the local unit of government wishes to have overhead street name signs installed prior to an improvement projects, they will need to incur the installation costs. Maintenance of the signs will be by WisDOT.

Sign Design and Manufacture

1. Due to wind loading restrictions on overhead traffic signal monotubes, overhead sign sizes *should not* exceed ~~18"~~24" in height or ~~108"~~120" in length. If larger street name signs are needed (i.e. longer street names or different street names in each direction), then the monotube wind loading calculations **shall** be calculated to ensure adequate wind loading (see Traffic Signal Design Manual 6-1-11).
2. For overhead street name signs, 12" initial upper case/9" lower case *should* be used for the street name. If overall sign size is a concern, 8" initial upper case/6" lower case letter heights *may* be used.
3. For all ground mounted street name signs, only blue, brown, white or green backgrounds **shall** be used. The legend for ground mounted street name signs **shall** be white for blue, brown or green background signs. The legend **shall** be black for white background signs. Overhead street name signs on WisDOT maintained traffic signal monotube structures **shall** be white ~~letters~~ legend and border on green background.
4. Pictographs in the form of a community symbol or highway route shield *may* be used on either non-WisDOT maintained overhead street name signs or any ground mounted street name signs. The height and width of the pictograph **shall not** exceed the height of the upper case letter of the principle legend on the sign. Pictographs **shall not** contain commercial advertising.
5. For new overhead and ground mounted street name signs, the mixture of initial upper case / lower case lettering **shall** be used. Existing street name signs with all capital letters are allowed to remain until they wear out or are replaced in projects.

6. Ground mounted street name signs *should* have a minimum letter heights of 6" initial upper case / 4 ½" lower case for 2 lane conventional highways (all posted speeds) and multi-lane conventional highways (posted speeds 40 mph or less). Ground mounted street name signs on multi-lane conventional highways with posted speeds greater than 40 mph *should* have minimum letter heights of 8" initial upper case / 6" lower case. 4" initial upper case / 3" lower case letters *may* be used on local two-lane streets with posted speed limits of 25 mph or less.
7. Supplementary lettering to indicate the direction (North, South, East or West) or the type of street (St, Ave, or Rd) *may* be used. For ground mounted street name signs, minimum supplementary letter heights of 3" upper case / 2 ¼" lower case letters *should* be used. For overhead street name signs with 12" initial upper case/9" lower case letter heights for the street name, supplementary letter heights of 6" initial upper case / 4 ½" lower case letters **shall** be used. If using 8" initial upper case/6" lower case letter heights for the street name, 4" initial upper case/3" lower case supplementary letters **shall** be used. If used, route shields on overhead street name signs **shall** be the same height as the upper case letters of the street name.

2-4-50 Advance Crossroad Name Signs ~~December 2020~~November 2026

PURPOSE

This guideline provides information on the appropriate use of advance crossroad name signs. These signs are used on certain urban and rural roadways to identify and provide advance notice on the approach to intersections to allow safe reaction times and to orient unfamiliar motorists to their destinations.

These signs are provided for as optional street name signs in the WMUTCD Section 2D.44. When an intersection warning sign (W2-1 through W2-6) is installed for the intersection, a similar function *may* be achieved with a supplemental advance street name plaque. Use of the advance cross road sign is preferred over the advance street name plaque. WisDOT has authority under ss. 86.19 to place these signs to guide and warn traffic.

POLICY

Advance crossroad name signs *should* be used selectively for at grade intersections. Two primary criteria exist for determining whether crossroad name signs *should* be used: the character of the highway and the character of the intersecting roadway. The use of signs *should* reflect both considerations.

1. Criteria related to the State Highway:
    a. Advance Crossroad Name Signs **shall** be used for at grade intersections of all urban and rural 4 lane divided highways with posted speeds 45 mph and greater.
    b. Use of Advance Crossroad Name Signs is optional on 4 lane urban and rural divided highways with posted speeds less than 45 mph. Problem situations on these types of highways *may* warrant this signing.
    c. Advance Crossroad Name Signs **shall** be used on all 2 lane conventional highways that are on the National Highway System which have a posted speed limit of 55 mph.
    d. The use of Advance Crossroad Name Signs **shall** be optional on all other 2 lane conventional highways that do not meet the criteria listed above in item 1c. Problem situations on this type of highway *may* warrant this signing.
2. Criteria related to the intersecting roadway:
    a. Advance crossroad name signs *should* be used for Intersecting roads that serve retail shopping, commercial activity, or other activities with high concentrations of entering or leaving traffic, or heavy slow moving vehicle traffic.
    b. Advance crossroad name signs are normally not used for intersections with another state highway or a county trunk highway. Those intersections *should* have junction signing in place and are referenced with highway numbers or letters rather than road names.
    c. Advance crossroad name signs **shall not** be used for intersections with roads that have no other outlet and serve less than 5 residences, unless directly opposite another crossroad that qualifies or criteria 2(a) above applies.
3. Sign placement and details:

a. Directional arrows **shall** be used on all signs. For intersecting crossroads with different road names to the left and right, a D1-1 or D1-2 sign would be used. A D1-61 sign with two arrows would be used for intersecting roadways having the same name in both directions. In some locations, such as freeway off ramps with intersecting roadways having the same name in both directions, it ~~may~~*may* be beneficial to list the cardinal directions on the sign (D1-60 sign).

b. In urban or semi-urban areas, there *may* be cases where there are closely spaced intersections or median cut-outs where the usage of directional arrows could cause potential motorist confusing with turning at the wrong location. For these locations, in lieu of signs with directional arrows, an option would be to utilize sign with the word text of NEXT INTERSECTION (D1-63 sign), SECOND INTERSECTION (D1-64 sign) or NEXT SIGNAL (D1-65 sign).

c. Advance Crossroad Name Signs *should* be placed on the right side of the roadway. On divided highways, where there is a left turn only situation, the sign *should* be placed in the median. When there are three or more travel lanes in each direction, signs *should* be installed on the right side of the roadway and the median side of the roadway.

d. Placement of signs *should* follow ~~the MUTCD Table 2C-4~~TEOpS 2-3-5 Table 1, condition B, deceleration to ~~condition of~~ 0 mph~~)~~. The distance of these signs from the intersection *may* vary due to the presence of other signing in the area; however, it *should not* be less than 500 feet for speeds 45 mph and above.

e. Additional Advance Crossroad Name Sign size criteria for bypasses are contained in TEOpS 2-15-53 Bypass Signing.

f. Lettering sizes for Advance Crossroad Name Signs **shall** be as follows:

i. High Speed Roadways (45 mph or above): 4 ½" lower case/6" upper case for conventional state trunk highways and 6" lower case/8" upper case for expressway crossroads; 4 ½" lower case/6" upper case or 6" lower case/ 8" upper case for 4 lane divided or undivided highways.

ii. Low Speed Roadways (less than 45 mph): 4 ½" lower case/6" upper case.

2-4-51 Rustic Road Signs ~~August~~ November ~~2021~~2026

GENERAL

The Wisconsin Administrative Code Trans-RR 1 contains all of the rules for the application procedures and sign installation/maintenance criteria for Rustic Road Signing. The Wisconsin Department of Transportation has organized a Rustic Roads Board that maintains all of the rules in Wisconsin Administrative Code Trans-RR1. In addition to these rules, there is a need to also provide clear guidance on the minimum signing that is required to conform to the rules of the Rustic Roads Board. The goal of this guidance is to provide for a statewide consistent method of signing and clearly define what the signing the Department is responsible for and what signing the Local maintaining authority is responsible for.

POLICY

Below are the guidelines for the installation and maintenance of Rustic Road Signing:

1. A minimum amount of signing *should* be used in order to avoid additional sign clutter at intersections, which can lead to safety issues. Figure 1 shows examples of the minimum amount of signing required to conform to the rules of the Rustic Roads Board.

a. JR99-1 assemblies (RR Marker, Rustic Road Number, Mileage) **shall** be used at all Rustic Road termini. The mileage listed **shall** be the entire length of that Rustic Road designation, regardless of any splits or loops, rounded to the nearest mile.

b. JR99-1 assemblies (RR Marker, Rustic Road Number) **shall** be used at interior intersections with State or US Highways

c. JR13-1 (RR Marker, arrow) signs **shall** be used at any turns or splits along the Rustic Road route.

d. JR1-1 assemblies (End, RR Marker) **shall** be used at all Rustic Road termini.

e. JR13-1 assemblies (RR Marker, arrow) *should* be used on State or US Highway approaches to Rustic Roads. For County Highways designated as Rustic Roads, this *may* be accomplished by combining Rustic Road signing with the Route Assemblies (J1/J12 and J13) for the County

Highway.

f. JR13-1 assemblies (RR Marker, arrow) *should* be used on County Highway approaches to Rustic Roads.

g. Gaps in Rustic Road routes *should* be signed with JR23-1 assemblies (To Rustic Road w/arrow).

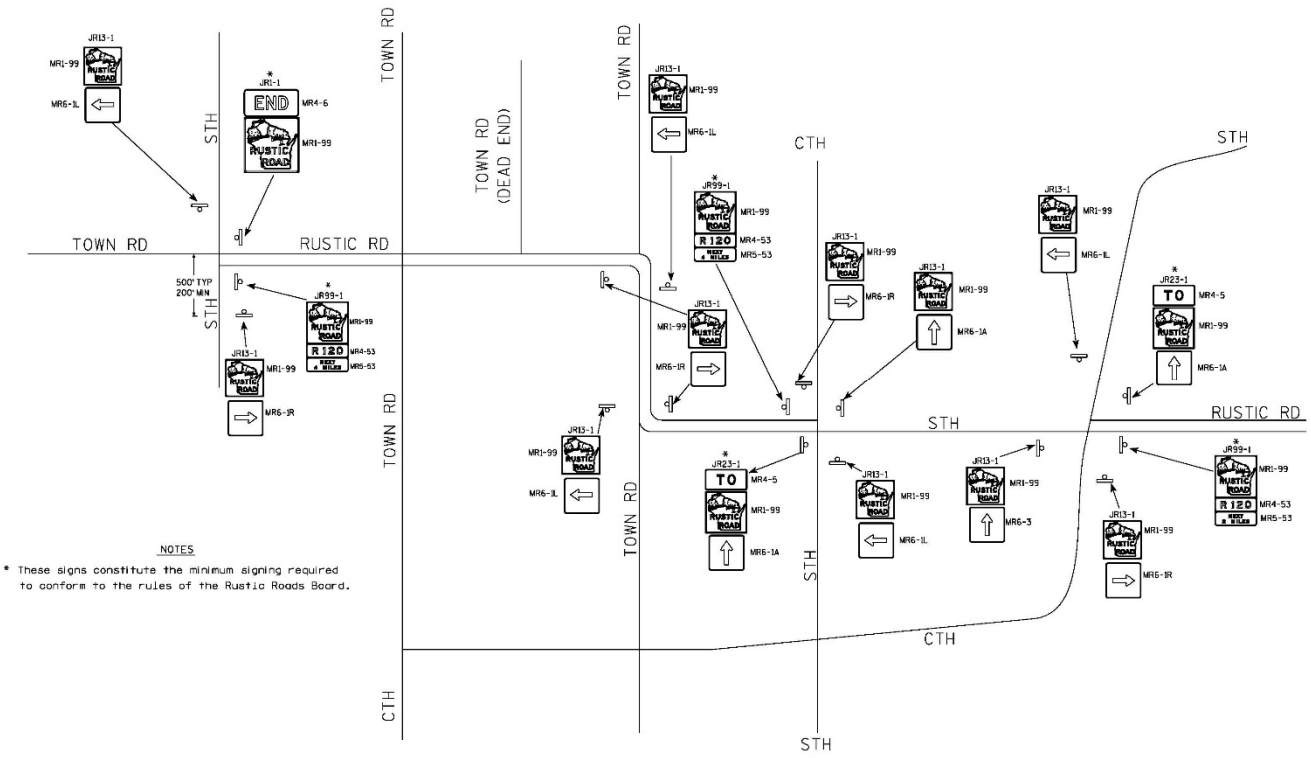
h. No signing is typically necessary on local road approaches to Rustic Roads.

There is no formal phase-in period for installation of this signing. Existing signs will be allowed to remain in place until the end of their useful life. Useful life ends when the sign message no longer meets legibility or condition standards. Existing signs *may* be replaced prior to the end of their useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or when projects make replacement practical.

2. The Department **shall** pay for the installation and maintenance of all Rustic Road signing. Major Rustic road signing efforts *should* be done ~~in the fourth quarter of the calendar year~~with intersecting (or nearby) signing corridors. Minor sign replacement *may* occur throughout the year, as feasible.

3. As signs on the local system wear out and need to be replaced, the local unit of government *should* provide a list of signs needing replacement to the Department.

Figure 1



2-4-52 Heritage Directional Signs December 2013

PURPOSE

In 1994, WisDOT and Wisconsin Department of Tourism enacted the Heritage Directional Signing program through a Cooperative Agreement between the two agencies. The Department of Tourism had the responsibility to work with the application process for businesses requesting signs and maintained a brochure of the eligible businesses. Tourism furnished the signs to WisDOT and the Department of Tourism covered installation and long term maintenance of the signs.

In August of 2013, the Department of Tourism indicated that they were no longer maintaining the Heritage Signing program and instead have focused on other means to promote this tourism effort. As a result, no new Heritage Direction signs will be installed on state highways from this time forward. This guideline provides information on the signing phase-out plan that was approved by Dept. of Tourism and WisDOT.

GUIDELINES

Listed below are guidelines for the installation and removal of Heritage Directional signing on WisDOT roadways, M1-85, M1-85C and M1-85d, which were agreed upon by the Department of Tourism and WisDOT:

1. New Heritage Direction signs **shall not** be installed on WisDOT roadways.
2. Existing Heritage Direction signs *may* be allowed to remain in place until the end of their useful life. Other opportunities such as knockdown damage, improvement projects or change in conditions *may* make it possible to have the signs removed earlier.
3. If WisDOT staff receives a call from a business requesting a replacement Heritage Directional sign, refer the name and contact information to the State Signing Engineer, who in turn will work with the requestor and Tourism to find a potential alternative signing program (SIS, TODS, White Arrow boards).
4. If WisDOT removes a Heritage Directional sign, the Region *should* let the State Signing Engineer know, who will subsequently let Tourism know.

2-4-53 Auto Tour Signing ~~Policy~~ ~~December 2013~~November 2026

PURPOSE

WMUTCD Section 2D.58~~H.07 of the MUTCD~~ provides information on the appropriate use of Auto Tour Signs. These signs are used on certain urban and rural roadways to identify special routes that have certain cultural, historical or educational significance. These types of routes have been approved by the Wisconsin legislature ~~and are included in the Wisconsin State Statutes~~. Examples of these routes are: The Rock River Trail, the Wild Rivers Trail, Lake Michigan Circle Tour, Lake Superior Circle Tour, Great River Road, and Green Bay Ethnic Trail.

This policy expands upon the language in the WMUTCD by providing additional guidelines and standards on the usage of Auto Tour signs on WisDOT maintained roadways.

DEFINITIONS

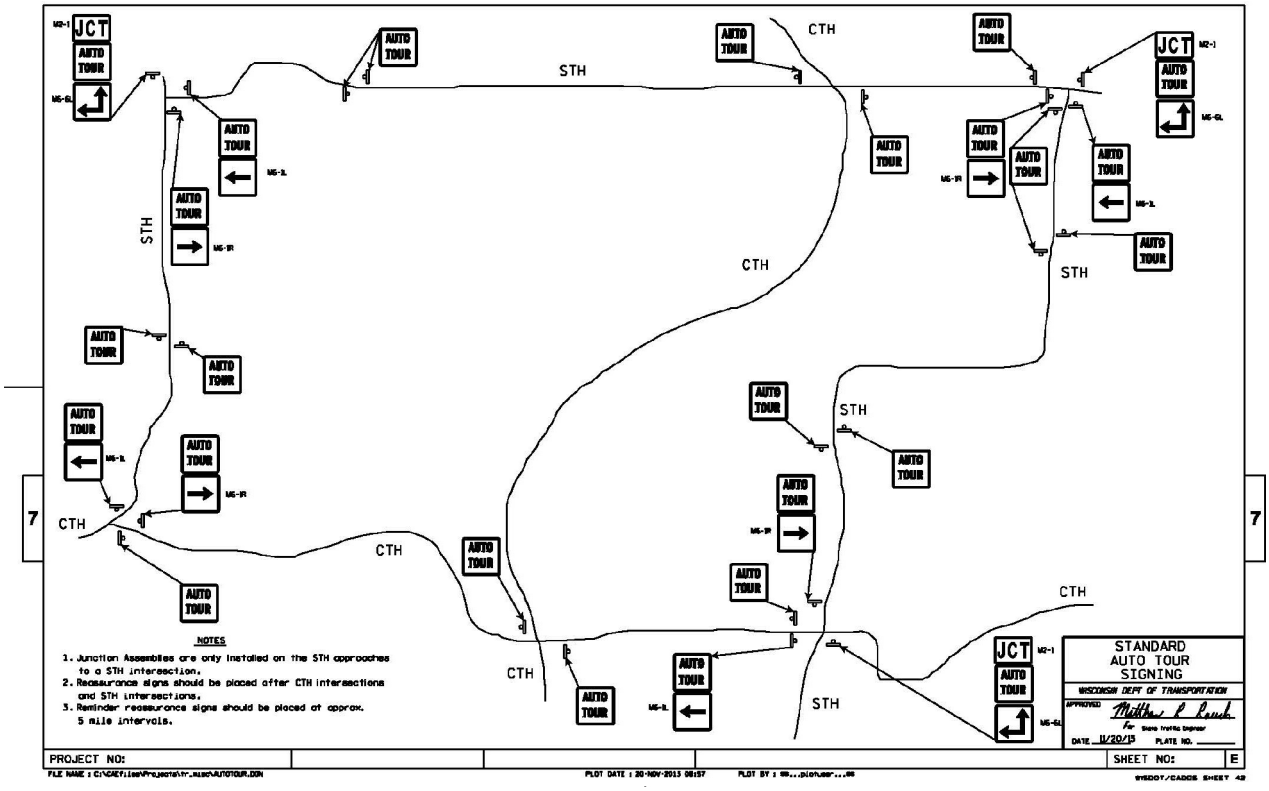
Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial controlled access and generally with grade separations at major intersections.

Conventional highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two-lane or multi-lane facilities.

POLICY

1. Auto Tour route signing is not intended to sign to a specific destination. Particular destinations tying into an Auto Tour route are typically listed on a website, brochure or other means.
2. Auto Tour route signs **shall not** be installed on freeways or expressways except as to provide continuity between discontinuous segments of conventional roadways that are designated as auto tour routes, for which the freeway or expressway provides the only connection between segments.
3. Auto Tour signing **shall** have the approval of the local unit(s) of government prior to signing on the state system.
4. A minimum amount of signing *should* be used in order to avoid additional sign clutter at intersections, which can lead to safety issues. Signs *should* also be close enough that the route can be easily followed without additional direction.
5. Design and Layout of Auto Tour Signing **shall** be approved by the Bureau of Traffic Operations.
6. For Auto Tour signs having the M1-92 or M1-98 sign code, the requesting groups **shall** pay all costs associated with installation and maintenance of Auto Tour signs. As signs on the local system wear out and need to be replaced, the local unit of government *may* request replacement signs from the Department at the local unit's expense.
7. For Auto Tour signs having the M1-7, M1-91, M1-93, M1-96, or M1-97 sign code, WisDOT **shall** pay for all cost associated with the installation and maintenance of the signs.



2-4-55 Stream/River/Lake Signs September 2001

PURPOSE

Guide signs noting stream, river, and lake crossings have ~~traditionally~~ been installed on WisDOT roadways to assist motorists. When used in a controlled manner, these signs have benefits because they can help an unfamiliar motorist find their location when using a map and can also be informative on pointing out the location of important bodies of water for tourists or sporting use. However, in the past, usage of these signs has been uncontrolled, resulting in sign installations for everything from dry ditches to bodies of water not on the state map or recognized by the Wisconsin Department of Natural Resources. The intent of this policy is to establish control and statewide consistency on the usage of these signs.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial controlled access, and generally by means of grade separation at major intersections.

INSTALLATION GUIDELINES

Stream, river and lake crossing guide signs *may* be used provided the following criteria are met:

1. For freeways and expressways. The body of water to be signed has a name shown on the current official State of Wisconsin Highway Map that is published by the Wisconsin Department of Transportation. Any bodies of water not having a name shown on this map **shall not** be signed for.
2. For conventional highways. The body of water to be signed has a name shown on the current official State of Wisconsin Highway Map or the current official County Highway Maps that are published by the Wisconsin Department of Transportation. Any bodies of water not having a name shown on these maps **shall not** be signed for.
3. Any existing stream, river, or lake crossing signs that are in place and do not meet the criteria listed in items 1 or 2 above, will be allowed to remain in place until the end of their useful life. Once the signs have reached their useful life, they **shall** be removed and not be replaced. Useful life is defined as the sign being legible for its intended usage.

2-4-60 Township Boundary and Land Use Zoning Signs — August 2000

PURPOSE

In the past, there have been requests by both urban and rural townships to have township boundary signs and land use zoning signs erected on WisDOT system roadways in order to identify themselves to motorists. In 1997, Assembly Bill 114 created a procedure that allows certain towns to become "urban towns" in order to specify the towns that are eligible to invoke this procedure and to define the authority granted to towns that become urban towns. As of the date of this policy, Assembly Bill 114 did not pass.

The intent of this policy is to establish a statewide policy and to control the clutter of signs on WisDOT system roadways by not allowing the use of these signs.

POLICY

Township Boundary signs and/or Township Land Use Zoning signs *should not* be installed on WisDOT system roadways, or right of ways, either individually or as part of a sign assembly. Zoning requirements are easily obtainable from local governments, thus making this signing unnecessary because these signs do not serve to guide or orient the average motorist. Similarly, township boundary signs do not have sufficient orientation value to warrant installation on the state highway or right-of-way system, since townships are not even shown on the state map.

In some cases, Township Boundary signs *may* be allowed by the Department for urbanized townships only. Requests for signing for urbanized township signs will be reviewed by the Department on a case-by-case basis and a permit *may* be granted.

Any existing Township Boundary signs or Township Land Use Zoning signs located on WisDOT system roadways that have not been permitted **shall** be removed no later than July 1, 2001.

2-4-65 Amenity Signs — ~~April 2001~~November 2026

PURPOSE

The intent of this guideline is to establish standards for the use of signs which provide information about services provided at roadside facilities, including waysides and historical markers. The guideline is intended reduce the number of certain informational signs and messages in order to retain or improve the impact of other guidance and warning signs. The guideline also reflects the need to focus signing efforts and resources on the signs of highest value for safety and mobility.

Amenity signs, often referred to as "fingerboard" signs, have been installed in the past to give information about services available in the site. These signs were typically mounted below the advance signs to the facility.

~~The amenity signs covered under this policy include the DB5-69, DG5-69, and DN5-69 series:~~

- ~~Toilet Sign (DB-5-69A, DG5-69A, and DN5-69A)~~
- ~~Boat Landing Sign (DB5-69B, DG5-69B, and DN5-69B)~~
- ~~Drinking Water Sign (DB5-69C, DG5-69C, and DN5-69C)~~
- ~~Picnic Tables Sign (DB5-69D, DG5-69D, and DN5-69D)~~
- ~~Historical Marker Sign (DB5-69E)~~
- ~~Memorial Marker Sign (DB5-69F)~~

Motorists are accustomed to expecting certain amenities at waysides which reduces the value of some amenity signs. Signs are appropriate for other amenities that motorists are not accustomed to, or are not part of the standard expectation for the roadside facility.

POLICY

1. Toilet, Boat Landing, Drinking Water, and Picnic Table amenity signs **shall not** be installed on state highways. Those Toilet, Boat Landing, Drinking Water, and Picnic Tables amenity signs previously installed on state highways will be allowed to remain in place until the end of their useful life, when they ~~should~~*should* be removed and not replaced. Useful life ends when the sign message no longer meets legibility or condition standards. These signs ~~may~~*may* be removed prior to the end of the signs useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects that make removal practical.
2. ~~Boat Landing,~~ Historical Marker~~,~~ and Memorial Marker amenity signs *should* continue to be installed on

state highways. These signs *should* be mounted below the advance sign to the facility.

2-6-19 Exit Numbers

July 2024

The following is a listing of freeway exit numbers in Wisconsin. Changes or additions *should* be reported to the Signs and Markings Implementation Section to keep this listing current.

County	Direction of Travel	Interchange with	Exit No.
		USH 10	
Wood	E B and WB	STH 13 North and CTH A - Marshfield	187
Portage	EB and WB	STH 13 South and STH 34 South – Junction City and Wis Rapids	204
Portage	EB	STH 34 North, CTH P and CTH HH – Knowlton and Stevens Point	208
Portage	WB	STH 34 North, CTH P and CTH HH – Knowlton and Junction City	208
Portage	WB	IH 39 and USH 51 North - Wausau	213
Portage	EB and WB	CTH J	230
Portage	EB	Amherst Jct. and Lake Road	237
Portage	EB and WB	CTH B West – Plover and Amherst	238
Portage	EB and WB	CTH A and CTH B East - Amherst	240
Waupaca	EB	STH 49 North and STH 54 West - Waupaca	250
Waupaca	WB	STH 49 North and STH 54 West - Waupaca and Wis. Rapids	250
Waupaca	EB and WB	STH 22 South and CTH K - Waupaca and Wild Rose	252
Waupaca	EB and WB	Churchill St	253
Waupaca	EB and WB	STH 22 North, STH 54 East, CTH A, and CTH K North - Waupaca	254
Waupaca	EB and WB	STH 110 North and CTH A - Weyauwega	260A
Waupaca	WB	CTH F - Weyauwega	260B
Waupaca	EB and WB	STH 49 and STH 110 – Berlin and Fremont	264
Waupaca	EB and WB	STH 96, STH 110, CTH II - Fremont	267
Winnebago	EB and WB	USH 45 North – New London	273
Winnebago	EB and WB	USH 45 South – Oshkosh	276
Winnebago	EB and WB	STH 76 and USH 41 North – Oshkosh and Shiocton	284
Winnebago	WB	STH 76 – Oshkosh and Shiocton	284
Winnebago	EB and WB	CTH CB	286
Winnebago	EB and WB	USH 41 South - Oshkosh	287A
Winnebago	WB	USH 41 North - Green Bay	287B
Winnebago	EB and WB	CTH P - Racine St	289A
Winnebago	EB and WB	CTH AP - Midway Rd	289B
Winnebago	EB and WB	STH 47 - Appleton Rd	290
Winnebago	EB	Oneida St	291
		USH 12	
Sauk	EB and WB	CTH BD – Fern Dell Rd	212
Sauk	EB and WB	N Reedsburg Rd	214
Sauk	EB and WB	STH 33 WB – Pit Rd	215
Dane	EB and WB	Parmenter St	249
Dane	EB and WB	CTH M – Airport Rd and Century Ave	250
Dane	WB	Parmenter St	251B
Dane	EB and WB	USH 14 West	251A
Dane	EB and WB	Greenway Blvd.	252
Dane	EB and WB	Old Sauk Rd	253
Dane	EB and WB	CTH M and S - Mineral Point Rd	254
Dane	EB and WB	Gammon Rd	255
Dane	EB and WB	Whitney Way	257
Dane	EB and WB	USH 18 West and USH 151 South - Verona Rd and Midvale Blvd.	258
Dane	WB	Seminole Hwy.	258A
Dane	EB and WB	Todd Dr.	259
Dane	EB	CTH D South - Fish Hatchery Rd	260A
Dane	EB	CTH D North - Fish Hatchery Rd	260B
Dane	WB	CTH D - Fish Hatchery Rd	260B-A
Dane	EB	USH 14 East	261A
Dane	EB	USH 151 North - Park St.	261B
Dane	WB	USH 151 North - Park St and USH 14 East	261B-A
Dane	EB and WB	Rimrock Rd	262

Dane	EB and WB	John Nolen Dr.	263
Dane	EB and WB	South Towne Dr.	264
Dane	EB and WB	Monona Dr.	265
Dane	EB and WB	USH 51 - Stoughton Rd	266
Dane	EB	IH 90 East and IH 39 South	267A
Dane	EB	IH 90 West and IH 39 North	267B
Dane	EB and WB	CTH AB	269
Dane	EB and WB	CTH N	272
Walworth	EB and WB	IH 43 and CTH NN	321
Walworth	EB and WB	STH 120 North	328
Walworth	EB	STH 50 East	330A
Walworth	EB	STH 50 West and STH 120 South	330B
Walworth	WB	STH 50 and STH 120 South	330A-B
Walworth	EB and WB	Pell Lake Dr.	335

USH 14

Dane	EB	Mc Coy Rd	133
Dane	EB and WB	Lacy Rd	134
Dane	EB and WB	CTH MM	139
Dane	EB	STH 138	140

STH 16

Waukesha	EB and WB	CTH P North - Brown St. and Grifford Rd	176
Waukesha	EB and WB	CTH P South - Sawyer Rd	178
Waukesha	EB and WB	CTH C	179
Waukesha	EB and WB	STH 83	181
Waukesha	EB	CTH E and KC - North Ave. and Merton Ave.	182
Waukesha	WB	CTH KC and E - North Ave. and Merton Ave.	183
Waukesha	EB and WB	CTH JK and KE - Jungbluth Rd. and North Shore Dr.	184
Waukesha	EB and WB	CTH KF - Ryan St.	186
Waukesha	EB and WB	STH 190 - Capitol Dr.	187
Waukesha	EB and WB	CTH JJ - Main St.	188

STH 26

Rock	NB and SB	Harmony Town Hall Road	6
Rock	NB and SB	STH 59 and CTH M	8
Rock	NB and SB	CTH N	11
Jefferson	NB and SB	Business 26	17
Jefferson	NB and SB	STH 106	19
Jefferson	NB and SB	USH 12	21
Jefferson	NB and SB	Business 26	23
Jefferson	NB and SB	Business 26	25
Jefferson	NB and SB	USH 18	27
Jefferson	NB and SB	Business 26	30
Jefferson	NB and SB	Business 26 and CTH Y	39
Jefferson	NB	STH 19	43
Dodge	SB	STH 19	43
Dodge	NB and SB	STH 16 EB	45
Dodge	NB and SB	STH 16 and STH 60	52

STH 29

Dunn	WB	WB IH 94	60A
Dunn	WB	EB IH 94	60B
Dunn	EB and WB	USH 12 and STH 40	61
Chippewa	EB and WB	CTH T	68
Chippewa	EB and WB	90th St and Business 29	72
Chippewa	EB and WB	US 53 South	75A
Chippewa	EB and WB	US 53 North	75B
Chippewa		Seymour Cray and Business 29	79
Chippewa	EB and WB	CTH X	80
Chippewa	EB and WB	CTH J	81
Chippewa	EB and WB	CTH X	87
Chippewa	EB and WB	STH 27	91
Chippewa	EB and WB	CTH D	97
Chippewa	EB and WB	CTH H	101
Clark	EB and WB	STH 73 and CTH M	108
Clark	EB and WB	STH 73 and CTH T	118

Clark	EB and WB	CTH X – Cardinal Ave	122
Clark	EB and WB	CTH E	127
Clark	EB	Sprue St/ Highline Ave	131
Marathon	EB and WB	STH 13	132
Marathon	WB	Maple Rd/Spruce St	134
Marathon	EB and WB	STH 97	145
Marathon	EB and WB	CTH H	150
Marathon	EB and WB	STH 107	156
Marathon	EB and WB	72nd Ave	162
Marathon	EB and WB	STH 52	164A
Marathon	EB and WB	USH 51 North	164B
Marathon	EB	USH 51 South	none
Marathon	WB	USH 51 North	none
Marathon	EB and WB	Business 51	171
Marathon	EB and WB	CTH X	173
Marathon	EB and WB	CTH J	177
Marathon	EB and WB	CTH Q	181
Marathon	EB and WB	CTH Y	185
Shawano	EB and WB	USH 45 North and CTH M and Business 29	195
Shawano	WB	CTH Q and Business 29	196
Shawano	EB and WB	USH 45 South	198
Shawano	EB and WB	STH 22	225
Shawano	EB	STH 47 North and STH 55 North and CTH K	227
Shawano	WB	STH 47 North and STH 55 North and CTH K and Business 29	227
Shawano	EB and WB	STH 47 South and STH 117	234
Shawano	EB and WB	STH 55 South and STH 160	242
Brown	EB and WB	STH 32 and CTH Y	249
Brown	EB and WB	CTH VV - Marley St and Triangle Dr	253
Brown	EB and WB	CTH FF	255

INTERSTATE 39
(SEE USH 51- INTERSTATE HIGHWAY 39)
(ALSO SEE INTERSTATE 90 FOR I39/I90/I94)

STH 175

Milwaukee	NB and SB	IH 94-Eastbound	38A
Milwaukee	NB and SB	IH 94-Westbound	38B
Milwaukee	SB	USH 18 (Wisconsin Ave.) and Wells St.	38C
Milwaukee	NB	USH 18 - Wisconsin Ave. and Bluemound Rd.	38C
Milwaukee	SB	Vliet St. and State St.	39A
Milwaukee	NB	State St. and Vliet St.	39A
Milwaukee	NB	Washington Blvd.	39B
Milwaukee	NB	Lloyd St.	40A
Milwaukee	NB	USH 41 - Lisbon Ave.	40B

INTERSTATE HIGHWAY 41

Milwaukee	NB	STH 175 - Appleton Ave.	none
Milwaukee	SB	USH 41 - Appleton	47A
Milwaukee	NB and SB	CTH PP - Good Hope Rd	47B
Milwaukee	NB	STH 145 North and 124th St	48
Waukesha	SB	STH 145 - Fond du Lac Ave.	48
Waukesha	NB	STH 100 East - Main St.	50A
Waukesha	NB	CTH F West - Main St.	50B
Waukesha	SB	CTH F and STH 100 East - Main St.	50A-B
Waukesha	NB	Pilgrim Rd - Northbound	51A
Waukesha	NB	Pilgrim Rd - Southbound	51B
Waukesha	SB	Pilgrim Rd	51A-B
Waukesha	NB	CTH Q - County Line Rd	52
Washington	SB	CTH Q - County Line Rd	52
Washington	NB and SB	STH 167 East - Mequon Rd and CTH Y Lannon Rd	54
Washington	NB and SB	STH 167 West - Holy Hill Rd	57
Washington	NB	USH 45 North	59
Washington	NB and SB	STH 145	60
Washington	NB	STH 60 East	64A
Washington	NB	STH 60 West	64B
Washington	SB	STH 60	64A-B
Washington	NB and SB	STH 144	66

Washington	NB and SB	CTH K	68
Washington	NB and SB	STH 33	72
Washington	NB and SB	CTH D	76
Dodge	NB and SB	STH 28	81
Dodge	NB and SB	STH 67	85
Dodge	NB and SB	STH 49 and CTH KK	87
Fond du Lac	NB and SB	CTH B	92
Fond du Lac	NB and SB	USH 151	95
Fond du Lac	NB and SB	CTH VV - Hickory St.	97
Fond du Lac	NB and SB	CTH D and Military Road	98
Fond du Lac	NB and SB	STH 23 - Johnson St.	99
Fond du Lac	NB and SB	CTH OO - Winnebago St.	101
Fond du Lac	NB and SB	CTH N	106
Winnebago	NB and SB	STH 26	113
Winnebago	NB and SB	STH 44 and STH 91-Ripon Rd and South Park Ave.	116
Winnebago	NB and SB	9th Ave.	117
Winnebago	NB and SB	STH 21 - Omro Rd and Oshkosh Ave.	119
Winnebago	NB and SB	USH 45 and TO USH 10 West - Algoma Blvd.	120
Winnebago	NB and SB	STH 76 - Jackson St.	124
Winnebago	NB and SB	Breezewood Lane/Bell St.	129
Winnebago	NB and SB	STH 114 and CTH JJ - Winneconne Ave.	131
Winnebago	NB and SB	Main St. and Oakridge Rd	132
Winnebago	NB and SB	CTH II – Winchester Rd	133
Winnebago	NB and SB	USH 10 East and STH 441 North	134
Winnebago	NB and SB	CTH BB - Prospect Ave.	136
Outagamie	NB and SB	STH 125 - College Ave.	137
Outagamie	NB and SB	STH 96 - Wisconsin Ave.	138
Outagamie	NB and SB	STH 15 and CTH 00 - Northland Ave.	139
Outagamie	NB and SB	STH 47 - Richmond St.	142
Outagamie	NB and SB	CTH E - Ballard Rd	144
Outagamie	NB and SB	STH 441 South	145
Outagamie	NB and SB	CTH N	146
Outagamie	NB and SB	STH 55	148
Outagamie	NB and SB	CTH J	150
Outagamie	NB and SB	CTH U	154
Brown	NB and SB	CTH S	157
Brown	NB and SB	CTH F - Scheuring Road	161
Brown	NB and SB	CTH G - Main Ave.	163A
Brown	NB	Ashland Ave.	163B
Brown	NB and SB	CTH AAA - Oneida Street and Waube Lane	164A
Brown	NB and SB	STH 172	164B
Brown	NB and SB	CTH VK - Lombardi Ave.	167
Brown	NB and SB	STH 54 and STH 32 South - Mason St.	168A
Brown	NB and SB	STH 29 West and STH 32 North	168B
Brown	NB and SB	STH 29 East Shawano Ave.	168C
Brown	NB and SB	USH 141 South - Velp Ave.	170A
Brown	NB and SB	IH 43	170B
		USH 41	
Brown	NB and SB	CTH M - Lineville Road	173
Brown	NB and SB	CTH B - Sunset Beach Road	176
Oconto	NB and SB	Brown Road	179
Oconto	NB and SB	CTH S	182
Oconto	NB and SB	CTH D - Sampson Road	185
Oconto	NB and SB	USH 141	187
Oconto	NB	Business 41	197
Oconto	NB and SB	STH 22	198
Oconto	SB	Business 41	200
Marinette	NB and SB	CTH Y	212
Marinette	NB and SB	Schacht Road	216
		INTERSTATE HIGHWAY 43	
Rock	SB	IH 90 East and IH 39 South	1A
Rock	SB	IH 90 West and IH 39 North	1B
Rock	NB and SB	CTH X and Hart Road	2
Rock	NB and SB	STH 140	6
Walworth	NB and SB	USH 14	15

Walworth	NB and SB	CTH X	17
Walworth	NB and SB	STH 50	21
Walworth	NB and SB	STH 67	25
Walworth	NB and SB	USH 12 East	27A
Walworth	NB and SB	USH 12 West	27B
Walworth	NB and SB	STH 11	29
Walworth	NB and SB	Bowers Road	33
Walworth	NB and SB	STH 120	36
Walworth	NB and SB	STH 20	38
Waukesha	NB and SB	STH 83	43
Waukesha	NB and SB	STH 164	50
Waukesha	NB and SB	CTH Y - Racine Ave.	54
Waukesha	NB and SB	Moorland Road	57
Waukesha	NB	Layton Avenue	59
Milwaukee	SB	USH 45 and STH 100 - South	60
Milwaukee	NB	IH 894 West	61
Milwaukee	NB	Michigan St and 10th St	72A
Milwaukee	SB	IH 794 East - Lakefront	72B
Milwaukee	NB	IH 794 East – Lakefront	310C
Milwaukee	NB	Kilbourn Avenue	72C
Milwaukee	SB	IH94 West Madison	72D
Milwaukee	SB	Highland Avenue and 11th St	72E
Milwaukee	NB and SB	Fond du Lac Ave and McKinley Ave	73A
Milwaukee	NB and SB	North Avenue	73B
Milwaukee	NB and SB	Locust Avenue	74
Milwaukee	NB and SB	Keefe Avenue and Atkinson Avenue	75
Milwaukee	NB	STH 190 East - Capitol Dr	76A
Milwaukee	NB	STH 57 - Green Bay Ave and STH 190 West - Capitol Dr.	76B
Milwaukee	SB	STH 57 - Green Bay Ave and STH 190 - Capitol Dr.	76A-B
Milwaukee	NB	Hampton Avenue - Eastbound	77A
Milwaukee	NB	Hampton Avenue - Westbound	77B
Milwaukee	NB and SB	Silver Spring Drive	78
Milwaukee	NB and SB	Good Hope Road	80
Milwaukee	NB	Brown Deer Road - Eastbound	82A
Milwaukee	SB	STH 32 East - Brown Deer Road	82A
Milwaukee	NB and SB	STH 100 West - Brown Deer Road	82B
Milwaukee	NB	CTH W - Port Washington Road	83

Interchanges where IH 43 and IH 894 are concurrent are numbered as interchanges on IH 894

Ozaukee	NB and SB	STH 167 - Mequon Road	85
Ozaukee	NB and SB	CTH C	89
Ozaukee	NB and SB	STH 60 and CTH Q	92
Ozaukee	NB and SB	STH 32 North and CTH V South	93
Ozaukee	NB and SB	STH 33	96
Ozaukee	NB	STH 57	97
Ozaukee	NB and SB	CTH H West and STH 32 South	100
Ozaukee	NB and SB	CTH D	107
Sheboygan	NB and SB	STH 32 North and CTH LL	113
Sheboygan	NB and SB	CTH AA - Foster Rd	116
Sheboygan	NB and SB	CTH V and CTH OK	120
Sheboygan	NB and SB	STH 28	123
Sheboygan	NB and SB	STH 23 East	126A
Sheboygan	NB and SB	STH 23 West	126B
Sheboygan	NB and SB	STH 42	128
Manitowoc	NB and SB	CTH XX	137
Manitowoc	NB and SB	CTH C	144
Manitowoc	NB and SB	USH 151 and STH 42 South	149
Manitowoc	NB and SB	USH 10 East and STH 42 North and CTH JJ	152
Manitowoc	NB and SB	USH 10 West and STH 310	154
Manitowoc	NB and SB	CTH V	157
Manitowoc	NB and SB	CTH K	160
Manitowoc	NB and SB	STH 147 and CTH Z	164
Brown	NB and SB	STH 96 - CTH KB	171
Brown	NB and SB	USH 141 and CTH MM	178
Brown	NB and SB	STH 172	180
Brown	NB and SB	CTH JJ - Eaton Rd	181

Brown	NB and SB	CTH V - Mason St.	183
Brown	NB and SB	STH 54 and STH 57 - University Ave.	185
Brown	NB and SB	Webster Avenue and East Shore Drive	187
Brown	NB and SB	Atkinson Dr.	189
Brown	NB	USH 41 and USH 141	192A-B

USH 45 (IH 41)

Milwaukee	SB	IH 94 - Eastbound	38A
Milwaukee	SB	IH 94 - Westbound	38B
Milwaukee	SB	Bluemound Rd	39
Milwaukee	NB	Bluemound Rd	39
Milwaukee	NB and SB	Watertown Plank Rd	40A-B
Milwaukee	NB and SB	Mayfair Rd and North Ave. - Eastbound	42A
Milwaukee	NB and SB	North Ave. - Westbound	42B
Milwaukee	NB and SB	Burleigh St.	43
Milwaukee	NB and SB	Capitol Dr.	44
Milwaukee	NB and SB	Hampton Ave.	45
Milwaukee	NB and SB	Silver Spring Dr.	46
Milwaukee	NB	STH 175 West - Appleton Ave.	47A
Milwaukee	SB	STH 175 East - Appleton Ave.	47A

Interchanges where USH 45 / IH 41and USH 41 are concurrent are numbered as interchanges on USH 41/ IH 41

Washington	NB and SB	STH 145 - Fond du Lac Ave.	60
Washington	NB and SB	STH 60	63
Washington	NB and SB	CTH PV - Pleasant Valley Rd	65
Washington	NB and SB	Paradise Dr.	68
Washington	NB and SB	STH 33 and STH 144 - Washington St.	71
Washington	NB and SB	CTH D	73

USH 51

Dane	NB and SB	STH 19	61
Dane	NB and SB	Windsor Rd	63
Dane	NB and SB	CTH V	65

Interchanges where USH 51 and IH 39 are concurrent are found below

USH 51 and INTERSTATE HIGHWAY 39

Columbia	SB	IH 90/94 and STH 78 South	84
Columbia	NB and SB	Cascade Mountain Rd	85
Columbia	NB and SB	STH 33	87
Columbia	NB	STH 16 East	89A
Columbia	NB	STH 16 West 127 and To STH 127	89B
Columbia	SB	STH 16 and To STH 127	89B-A
Columbia	NB and SB	USH 51 South	92
Marquette	NB and SB	STH 23 West - CTH P	100
Marquette	NB	CTH D	104
Marquette	NB and SB	STH 23 East - STH 82	106
Marquette	NB and SB	CTH J and E	113
Waushara	NB and SB	STH 21	124
Waushara	NB and SB	CTH V	131
Waushara	NB and SB	STH 73	136
Portage	NB and SB	CTH D	139
Portage	NB and SB	CTH W	143
Portage	NB and SB	STH 54 - Bus. 51	151
Portage	NB and SB	CTH B	153
Portage	NB and SB	CTH HH	156
Portage	NB	USH 10 East	158A
Portage	NB	STH 66 West	158B
Portage	SB	USH 10 East and STH 66 West	158
Portage	NB and SB	STH 66 East	159
Portage	NB and SB	Business 51	161
Portage	NB and SB	Casimir Road	163
Portage	NB and SB	USH 10 West	165
Portage	NB and SB	CTH DB	171
Marathon	NB and SB	STH 34	175
Marathon	NB and SB	STH 153	179

Marathon	NB and SB	Kronenwetter and Mosinee (Maple Ridge Rd)	181
Marathon	NB and SB	Bus. 51	185
Marathon	NB and SB	STH 29 East	187
Marathon	NB and SB	CTH N	188
Marathon	NB and SB	CTH NN	190
Marathon	NB and SB	STH 29 West	191A
Marathon	NB	Sherman St.	191B
Marathon	NB and SB	STH 52 and Stewart Avenue	192
Marathon	NB and SB	Bridge St.	193
Marathon	NB and SB	CTH U	194A
Marathon	NB and SB	Bus. 51 CTH K	194B
Marathon	NB and SB	CTH WW	197
Lincoln	NB and SB	CTH Q	205
Lincoln	NB and SB	STH 17 and STH 64	208
Lincoln	NB and SB	CTH K	211
Lincoln	NB and SB	CTH S	225
Lincoln	NB and SB	STH 86 West and CTH D East	229
Lincoln	NB and SB	CTH A	231
Lincoln	NB and SB	USH 8	234

USH 53

La Crosse	NB and SB	STH 157 and Main St	6
La Crosse	NB and SB	CTH S and Sand Lake Rd	7
La Crosse	NB and SB	CTH OT	9
La Crosse	NB	STH 35 South, CTH HD, Business 35 and Holmen Dr	11
La Crosse	SB	STH 35 South, CTH HD and Holmen Dr	11
La Crosse	NB and SB	CTH MH and McHugh Rd	13
La Crosse	NB	STH 35 North and CTH HD	15
La Crosse	SB	STH 35 North, CTH HD, and Business 35	15
Eau Claire	SB	IH 94 East	84A
Eau Claire	SB	IH 94 West	84B
Eau Claire	NB and SB	Golf Rd	85
Eau Claire	NB and SB	STH 93 – Hastings Way	86
Eau Claire	NB and SB	USH 12 – Clairemont	87
Eau Claire	NB and SB	River Prairie Dr	89
Eau Claire	SB and NB	North Crossing and STH 312	90
Chippewa	SB and NB	Melby Street	92
Chippewa	SB and NB	CTH OO	94
Chippewa	SB and NB	STH 29 East	95A
Chippewa	SB and NB	STSH 29 West	95B
Chippewa	SB and NB	Business 29 – CTH X	96
Chippewa	SB and NB	CTH S	99
Chippewa	SB and NB	CTH B	102
Chippewa	SB and NB	STH 40	110
Chippewa	SB and NB	STH 64	112
Chippewa	NB and SB	CTH M	118
Barron	NB and SB	CTH I	126
Barron	NB and SB	USH 8	135
Barron	NB and SB	CTH 0	140
Barron	NB and SB	STH 48	143
Barron	NB and SB	CTH V	150
Washburn	NB and SB	STH 70	165
Washburn	NB and SB	USH 63 South	168
Douglas	NB and SB	USH 2 East	222

USH 61

Grant	NB and SB	STH 11 East and STH 35 South	1
Grant	NB	Badger Road and Eagle Point Rd	2
Grant	SB	Badger Rd and Eagle Point Rd	3
Grant	NB	CTH HHH and To CTH H	5
Grant	SB	CTH H and To CTH HHH	5
Grant	NB	USH 61 North Off Ramp at USH 151	8

STH 64

St. Croix	EB and WB	STH 35/CTH E	1
St. Croix	EB and WB	CTH V / Andersen Scout Camp Road	4
St. Croix	EB and WB	CTH VV / Bus 64	6

St. Croix	EB and WB	STH 35 / CTH C / Bus 64	9
St. Croix	EB and WB	CTH A / Bus 64	12

INTERSTATE HIGHWAY 90

La Crosse	EB and WB	CTH B	2
La Crosse	WB	STH 35 and USH 53 South	3
La Crosse	EB	STH 35 and USH 53 South	3A
La Crosse	EB	STH 35 North	3B
La Crosse	EB and WB	USH 53 North and STH 157	4
La Crosse	EB and WB	STH 16	5
La Crosse	EB and WB	CTH C	12
La Crosse	EB and WB	STH 162	15
Monroe	EB and WB	STH 27	25
Monroe	EB and WB	STH 16	28
Monroe	EB and WB	STH 131	41
Monroe	EB and WB	USH 12 and STH 16	43
Monroe	EB and WB	IH 94	45
Monroe	EB and WB	CTH PP	48
Juneau	EB and WB	CTH C	55
Juneau	EB and WB	STH 80	61
Juneau	EB and WB	STH 82	69
Juneau	EB and WB	CTH HH and CTH N	79
Juneau	EB and WB	USH 12 and STH 16	85
Sauk	EB and WB	STH 13	87
Sauk	EB and WB	STH 23	89
Sauk	EB and WB	USH 12	92
Columbia	EB and WB	STH 33	106
Columbia	EB and WB	STH 78 South	108A
Columbia	EB and WB	IH 39 North	108B
Columbia	EB and WB	CTH CS	115
Columbia	EB and WB	STH 60	119
Dane	EB and WB	CTH V	126
Dane	EB and WB	STH 19	131
Dane	EB and WB	USH 51	132
Dane	EB and WB	USH 151South	135A
Dane	EB and WB	USH 151 North	135B
Dane	WB	High Crossing Blvd	135C
Dane	EB and WB	IH 94 East	138A
Dane	EB and WB	STH 30	138B
Dane	EB and WB	USH 12 - 18 West	142A
Dane	EB and WB	USH 12 - 18 East	142B
Dane	EB and WB	CTH N	147
Dane	EB and WB	USH 51 North	156
Dane	EB and WB	USH 51 South - STH 73 and STH 106	160
Rock	EB and WB	STH 59	163
Rock	EB	STH 26	171A
Rock	WB	STH 26 North	171A
Rock	EB	USH 14 West	171B
Rock	WB	USH 14 West and STH 26 South	171B
Rock	EB and WB	STH 14 East	175C
Rock	EB and WB	Racine Street	175A
Rock	EB and WB	STH 11 East	175B
Rock	EB and WB	STH 11 West and Avalon Rd	177
Rock	EB and WB	CTH S	183
Rock	EB and WB	IH 43 North	185B
Rock	EB and WB	STH 81 West	185A

INTERSTATE HIGHWAY 94

St. Croix	EB and WB	STH 35 North	1
St. Croix	EB and WB	CTH F - Carmichael Rd	2
St. Croix	EB and WB	STH 35 South	3
St. Croix	EB and WB	USH 12 - CTH U	4
St. Croix	EB and WB	STH 65	10
St. Croix	EB and WB	CTH T	16
St. Croix	EB and WB	USH 63	19
St. Croix	EB and WB	CTH B	24
St. Croix	EB and WB	STH 128	28

Dunn	EB and WB	CTH Q	32
Dunn	EB and WB	STH 25	41
Dunn	EB and WB	CTH B	45
Dunn	EB and WB	USH 12 - STH 29 and 40	52
Eau Claire	EB and WB	STH 312 and CTH EE	59
Eau Claire	EB and WB	STH 37	65
Eau Claire	EB and WB	STH 93	69
Eau Claire	EB and WB	USH 53	70
Eau Claire	EB and WB	CTH HH	81
Trempealeau	EB and WB	USH 10	88
Jackson	EB and WB	STH 121	98
Jackson	EB and WB	STH 95	105
Jackson	EB and WB	USH 12 and STH 27	115
Jackson	EB and WB	STH 54	116
Jackson	EB and WB	CTH O	128
Monroe	EB and WB	CTH EW	135
Monroe	EB	USH 12	143
Monroe	WB	STH 21	143
Monroe	EB and WB	Industrial Ave	145
Monroe	EB and WB	IH 90	147

Interchanges where IH 90 and IH 94 are concurrent are numbered as interchanges on IH 90

Dane	WB	STH 30 West	240
Dane	WB	IH 90 East and IH 39 South	4A**
Dane	EB and WB	CTH N	244
Dane	EB and WB	STH 73	250
Jefferson	EB and WB	STH 89	259
Jefferson	EB and WB	STH 26	267
Jefferson	EB and WB	CTH F	275
Jefferson	EB and WB	Willow Glen Rd	277
Waukesha	EB and WB	STH 67	282
Waukesha	EB and WB	CTH P	283

**Existing Exit Number is 4A, Future Exit Number should be 240A

Waukesha	EB and WB	CTH C	285
Waukesha	EB and WB	STH 83	287
Waukesha	EB and WB	CTH SS	290
Waukesha	EB and WB	CTH G	291
Waukesha	EB and WB	CTH T	293
Waukesha	WB	STH 16	293C
Waukesha	EB and WB	CTH J South and STH 164 North	294
Waukesha	EB and WB	CTH F	295
Waukesha	EB and WB	USH18/STH164 South/CTH JJ/Barker Rd	297
Waukesha	EB	Moorland Rd	301A-B
Waukesha	WB	Moorland Rd	301A
Waukesha	WB	Moorland Rd	301B
Milwaukee	EB	STH 100	304
Milwaukee	WB	STH 100	304
Milwaukee	WB	IH 41 (USH 45) North	304
Milwaukee	EB and WB	USH 45 North	305B
Milwaukee	EB and WB	IH 894 East and USH 45 South	305A
Milwaukee	EB and WB	STH 181 - 84th St.	306
Milwaukee	EB and WB	68th St. - 70th St.	307A
Milwaukee	EB and WB	Hawley Rd	307B
Milwaukee	EB and WB	V. A. Center - Mitchell Blvd.	308A
Milwaukee	EB and WB	Miller Park Way (STH 175) - South	308B
Milwaukee	EB and WB	STH 175 - North	308C
Milwaukee	EB and WB	35th St.	309A
Milwaukee	EB	26th St. and St. Paul Ave.	309B
Milwaukee	WB	25th St. and Clybourn St.	309B
Milwaukee	EB	13th St.	310A
Milwaukee	EB and WB	IH 43 - Northbound	310B
Milwaukee	EB and WB	IH 794 - Eastbound	310C
Milwaukee	EB	STH 59 - National Ave. and 6th St.	311
Milwaukee	WB	STH 59 - National Ave.	311

Milwaukee	EB	Lapham Blvd. - Mitchell St.	312A
Milwaukee	EB	Becher St. - Lincoln Ave.	312B
Milwaukee	WB	Becher St. - Mitchell St., Lapham Blvd - Greenfield Ave.	312A-B
Milwaukee	EB	Holt Ave.	314A
Milwaukee	EB	Howard Ave.	314B
Milwaukee	WB	Howard Ave	314B
Milwaukee	WB	Holt Ave	314A
Milwaukee	EB	IH 43 and IH 894	none
Milwaukee	WB	IH 894 West - IH 43 South IH 41 North and 894 Bypass	317
Milwaukee	EB and WB	Layton Ave.	316
Milwaukee	EB and WB	Airport - Mitchell Field	318
Milwaukee	EB and WB	College Ave.	319
Milwaukee	EB and WB	Rawson Ave.	320
Milwaukee	EB and WB	STH 100 - Ryan Rd	322
Racine	WB	STH 241 - North 27th St.	325
Racine	EB and WB	Seven Mile Rd	326
Racine	EB and WB	CTH G	327
Racine	EB and WB	CTH K	329
Racine	EB and WB	STH 20	333
Racine	EB and WB	STH 11	335
Kenosha	EB and WB	CTH KR	337
Kenosha	EB and WB	CTH E	339
Kenosha	EB and WB	STH 142	340
Kenosha	EB and WB	STH 158	342
Kenosha	EB and WB	STH 50	344
Kenosha	EB and WB	CTH C	345
Kenosha	EB and WB	STH 165 and CTH Q and Tourist Info	347
Kenosha	WB	Truck Weigh Station	None

STH 145

Milwaukee	NB	Fond du Lac Avenue	None
Milwaukee	SB	Grantosa Drive and Villard Ave.	7A
Milwaukee	NB	STH 181 North - 76th Street	7B
Milwaukee	SB	STH 181 - 76th Street	7B
Milwaukee	NB	Silver Spring Drive - Westbound	8
Milwaukee	SB	Silver Spring Drive - Eastbound	8
Milwaukee	NB and SB	91st Street	9
Milwaukee	NB	Green Tree Road and 102nd Street	10A
Milwaukee	NB	107th Street and Good Hope Road	10B
Milwaukee	SB	107th Street and Fond du Lac Avenue	10B
Milwaukee	NB	Park Place	10C

USH 151

Interchanges where USH 151 and USH 61 are concurrent are numbered as interchanges on USH 61

Grant	SB	STH 35 North/USH 61 North/CTH HH	8
Grant	NB	CTH D and Business 151	18
Grant	SB	CTH D	18
Grant	NB and SB	STH 80/81	19
Grant	NB	CTH XX	21
Grant	SB	CTH XX and Business 151	21
Lafayette	NB and SB	STH 126 South and CTH G	26
Iowa	NB	CTH O and Business 151	37
Iowa	SB	CTH O	37
Iowa	NB	STH 23 South and To STH 39	40
Iowa	SB	STH 23 South and To STH 39 and Bus 151	40
Iowa	NB and SB	STH 23 North	44
Iowa	NB and SB	USH 18 West	47
Iowa	NB and SB	CTH BB and CTH HHH	52
Iowa	NB and SB	CTH ID	58
Dane	NB	STH 78 and Business 18/151	65
Dane	SB	STH 78	65
Dane	NB	CTH ID	69
Dane	SB	CTH ID and Business 18/151	69
Dane	NB and SB	CTH PD and To CTH P	70
Dane	NB and SB	CTH G/Dairy Ridge Rd.	75
Dane	NB	CTH MV and Business 18/151	76

Dane	SB	CTH MV	76
Dane	NB and SB	STH 69	77
Dane	NB and SB	CTH PB and To CTH M	79
Dane	SB	CTH MV and Business 18/151	81
Dane	NB and SB	CTH PD/McKee Rd	83A
Dane	NB and SB	Williamsburg Way	83B

Interchanges where USH 151 and USH 12 are concurrent are numbered as interchanges on USH 12.

Dane	NB and SB	IH 90/94 East and IH 39 South	97A
Dane	NB and SB	IH 90/94 West and IH 39 North	97B
Dane	NB and SB	Nelson Road	98A
Dane	NB and SB	American Parkway	98B
Dane	NB and SB	CTH C and Reiner Road	100
Dane	NB	Main Street and Business 151	101
Dane	SB	Main Street	101
Dane	NB and SB	STH 19 - Windsor Street	102
Dane	NB	CTH N - Bristol Street	103
Dane	SB	CTH N - Bristol Street and Business 151	103
Dane	NB and SB	CTH VV	108
Dane	NB and SB	CTH V	111
Columbia	NB and SB	STH 73 and Business 151	115
Columbia	NB and SB	STH 16/60	118
Dodge	NB	STH 73	120
Dodge	SB	STH 73 and Business 151	120
Dodge	NB	CTH D and Business 151	129
Dodge	SB	CTH D	129
Dodge	NB and SB	CTH G	130
Dodge	NB and SB	STH 33	132
Dodge	NB	Industrial Dr.	134
Dodge	NB and SB	CTH B and Business 151	135
Dodge	NB and SB	CTH A	136
Dodge	NB	CTH M and Business 151	142
Dodge	NB and SB	STH 26	144
Dodge	NB and SB	STH 49	146
Fond du Lac	SB	STH 26 South	147
Fond du Lac	NB and SB	STH 26 North	148
Fond du Lac	NB and SB	CTH D	160
Fond du Lac	NB and SB	Hickory St	161
Fond du Lac	NB and SB	STH 175	162
Fond du Lac	NB and SB	USH 45 South and CTH V	164
Fond du Lac	NB and SB	STH 23	168

STH 441

Calumet	NB	CTH KK – Calumet St	7
Outagamie	SB	CTH KK – Calumet St	7
Outagamie	NB and SB	CTH CE – College Ave	8
Outagamie	NB and SB	CTH OO – Northland Ave	10
Outagamie	NB	IH 41 South	11A
Outagamie	NB	IH 41 North	11B

INTERSTATE HIGHWAY 794

Milwaukee	WB	IH 94 West, USH 41 North	1A
Milwaukee	WB	IH 94 East, USH 41 South – IH 43 South	1B
Milwaukee	WB	IH 43 North	1C
Milwaukee	EB	Plankinton Ave.	1D
Milwaukee	EB	Jackson St. - Van Buren St.	1E
Milwaukee	WB	Milwaukee St.	1E
Milwaukee	EB	Lincoln Memorial Dr. – Lakefront	1F
Milwaukee	WB	Michigan St.	1F
Milwaukee	EB	J Lovell St. – St. Paul Ave	1H
Milwaukee	EB	Carferry Dr.	3

INTERSTATE HIGHWAY 894

Milwaukee	WB	IH 94 East	1A
Milwaukee	WB	IH 94 West	1B
Milwaukee	EB and WB	STH 59 and Greenfield Ave.	1D

Milwaukee	EB	Lincoln Ave.	1E
Milwaukee	WB	National Ave.	2A
Milwaukee	EB	National Ave. - Westbound	2A
Milwaukee	EB	Oklahoma Ave.	2B
Milwaukee	EB and WB	Beloit Rd	3
Milwaukee	EB and WB	IH 43 and USH 45 South	4
Milwaukee	WB	STH 24 West - Forest Home Ave.	5A
Milwaukee	WB	South 76th St.	5B
Milwaukee	EB	South 76th St. - South 84th St.	5A-B
Milwaukee	EB and WB	South 60th St.	7
Milwaukee	EB	STH 36 - Loomis Rd	8A-B
Milwaukee	WB	STH 36 - Loomis Rd South	8A
Milwaukee	WB	STH 36 - Loomis Rd North	8B
Milwaukee	EB and WB	STH 241 - South 27th St.	9
Milwaukee	EB	IH 94 West	10A
Milwaukee	EB	IH 94 East (41 South)	10B

2-6-21 Overhead Arrow-Per-Lane Guide Signs ~~January 2013~~November 2026

BACKGROUND AND PURPOSE

WisDOT has many interchanges in place that have optional exit/ahead lanes. These types of exits enhance the capacity of the exit ramps while at the same time improve the efficiency of traffic on the mainline. Traditionally, overhead signing has been installed at just the theoretical gore showing a two-lane exit only. This approach has worked with success in many locations. However, this signing approach does not fully emphasize to motorists that the lane adjacent to the exit only lane is an option lane and in some cases this has led to traffic queuing up unnecessarily in the exit lane instead of taking advantage of the optional lane.

The WMUTCD Section 2E.39~~-20~~ requires that Overhead Arrow-Per-Lane or Diagrammatic guide sign designs be used for all multi-lane exits at major interchanges that have an optional exit lane. For all new or reconstructed freeways and expressways that meet the above conditions, the WMUTCD Section 2E.40~~-21~~ requires that Overhead Arrow-Per-Lane guide signs be used in lieu of Diagrammatic guide sign designs. Diagrammatic guide sign designs are not allowed on new or reconstructed facilities.

~~It *should* be pointed out that the Overhead Arrow-Per-Lane guide signs *may not* be practical at all interchanges with optional lanes. For example, Overhead Arrow-Per-Lane guide signs *may* be too confusing for an interchange with split exits (A-B). Therefore, in these cases, the MUTCD Figures 2E-8 and 2E-9 still allow the usage of down arrows on guide signs.~~

Technically the Overhead Arrow-Per-Lane guide signs have an arrow over each travel lane. This practice *should* be utilized for system interchanges (freeway-freeway) because at these interchanges, WisDOT has traditionally shown the pull through or ahead movement. However, due to the large size of the signs and the fact that pull through movements have typically not been utilized at service type interchanges, the option for a “truncated” style overhead arrow-per-lane guide sign *should* be available. The “truncated” style overhead arrow-per-lane guide sign only shows one arrow above the optional lane and one arrow above the exiting lane. Even though the usage of the “truncated” style overhead arrow-per-lane guide signs are not adopted as part of the WMUTCD, the General Counsel of the National Committee on Uniform Traffic Control Devices, endorsed usage of them at the June 2012 meeting.

DEFINITIONS

System interchanges are defined as freeway interchanges with other freeways.

Service interchanges are defined as freeway interchanges with local streets, County Trunk, State Trunk, U.S. or Interstate Highways.

POLICY

Overhead Arrow per Lane Guide Signs for System Interchanges

1. Overhead arrows *should* be used over each travel lane.
2. Due to the large size of the signs, a vertical splice *should* be placed at about the midpoint of the sign, so future replacement of the sign will be easier for field crews and less disruptive to traffic.
3. The overhead guide sign closest to the gore **shall** be placed at the beginning of taper for the option lane.

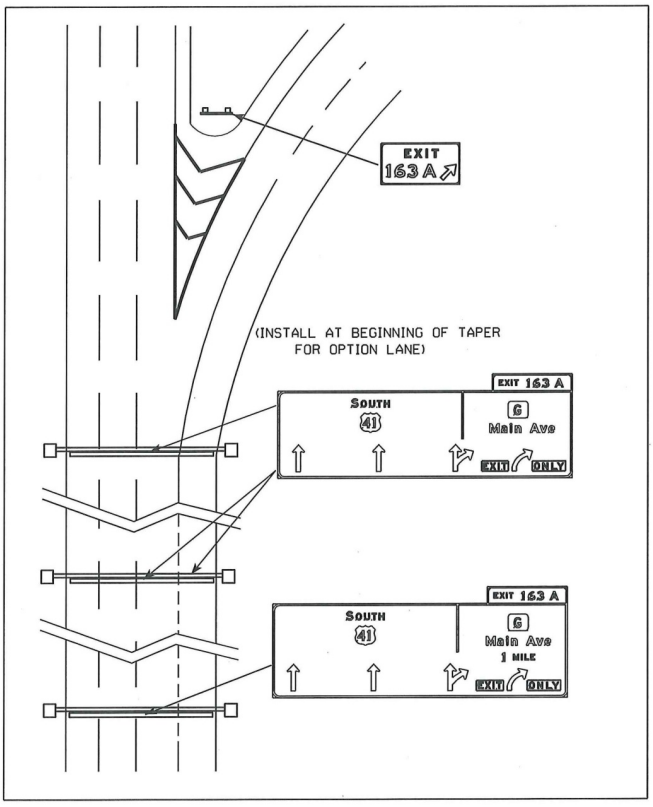
Overhead Arrow per Lane Guide Signs for Service Interchanges

1. At a minimum, overhead arrows *should* be utilized for just the option lane and exit only lane. Overhead arrows *may* be omitted for the ahead lanes.
2. The overhead guide sign closest to the gore **shall** be placed at the beginning of taper for the option lane.
3. A size 5 ground mounted regulatory (R3-33) RIGHT LANE MUST EXIT sign *should* be placed downstream of the advanced guide sign(s).

IMPLEMENTATION

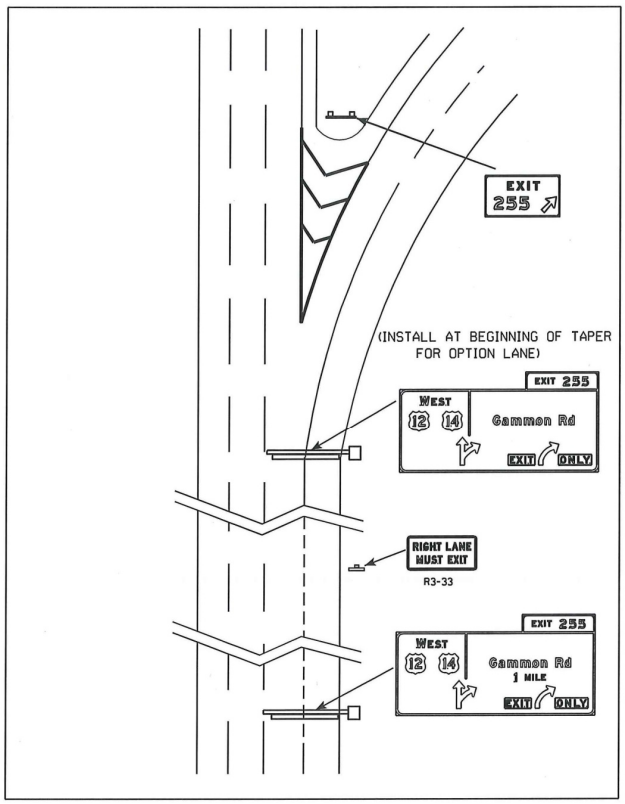
The FHWA does not have a mandated compliance date for this signing. Signing field revisions *should* be accomplished primarily through improvement projects.

Figure 1



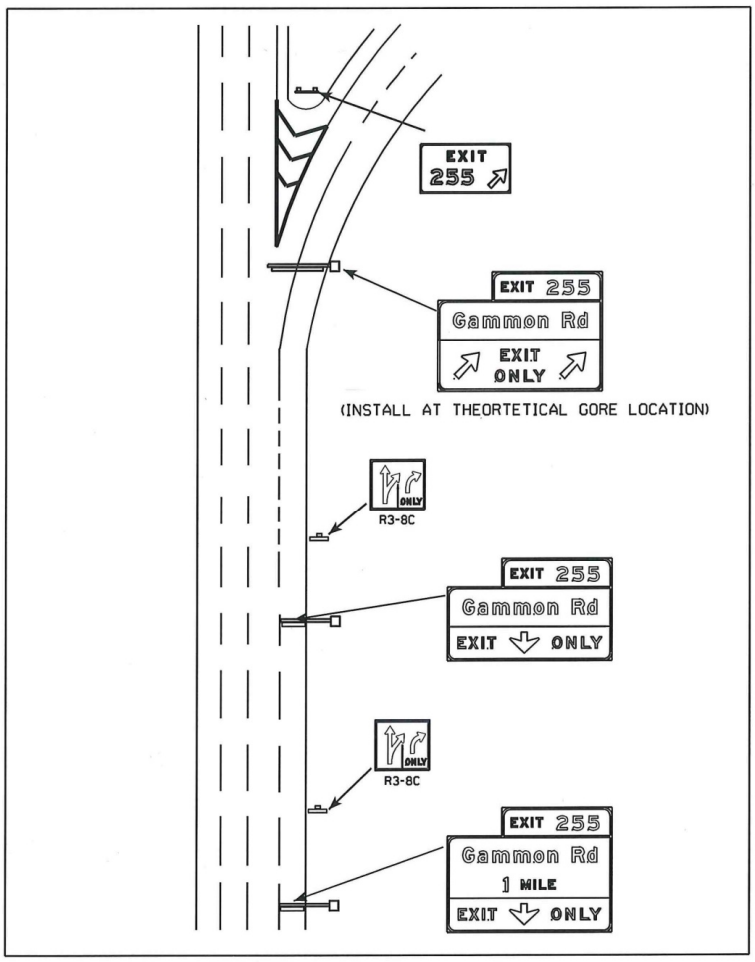
OVERHEAD ARROW PER LANE GUIDE SIGNS FOR SYSTEM INTERCHANGE

Figure 2



OVERHEAD ARROW PER LANE GUIDE SIGNS FOR SERVICE INTERCHANGE

Figure 3



OPTIONAL LANE SIGNING FOR EXISTING INTERCHANGES
(REPLACING SIGNS ON EXISTING SIGN BRIDGE STRUCTURES)

2-6-30 Grade Separated Crossroad Name Signs — December 2001

PURPOSE

Signs identifying grade separated roadway crossings (M1-94) have traditionally been installed on WisDOT freeways and expressways to help assist motorists. These signs can be very useful because they help an unfamiliar motorist find their location when using a map to orient themselves and *may* help motorists identify their location in case of emergency. The intent of this policy is to establish control and statewide consistency on the usage of these signs.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access by means of grade separations at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial controlled access and generally with grade separations at major intersections.

INSTALLATION GUIDELINES

Grade separated crossroad name signs can be used provided the following criteria are met:

1. For freeways and expressways: Signs **shall** be installed for all USH, STH, and CTH non-interchange crossroads. Signs *may* be installed for all other non-interchange crossroads.
2. For freeways and expressways in urbanized areas: Signs *may* be installed for all crossroads, interchanged or non-interchanged, but only where law enforcement and emergency medical personnel use them for incident identification.

3. Any grade separated crossroad name signs that are in place and do not meet the criteria listed in items 1 or 2 above will be allowed to remain in place until the end of their useful life. Once the signs have reached their useful life, they **shall** be removed and not be replaced. Useful life is defined as the sign being legible for its intended usage.

2-6-35 Tourist Information Signs ~~April 2010~~November 2026

GENERAL

The usage of general services signs is covered in Section 2D.45 of the WMUTCD. One such general service sign that is permitted by the WMUTCD is for tourist information. Oftentimes the department receives requests to install tourist information signs on state maintained highways. The intent of this signing is to **not** advertise for a particular tourist facility, but to provide a service in guiding motorists who are not familiar with an area to local and/or regional tourist activities and events.

DEFINITIONS

Freeways are defined as divided arterial highway facilities with full controlled access by means of grade separations at interchanges only.

Expressways are defined as divided highways with partial controlled access by a combination of interchanges, at-grade intersections and driveways.

Conventional highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

POLICY

Tourist information signs *may* be approved for installation on state-maintained roadways under the following conditions.

Freeway or expressway:

1. The information booth is no more than three miles driving distance from the exit
2. The booth must be open and staffed a minimum of eight hours a day, seven days a week by staff whose sole duty is to operate the booth
3. The booth **shall** be the sole information service to that highway for that particular county segment, operated by the county government or by a countywide tourist business association
4. Signing from one freeway/expressway to another freeway/expressway **shall not** be allowed.

Conventional State Trunk Highway

1. The booth is within one mile driving distance from the state trunk highway
2. The booth is open and staffed a minimum of four house per day, five days per week
3. The booth **shall** be the sole information service in the municipality on that particular highway endorsed by the municipality or the local tourist business association.
4. Signing from one conventional state highway to another conventional state highway **shall not** be allowed.

General Conditions

In addition to the above, other requirements and conditions apply to ~~sings~~ signs on both types of highways:

1. When trailblazing off the state trunk highway system is required, each maintaining agency **shall** install signing before the signing on the state trunk highway is erected
2. Signing on the state trunk highway will be removed by crews under the direction of the department during the period when a seasonal booth is not operated. An alternate to removal is the application of a CLOSED panel.
3. The cost for fabrication, installation and maintenance of this signing **shall** be the responsibility of the requestor or managing organization or agency. WisDOT **shall** coordinate the fabrication, installation, and maintenance of all signs on state-maintained roadways, including ramps, and **shall** be reimbursed for all costs.

4. Signs ~~will~~ **shall** read “Tourist ~~Information~~Info” if incorporated into a Type I sign or in all other cases the “Info” (D9-10) sign **shall** be used in conformance with ~~state standards~~WMUTCD Chapter 2I.
5. Adequate parking facilities must be provided in the immediate vicinity of the booth.

2-6-36 Parallel Off-Ramp Exit Direction Signing ~~July 2012~~November 2026

BACKGROUND AND PURPOSE

The WMUTCD Section 2E.25~~-36~~ states that post mounted Exit Direction signs *should* be mounted at the beginning of the deceleration lane taper. If there is less than 300 feet from the upstream end of the deceleration lane to the theoretical gore, the Exit Direction sign *should* be installed overhead over the exiting lane in the vicinity of the theoretical gore.

Occasionally long parallel (deceleration) exit ramps are constructed to provide for additional capacity for exiting traffic, thus helping to eliminate traffic slowing and queuing in the mainline travel lanes. Some of these parallel exit ramps can be up ½ mile in length. The challenge with interchange guide signing of long parallel exit ramps is that the motorist *should* know as soon as possible that the far right lane is for the Exit Only. This will allow an exiting motorist to shift from the mainline lane (s) to the exit ramp as soon as possible. This will maximize efficiency and safety of the freeway exit by helping to avoid last minute lane changes and traffic backups.

This policy will differentiate between the different lengths of parallel exit ramps and provide guidance as to the types of guide signing that *should* be used. Sight distance will play a factor as to what types of guide signing that *should* be used as well. Overhead exit direction signs *may* be required if sight distance is compromised by geometrics or if the theoretical gore location is beyond a bridge.

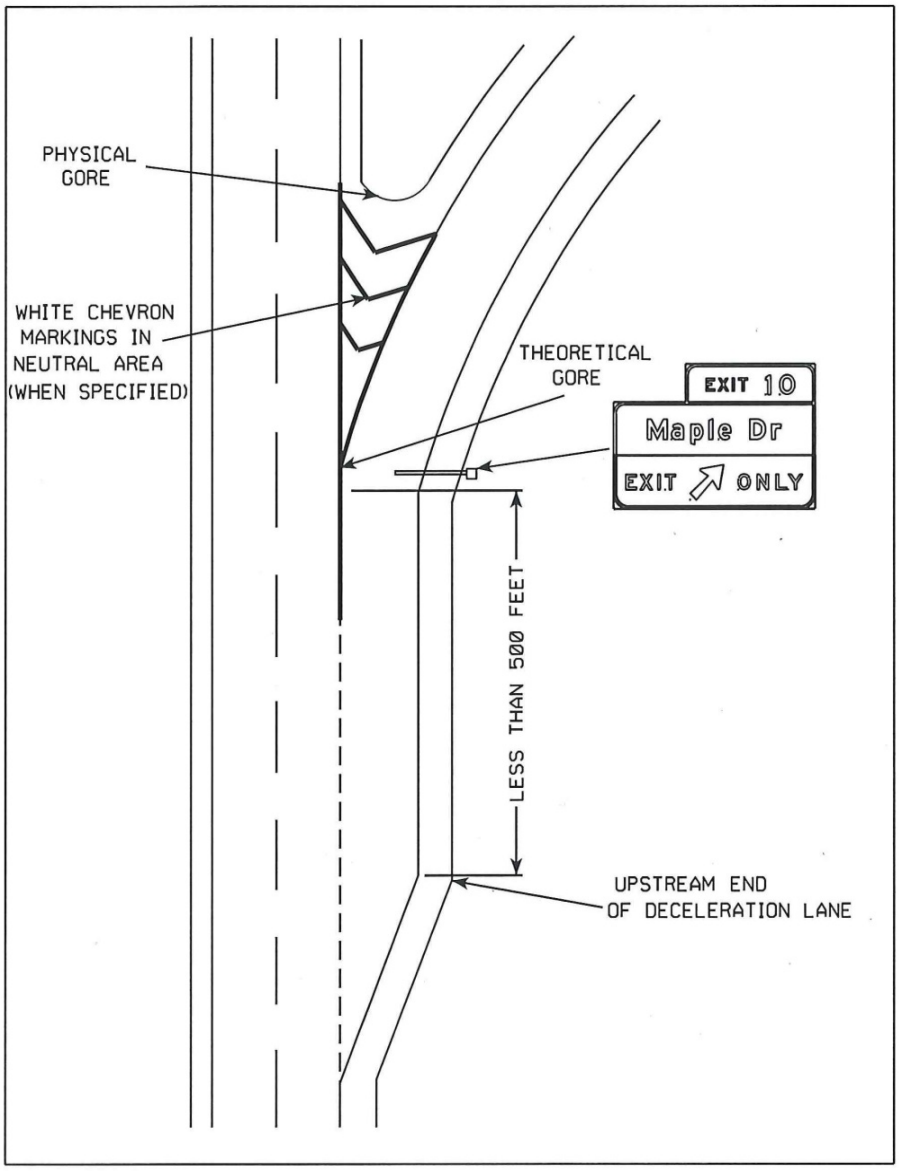
POLICY

If parallel off-ramp is less than 500 feet from upstream end of deceleration lane to theoretical gore

1. An overhead Exit Direction guide sign at the upstream end of the deceleration lane *should* be used.
2. Typically no Exit Direction guide sign would be needed at the theoretical gore location.
3. If the parallel exit ramp is greater than ¼ mile in length, then the ramp *should* be considered an auxiliary exit lane and have both an Exit Direction guide sign at the upstream end of the deceleration lane and Exit Direction guide sign installed at the theoretical gore location.

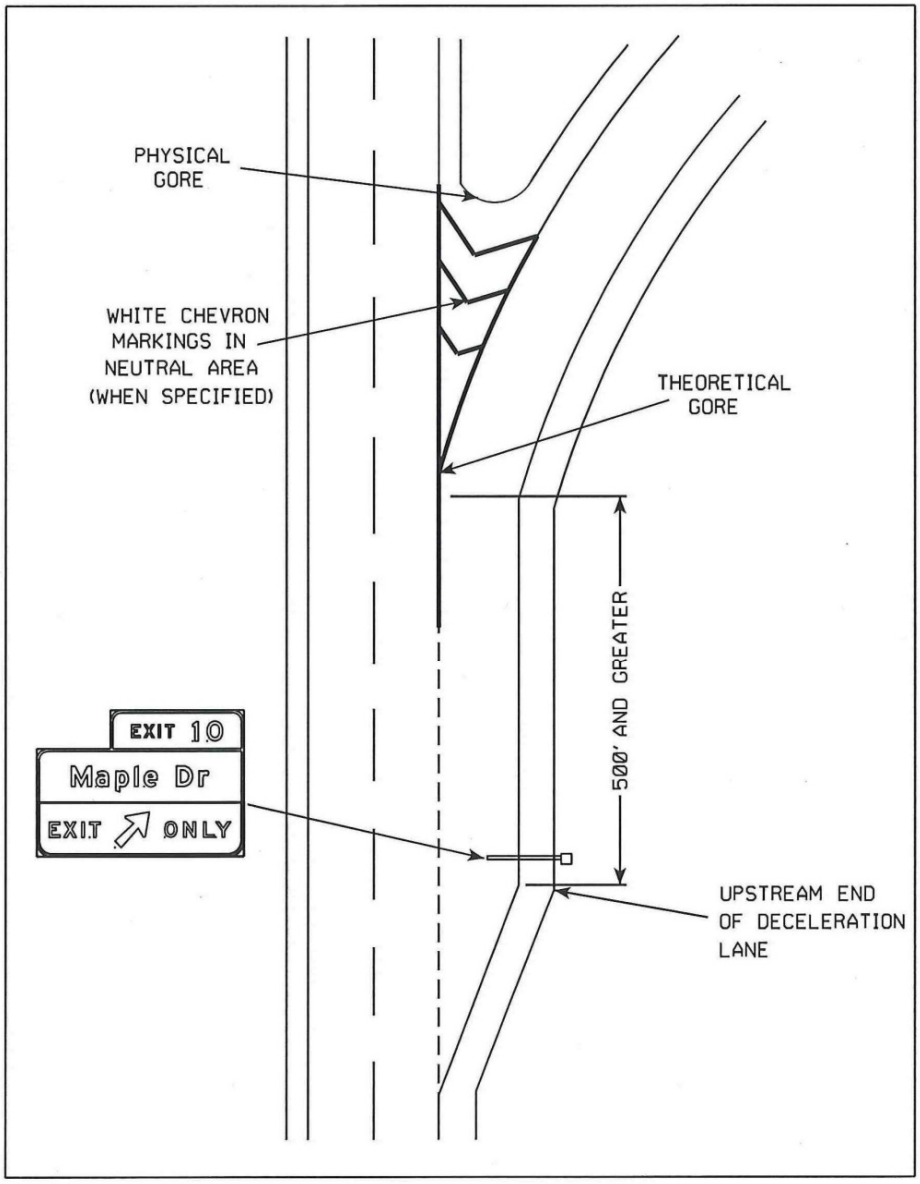
500’ or greater parallel exit ramp (retrofit situation), where parallel exit ramp has been extended and existing overhead Exit Direction sign at theoretical gore is allowed to remain

1. A ground mounted Exit Direction guide sign at the beginning of the taper for parallel exit ramp *should* be used.
2. The overhead Exit Direction guide sign at the theoretical gore location would not have to be moved to the upstream end of the deceleration lane.
3. If the parallel exit ramp is greater than ¼ mile in length, then the ramp *should* be considered an auxiliary exit lane and have both an Exit Direction guide sign at the upstream end of the deceleration lane and Exit Direction guide sign installed at the theoretical gore location.



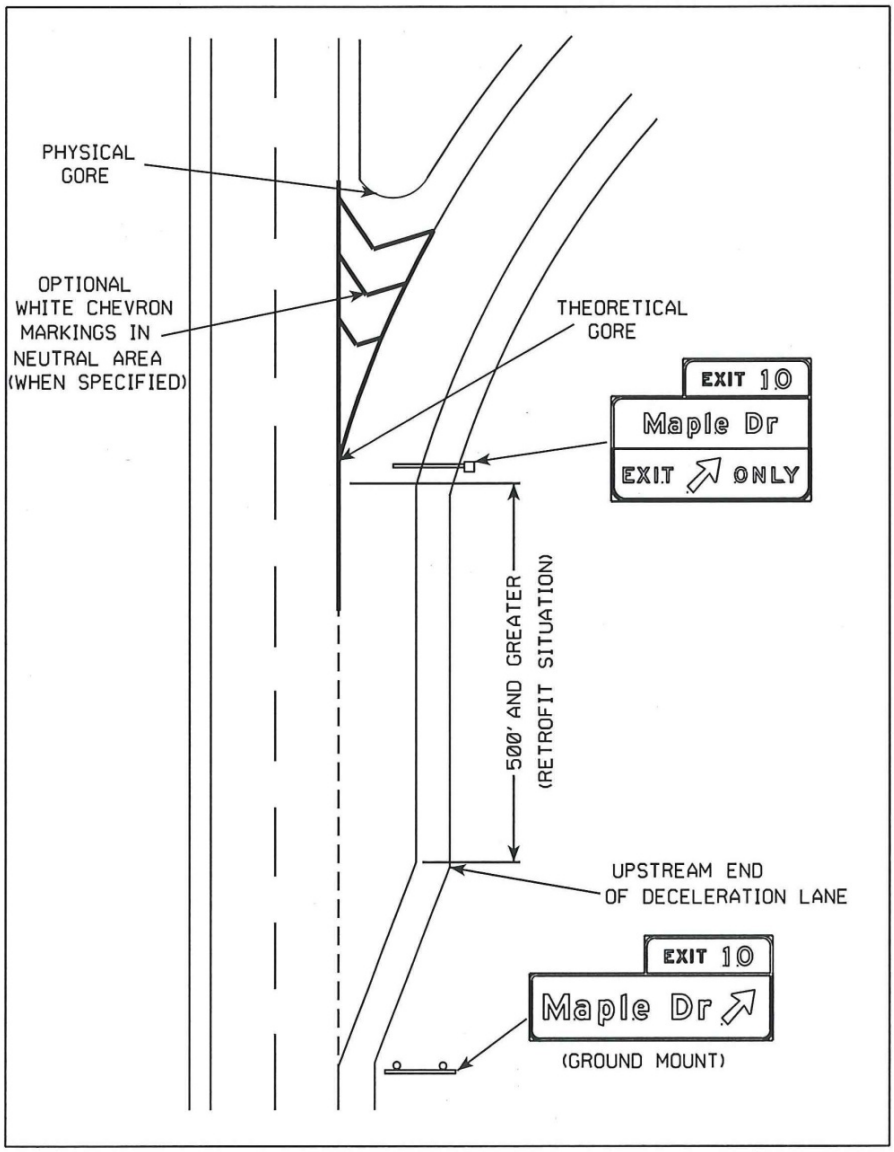
(LESS THAN 500 FEET FROM UPSTREAM END OF DECELERATION LANE TO THEORETICAL GORE)

FIGURE 1



(500' AND GREATER FROM UPSTREAM END OF DECELERATION LANE TO THEORETICAL GORE)

FIGURE 2



(500' AND GREATER FROM UPSTREAM END OF DECELERATION LANE TO THEORETICAL GORE)

(RETROFIT SITUATION)

FIGURE 3

2-6-40 No Re-Entry to Freeway Signs July 2012

PURPOSE

In an effort to control construction costs, there are several interchanges that have been constructed as half diamond or partial cloverleaf interchanges. These are typically interchanges that do not allow access back on to the mainline (freeway/expressway). Motorists *may* have to drive a substantial distance to get back onto the mainline, which can cause potential confusion. This is especially true if adequate trailblazing is not in place to direct motorists back to the mainline. This policy provides guidance for the installation of signs on the freeway/expressway to warn motorists of the approaching half interchange.

DEFINITIONS

Freeways are defined as divided arterial highway facilities with full controlled access by means of graded separations at interchanges only.

Expressways are defined as divided arterial highway facilities with partial controlled access, generally with grade

separations at major intersections.

POLICY

1. The "NO RE-ENTRY TO FREEWAY" (W6-54) sign *may* be used by the Region where freeway/expressway interchanges are far apart or access to the next interchange is not apparent. This sign *should* only be used at freeway exit locations where there is no other on ramp in either cardinal direction to get back onto the freeway.
2. For freeway exit locations where there is a freeway on ramp in the opposite cardinal direction, the "NO *****BOUND RE-ENTRY TO FREEWAY (W6-54A-D) series signs *should* be used.
3. The signs *should* not be used if adequate trailblazing back to the mainline is already in place.
4. If used, the signs **shall** be mounted immediately below the advance guide sign for the interchange (typically the E1-1A ground mount advance sign or E6-51 overhead advance sign). The minimum height requirements for a secondary Type I sign *should* be followed (see A4-1 standard sign plate).

2-6-50 Community "Downtown" Signing — February 2017

GENERAL

Supplemental guide signs *may* be allowed to direct motorists on freeways and expressways to a community's "downtown" area, subject to the conditions described in this guideline.

DEFINITIONS

Downtown is the area, usually within the central city that has governmental offices, business offices, retail shopping, and other amenities closely associated with each other in a contiguous area, and will normally be referred to by the community and its usual residents as downtown or the central business district. Unfamiliar motorists directed from the freeway or expressway to downtown *should* have this same expectation.

ELIGIBILITY

Communities are eligible for freeway or expressway signs directing motorists to downtown when the following criteria are met:

1. The community must be served by at least two interchanges from the freeway or expressway with the interchange highways leading toward the downtown area.
2. The freeway or expressway on which the downtown signs are located must:
    a. Be within five miles of the nearest boundary of the community, or
    b. Pass within the corporate limits of the community.
3. The community must agree to comply with the criteria and requirements of this guideline, and accept responsibility for all costs associated with signing for the community downtown under this guideline.

Communities *may* also be eligible for signs directing to downtown on conventional highways when the highway bypasses the downtown area and provided the signs designate the "city center" area.

SIGN REQUIREMENTS, LOCATION, AND INSTALLATION

Downtown signs on a freeway or expressway mainline are considered supplemental signing. The approval and installation is subject to all provisions of the Department's policy on "Supplemental Guide Signing on Freeways and Expressways for Public and Private Facilities" in addition to the eligibility requirements and sign location and installation details of this guideline. Approval of signs for eligible communities is subject to the following criteria:

1. Only one downtown sign *may* be installed in each direction of travel on a freeway or expressway. The sign location in each direction of travel along the freeway or expressway *may* be at a different interchange.
2. The community must pass a resolution or similar official document which specifies the requested access location(s) for the downtown directional signs and **shall** submit the resolution to the Department's Regional office as the official request. The location(s) selected **shall** remain fixed for ten years or the life of the signs before changes to the location(s) *may* be considered.
3. Specific location of the freeway or expressway signs will be determined by the Department.

4. The community must install and maintain confirmation signs suitable to the department on the selected access route(s), agree to comply with this guideline, and accept responsibility for all costs associated with signing for the community downtown under this guideline. These confirmation signs are required before signs *may* be installed on the freeway or expressway.
5. Freeway or expressway sign design and message will be determined by the department in accordance with applicable standards and in the interests of uniformity.
6. Freeway and expressway downtown signs will incorporate the name of the community within the sign message.
7. The community will be responsible for all costs incurred by the department, including installation and long-term maintenance of the signs. This includes signs on the freeway and expressway mainline and ramps along with all confirmation signs.
8. A combination of community downtown signs and "Historic Downtown" signs for the same community **shall not** be allowed.
9. Downtown signs with appropriate directional arrows *should* be placed at the junction of the ramp and crossroad at the access interchange.

2-6-54 Reference Location Signs ~~July 2012~~November 2026

PURPOSE

The installation of mileposts and enhanced reference markers, which are referenced in the WMUTCD Section 2H.11 and 2H.12~~05 and 2H.06~~, are very useful to motorists for the following reasons:

1. Providing a means of identification of emergency incident locations.
2. Precise identification of crashes.
3. Aid in the location for highway maintenance and servicing.
4. Road inventory records.
5. Aid motorists in estimating their progress.

DEFINITIONS

Freeways are defined as divided arterial highway facilities with full controlled access by means of grade separated interchanges only.

Expressways are defined as divided arterial highway facilities with partial controlled access and generally with grade separations at major intersections.

REFERENCE LOCATION SIGNS (MILEPOST) POLICY

The WMUTCD requires mileposts for all freeway facilities. Mileposts **shall** also be placed on expressway facilities that are located on a route where there is milepost continuity.

It is the intent of the department to install mileposts at additional locations which satisfy the following conditions:

1. Mileposts **shall** be installed for all urban and rural freeway facilities, regardless of the ADT or traveling speed.
2. Mileposts shall be installed for all urban and rural expressways in situations where freeway segments and expressway segments are combined. An example of this is STH 29.
3. Mileposts *should not* be installed on highways that are solely expressway facilities unless there are frequent grade separated interchanges and the speed limit is 65 mph.
4. Mileposts *should not* be installed on highways that are solely conventional highways.

Mileposts **shall** be installed in accordance with the provisions contained in the WMUTCD. Signs **shall** be installed that conform to the D-10 series.

Overlapping Routes: Continuity **shall** be established for one of the routes. In one of the overlapping routes in an interstate route, that route **shall** be selected for continuity of distance numbering.

ENHANCED REFERENCE LOCATION SIGNS POLICY

The Southwest and Southeast Regions have completed studies first initiated by the Southeast Region Traffic Incident Management Enhancement (TIME) committee. 1/10 and 2/10 enhanced reference location signs have been installed along various freeway segments with positive evaluation results.

Enhanced reference location signs *should* be utilized where the following conditions occur:

1. Rapid identification of emergency incident locations by enforcement personnel, dispatchers and the motoring public.
2. Precise identification of crashes.
3. Identification of disabled vehicles on freeway systems to provide for rapid deployment of enforcement and other emergency personnel to remove the vehicle from the highway to reduce travel delays by the motoring public and to return the facility to a normal traffic flow.
4. Where a uniform system of identification on a system wide basis is necessary for 911 dispatchers and emergency and enforcement personnel.

The WMUTCD Section 2H.1206 provides for an option to utilize an enhanced reference location sign numbering system, and spacing the signs at 1/10, 2/10 or 5/10 miles.

The WisDOT practice is as follows:

1. **Urban areas:** All locations on freeway segments where there is a median barrier, 1/10 mile enhanced reference location signs *should* be installed as a system-wide installation. For example, to provide for a system-wide installation, all of Milwaukee County *should* have enhanced reference location signs. This provides for full use of the system rather than utilizing crossroads as identifiers by dispatchers for some locations and 1/10 enhanced reference location signs on some sections of the system.

   For locations without median barrier in urban areas, the enhanced reference location signs *may* still be installed if it provides for continuity and completion of a system.

   Option: Signs *may* be installed at 2/10 mile spacing but must be consistent for a corridor and system-wide at regional discretion.
2. **Outlying areas—semi urban:** 1/10 or 2/10 enhanced reference location signs are optional at Region discretion based on maintaining a system-wide or corridor segment continuity. Outlying areas are defined as areas with significant traffic volumes approaching 2000 vehicles per hour per lane.
3. **Rural areas:** 5/10 or 2/10 mile enhanced reference location signs are optional based on need. Examples of need are:
   a. High traffic volumes that exceed 40,000 ADT
   b. Incidents that are significantly reducing traffic flow a significant percentage of time similar to urban areas
   c. Continuity of a system such as I-94 in Madison transition into I-90/94 (rural to urban)
   d. High number of crashes above the statewide average.

   If used in rural areas, 2/10 mile enhanced reference location sign spacing *should* be used ~~in rural areas~~ in high crash or high incident locations, areas with three or more travel lanes in each direction or areas with median barrier. All other rural locations should utilize 5/10 mile spacing.

ENHANCED REFERENCE LOCATION SIGN INSTALLATION

Where conditions limit or restrict the use of enhanced reference location signs on the right-hand side of the roadway, they *may* be installed in the median.~~Install signs in the median.~~ It has been found that median mounted signs on barrier wall require less maintenance than devices mounted on the right (outside shoulder). Where there are median light poles, install signs on light poles as much as possible or provide separate metal post. Existing mileposts **shall** be removed. Enhanced reference location signs will replace the even mile system and the milepost system is incorporated into the enhanced reference sign system.

For locations with two single-faced barriers, median mounting location for 1/10 mile spacing is every other light pole or other available structure.

For locations with one double-faced barrier (with lighting, the median mounting location for 1/10 mile spacing is every other light pole or other available structure.

For locations with one double faced barrier (without lighting), mount on top of barrier wall utilizing square tube steel post with steel plate.

When median width is 30' or more, intermediate reference location signs in opposing directions **shall** be on separate posts.

SIGN LAYOUT

See sign plate D10-5 and D10-5A for configuration of sign, sign color and letter sizes.

2-6-55 Community "Historic Downtown" Signing June 2014

GENERAL

Supplemental guide signs *may* be allowed to direct motorists to certain community historic districts, specifically a "Historic Downtown," subject to the conditions described in this guideline.

DEFINITIONS

A district is a definable geographical area that can be distinguished from surrounding properties by changes such as density, scale, type, age, style of sites, buildings, structures, and objects, or by documented differences in patterns of historic development or associations.

A district also possesses a significant concentration, linkage, or continuity of sites, buildings, structures, or objects united historically or aesthetically by plan or physical development. A district is considered a business district.

ELIGIBILITY

Communities are eligible for freeway or expressway signs directing motorists to a historic downtown district when that district is entered in the National Register of Historic Places by the Secretary of the Interior and listed in the State Register of Historic Places by the Wisconsin State Historic Preservation Officer. Official documents must be provided to the department affirming the national and state designations. To be eligible for signs, the area ("Historic Downtown") within the community must be designated on the National Register under the category of "district." Only downtown historic business districts may qualify for "Historic Downtown" signing. Historic residential districts or avenues do not qualify for "Historic Downtown" signing.

In addition, to be eligible for signs under this guideline, the community must agree to comply with the criteria and requirements of this guideline, and accept responsibility for all costs associated with signing for the historic downtown under this guideline.

SIGN REQUIREMENTS, LOCATION, AND INSTALLATION

The following criteria must be met:

1. No "Historic Downtown" signing *may* be erected within any city having a population over 500,000.
2. The freeway or expressway on which the "Historic Downtown" signs are located must:
    a. Be within five miles of the nearest boundary of the community, or
    b. Pass within the corporate limits of the community.
3. Only one "Historic Downtown" sign *may* be installed in each direction of travel on a freeway or expressway and only a total of two signs will be permitted for any one "Historic Downtown," regardless of the number of highway routes that service the community. The access location for each direction of travel along the freeway or expressway *may* be at a different interchange or intersection. Ramp directional signs *may* be required if the motorist is expected to make a decision on the ramps.
4. The community must install confirmation signing on the selected access route(s), mutually suitable to both the department and community, before the freeway or expressway mainline and ramp signing is installed.
5. The location(s) selected will remain fixed for ten years or the life of the signing before changes to the location(s) *may* be considered.
6. The community will be responsible for all costs incurred by the department, including installation and long-term maintenance of the signs, plus any confirmation signing required.
7. Freeway or expressway sign design and message will be determined by the department in accordance

with applicable standards and in the interests of uniformity. Signs **shall** be white text with brown background. Sign message **shall** read "Historic Downtown [Name of Community]". Pictographs **shall not** be allowed on historic downtown signing.

8. The physical location of the freeway or expressway signing on the approaches to the interchange(s) or intersection(s) identified by the community as the access points to the "Historic Downtown" district will be determined by the department.
9. "Historic Downtown" signs with appropriate directional arrows will also be placed at the junction of the ramp and crossroad at the access interchange or intersection.
10. A combination of community downtown signs and "Historic Downtown" signs for the same community **shall not** be allowed.

"Historic Downtown" signing on a freeway or expressway mainline is considered supplemental signing. The approval and installation is subject to all provisions of the department's TEOpS 2-15-3, Sign Categories and Policy for Directional Signing, in addition to the eligibility requirements as set forth herein.

2-6-60 Cellular 911 Signs ~~November 2016~~November 2026

PURPOSE

The intent of this guideline is to restrict the usage of signs that inform the public about contacting 911 for road emergencies to locations that are most helpful to motorists.

Signs with the message "WISCONSIN ROAD EMERGENCY – CELLULAR 911" (D12-4) have been installed on state highways in the past. These signs were installed in a partnership between Bureau of Traffic Operations and Bureau of Transportation Safety to educate motorists that they can dial 911 on their cell phones for road emergencies. Since these signs were installed, the usage of 911 has been adopted ~~pretty much~~ nationwide and motorists are now well aware that 911 is to be used for road emergencies. The official state highway map also encourages motorists to use 911 for road emergencies. Therefore, these signs are no longer considered necessary.

POLICY

Cellular 911 signs (D12-4 signs) are declared non-essential on state highways. As a result, the following actions are expected:

1. No new Cellular 911 signs **shall** be erected on state highways.
2. Cellular 911 signs that have been installed on state highways will be allowed to remain in place until the end of their useful life, when they are to be removed and not replaced. Useful life ends when the sign message no longer meets legibility or condition standards. Cellular 911 signs *may* be removed prior to the end of the signs useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects make removal practical.

2-6-61 511 Travel Information Signs ~~January 2009~~November 2026

PURPOSE

The intent of this guideline is to specify the usage of signs that inform the public about 511 travel information.

The 511 travel information program assists motorists by providing critical information. This information *may* pertain to impending severe weather or to traffic delays resulting from events such as roadwork or incidents.

Signs placed in appropriate locations along roadways can assist motorists by providing a reminder that this service is available. In general, signs *should* be placed at freeway and expressway locations at the state line and freeway-to-freeway split locations. The signs *may* also show benefit to motorists in higher AADT freeway locations because of a high frequency of travel information messages for motorists.

POLICY

1. 511 Travel Info (D12-5) signs **shall** be installed on freeways and expressway s at the state border points. These signs **shall not** be installed on conventional highways.
2. In rural areas, 511 Travel Info signs **shall** be installed at freeway locations consisting of a freeway-freeway split. Such installations *should* be located at a sufficient distance upstream of critical decision

points to enable drivers to safely access traveler information through the 511 Travel Info telephone-based system. This upstream distance could be two to five miles, and *should* be selected in consideration of relevant freeway exit guide signing. Some example locations would be Interstates 90 and 94 at Tomah and Interstates 39, 90 and 94 at Portage.

3. In urban areas involving Class I, II, and III cities as defined by the Wisconsin Blue Book, 511 Travel Info signs *should* be installed on approach to primary points of freeway entry to the metropolitan area. Within the metropolitan area, additional 511 Travel Info signs *may* be installed subject to site-specific review and justification based upon demonstrated need of 511 Travel Info users. These site-specific installations *may* include locations upstream of major freeway-to-freeway splits, areas of egress from major trip generators, or approaches to major intermodal facilities such as airports or train stations.

   Below is a listing of the Class I, II, and III cities as defined by the Wisconsin Blue Book:

Class I

Milwaukee

Class II

Appleton	Oshkosh
Eau Claire	Racine
Fond du Lac	Sheboygan
Green Bay	Waukesha
Janesville	Wausau
Kenosha	Wauwatosa
La Crosse	West Allis
Madison	

Class III

Baraboo	Menasha
Beaver Dam	Middleton
Beloit	Muskego
Brookfield	Neenah
Chippewa Falls	New Berlin
Cudahy	Oak Creek
De Pere	Oconomowoc
Fort Atkinson	Pewaukee
Franklin	River Falls
Glendale	Stevens Point
Greenfield	Sun Prairie
Hartford	Superior
Kaukauna	Two Rivers
Manitowoc	Watertown
Marinette	West Bend
Marshfield	Wisconsin Rapids

2-6-65 Rest Area Amenity Signs ~~March 2016~~November 2026

PURPOSE

The intent of this guideline is to establish standards for the use of signs that provide information about services available at freeway and expressway rest area facilities. This policy does not include guidance for wayside amenity signs. Guidance for wayside amenity signs can be found in TEOpS 2-4-65.

This guideline is intended to reduce the number of certain informational signs and messages in order to retain or improve the impact of other guidance and warning signs. This guideline also reflects the need to focus signing efforts and resources on the signs of highest value for safety and mobility.

In the past, rest area amenities such as telephones, historical markers, vending machines, and weather information have been signed for on the advance guide signs for rest areas. Over time, motorists have become accustomed to expecting these certain amenities at rest areas. However, there are still certain amenities that motorists still do not typically expect at rest areas and may not be included at all rest areas. By policy, WisDOT does not allow signing of designated ~~Veteran's~~ Memorial Highways on the highway right-of-way itself. Signing for ~~Veteran's~~ memorial highways are encouraged in off right-of-way locations, such as inside a rest area. Therefore, it makes sense to allow the ~~Veterans~~ Memorial Highway Marker sign (E10-56 sign) to remain on the advanced rest area guide sign.

The NEXT REST AREA XX MILES supplemental sign (E5-62 sign) has also been mounted below the advance guide sign to rest areas, where conditions permit. This sign can be very useful in informing motorists of the distance to the next rest area.

POLICY

The NEXT REST AREA XX MILES supplemental sign (E5-62 sign) should continue to be installed below the advance guide sign, when applicable.

Any rest areas containing ~~Veterans~~ Memorial Highway Markers shall have the ~~Veterans~~ Memorial Highway Marker (E10-56 sign) installed below the advance guide sign. The legend on the E10-56 sign *may* need to be modified depending on the memorialized party.

All other rest area amenity signs previously installed will be allowed to remain in place until the end of their useful life, and then they should be removed and not replaced. Useful life ends when the sign message no longer meets legibility or condition standards. These signs may be removed prior to the end of the signs useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects that make removal practical.

2-10-1 Special Events (Detour Planning) ~~July 2012~~November 2026

PURPOSE

This policy establishes the signing policy for special events located on the highway right-of-way that result in a closure of the roadway. The roadway closure would necessitate the detouring of traffic on to other roadways.

If a road closure or detour is not needed for an event, but short-term activities will be occurring on the highway with live traffic, then refer to TEOpS 2-10-2.

AUTHORITY AND APPROVAL PROCESS

Section 84.07(4) establishes the conditions under which a city or village *may* detour State Trunk Highway traffic: "Except in the case of emergency, no city, village or town **shall** obstruct any street over which any State Trunk Highway is marked, unless it first makes arrangements with the Department for marking a detour."

This provides the statutory basis for the issuance of detour permits. The arrangements with the department must be documented in a detour permit.

The Region Traffic Engineer or designee has the authority to make decisions with regard to requests for permits to temporarily close or obstruct a street carrying the marked route of a state highway, or to detour the marked route of a state highway. Those decisions are subject to the conditions established in this policy. Permits **shall** be issued only to a municipality upon formal request from its governing body and **shall not** be issued to individuals or non-governmental organizations. All closures and restrictions require approval by the Regional Traffic Engineer (RTE) via the Lane Closure Planning System.

This policy **shall** also apply to connecting state highways, as it is critical for WisDOT to review these requests for coordination with the Lane Closure System, 511, OSOW, etc.

POLICY

Applications for permits and the approval thereof **shall** be made in writing on the standard form provided for the purpose (DT1479) with such attachments as are necessary, such as a map. When a permit application is denied, the denial *should* be in writing with a letter of explanation to the applicant.

In all instances, the region must be satisfied that traffic on the state highway rout will not be unduly inconvenienced and that an adequate detour will be provided.

The municipality **shall** agree to accept the terms and conditions of the permit as specified by the department. Refer to Figure 1 for the Permit Application by Municipality for Permission to Detour State Trunk Highway Traffic (form DT1479).

The region *may* impose additional reasonable requirements or restrictions to the permit as are necessary for the particular circumstances of that permit.

Requests to temporarily close a road for special events *may* be considered subject to the considerations listed. These types of special events include parades, celebrations, street fairs, races, movie or television production, and other activities officially supported by the municipality.

1. Closures **shall not** be allowed during peak traffic periods, as determined by the regional traffic section.
2. The duration of road closure *should not* exceed four hours. When a closure is necessary for an event, the duration *should* be determined based on when the last event participant has cleared the roadway.
3. A plan for traffic control and detour, and documentation of the means to implement it, *should* be submitted to the WisDOT region traffic engineer for review at least 90 calendar days in advance of the event.
4. A detour **shall** be required. Motorists **shall** be guided through the detour by signs and/or law enforcement personnel.
5. A detour permit application (form DT1479) **shall** be completed.
6. All traffic control and detour signs **shall** be in conformance with the standards established in the

WMUTCD.

7. The requestor **shall** notify appropriate media, emergency services, and affected schools five (5) days prior to the detour.
8. The WisDOT region traffic engineer *should* notify the region communications manager of the special event once the DT1479 forma has been completed and signed.
9. All road closures and detours **shall** be coordinated with the State Patrol and/or the local law enforcement agency. The coordination **shall** be documented by the requestor.
10. The requestor **shall** be responsible for providing adequate traffic control for the duration of the event and effective coordination with law enforcement.
11. The requestor **shall** be responsible for all costs associated with providing the traffic control, law enforcement, and coordination of other services to accomplish the closure consistent with the permit requirements.

Figure 1

APPLICATION BY MUNICIPALITY FOR PERMISSION TO DETOUR STATE TRUNK HIGHWAY TRAFFIC

Wisconsin Department of Transportation

DT1479 6/2007 (Replaces ET604) s.84.07(4) Wis. Stats.

TO: REGIONAL TRAFFIC SECTION

Municipality		County
Area Code – Telephone Number		E-Mail Address
Name of Street(s) to be Closed ☐ STH ☐ USH		Streets Closed Between (Street Name) FROM: TO:
PROPOSED TEMPORARY ROUTE		
☐ MAP ATTACHED	Date and Duration of Detour Date:	Time: a.m. to a.m.
Reason		
Name and Address to Whom Permit will be Returned		

The above municipality requests permission to close the marked route as described, during which time the municipality will provide temporary route as designated.

The municipality agrees to accept the following terms and conditions:

1. The municipality shall provide a detour having structural, geometric and traffic control characteristics, which are acceptable to the Region. A detour map which provides street names shall be submitted.
2. The municipality shall furnish, erect and remove signs and markers at the sole expense of the municipality, unless provided for in (3), or unless directed by officers for short routes and short timeframe (less than 3 days).
3. A Detour and Traffic Control Plan shall be submitted to the Region for approval. An example is Standard Detail Drawing 15C2-4C.
4. The municipality shall agree to minimize, as much as practicable, the duration of closure, including providing for assembly and dispersal of parades in areas removed from the state highway route.
5. The municipality shall accept full responsibility for any damage to local roads and streets resulting from closure and detour.
6. The requester shall arrange for adequate traffic control from either WisDOT or the appropriate county, and provide documentation of enforcement coordination.
7. The requester shall notify all media, emergency services and schools, five (5) days prior to the detour.
8. Additional conditions: . Attachments: ☐ Yes ☐ No

(Authorized Official Signature) (Title) (Date)

Permission is granted to temporarily close the designated segment of state trunk highway and to provide a detour, subject to the stated conditions.

(Permit Number) (Approved By) (Date)

2-10-2 Special Events (Roadway Open to Traffic) ~~August~~ November ~~2013~~2026

PURPOSE

This policy establishes the signing policy criteria for special events that take place on the highway right-of-way. These are special events that can be conducted with the road open to traffic under certain conditions.

Road closures and detours for special events **shall** be governed by the guidance in TEOpS 13-10-1 and WisDOT permit form DT1479. Signing for special events off of the state highway system **shall** be governed by the guidance in TEOpS 2-10-3.

The department receives frequent requests to use the highway right-of-way for various activities. These activities are typically short-term, readily definable activities that fall in two categories:

1. Roadway or roadside modifications, repairs, or maintenance operations by a local unit of government, or permitted railroad or utility work
2. Certain types of special events, such as marathons, bicycle races, charity walks/runs, filming, etc.

Roadway or roadside operators, including utility work, are regulated under Chapters 90 and 96 of the Maintenance Manual and WisDOT permit form DT1812.

The basis for allowing the use of the highway for these special events is Wisconsin State Statute 349.185, which allows governments in charge of maintaining the highway the authority to regulate community events or celebrations, processions or assemblages on the highways. The word “assemblage” is interpreted to mean that the Department *may* consider activities such as street fairs, bike racing and marathons as legitimate reasons for traffic restrictions, up to and including closing the street and arranging for a detour if the municipality so chooses.

In general, use of the state highway right-of-way for special events will not be allowed unless a legitimate public interest (supported by the Local Government) is served and the activity does not cause safety or capacity problems. Requests for closing and detouring the highway **shall** come from the municipal government. Special event requests that only require temporary traffic restrictions *may* come from the municipality, individuals, private enterprises or a neighborhood community. In the case where the requestor is that other than a municipality, the requestor shall provide a letter from the affected municipalities as proof that the event is fully coordinated with them. Authorization for usage of the highway right-of-way for special events *may* be granted by the WisDOT Region office in the form of a permit, provided all pertinent criteria covered in these guidelines are satisfied. All closures and restrictions on Corridors 2030 roadways require approval by the Regional Traffic Engineer (RTE) via the Lane Closure Planning System.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided arterial highway facilities with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways, expressways, or low-volume roads. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

GENERAL POLICY CRITERIA

1. This policy applies for special events on the state highway right-of-way that are running concurrent with traffic (no road closure or detour). This policy **shall** also apply to Connecting State Highways as it is critical for WisDOT to review these requests for coordination with the Lane Closure System, 511, OSOW, etc. Special events on the highway right-of-way **shall not** be allowed on freeways, expressways or any roadway with a posted speed above 55 mph.
2. FHWA concurrence is required when the special event is on the Interstate Highway system.
3. The permit **shall** identify that the special event requestor agrees to assume the entire responsibility and liability for all damages or injury to all persons, whether employees or otherwise and to all property, arising out of, resulting from or in any manner connected with the operation of the special event. The requestor **shall** provide proof of General Liability Insurance Coverage and **shall** agree to defend and indemnify WisDOT, its agents and employees from all such claims including, without limiting the

generality of the foregoing, claims for which WisDOT *may* be paid or incurred to enforce the provisions of this paragraph, and the requestor **shall** further agree and pay for such general liability coverage which protects the state as an additional named insured.

4. The requestor *should* submit the permit application to the WisDOT Region Traffic Section at least 90 calendar days in advance of the event.
5. The requestor **shall** be responsible for any damage done to the highway property as a result of the special event.
6. The special event minimum attendance is typically 100 participants. This attendance number includes anticipated spectators.
7. A special event **shall not** occur more than once annually by the same sponsor in the same section of roadway. Special events **shall not** occur more than four times a year in the same section of roadway.
8. WisDOT is responsible for determining whether the event qualifies for special event signs, providing guidance on acceptable signs and placement, reviewing the permit application, and assuring compliance with the permit.
9. The Region Traffic Section will evaluate the safety of any nighttime special event requests.

DETAILED POLICY CRITERIA

1. Special Events **shall not** be allowed during peak traffic periods, as determined by the WisDOT Region Traffic Engineer.
2. The time duration of the Special Event *should not* exceed four hours or when the last event participant has cleared the roadway.
3. The use of the right-of-way **shall not** interfere with motorists' safe operation of their vehicles.
4. The use of the right-of-way **shall not** obstruct sight distance and **shall not** detract from motorists' view of traffic control devices.
5. A plan for traffic control and documentation of the means to implement it *should* be submitted to the WisDOT Region Traffic Engineer for review and approval at least 90 calendar days in advance of the event.
6. All traffic control signs **shall** be in conformance with the WMUTCD.
7. Advance notices to the media **shall** be coordinated by the Requestor.
8. All special events **shall** be coordinated with the State Patrol and/or the local law enforcement agency as appropriate, by the requestor. Documentation of this coordination is required.
9. The WisDOT Region Traffic Engineer *should* notify the Region Communications Manager of the Special Event once the attached application form has been completed and signed.
10. Parking **shall not** be allowed on the state highway right-of-way, which includes the shoulders.
11. If the event will take place on highways maintained by other governmental agencies, the Requestor **shall** coordinate the event and provide proof by letter to the WisDOT Region Traffic Engineer that the necessary coordination has taken place with the other governmental agencies.
12. The usage of police powers for special events **shall not** substitute for appropriate signing.

SIGNING LIMITATIONS

The criteria below apply for signing on the specific roadway where the event is held. Advanced directional signing for special events is covered under TEOpS 2-10-3.

1. No commercial advertising is allowed on the signs. The inclusion of a brand name within the name of an event, such as "Brand X Racing Event" is permissible. The sign message *may* include the word "Event" or "Parking". Event names on signs *should* be as clear and concise as possible. Pictographs **shall not** be allowed on the signs, per interpretation of the WMUTCD and guidance from FHWA.
2. The signing layout detail and installation locations **shall** be approved by the Regional Traffic Section and Bureau of Highway Operations.
3. Guidance signs with red, orange, yellow, or fluorescent yellow-green background **shall not** be used. Temporary work zone warning signs **shall** be fluorescent orange. Sign base material **shall** consist of

plywood or sheet aluminum. If banners are used, they must meet the requirements of the TEOpS policy on banners (TEOpS 13-12-1). Posts **shall** be of an approved type for highway signs per WISDOT standards. Signs **shall** be manufactured by a fabricator who has been in the traffic signing business for a minimum of three years.

4. Letter size, font, and spacing **shall** meet WMUTCD guidelines. Minimum of 6" upper case letters and 4 ½" lower case letters **shall** be used.
5. If the event takes place at night, the signs **shall** be high intensity, retroreflective.
6. Changeable message signs *may* be used, subject to WisDOT policy requirements for use of changeable message signs. The Regional Traffic Section **shall** approve the message content, letter height, and sign location as specified in TEOpS 17-2-1. Larger letter heights are needed on changeable message signs for readability. Refer to the TEOpS 17-2-1 for additional provisions regarding PCMS usage.
7. Pre-event signing *may* be required up to 10 days in advance of the special event. The signing layout and installation details for pre-event signing **shall** be approved by the Regional Traffic Section and the Bureau of Traffic Operations.

IMPLEMENTATION COST

1. The event organization or requesting group **shall** pay for all costs associated with the special event signing, including costs to obtain the permit, which *may* include WisDOT review costs; any costs to acquire, install, and remove the special event signs, including changeable message signs; and any additional costs incurred by the department. The event organizer will be responsible for obtaining signs that conform to department standards and arranging to have those signs placed, operated, and removed consistent with the terms of the permit. All work on the highway right-of-way must be performed by a contractor or local government agency approved by WisDOT.
2. Installation by county forces *may* be an option in some situations. When that occurs, all costs are charged back to the requesting organization.

APPLICATION TO USE HIGHWAY RIGHT-OF-WAY FOR A SPECIAL EVENT

	Permit No.
Event Name/Type	Event date:
Event Director or Organizer	Telephone Number
Mailing Address	
Email Address	Estimated number of participants

I (We), _____ hereby make application for a special event on the State Highway _____ right-of-way between _____am/pm and _____am/pm on _____(date).

I (We) agree to strictly conform to the exhibits attached hereto, subject to all terms, conditions, agreements, stipulations and provisions contained in the application and permit, and the guidelines, rules and regulations, as set forth by the Wisconsin Department of Transportation and any other applicable regulations, laws or ordinances.

Event Description: (attach map and traffic control plan)

_____
_____
_____
_____
_____
_____
_____
_____
_____

Prior to the event, I (we) agree to review the course to determine potential problems that could endanger participants or equipment and to notify the participants of them. If I (we) determine the problems to be severe, I (we) agree to cancel the event. I (we) have coordinated the Special Event with all affected governmental agencies.

Permittee must provide a certificate of insurance as evidence of an existing Comprehensive or Commercial General Liability Policy, including contractual liability coverage, with limits not less than $500,000 combined single limit for all claims arising out of a single accident or occurrence, and naming the State of Wisconsin, Wisconsin Department of Transportation as additional insured.

PERMITTEE SHALL DEFEND, HOLD HARMLESS AND INDEMNIFY THE STATE OF WISCONSIN, DEPARTMENT OF TRANSPORTATION, AND IT'S OFFICERS, AGENTS, EMPLOYEES, AND MEMBERS FOR ALL SUITS OR ACTIONS THAT MAY RESULT FROM ANY ACTIVITY BY THE PERMITTEE, IT'S OFFICERS, SUBCONTRACTORS, AGENTS OR EMPLOYEES.

_____
Name (Please Print)

_____
Signature

_____
Date (minimum of 90 days prior to event)

☐ APPROVED ☐ DENIED

Regional Traffic Engineer or designee signature

DATE

☐ APPROVED ☐ DENIED

Regional Maintenance Engineer or designee signature

DATE

Attachment- Copy of letter from municipality (if applicable)

2-10-3 Special Events (Advance Directional Signing) ~~December 2011~~November 2026

PURPOSE

The purpose of this guideline is to establish criteria on the usage of advanced directional signs for significant traffic generator events that are open to the public and temporary in duration. Consistent and well-planned usage of special event signing allows for safe and efficient flow of traffic at significant traffic generator events. These temporary traffic generator events would be for a facility, activity, or special point of interest that attracts large numbers of people, a majority of whom are unfamiliar with the local area and/or access routes.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional Highways are defined as divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways *may* be two lane or multilane facilities.

POLICY

Qualifying Criteria

1. The event **shall** be open to the public. No commercial advertising is allowed on the signs. The inclusion of a brand name within the name of an event, such as “Brand X Racing Event,” is permissible. The sign message *may* include the word “Event” or “Parking.” Event names on signs *should* be as clear and concise as possible. Pictographs **shall not** be allowed on the signs, per interpretation of the WMUTCD and guidance from FHWA.
2. For conventional highways, the minimum length of the event **shall** be one day and the maximum length of the event **shall** be two weeks.
3. For freeways and expressways, the minimum length of the event **shall** be three days and the maximum length of the event **shall** be two weeks.
4. The minimum special event attendance **shall** be 10,000 people per day. When the event involves more than one location, each signed location **shall** meet the minimum attendance of 10,000 per day.
5. The special event **shall** occur no more than once annually by the same sponsor in the same location.
6. When a facility has or qualifies for signing under the current policies for supplemental traffic generator signing (TEOpS 2-15-3), a special event sign cannot be installed for an event at that facility, unless a genuine traffic need can be demonstrated. For this situation, a changeable message sign **shall** be used to direct traffic appropriately if approved by the regional traffic section and Bureau of Traffic Operations Staff.

7. WisDOT is responsible for determining whether the event qualifies for special event signs, providing guidance on acceptable signs and placement, reviewing the permit application, and assuring conformance with the permit.

Signing Limitations

1. Trailblazing signs **shall** be installed before any mainline signs are installed.
2. Signing from freeways, expressways, and conventional STHs is allowed. No conventional STH to conventional STH trailblazing will be allowed.
3. The maximum distance of the event from the highway or nearest exit **shall** be five miles.
4. For a specific event, signing on freeways or expressways from two locations (maximum of 8 signs) will be allowed. One advance sign such as NEXT RIGHT and one exit sign at the exit taper *should* be used.
5. The signing layout detail and installation locations **shall** be approved by the regional traffic section and Bureau of Traffic Operations.
6. Signs with red, orange, yellow, or fluorescent yellow-green background **shall not** be used. Sign base material **shall** consist of plywood or sheet aluminum. Flexible banners are not allowed. Posts **shall** be of an approved type for highway signs per WisDOT standards. Signs **shall** be manufactured by a fabricator who has been in the traffic signing business for a minimum of three years.
7. Letter size, font, and spacing **shall** meet WMUTCD guidelines. Minimum of 8” letters on freeways/expressways and minimum of 6” letters on conventional highways **shall** be used.

Implementation/Cost

1. Changeable message signs *may* be used, subject to WisDOT policy requirements for use of dynamic message signs. The Regional Traffic Section **shall** approve the message content, letter height, and sign location. Larger letter heights are needed on changeable message signs for readability.
2. The event organization or requesting group **shall** pay for all costs associated with the special event signing, including costs to obtain the permit, which *may* include WisDOT review costs; any costs to acquire, install, and remove the special event signs, including the changeable message signs; and any additional costs incurred by the department. The event organizer will be responsible for obtaining signs that conform to department standards and arranging to have those signs placed, operated, and removed consistent with the terms of the permit. All work on the highway right-of-way must be performed by a contractor or local government agency approved by WisDOT.
3. The requestor **shall** contact the county highway department or WisDOT-approved signing contractor for installation and removal of the signs.

APPLICATION FOR PERMIT TO INSTALL TEMPORARY SIGNING ON HIGHWAY RIGHT-OF-WAY DURING SPECIAL EVENT

APPLICANT:	
ADDRESS OF BUSINESS/ACTIVITY:	
PHONE:	
TYPE OF BUSINESS/ACTIVITY:	
PROPOSED SIGN LOCATION(S): (number and placement to be coordinated with Regional Traffic Engineer)	
On what highway?	At or approaching intersection with what highway?
1) On:	At:
2) On:	At:
3) On:	At:

4) On:	At:
5) On:	At:
6) On:	At:
7) On:	At:
8) On:	At:
Remarks:	
Two drawings MUST be attached: - One must show the proposed sign design(s) and dimensions - One must show the proposed sign location(s)	

I apply for permission to install and maintain temporary special event signs at the locations listed and in conformance with the guidelines attached to this application. I agree to comply with these guidelines and will remove all signs upon completion of the event, or when directed by the Regional Traffic Engineer.
I understand that signs *may* be removed without notice if they do not comply with the attached guidelines, do not match the attached drawings, or do not comply with any additional conditions stated on or attached to the permit. The Requestor **shall** contact the County Highway Department or WisDOT approved signing contractor for installation and removal of the signs.

Approved by: _____ _____

Regional Traffic Engineer Applicant Signature

GUIDELINES

Following is a copy of the 2001 AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways. These are the AASHTO Guidelines that are incorporated by reference in Section ~~2E.35~~2E.51 of the WMUTCD. This section of the WMUTCD also recommends that states *should* adopt an appropriate policy for installing supplemental signs using the AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways.

The department has adopted policy pursuant to Section ~~2E.35~~2E.51 which is found in TEOpS 2-15-3. Both the AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways" as incorporated in the WMUTCD and the department policy found in TEOpS 2-15-3 apply.

REPLACING WITH 2016 EDITION

PART I
Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways

PART II
Guidelines for Airport Guide Signing

PART III
List of Control Cities for Use in Guide Signs on Interstate Highways

2001

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PART I

Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways

The *Manual on Uniform Traffic Control Devices for Streets and Highways* (MUTCD) is the national standard for installing traffic control devices on all roads open to public travel. The MUTCD contains the standards for signing freeways and expressways for motorists who are unfamiliar with an area, but who are traveling between and through the Nation's principal traffic generating centers.

The selection of information to be presented at an interchange is critical to the safe and efficient use of the highway system. The MUTCD provides mandatory requirements for installing many freeway signs, but leaves other signing discretion to the States. One of ~~these discretions is the selection of destinations to be used on major~~ guide signs and supplemental guide signs. Numerous facilities that warrant inclusion on supplemental guide signs, and the addition of new facilities, have posed signing problems in many states.

The guidelines contained herein were developed to assist the States in selecting the most appropriate generators for display on freeway supplemental guide signs. These guidelines provide a basis for development of individual State policies which should consider local needs, customs, and legal requirements.

The MUTCD provides several restrictions on the use of supplemental guide signs on freeways. Those portions of the MUTCD are repeated below.

Sec. 1A-3.1 "Traffic control devices shall be placed only by the authority of a public body or official jurisdiction, for the purpose of regulating, warning, or guiding traffic. No traffic control device or its support shall bear any advertising or commer-

cial message, or any other message that is not essential to traffic control... All unofficial and non-essential signs should be removed."

Sec. 2F-20 "...the major signs at freeway interchanges and on their approaches are advance guide signs and exit direction signs. It is essential that the same destination messages be displayed on these signs. New destination information should not be introduced into the major sign sequence for one interchange, nor should information be dropped... Supplemental guide signing should be used sparingly, as provided in Section 2E-28."

Sec. 2E-28 "Information regarding destinations accessible from an interchange, other than places shown on the standard interchange signing, may be shown on a supplemental guide sign. Such a sign may list one or two destinations followed by the interchange number (and suffix) or if interchanges are not numbered, by the legend 'NEXT RIGHT' or 'SECOND RIGHT' or both, as appropriate. The supplemental guide sign installation should be erected approximately midway between the two major advance guide signs. If only one advance guide sign is used, the supplemental guide sign should follow by at least 800 feet.

Supplemental signing can reduce the effectiveness of the other important guide signing because of the possibility of overloading the vehicle operator's capacity to receive and make decisions on visual messages. The AASHTO *Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways* is incorporated in this section as a guide. States may develop an appropriate policy for such signing. Such items as population, traffic generated, and distance should be taken into account.

Only one supplemental guide sign may be used on each interchange approach. If used, it is normally installed as an independent guide assembly.

Guide signs directing motorists to park-and-ride facilities shall be considered as supplemental signs..."

Sec. 2F-34 "Scenic area signing should be consistent with that specified for rest areas. Standard messages should read 'SCENIC AREA' or 'SCENIC VIEW' or the equivalent."

Sec. 2H-16 "Supplemental guide signs with a white legend and border on a brown background may be used on an expressway or freeway when a park or recreational or cultural interest area is signed as a significant destination for users of these roads. The same color combination may be used for the advance guide sign and the exit direction sign for an interchange where the crossroad leads exclusively to a park, or to a recreational or cultural interest area.

Where the crossroads of an expressway or freeway leads to a destination other than a park or a recreational or cultural interest area, the advance guide sign and the exit direction sign shall retain the white on green color combination.

All gore signs shall have a white legend on a green background, regardless of the above conditions. The background color of the interchange exit number panel shall match the background color of the guide sign proper."

Secs. 2F-41, 2E-42, 2D-49 (paraphrased) If they do not interfere with signing for interchanges or, other equally critical points, miscellaneous guide signs, or various types may be used to show state, county, and other significant local jurisdictional boundaries. Signs of this character should not be installed unless there are specific reasons for orienting the users of the freeway or identifying control points for activities that are clearly in the public interest.

Sec. 2F-40

"The commonly used name or trailblazer symbol for a toll facility may be displayed on free sections of the Interstate System at

1. the last exit before entering a toll section of the Interstate System;

2. the interchange or connection with a toll facility, whether or not the toll facility is a part of the Interstate System; and

3. other locations within a reasonable approach distance of toll facilities when the name or trailblazer symbol for the toll facility would provide better guidance to drivers unfamiliar with the area than would place names and route numbers.

The toll facility name or marker may be included as a part of the guide sign installations on intersecting highways and approach roads to indicate the interchange with a toll section of an Interstate highway. Where needed for the proper direction of traffic, a trailblazer for a toll facility that is part of the Interstate System may be displayed with the Interstate trailblazer assembly."

General Criteria and Limitations

General signing criteria and limitations should be established by the States. Generators which have the greatest traffic should be shown on supplemental guide signs. This does not mean that all facilities that meet the criteria should automatically receive informational signing. Signing for traffic generators is considered supplemental to the overall signing system for freeways. Therefore, before a sign for a traffic generator is installed, sufficient space should exist to accommodate the placement of the sign without interfering or conflicting with required signing. Normally, supplemental guide signs for traffic generators should not be installed at freeway-to-freeway interchanges.

Not more than one supplemental guide sign for a traffic generator should be provided in each direction along any freeway. Signs for these facilities shall be located in advance of the interchanging road that provides the most direct route to the facility.

Information relating to a traffic generator should be displayed at the freeway exit nearest to the facility. Consideration may be given to displaying the information at a second freeway when the prime criterion is exceeded by at least 50 percent and the traffic generator is within two-thirds of the specified distance for the nearest freeway and within the specified distance for the farthest freeway. Supplemental guide signs should not be erected for a traffic generator that would require a motorist to travel on the interchanging road beyond a second freeway.

Signing for a seasonal generator may be displayed when warranted. Such signing shall be removed at the end of the season, or a changeable message type installation may be used.

Two traffic generators may be displayed on a single, permanent, or seasonal guide sign. When more than two traffic generators meet the signing criteria, generators having the greatest need for signing should be shown. Permanent supplemental guide sign and seasonal supplemental guide sign information for traffic generators may be installed on the same supports.

Signing for a traffic generator should not be displayed on a supplemental guide sign until signing has been installed at the ramp terminals and along the interchanging road and other roads as necessary to direct the motorist from the freeway to the traffic generator.

Specific Criteria

Certain types of generators appear through attendance or special activities to warrant signing with minimal traffic volume criteria. While it is recommended that criteria be established, signs may, at the option of the States, be erected for the following types of generators, without establishing a traffic volume warrant.

1. Major airports
2. Major military installations
3. Major colleges and universities
4. Federal and State parks
5. Major recreational areas
6. Other incorporated cities

Other generators that may qualify for signing on the conventional highway system are not normally of interest to the freeway user. Except under unusual circumstances, supplemental signing should not be considered for the generators shown in Table I. This table is not all-inclusive, but provides an indication of the type of facilities not normally warranting signs.

Table II provides guidelines to establish criteria for selection of destinations to be shown on supplemental guide signs. In view of the broad range of population densities throughout the Nation, numerical values may be altered as required by local conditions. A typical selection of generators was included in this table and geographical conditions, legal requirements, or administrative policy may require certain deletions or expansion of the table in individual states.

TABLE I
Traffic Generators That Do Not Normally Warrant Signing

Businesses
TV/Radio Stations
Theaters
Motels/Hotels/Inns*
Trailer Parks*
Industrial Parks and Plants
Shopping Centers

Cemeteries
Local or State
Private/Public
Military

Communities
Civil Centers Military
Libraries
Churches
Subdivisions

Governmental
Research/Experimental
County and City Facilities
Courthouses
Driver's License Centers
Highway Buildings
Jails/Prisons
Civil Defense Facilities
Maintenance Facilities
Power Plants

Historical
Homes and Buildings
Privately Owned Facilities

Medical
Mental Facilities
Research Facilities
Sanitariums
Infirmaries or Treatment Centers
Veterans Facilities
County, Fraternal, or Nursing Homes
Retirement Facilities
Humane Facilities
Emergency Medical Services*

Military
Sites or Detachments
Armories
Arsenals

Recreational/Conservational
Country Clubs and Golf Courses
Fish Hatcheries, Game Farms, Preserves, and Refuges
Tree Nurseries/Arboretums
Points of Interest
Camps: Scout, Church, 4 H, Youth, and YMCA/YWCA

Schools
Grade/High
Vocational/Trade
Seminaries
Private

*Items may be included on Motorist Service signs (GAS-FOOD-LODGING-HOSPITAL-CAMPING)

TABLE II
Guideline Criteria for Signing Traffic Generators
These numerical values are provided as guides and may be modified by each state as required by local conditions, laws, and customs.

Type of Generator	Specific Criteria	Major Metro Area[1]	Urban Area[2]	Rural Area
College or University	Total Enrollment Full & Part Time Students or	4,000	2,500	1,500
	No. of Trips[3] Generated Annually	900,000[3a] 1,200,000[3b]	550,000 750,000	300,000 450,000
	Distance from Interchange (mi)[4]	3	4	5
Military Bases	No. of Employees & Permanently Assigned Military Personnel or	5,000	4,000	3,000,000
	No. of Trips[3] Generated Annually	5,000,000[3c]	4,000,000	3,000,000
	Distance from Interchange (mi)[4]	5	7.5	10
Arenas Auditoriums Convention Halls Stadiums	Annual Attendance No. of Seats (If Applicable)	300,000 6,000	250,000 5,000	200,000 4,000

TABLE II (continued)

Type of Generator	Specific Criteria	Major Metro Area[1]	Urban Area[2]	Rural Area
State & National Parks Monuments Major Recreational Areas (Fairgrounds, Amusement Parks, Zoos, Etc.)	Distance from Interchange	5	5	5

[1] 50,000 or more population in Urban Area.
[2] 5,000-49,999 population in Urban Area.
[3] Trip: A single or one-direction vehicle movement to the generator.
The following trip generation rates are suggested:
[3a] College or University without dorms, each student = 1.5 trips
[3b] College or University with dorms, each student = 2 trips
[3c] One employee or military personnel = 0.9 trips
[4] The distance may be increased 1/2 mile for each 10 percent over the minimum requirement listed to a maximum of two times the minimum distance listed.
Note: When the traffic generator is not located on the crossroad, written confirmation is required from the local government agency that they will install and maintain trailblazing signing for the logical direction of traffic to the facility.

2-15-3 AASHTO Guide for Supplemental Signs

~~April 2017~~November 2026

DIRECTIONAL AND INFORMATIONAL SIGN REQUESTS

The following is a table intended to provide preliminary information on the eligibility of specific sign requests for installation on the state trunk highway system, including freeways and expressways. It **shall** be used in combination with the rest of this subject, which gives more specific qualifying criteria.

Abbreviations:

Supplemental C: The category for traffic generator supplemental signing on conventional highways

Supplemental F: the category for traffic generator supplemental signing on freeways

SS (numbers): A reference to a numbered subsection of the state statutes

TEOpS (numbers): A reference to another subject in the Traffic Engineering, Operations and Safety Manual

Trans 200.nn: A reference to a subsection in Chapter Trans 200 of the Wisconsin Administrative Code

DESTINATIONS or INFORMATION	CATEGORIES	AUTHORIZATION	REMARKS
Agricultural Experiment	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Agricultural Farms	Not Permitted		
Air Traffic Control	Not Permitted		
Airport – Major	Govt. Transportation		
Airport – Public General Aviation	Govt. Transportation		
Amtrak Station	Govt. Transportation		
Amusement Parks	Supplemental C, SIS,	SS 86.195	Qualifying Criteria

	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Animal Hospitals, Emergency	Not Permitted		
Animal Ranches	Not Permitted		
Animal Shelters	Guidance Signs	Trans 200.03	
Arboretums	Supplemental C		Qualifying Criteria
Arenas, multi-purpose	Supplemental F & C		Qualifying Criteria
Armories, Reserve Ctrs	Supplemental C		Qualifying Criteria
Arrow Boards	Guidance Signs	Trans 200.03	aka Guidance signs
Athletic Fields and/or Facilities	Community wayfinder Guidance Signs	TEOpS 2-15-60Trans 200.03	
Attractions	SIS	SS 86.195	
Auditoriums	Supplemental F & C		Qualifying Criteria
Auto Repair	Not permitted		
Aviation Flight School	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Banners	Information	TEOpS 13-12-1	
Boat Landings	Inter-agency		Conventional Hwy only
Botanical Gardens	Supplemental C		Same as Arboretums
Braking, Engine (Jake)	Special	TEOpS 2-2-30	
Bus Terminals	Not Permitted		
Business District	Special Community wayfinder	TEOpS 2-6-50 TEOpS 2-15-6	Alternative to “Downtown”
Cabins, Cottages, Non-rental	Not Permitted		
Cabins, Cottages, Rental	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Camping, including Logo	SIS, TODS, Guidance Signs		Category depends upon highway type
Campgrounds (public)	Inter-agency		
Camps, Private	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Canoe, Kayak, Tubing Facilities	TODS	SS 86.196	
Casinos	Supplemental F & C		Qualifying Criteria
Cemeteries	Not permitted		See Veterans Cemeteries
Churches	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
City Hall	Community wayfinder	TEOpS 2-15-6	
City Parks	Community wayfinder	TEOpS 2-15-6	
Civic Centers	Community wayfinder	TEOpS 2-15-6	
Clinics	Not Permitted		
Colleges	Supplemental F & C		Qualifying Criteria
Community Destination Signs	Community wayfinder	TEOpS 2-15-6	aka “Wayfinder” signs
Community Welcome Signs	Special/Not Permitted	TEOpS 2-1-41	
Conservation Center	Inter-agency		Conventional Hwy only
Convention Centers	Supplemental F & C Community wayfinder Guidance Signs	TEOpS 2-15-6 Trans 200.03	Qualifying Criteria Also TEOpS 2-15-60
Correctional Institutions	Inter-agency		Conventional Hwy only
Country Clubs	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
County Fairgrounds	Inter-agency		
County Institutions (Healthcare Facilities)	Inter-agency, Guidance Signs	Trans 200.03	also TEOpS 2-15-60
County Parks	Inter-agency		
Courthouses	Community wayfinder	TEOpS 2-15-6	
Crime Stoppers	Special/Not Permitted		
Cruises, Boat	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Dance Halls	Not Permitted		
D.A.R.E.	Special/Not Permitted		
DMV Service Center	State Govt. Service Centers/Intra-agency		Conventional Hwy only
DNR Service Center	State Govt. Service Centers		Conventional Hwy only
Dog Tracks	Supplemental F & C		Qualifying Criteria
Donation Centers	Community wayfinder	TEOpS 2-15-6	
Downtown	Special Community wayfinder	TEOpS 2-6-50TEOpS 2-15-6	

Drive-In Theatres	TODS	SS 86.196	
Emergency Medical Treatment	Special	TEOpS 2-4-45.1 & TEOpS 2-4-45.2	Emergency Room criteria
Emissions Testing Station	State Govt. Service Centers/Intra-agency		Conventional Hwy only
Environmental Center	Inter-agency Guidance Signs	Trans 200.03	Conventional Hwy only, also TEOpS 2-15-60
Events, Special	Special	TEOpS 2-15-25	
Exhibition, Exposition Center	Supplemental F & C Guidance Signs	Trans 200.03	Qualifying Criteria also TEOpS 2-15-60
Fairgrounds	Inter-agency		
Factories	Not permitted		
Ferries	Govt. Transportation		
Fish Hatcheries	Inter-agency		Conventional Hwy only
Food, includes logo	SIS, TODS	SS. 86.195 SS 86.196	
Forest boundaries	Not permitted		
Forest Headquarters	Inter-agency		
Freight Terminals	Not Permitted		
Fuel (with logo)	SIS, TODS	SS. 86.195 SS 86.196	
Game Farms	TODS		
Gas, (with logo)	SIS, TODS	SS. 86.195 SS 86.196	
Golf Courses	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Government Offices	State Govt. Service Centers		Also the State Capitol
Gun Clubs, Ranges	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Half-way Houses	Not Permitted		
Health Clubs	Not Permitted		
Heritage Tourism Sites	Program discontinued as of 12/1/13		Also TEOpS 2-4-52
Highway Departments	Not Permitted		
Highway Maintenance Facilities	Not Permitted		
Historic Buildings	Special or Inter-Agency		Could be Community wayfinder
Historic District / Historic Downtown	Special or Community wayfinder	TEOpS 2-6-55 TEOpS 2-15-6	
Historic Neighborhoods	Not Permitted		
Historic Sites	Special or Inter-Agency		Conventional Hwy only
Historic Society Sites	Special or Inter-Agency		
Historical Markers		TEOpS 2-4-40	
Horseback Riding	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Hospitals	Special	TEOpS 2-4-45.1	Emergency Room criteria
Hotel (See Lodging)	SIS, TODS, Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Humane Society Shelter	Guidance Signs Community wayfinder	Trans 200.03 TEOpS 2-15-6	also TEOpS 2-15-60
Ice Arenas, community	Community wayfinder	TEOpS 2-15-6	
Industrial Parks	Supplemental C		
Jails	Not Permitted		
Jurisdictional Boundary Signs	Information	TEOpS 2-1-41	
Kennels	Not Permitted		
Lake, River, Stream	Information	TEOpS 2-4-55	
Libraries	Community wayfinder Guidance Signs	TEOpS 2-15-6 Trans 200.03	alsoTEOpS 2-15-60
Local Parks	Community wayfinder Inter-agency	TEOpS 2-15-6	
Lodging (with logo) (without logo)	SIS TODS Guidance Signs	SS. 86.195 SS 86.196 Trans 200.03	also TEOpS 2-15-60
Logos on Signs	SIS	SS. 86.195	also TEOpS 2-15-4
Main Street Community	Special/Not permitted		

Malls	Not Permitted		
Marinas (Public)	Inter-agency		Qualifying Criteria
Marinas (Privately owned)	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Memorial Facilities	Information	SS. Chapter 84	Legislated
Mental Facilities (Public)	Not Permitted		
Military Academies	Community wayfinder	TEOpS 2-15-6	
Military Bases, Major	Inter-agency		
Mobile Home Parks	Not Permitted		
Motel (See Lodging)	SIS, TODS, Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Museums	Supplemental F & C TODS, Guidance Signs	SS 86.196 Trans 200.03	Could also be Community Wayfinder
National Forest boundaries	Not Permitted		Off R/W only
National Historic Landmark	Inter-agency		Could also be Historical Marker Guide Signs (TEOpS 2-4-40)
Neighborhood Watch	Special	ss. 66.0429(2) ss. 60.23(17m)	ss. 86.19 & TEOpS 2-4-45.3
NEXT (n) EXITS	Information		Primary signing, freeway only
Nursing Homes – Private	Not Permitted		See County Institutions
Office Buildings	Not Permitted		See Government Offices
Orchards	TODS	SS 86.196	
Park & Ride Lots	Govt. Transportation		
Parks, State/county/local	Inter-agency		Or Community wayfinder
Parking Lots, municipal	Community wayfinder	TEOpS 2-15-6	
Parking Restrictions	Special	ss. 349.13 TEOpS 2-2-41	MUTCD 2B.41
Pharmacy	Not Permitted		
Police Stations	Community wayfinder	TEOpS 2-15-6	
Population Signs	Information	TEOpS 2-1-41	
Ports	Supplemental F & C		Great Lakes Shipping only
Post Offices	Community wayfinder	TEOpS 2-15-6	
Power Plants (utilities)	Not Permitted		
Preserves, Nature/Wildlife	Not Permitted		See Wildlife Refuges & Watchable Wildlife
Prisons	Inter-agency		Conventional Hwy only
Private Camps	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Public Access, lake/river	Inter-agency		
Race Tracks	Supplemental F & C		Qualifying criteria
Rail Passenger Stations	Govt. Transportation		Amtrak only
Recreation Trails	Guidance Signs	TEOpS 2-15-15 Trans 200.03	also TEOpS 2-15-60
Recycling Centers	Community wayfinder	TEOpS 2-15-6	
Rehabilitation Centers	Not Permitted		
Religious Camps	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Religious Worship	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Research Facilities	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Resorts	TODS, Guidance Signs	SS 86.196 Trans 200.03	also TEOpS 2-15-60
Restaurants	SIS, TODS, Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Retirement Facilities	Not Permitted		
River, Lake, Stream	Information	TEOpS 2-4-55	
Sanitariums (Public)	Community wayfinder Supplemental C	TEOpS 2-15-6	
Schools, High, Middle, Elementary	Community wayfinder Guidance Signs	TEOpS 2-15-6 Trans 200.03	also TEOpS 2-15-60
Scientific Experiment (public owned)	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Seminaries	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Service Organization	Not Permitted		
Sheriff Freeway Patrol Substations	Inter-agency		Freeways Only
Shooting Ranges	Guidance Signs	Trans 200.03	also TEOpS 2-15-60

Shopping Centers	Not Permitted		
Ski Areas, Downhill	Inter-agency		
Skiing – Cross Country Trails	Inter-agency		Conventional Hwy only, For trailheads only
Snowmobile Trails (named)		TEOpS 2-1-50 TEOpS 2-15-15	
Stadiums	Supplemental F & C		Qualifying criteria
State Forest / State Parks Boundaries	Not Permitted		
State Forest / Parks HQs	Inter-agency		
State Historical Markers		TEOpS 2-4-40	
State Historic Sites	Supplemental or Inter-agency		Operated by WI Historical Society
State Patrol HQs	Intra-agency		
State Trails	Inter-agency	TEOpS 2-15-15	
Subdivisions	Not Permitted		
Supper Clubs	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Swimming Pools & Natatoriums	Community wayfinder	TEOpS 2-15-6	
Synagogue	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Taverns	Not Permitted		
Technical College	Supplemental F & C		Qualifying criteria
Theaters, Live	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Theatres, Movie	Not Permitted		
Tourist Information Centers		TEOpS 2-6-35	County or Local
Tourist Oriented Directional Signs	TODS category	ss. 86.196, Trans 200.08	
Township Boundary	Not permitted	TEOpS 2-4-60	
Trails, Recreation	 Guidance Signs	TEOpS 2-15-15 Trans 200.03	 also TEOpS 2-15-60
Train rides (Entertainment)	TODS Guidance Signs	SS 86.196 Trans 200.03	 also TEOpS 2-15-60
Train station	Govt. Transportation		See Amtrak & Rail Passenger Stn
Travel Information	Inter-agency		State Tourism
Tree City	Special / Not Permitted		
Tree Nurseries	Not Permitted		
Truck Stops, Truck Parking	SIS, TODS		
Tubing, River	TODS	SS 86.196	
TV/Radio Stations	Not Permitted		
Unincorporated Communities	Information and/or Special	TEOpS 2-4-48	
Universities	Supplemental F & C		Qualifying criteria
UW Extension Offices	Not Permitted		
Vehicle Emissions Testing Stations	State Govt. Service Centers/Intra-agency		Conventional Hwy only
Vehicle Registration	State Govt. Service Centers/Intra-agency		Conventional Hwy only
Veterans Cemeteries		TEOpS 2-15-20	
Veterans Centers	Inter-agency		
Veterans Memorials	Not Permitted		
Vocational Schools	Supplemental F & C		
Watchable Wildlife Area	Inter-agency		DNR designation
Wayfinder Signs	Community wayfinder	TEOpS 2-15-6	
Welcome To	Not Permitted	TEOpS 2-1-41	
Wildlife Refuges	Supplemental C Guidance Signs	 Trans 200.03	Conventional Hwy only, To Instructional Centers only
Wineries	TODS	SS 86.196	
Youth Camps	Guidance Signs	Trans 200.03	also TEOpS 2-15-60
Zoos	Supplemental F & C Community wayfinder Guidance Signs	 TEOpS 2-15-6 Trans 200.03	Qualifying criteria also TEOpS 2-15-60

Any facilities not included in this listing, **shall** be considered non-qualifying and **shall not** be permitted.

Policy purpose and background begins on page 7.
General guidance for freeway & expressway signing begins on page 12.
General guidance for conventional highway signing begins on page 16.
Specific guidance for signing in all categories begins on page 18.
- Community Destination (Wayfinder) Signs page 18
- Government Service Centers page 19
- Government Transportation Facilities page 19
- Guidance Signs page 20
- Information Signs page 20
- Inter-Agency Facilities page 22
- Intra-Agency Facilities page 25
- Special page 25
- Specific Information Signs (SIS) page 26
- Tourist Oriented Directional Signs (TODS) page 27

Specific guidance for miscellaneous generator supplemental signing
- On freeways and expressways begins on page 27
- On conventional highways begins on page 29

Methods for sign installation and cost reimbursement begin on page 31

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

Traffic generators are defined as any facility, activity, or special point of interest which attract large numbers of people, the majority of whom are unfamiliar with the local area and/or access routes.

Trailblazing signs, in this context, are community destination signs or other directional guide signs that direct subsequent turns on local streets to reach a destination.

GENERAL PURPOSE AND GUIDELINES

Department Functions and Responsibilities

The Wis~~consin Department of Transportation (hereinafter referred to as Department)~~DOT has the primary responsibility to develop, maintain, and operate a state trunk highway system designed to move traffic from one destination to another in a safe, efficient, and expeditious manner. Erecting and maintaining highway traffic signs on the state highway system is a part of this responsibility.

Standards for the design and application of all highway traffic signs erected on public highways are specified in the WMUTCD which, in turn, is required by statute to conform to national standards on highway signing. Refer to SS 84.02(4)(e) and (f), SS 84.60(1)(a) and SS 349.065.

Signing under permit is addressed in Chapter Trans 200.03 Wisconsin Administrative Code. Specific Information Signing (Logo), authorized pursuant to SS. 86.195, is addressed in Chapter Trans 200.06, Wisconsin Administrative Code.

The basic supposition of supplemental signing is that the facility or institution as a class is of interest and concern to a sufficient number of motorists to warrant special directional signing. It is also a basic assumption that the purpose of this signing is guidance and not advertising.

It is the purpose of these guidelines to describe all types of facilities and institutions for which signs *may* be

erected on State Highway right-of-way by state forces or under contract to the state. Conversely signs will not be permitted for any type of facility or institution not addressed herein.

Need for Signing Policy

The Highway Beautification Act of 1965, public law 89-285, placed severe restrictions on billboard advertising. Governor Lee S. Dreyfus issued an administrative order in 1981, requiring the Department to permit supplemental guide signs, directing to the University of Wisconsin campuses. Ever since, there has been a substantial demand on the Department to permit additional directional signs on highway rights-of-way. In order to respond to all sign requests in a fair and consistent manner, the Department recognized the need to establish a signing policy that addressed all aspects of highway signing while maintaining a safe and logical sequence of informational displays in the highway environment. This document supersedes all previous policy guidance on supplemental signing for public and private facilities.

Although the WMUTCD contains standards for design and application of traffic control devices, it does not contain specific criteria on the following subjects:

(1) Allowable sign messages,

(2) Qualifications which permit placement of highway signs for various facilities and/or activities, or

(3) Priority (ranking) of the various sign groups on the basis of highway user needs which, in turn, *should* determine the selection process for sign installations.

These guidelines provide criteria by which to evaluate all highway signing requests in an equitable manner without penalizing the greater majority of highway users.

Human Factors

As vehicles move along a highway, each driver is confronted with many elements; the presence of other vehicles and pedestrians, roadway alignment and other design features, roadside signs and other obstacles, commercial development, wildlife, and adverse weather conditions. Any or all of these factors *may* affect highway safety, as well as the driver's ability to observe, assimilate, and react to pertinent highway sign messages.

Studies of human behavior have shown that a driver can focus attention on only one thing at a time, but he can respond very rapidly to several stimuli. However, receiving too much information in a short time can adversely affect the driver's ability to process information effectively, causing what is known as information overload. Information overload is a condition in which the driver is unable to perceive and/or use the information displayed. When this condition occurs, the driver will shift attention from one source of information to another and *may* overlook important sign messages.

Considering the large number of highway elements confronting each driver, it is apparent that the amount of information which can be effectively conveyed by traffic signs, is limited. Therefore, a system for avoiding information overload must be established.

WMUTCD References

As a general background, several pertinent paragraphs from the WMUTCD~~, as adopted by Wisconsin,~~ are enumerated below.

Section ~~1A~~1D.01 Purpose and Principles of Traffic Control Devices

Support:

01 The purpose of traffic control devices, as well as the principles for their use, is to promote highway safety, inclusion and mobility of all road users, and efficiency by providing for the orderly movement of road users on streets, highways, bikeways, and site roadways open to public travel throughout the Nation. Section 1A.03 contains additional information on target road users.

02 This Manual contains the basic principles that govern the design and use of traffic control devices for all streets, highways, bikeways, and site roadways open to public travel (see definition in Section 1C.02) regardless of type or class or the public agency, official, or owner having jurisdiction. The text of this Manual specifies the restriction on the use of a device if it is intended for limited application or for a specific system. It is important that these principles be given primary consideration in the selection and application of each device.

03 Guidance:

To be effective, a traffic control device *should*:

A. Fulfill a need;

B. Command attention;

C. Convey a clear, simple meaning;

D. Command respect from road users; and

E. Give adequate time for proper response. ~~The purpose of traffic control devices, as well as the principles for their use, is to promote highway safety and efficiency by providing for the orderly movement of all road users on streets and highways throughout the Nation.~~

~~Traffic control devices notify road users of regulations and provide warning and guidance needed for the reasonably safe, uniform, and efficient operation of all elements of the traffic stream.~~

~~**Standard:**~~

~~**Traffic control devices or their supports shall not bear any advertising message or any other message that is not related to traffic control.**~~

~~Support:~~

~~Tourist-oriented directional signs and Specific Service signs are not considered advertising; rather, they are classified as motorist service signs.~~

~~**Section 1A.02 Principles of Traffic Control Devices**~~

~~Support:~~

~~This Manual contains the basic principles that govern the design and use of traffic control devices for all streets and highways open to public travel regardless of type or class or the public agency having jurisdiction. This Manual's text specifies the restriction on the use of a device if it is intended for limited application or for a specific system. It is important that these principles be given primary consideration in the selection and application of each device.~~

~~Guidance:~~

~~To be effective, a traffic control device *should* meet five basic requirements:~~

~~A. Fulfill a need;~~

~~B. Command attention;~~

~~C. Convey a clear, simple meaning;~~

~~D. Command respect from road users; and~~

~~E. Give adequate time for proper response.~~

Section 1D.07 Advertising

Standard:

01 Traffic control devices or their supports shall not bear any advertising message or any other message that is not related to traffic control.

Support:

02 Acknowledgment signs (see Section 2H.13), Specific Service signs (see Chapter 2J), and Tourist-Oriented Directional signs (see Chapter 2K) are not considered advertising.

Section 2D.0~~2~~1 Scope of Conventional Road Guide Sign Standards and Application

Support:

02 Guide signs direct road users along streets and highways; inform them of intersecting routes; direct them to cities, towns, villages, or other important destinations; identify nearby rivers and streams, parks, forests, and historical sites; and provide information that will help them along their way in the most simple and direct manner possible. ~~Guide signs are essential to direct road users along streets and highways, to inform them of intersecting routes, to direct them to cities, towns, villages, or other important destinations,~~

~~to identify nearby rivers and streams, parks, forests, and historical sites, and generally to give such information as will help them along their way in the most simple, direct manner possible.~~

Section 2D.~~03~~ 02 Color, Retroreflection and Illumination

Standard

02 Except where otherwise provided in this Manual for individual signs or groups of signs, guide signs on streets and highways shall have a white message and border on a green background. All messages, borders, and legends shall be retroreflective and all backgrounds shall be retroreflective or illuminated. ~~**Except where otherwise specified herein for individual groups of signs, guide signs on streets and highways shall have a white message and border on a green background. All messages, borders, and legends shall be retroreflective and all backgrounds shall be retroreflective or illuminated.**~~

Historic downtown, State and National Historic Sites and Historical Marker signs shall have a white retroreflective message and border on a brown retroreflective background.

Section 2D.~~07~~ 06 Amount of Legend

Support:

01 The longer the legend on a guide sign, the longer it will take road users to comprehend it, regardless of letter size.

Guidance:

02 Except where otherwise provided in this Manual, guide signs should be limited to no more than three lines of destinations, which include place names, route numbers, street names, and cardinal directions. Where two or more signs are included in the same overhead display, the amount of legend should be further minimized. Where appropriate, a distance message or action information, such as an exit number, NEXT RIGHT, or directional arrows, should be provided on guide signs in addition to the destinations.

~~Support:~~

~~The longer the legend on a guide sign, the longer it will take road users to comprehend it, regardless of letter size.~~

~~Guidance:~~

~~Guide signs *should* be limited to three lines of principal legend. Where two or more signs are included in the same overhead display, the amount of legend *should* be minimized. The principal legend *should* include only place names, route numbers, and street names.~~

~~Option:~~

~~Symbols, action information, cardinal directions, and exit numbers *may* be used in addition to the principal legend where sign space is available.~~

Section 2E.02 Freeway and Expressway Signing Principles

Support:

01 The development of a signing system for freeways and expressways is approached on the premise that the signing is primarily for the benefit and direction of road users who are not familiar with the route or area. The signing furnishes road users with clear instructions for orderly progress to their destinations.

Section 2E.~~03~~ 08 General

Support:

1 Effective signs are legible to road users approaching them, and are readable and comprehensible in the viewing time provided to permit proper responses. Desired design characteristics include: (a) long visibility distances; (b) large lettering, symbols, and arrows; and (c) short legends. ~~Signs are designed so that they are legible to road users approaching them and readable in time to permit proper responses. Desired~~

~~design characteristics include: (a) long visibility distances, (b) large lettering and symbols, and (c) short legends for quick comprehension.~~

Section 2E.09 Color of Guide Signs

Standard:

01 Guide signs on freeways and expressways, except as otherwise provided in this Manual, shall have white letters, symbols, arrows, and borders on a green background. ~~Standard shapes and colors shall be used so that traffic signs can be promptly recognized by road users.~~

(End of WMUTCD references)

Signing Priorities

Basic concepts of traffic engineering recognize that the primary function of traffic control signs is to warn, regulate, and guide traffic. Sign spacing and the amount of information displayed have an impact on the driver's ability to read and respond to sign messages in an expected, predictable manner.

Accordingly, traffic control signs on the highway are primarily intended to enable drivers to react promptly, naturally, and properly to the traffic and design conditions encountered; to advise of the regulations and use of streets and highways; to warn of potential roadway hazards; and to provide guidance to major destinations.

Secondary functions of traffic control signs are to advise drivers of various services normally required to complete an extended journey (emergency services, motorist services, public transportation), and of supplemental services, such as recreational facilities or points of interest.

Traffic control signs can be classified into eight basic sign groups. Following is the order of priorities for these sign groups, and a brief description of their specific function, as adopted by the national committees of the American Association of State Highway and Transportation Officials and the Institute of Transportation Engineers.

1. Regulatory Signs - Advise the driver of traffic laws or regulations concerning vehicle operation on the highway.
2. Warning Signs - Advise the driver of unexpected highway conditions which require extra care in driving.
3. Navigational Guide Signs - Identify the route, or routes, that the driver *should* follow to complete a trip. Navigational guide signs indicate directions and distances to cities and to other destinations or regions.
4. Emergency Services Signs - Advise of and direct the driver to facilities providing emergency medical service or assistance. Such facilities include state enforcement agencies and hospitals providing outpatient emergency medical treatment.
5. Motorist Services Signs - Advise of and direct the driver to basic services normally needed to complete a long trip (motor fuel, food, lodging, camping, tourist information centers, and rest areas).
6. Public Transportation Signs - Advise of and direct the driver to facilities providing commercial passenger travel service (airports, park and ride lots, rail passenger stations).
7. Traffic Generator Signs - Advise of and direct the driver to activities, facilities, or special points of interest which attract large numbers of people, a majority of whom are unfamiliar with the local area and/or access routes.
8. General Information Signs - Advise the driver of information that *may* be of interest, though not necessary for travel (municipal boundaries, landmarks).

Signing needs to be evaluated and signs installed in descending order of the priorities indicated as long as adequate space between signs is maintained, thus avoiding information overload and confusion to the driver.

It *may* be necessary to prioritize sign requests. An example of this situation would be where there are more qualifying traffic generators than can be accommodated under the established guidelines. In these circumstances, the several qualifying generators will be ranked according to which generator exceeds, by the greater percentage, the minimum criterion for signing. Those exceeding the warrants by the greatest percentage will be given priority. Where specific criteria are not applicable, those traffic generators closest to the intersection where signing is requested **shall** determine the priority for signing.

FREEWAY & EXPRESSWAY GUIDE SIGNING GENERAL POLICY CRITERIA & RESTRICTIONS

Guide signing can be divided into two basic categories: primary and supplemental. Each category is subject to various practical requirements.

Primary signing includes standard interchange and intersection signing, destination signs, distance signs, required motorist services signs, plus regulatory, warning, and route marker signs. This type of signing always takes precedence in the signing scheme of any intersection or interchange because it is directly related to the primary purpose of the intersection or interchange.

Supplemental freeway signing includes signing to places of lesser importance. Signing for traffic generators is considered secondary to primary signing needs. Highway signing is not intended for the purpose of advertising or promoting the facility, but to direct and guide traffic seeking that facility.

As stated in the WMUTCD Section 2E.51~~35~~:

Support:

01 Supplemental guide signs (see Figure 2E-53) can be used to provide information regarding destinations accessible from an interchange, other than places displayed on the standard interchange signing. However, such Supplemental guide signing can reduce the effectiveness of other more important guide signing because of the possibility of overloading the road user's capacity to receive visual messages and make appropriate decisions. 1The "AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways" is incorporated by reference in this Section~~Supplemental Guide signs can be used to provide information regarding destinations accessible from an interchange, other than places shown on the standard interchange signing. However, such Supplemental Guide signing can reduce the effectiveness of other more important guide signing because of the possibility of overloading the road user's capacity to receive visual messages and make appropriate decisions.~~

Guidance:

02 Use of Supplemental guide signs should be limited to situations where there is a demonstrated need to sign for more destinations from an interchange than those that are displayed on the Interchange Advance guide and Exit Direction signs.

03 A Supplemental guide sign should not be installed unless a destination meets the criteria established by the State or agency policy. States and other agencies should adopt an appropriate policy for installing Supplemental guide signs using the "AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways." In developing policies for such signing, such items as population, amount of traffic generated, distance from the route, and the significance of the destination, should be taken into account.

04 No more than one Supplemental guide sign should be used on each interchange approach.

05 A Supplemental guide sign should display no more than two destinations and no more than three lines of destination names. Destination names should be followed by the interchange exit number (and suffix), or if interchanges are not numbered, by the legend NEXT RIGHT or SECOND RIGHT or both, as appropriate. The Supplemental guide sign should be installed as an independent guide sign assembly.

06 Where two or more Interchange Advance guide signs are used, the Supplemental guide sign should be installed approximately midway between two of the Interchange Advance guide signs. If only one Interchange Advance guide sign is used, the Supplemental guide sign should follow it by at least 800 feet. If the interchanges are numbered, the interchange exit number should be used for the action message~~No more than one Supplemental Guide sign *should* be used on each interchange approach.~~

~~A Supplemental Guide sign (see Figure 2E-24) *should not* list more than two destinations. Destination names *should* be followed by the interchange number (and suffix), or if interchanges are not numbered, by the legend NEXT RIGHT or SECOND RIGHT or both, as appropriate. The Supplemental Guide sign *should* be installed as an independent guide sign assembly.~~

~~Where two or more Advance Guide signs are used, the Supplemental Guide sign *should* be installed approximately midway between two of the Advance Guide signs. If only one Advance Guide sign is used, the Supplemental Guide sign *should* follow it by at least 245 m (800 feet). If the interchanges are numbered, the interchange number *should* be used for the action message.~~

~~States and other agencies *should* adopt an appropriate policy for installing supplemental signs using "The AASHTO Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways." In developing policies for such signing, such items as population, amount of traffic generated, distance from the route, and the significance of the destination *should* be taken into account.~~

Standard:

08 No more than two supplemental traffic generator destinations shall be signed from a single interchange approach and four from a single interchange along the main roadway (see Paragraphs 4 and 5 of this Section regarding the number of Supplemental guide signs at an interchange and the number of destinations displayed on a Supplemental guide sign).

09 Supplemental guide signs shall not be placed at the same location as Interchange Advance guide, Exit Direction, or other signs related to an exit or interchange.

10 Guide signs for park-and-ride facilities shall be considered as Supplemental guide signs (see Figure 2E-54).

11 Guide signs for recreational or cultural interest destinations (see Chapter 2M) shall be considered as Supplemental guide signs, except where the interchange provides direct access to such a destination and the destination is instead displayed on the Interchange Advance guide and Exit Direction signs. ~~Guide signs directing drivers to park and ride facilities shall be considered as Supplemental Guide signs (see Figures 2E-25).~~

(End of WMUTCD reference)

Placement of supplemental guide signs for a traffic generator **shall** be limited to the nearest freeway or expressway. Signing which would require a motorist to travel on the crossroad beyond another state highway and/or through a community **shall not** be permitted.

Supplemental signs **shall not** be permitted in advance of a system interchange connecting two freeways in which all legs or roadways are declared freeways.

The minimum spacing between guide signs *should not* be less than 800 feet on freeways and expressways (see Figure 1~~ on page 15~~). Actual sign installation will depend on whether there is sufficient longitudinal space to accommodate the new sign Installation without violating the minimum allowable 800 feet spacing between signs.

Along a freeway, only one supplemental guide sign **shall** be permitted in each direction of travel for a traffic generator. Signs for generators are to be located ~~I~~in advance of the interchanging roadway that provides the most direct and best route to the facility. In determining the most direct and best route, the Department will consider all relevant conditions including directness of route, speed of travel, length of travel, and ease of locating the facility.

Information relating to more than two traffic generators **shall not** be displayed on supplemental guide signs in advance of an interchange. Both traffic generators **shall** be shown on a single supplemental guide sign installation except where a traffic generator message is included as part of a major guide sign destination. The traffic generator message on the major guide sign **shall** count as one of the two acceptable signs, but an additional sign installation *may* be allowed in such cases.

In the event that there are more than two qualifying facilities, the two facilities that generate the greatest need for providing directional information to motorists **shall** have signs displayed. In determining which signs are most necessary, the Department will consider such factors as the amount of traffic generated, distance from the freeway exit, and ease of locating the facility. If a quantitative comparison is needed, the Principal Destination formula in TEOpS 2-15-5 *may* be used, substituting comparable attendance or enrollment figures for the population.

Table 1. GENERAL QUALIFYING CRITERIA FOR SIGNING TRAFFIC GENERATORS ON FREEWAYS OR EXPRESSWAYS

TYPE OF GENERATOR	SPECIFIC CRITERIA	POPULATION OF METROPOLITAN AREA		
		Major[1] OVER 500,000	Urban 50,000-500,000	Rural Under 50,000
Colleges, Universities, Vocational, Technical & Adult Education Colleges	Minimum Campus Enrollment[2]	2,500	1,000	1,000
	Maximum Distance From Interchange (mi.)	2	8	12

Multipurpose Arenas, Auditoriums, Fairgrounds, Museums, Race Tracks, Stadiums, & Zoos.	Minimum Annual Attendance	300,000	200,000	100,000
	Minimum No. of Seats (If Applicable)	6,000	5,000	4,000
	Maximum Distance from Interchange (mi)	2	5	7

[1] Major Metropolitan Area is defined as within Milwaukee County.

[2] Campus enrollment is defined as the total number of full and part-time students that physically attend classes on the specific campus site.

Information relating to traffic generators **shall not** be displayed on a supplemental guide sign until signing has been installed along the interchanging and/or intersecting minor roads to adequately direct the motorist from the freeway exit or intersecting road to the facility. (See SUBSEQUENT TRAILBLAZING SIGNING in **PART 5**.)

For additional specific criteria, see **PART 6** and **PART 7**.

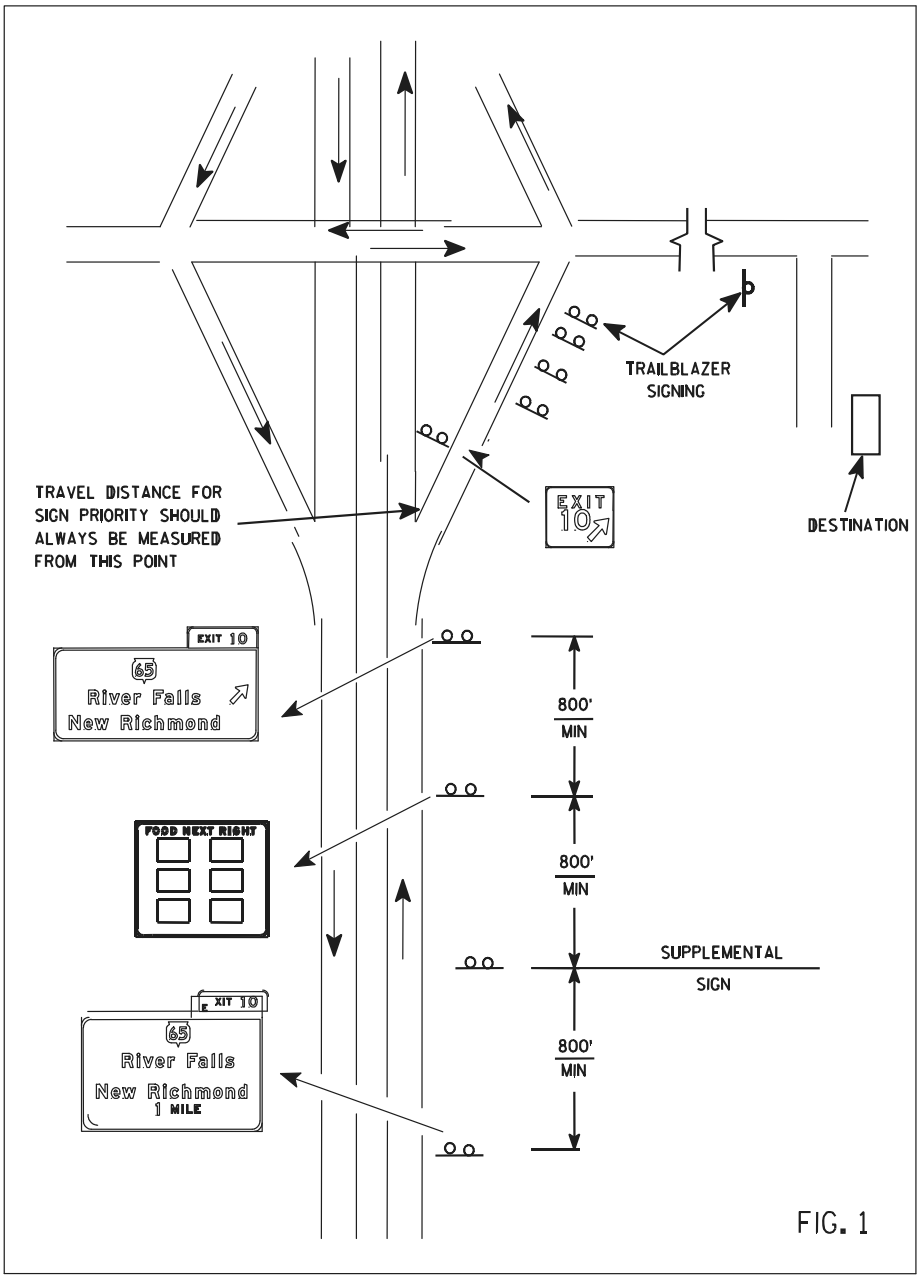


FIG. 1

CONVENTIONAL HIGHWAY GUIDE SIGNING GENERAL POLICY CRITERIA & RESTRICTIONS

1. All specific W~~is~~MUTCD requirements must be met in all situations.

2. Location and placement of all signing is dependent upon the availability of longitudinal spacing (200 feet desirable, 100 feet minimum) with respect to existing traffic control devices.
3. A significant portion of the traffic volume generated by the facility must be drivers who are unfamiliar with the local area and/or access routes to the facility. The adverse effects on highway operations created by motorists seeking a facility without guide signing will also be taken into consideration.
4. In designing signs and selecting locations for sign installation on state highways, the department retains the authority to specify message content (including abbreviations), size of sign, sign location, and combination of message, in accordance with standards for acceptable signing practice. The department also retains the authority to deny requests for signing where it deems acceptable standards cannot be met, including locations where other supplement al signs are already in place.
5. Signing for a specific traffic generator:
    a. **Shall** be limited to a maximum of four signs on state trunk highways
    b. **Shall** be installed only at an intersection that gives the best, most direct access to the traffic generator
    c. **Shall not** be installed at more than one intersection for each direction of traffic on a state trunk highway, but not necessarily at the same intersection for both directions.
6. Signing will normally not be permitted if the establishment is readily visible from the state trunk highway.
7. An on-premise sign identifying the facility is required. A sign *may* be installed on the highway fronting a facility if the on-premise sign is not feasible due to terrain-related visibility.
8. Supplemental signs and/or trailblazing signs **shall not** be permitted at an intersection from one state highway to another state highway.
9. Placement of supplemental guide signs for a traffic generator **shall** be limited to nearest state highway. Signing which would require a motorist to travel on the crossroad beyond another state highway and/or through a community **shall not** be permitted.
10. Facilities must be open a minimum of five days a week, including normal business hours.
11. The traffic generator must be located within the distance noting in Table 2 from the highway intersection at which signing is requested, unless a different distance is noted in other specific criteria.
12. Signing for a seasonal generator **shall** be covered, removed, or overlaid with a “CLOSED” plaque during the off-season.
13. When two or more qualifying facilities are affiliated with the same agency or institution and share a common access, only one specific name will be permitted on the sign to identify the conglomerate.
14. A facility *may*, at any time, request that a sign erected under these guidelines be removed and the department will arrange for its removal.

Table 2. General Qualifying Criteria for Signing Traffic Generators on Conventional Highways

TYPE OF GENERATOR	SPECIFIC CRITERIA	POPULATION OF METROPOLITAN AREA			
		Major[1] Over 500,000	Urban 50,000 – 500,000	Urban 20,000 – 50,000	Rural Under 20,000
Colleges, Universities, Vocational, Technical & Adult Education Colleges	Minimum Campus Enrollment[2]	2,500	750	500	500
	Maximum Distance from Intersection (mi.)	2	8	12	15[3]
All Other Traffic Generators	Minimum Annual Attendance	150,000	100,000	50,000	20,000
	Minimum No. of Seats (if applicable)	3,000	2,500	2,000	2,000
	Maximum Distance from Intersection (mi.)	2	7	10	15[3]

[1]Major Metropolitan Area is defined as within Milwaukee County.
[2] Campus enrollment is defined as the total number of full and part-time students that physically attend classes on the specific campus site.
[3]The distance designated, or half the distance to the next parallel State Trunk Highway, whichever is greater.

Subsequent Trailblazing Signing

Appropriate local road signing to guide motorists to a facility which will be signed from a State Highway or freeway is the responsibility of the facility and the local road authority.

Information relating to traffic generators **shall not** be displayed on a supplemental guide sign until signing has been installed along the interchanging and/or intersecting minor road and other roads to adequately direct the motorist from the freeway exit or intersecting road to the facility. In determining whether there is adequate signing to direct the motorist from the State Highway to the facility, the Department will consider such factors as the directness of the route, the distance involved, and the environment in which the signs are installed.

These signs, used only on non-freeways, are to be placed at sufficiently frequent intervals to adequately guide and reassure motorists. A trailblazing sign with the appropriate arrow **shall** be placed in advance of each intersection where the route changes from one highway to another or where there *may* be confusion as to the direction, which the route takes.

The Department *may* issue a written permit for trailblazing signing on a conventional State Highway to a qualifying traffic generator, which has been signed from a freeway or expressway exit ramp. Subsequent trailblazing signing **shall not** be erected on a State Trunk Highway without such written authority.

Supplemental signs and/or trailblazing signs **shall not** be permitted through a system interchange from one freeway to another or at an intersection from one conventional State Highway to another conventional State Highway.

CATEGORIES & SPECIFIC CRITERIA

The following are categories and relevant information regarding directional and informational signs permitted on the state trunk highway system. References are made to authorization in the statutes, administrative rules, WMUTCD, and other subjects in the TEOpS. For each type of sign listed earlier, there is a category below, a TEOpS reference, and/or a notice that the sign is not permitted.

Community Destination (Wayfinder) Signs

These signs are installed, owned and maintained by the community. They direct to area destinations such as Downtown, or Historic District, and individual destinations such as City Hall, Convention Center, museums, and local parks. The individual destinations are generally publicly owned and operated for public use or privately owned non-profit and open to the public. Complete guidance is in TEOpS 2-15-6.

Government Service Centers

State agencies *may* request signs to be installed on state trunk highways to direct traffic to certain service centers. This policy pertains only to state agencies. Local agencies are not included since local agencies generally serve local traffic and the need is not as significant.

Signs *may* be permitted on a state highway only when the service center is not located directly on the state highway system; signs will not be permitted on the state highway system when extensive trail blazing would be required or when guidance *may* be reasonably provided to the service center using street names and addresses.

No signs will be permitted on freeways or expressways.

Signs *may* be allowed at only two intersections of the state trunk highway system with county or local roads for any service center or complex of service centers.

Sign messages must be approved by the department and signs *may* only be installed under the direction of the department.

Service centers are those governmental offices whose primary purpose is to provide direct customer service to the public. Service centers do not include those offices that are predominantly administrative or serving internal agency operations. The extent of external customer traffic will be considered in determining eligibility for service center signs.

The service center requesting the sign is responsible for all costs related to those signs which are incurred by the department.

This guidance is premised on the view that only a select number of locations will qualify for signs. *Should* the number of signs allowed under this guidance adversely affect the safe and efficient operation of the state highway system, signs *may* be further restricted.

Government Transportation Facilities

Guide signs are Department funded and installed on freeways and conventional highways.

Major Airport

The facility must provide regularly scheduled commercial passenger flights and be located within 15 miles of the freeway or expressway, or within 5 miles of a conventional state trunk highway. Signing to General Mitchell International Airport and Austin Straubel International Airport **shall** be evaluated as a special case.

Public Airport, General Aviation

The facility must be classified as a Large General Aviation Airport or Medium General Aviation Airport, as listed in the Wisconsin State Airport System Plan that is published by the Wisconsin Department of Transportation, Bureau of Aeronautics. The General Aviation airport **shall** be located within 15 miles of the freeway or expressway, or within 5 miles of a conventional state trunk highway.

Park & Ride Lots

The facility must provide free parking, be approved by the Department, and be located within ½ mile of the state trunk highway.

Ports and Harbors

The port or harbor facilities must serve commercial Great Lakes shipping and be located within 10 miles of the freeway or expressway, or within 5 miles of the conventional state trunk highway.

Amtrak Passenger Stations

Facility must provide regularly scheduled intercity passenger service, protection for passenger comfort, public parking, and be within 5 miles of the state trunk highway.

Ferries

Facility must provide regularly scheduled passenger service, protection for passenger comfort, public parking, and be within 5 miles of the state trunk highway.

Guidance Signs

Sometimes called arrow boards, guidance signs are only permitted on conventional state highways or expressway approaches to at-grade intersections. As prescribed in the Wisconsin Administrative Code Chapter Trans 200, these narrow horizontal sign panels *may* bear the names of, and direct to:

- Resorts,
- Hotels,
- Places of public entertainment or instruction,
- Any place of religious worship,
- County institutions,
- Scientific experimental locations for the furtherance of agriculture, science or art.

The term “entertainment” in this case does not include nightclubs, taverns, or similar establishments.

The regions *may* issue a permit; there is no permit fee, and installation **shall** be by the requestor’s choice of a WisDOT approved signing contractor or county signing crew. Detailed department guidelines and the permit application Form DT1903 are contained in TEOpS 2-15-60.

Information Signs

Information signs *may* be permitted or installed by the Department to identify geographic features and/or provide information to the traveling public. Qualifying geographic features are those found on the official state highway map.

The following specific guidelines **shall** be applied to these individual signs.

- City or village population signs limit signs *may* be installed and maintained by the Department in accordance with TEOpS 2-1-41.
- County Line signs **shall** be installed by the Department on all state highways at or near the county line. No other signs **shall** share the supports.
- Lake, River or Stream signs *may* be installed and maintained by the Department in accordance with TEOpS 2-4-55.
- Memorial Facilities signs **shall** be installed and maintained by the Department in accordance with Chapter

84 of the State Statutes.

- NEXT (n) EXITS signs *may* be installed and maintained on freeways by the Department, upon request by an incorporated city or village being appropriately served by two or more consecutive exits.
- Street Name Signs *may* be independently installed and maintained on the STH right-of-way by the municipality with jurisdiction over the side road or crossroad.
- Unincorporated Community signs *may* be installed and maintained by the Department in accordance with TEOpS 2-4-48.
- Advance Crossroad Name signs *may* be installed and maintained by the Department in accordance with TEOpS 2-4-50.

Inter-Agency Facilities

Signs *may* be permitted on the basis of agreements with other state, federal, and county agencies, such as state and county historical societies, the Department of Natural Resources, and Department of Tourism. In most cases, the Department of Transportation will arrange for sign installation and maintenance and request reimbursement. Agreements and permits are subject to the department's evaluation and approval based on the following specific requirements.

- Boat landings; public access to lakes & rivers
  - Conventional highways only.
  - No attendance criteria.
  - A sign **shall not** be permitted unless the access point is located on a road that is sufficiently improved so that a passenger car can use the road without being scratched, dented, or otherwise damaged.
  - Additional criteria:
    - Maximum distance from state trunk highway intersection: 2 miles
    - Parking provided at access site
    - Gravel surface (or better) at access site
    - Improved boat-launching ramp
- Campgrounds, public
  - Conventional highways only
  - No attendance criteria
  - Signing *may* be permitted on conventional highways only, subject to all other general criteria applicable to each facility and location
  - Additional criteria:
    - Public-owned and operated campgrounds *may* be signed if they have a minimum of 50 campsites, adequate toilet facilities, and safe drinking water
    - Only requests from the public agency owning the campground **shall** be considered
    - Campgrounds that are a part of a national, state, county, or local park **shall not** be signed separately, but signing *may* be considered for the park
  - Privately-owned camping facilities *may* qualify for signing under the Specific Information Sign (SIS), Tourist-Oriented Directional Sign (TODS)< or Trans 200 Guidance Sign programs
- Conservation or environmental centers
  - Supplemental signing *may* be permitted on conventional highways, subject to the general criteria applicable to each facility and location and the following additional criteria:
    - Provide on-site, off-street parking for minimum 50 vehicles
    - Provide educational programs and/or audio/visual presentations
  - Centers that are part of a national, state, county, or local park or forest **shall not** be signed separately, but signing *may* be considered for the park or forest headquarters entrance
- Corps of engineering facilities (such as lock and dam sites)
  - Conventional highways only
  - No attendance criteria
  - Signing *may* be permitted on conventional highways only, subject to all other general criteria applicable to each facility and location
  - Additional criteria:
    - Must provide picnic and park facilities
    - Must provide viewing provisions for the public
    - Must provide parking for 25 vehicles or more

- Fairgrounds, state and county
  - Supplemental signing *may* be permitted on freeways or conventional highways, subject to all the general criteria applicable to each facility and location
- Fish hatcheries
  - Conventional highways only
  - No attendance criteria
  - Signing *may* be permitted on conventional highways only, subject to all other general criteria applicable to each facility and location
  - Additional criteria:
    - Must be state-owned facilities
    - Must provide visitor accommodations
- Forest headquarters
  - No attendance criteria
  - Supplemental signing *may* be permitted on freeways or conventional highways, subject to all other general criteria applicable to each facility and location
  - Additional criteria:
    - Provide on-site, off-street parking for minimum 50 vehicles
    - Provide educational programs and/or audio/visual presentations
  - Only requests from the public agency managing the forest **shall** be considered
- Historic sites
  - Conventional highways only
  - No attendance criteria
  - Sings on freeways or conventional highways *may* be permitted for state historical sites operated by the Wisconsin Historical Society, subject to all other general criteria applicable to each facility and location
- Institutions, county (publicly-owned nursing homes)
  - Conventional highways only
  - No attendance criteria
  - Signing *may* be permitted on conventional highways only, subject to all other general criteria applicable to each facility and location
- Marinas (publicly-owned)
  - Signs on freeways or conventional highways *may* be permitted for marinas, subject to all other general criteria applicable to each facility and location
  - Additional criteria:
  - To qualify for freeway signs, the marina **shall** have a minimum of 500 boat slips
  - To qualify for conventional highway signs, the marina **shall** have a minimum of 125 boat slips
- Military bases, major
  - Signs *may* be permitted to Fort McCoy, Volk Field, and Camp Williams
- National historic landmarks
  - Signs *may* be permitted for freeways, expressways and conventional highways, subject to all other general criteria applicable to each facility and location
  - Additional criteria:
    - The site **shall** be a documented national historic landmark that is officially on the listing for National Historic Landmarks in Wisconsin designated by the secretary of the U.S. Department of the Interior (https://www.nps.gov/subjects/nationalhistoriclandmarks/list-of-nhls-by-state.htm~~www.nps.gov/nhl/find/statelists/wi/WI.pdf~~)
    - Only historical sites are eligible, not individual buildings
    - A historical site is comprised as a complex of buildings or an entire district that is a documented national historic landmark
- Parks, national state, and county freeway
  - Supplemental signing *may* be permitted, subject to the general criteria applicable to each facility and location
  - No annual attendance criteria
  - Signing *may* be erected for state parks with the Department of Transportation and the Department of Natural Resources mutually agreed upon. The following **shall** be provided as a minimum:
    - Off-highway parking
    - Safe drinking water
    - Toilet facilities
    - 50 camping sites

        - Swimming
        - Handicapped-accessible camping and picnic areas
        - State parks **shall** also offer other special attractions, such as skiing, nature trails, improved hiking trails, interpretive centers, vistas and overlooks, or be of statewide historical significance
        - Signs directing to National, County and local parks *may* be permitted on freeways or conventional highways if the criteria applicable to state parks are satisfied and the ownership agency and operating authority has requested the signing.
- Parks, Conventional highway
    - Supplemental signing *may* be permitted, subject to the general criteria applicable to each facility and location
    - No annual attendance criteria
    - Signing *may* be erected for state parks with the Department of Transportation and the Department of Natural Resources mutually agreed upon. The following **shall** be provided as a minimum:
        - Off-highway parking
        - Safe drinking water
        - Toilet facilities
        - Handicapped-accessible picnic areas
        - State parks *should* also offer other special attractions, such as camping, swimming, skiing, nature trails, improved hiking trails, interpretive centers, vistas and overlooks, or be of statewide historical significance
        - Signs directing to National, County and local parks *may* be permitted on freeways or conventional highways if the criteria applicable to state parks are satisfied and the ownership agency and operating authority has requested the signing.
- Prisons, federal/state
    - Conventional highways only
    - No attendance criteria
    - Signing *may* be permitted on conventional highways only, subject to all other general criteria applicable to each facility and location
- Sheriff freeway substations
    - Signs on freeways *may* be permitted for county sheriff freeway substations
    - County sheriff's office **shall** have unique statutory authority for patrolling the freeway system to qualify for signage. Presently, only Milwaukee County has this statutory authority.
- Ski areas, downhill
    - No attendance criteria
    - Signs on freeways or conventional highways *may* be permitted for downhill ski areas, subject to all other general criteria applicable to each facility and location
- Travel information, state
    - No attendance or usage criteria
    - Subject to other general criteria, state travel information stations *may* be signed under mutual agreement between the Department of Transportation and the Department of Tourism. As a minimum, the locations **shall** provide parking facilities and public restrooms.
- Veterans centers/facilities
    - No attendance or usage criteria
    - Signs on freeways or conventional highways *may* be permitted for veterans centers with hospitals providing major medical or outpatient services, subject to all other general criteria applicable to each facility and location
- Intra-agency
    - Signs are permitted under agreements with other divisions in the Department of Transportation, such as DMV and DSP. No reimbursement is required.
- Special
  This category addresses these specific types of signs which are described in other parts of the TEOpS or in other policies
    - Downtown: the department permits downtown sign(s) at strategic freeway or expressway exit(s) into the city in accordance with TEOpS 2-6-50
    - Historic downtown/district: the department permits historic downtown or historic district sign(s) at strategic freeway or expressway exit(s) into the city in accordance with TEOpS 2-6-55
    - Business district: as an alternative to downtown, the department permits business district signs on conventional highways at main street intersections

- Emergency medical: standard hospital or emergency medical services signs are installed by the department on state trunk highways to direct to facilities which meet the qualifying criteria in TEOpS 2-4-45.1 and 2-4-48
- Unincorporated communities: the department *may* install signs directing to unincorporated communities in accordance with TEOpS 2-4-48
- Engine braking: WisDOT standard signs are permitted on conventional highway entrances to communities in accordance with TEOpS 2-2-30
- Events, special: the department *may* permit signs directing to special events in accordance with TEOpS 2-15-25
- Heritage tourism: program has been discontinued as of 12/1/13 in accordance with TEOpS 2-4-52
- Neighborhood watch: approved signs are permitted within cities and villages under State Statute 66.0429(2). Further guidance is provided in TEOpS 2-4-45.3
- Parking restrictions: no parking zones and seasonal or overnight parking restrictions *may* be signed by the department or cities and villages in accordance with State Statute 349.14. Sign messages *should not* attempt to detail complex parking ordinances. Further guidance is provided in WMUTCD Section 2B.5341 and TEOpS 2-2-41.
- Miscellaneous non-permitted: some municipalities desire various nonstandard promotional signs. Examples include, but are not limited to, CRIME STOPPERS, DARE COMMUNITY, MAIN STREET USA, TREE CITY, COMMUNITY RECYCLING, SERVICE CLUBS, WELCOME TO ____, and HOME OF THE ____. Such signs **shall not** be permitted on the state highway right-of-way under WisDOT jurisdiction. They *may* be displayed at or outside the right-of-way line.

- Special information signs (SIS)
  - References: State Statute 86.195 and Administrative Code Trans 200.06. Specific information signs are only allowed on the highway segments listed in this statute.
  - Business signs are separately attached rectangular plates which show the brand, symbol, trademark, name or combinations of these for motorist services accessible from an approaching interchange or intersection. They are commonly called “logos” and are confined to five categories: fuel, meals, lodging, camping, and attractions.
  - Specific information signs are technically the blue rectangular sign panel on which the business signs are mounted along with directional information.
  - Interstate Logos Wisconsin is under contract to administer this signing program for the department. The contractor verifies applicant qualifications, and installs and maintains all signs. Annual permit fees are charged.
  - Visit the website (https://wisconsin.interstatelogos.com/state/contactus.aspx) for aAll inquiries, including damage reports~~, *may* be referred to Joel McClean at (608) 579-1570 or visit the website~~.
- Tourist-oriented directional signs (TODS)
  - References: State Statute 86.196, and Administrative Code Trans 200.08
  - These signs are blue panels in rural areas (outside urban area boundaries) on conventional or expressway state highways that are not under the SIS sign program. Businesses which make all or most of their sales to visitors or tourists *may* be eligible. Applications, installation, and maintenance *should* be arranged by the county, subject to the approval of the maintaining authority. Application and renewal fees are charged. These signs are not permitted on the freeway system.

SPECIFIC POLICY FOR SUPPLEMENTAL SIGNS ON FREEWAYS & EXPRESSWAYS

The document, *Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways*, published in 2001 by the American Association of State Highway and Transportation Officials, has been used as the basis for WisDOT policy in order to be in substantial conformance with the national standards, required by Federal and State law. This AASHTO document is reprinted with permission in TEOpS 2-15-1.1.

Supplemental guide signs, directing to municipalities, *may* be permitted, upon request, as provided for in ss. 86.19(6), but subject to the other general policy criteria & restrictions in PART 4. Qualifying municipalities **shall** be incorporated cities or villages shown on the official State Highway map and **shall** be within 5 miles of the freeway exit. The municipality **shall** be billed for all costs of fabrication, installation, maintenance and removal. The Department **shall** specify the sign design and *may* arrange for fabrication, installation, maintenance and/or removal.

Signing for a municipality or traffic generator *should not* be displayed on a supplemental guide sign until signing has been installed at the ramp terminals and along the interchanging road and other roads as necessary to direct the motorist from the freeway exit to the municipality or traffic generator.

Signing for a seasonal generator *may* be displayed when warranted. Such signing **shall** be removed, covered, overlaid with a "CLOSED" plaque, or fitted with a "CLOSED" flip-panel during the off-season.

The cost of signs erected under this section of the guidelines, **shall** be segregated from other signs in order to properly invoice the municipality or facility to cover the cost of installation and maintenance of these signs. The cost of the installation **shall** include the cost of the signs, posts, mounting hardware, labor, vehicles and miscellaneous materials.

Sign installation and cost reimbursement methods are in **PART 9**.

If only one municipality or facility makes a request but others could qualify later, the initial facility will be invoiced for the total initial installation cost. The subsequent facility will be invoiced only for the additions to the existing installation. The facilities *may* agree between themselves to share the costs in a different manner, but no such agreement **shall** involve the Department. (For example: The first facility *may* request the second to reimburse it for a portion of the post cost.)

Maintenance costs associated with these signs **shall** be shared equally by all destinations on the installation. Maintenance includes replacement of the signs when they wear out and the cost of repairing the signs in the case of damage, when that cost is not recovered from the person causing the damage.

A facility or municipality *may*, at any time, request that a sign erected under these guidelines be removed and the Department will arrange for its removal.

If a facility or municipality fails to pay any invoice within six months of billing, the Department will remove the sign.

In-Place Signing

1. Conforming to Policy: Signs which are in place and meet all established provisions of this policy *may* remain in place until they have reached the end of their useful life, or are rendered useless by damage or vandalism. If desired, the sign(s) will be replaced, and the facility served by the sign **shall** pay the full cost of replacement.

   Before replacing a sign when it wears out or is damaged, the Department will evaluate other requests for signing at the same location, selecting the request with the greatest priority among the requests. If there are no other requests, the Department will contact each facility on the sign to determine whether or not they wish their name retained and are willing to bear the replacement cost. The Department is not obligated to leave a sign in place after judging it to be worn out, merely because the facility is unwilling to pay for a replacement.

2. Non-conforming Signs will be allowed to remain until the end of their useful life, or are rendered useless by damage or vandalism, or are removed under a sign replacement or highway reconstruction project. Prior to the removal of any non-conforming signs, the Region **shall** contact the Bureau of Traffic Operations to discuss potential political impacts and acceptable signing alternatives.

3. Sign Replacement Program: Periodically, the Department replaces traffic signs along a complete segment of a highway route, so that all devices are uniformly maintained and proper retroreflectivity is assured on all signs. When this activity occurs, supplemental guide signing to traffic generators will generally be included in the replacement program, and facilities will be billed for their particular sign costs.

Milwaukee Metropolitan Area: Specific Policy

Because of the numerous and often closely-spaced interchanges, the frequency of in-place primary signing, and the adequacy of route and str~~5~~eet identification signing already in place, supplemental signing is limited by these additional restrictions:

1. All supplemental signing—downtown loop:

   Other than supplemental guide signing for National Major League Sports teams venues, signing for any other specific facility or generator (including educational institutions) **shall not** be permitted on the entire length of I-794, nor on any downtown freeway comprising a loop bounded by McKinley Avenue on the north, I-43 on the west, I-794 on the south and Lincoln Memorial Drive on the east. The only exceptions to these restrictions *may* be: LAKEFRONT, PORT OF MILWAUKEE,

DOWNTOWN, or any large area within the loop boundaries which can be meaningful to the visitor and whose area name has broad community support (subject to Department approval). Signing for such large area(s) will be considered on the basis that it is a substitute for other exceptions named herein and in consideration of the other space restrictions cited in this policy. If a substitute is approved, it *may* be funded with Department funds. National Major League Sports teams venues *may* be permitted if they follow all other criteria as spelled out in this policy.

2. Medical facilities:

   Signing to the Milwaukee Regional Medical Center (but not to individual facilities within the Regional Medical Center) will be permitted.

SPECIFIC POLICY FOR SUPPLEMENTAL SIGNS ON CONVENTIONAL HIGHWAYS

The basic supposition of supplemental signing is that the facility or institution as a class is of interest and concern to a sufficient number of motorists to warrant special directional signing. It is also a basic assumption that the purpose of this signing is guidance and not advertising.

Supplemental guide signs, directing to municipalities, *may* be permitted, upon request, as provided for in ss. 86.19(6), but subject to the other general policy criteria & restrictions listed previously. Qualifying municipalities **shall** be incorporated cities or villages shown on the official State Highway map and **shall** be within 5 miles of the state highway intersection. The municipality **shall** be billed for all costs of fabrication, installation, maintenance and removal. The Department **shall** specify the sign design and *may* arrange for fabrication, installation, maintenance and/or removal.

Signing for a municipality or traffic generator *should not* be displayed on a supplemental guide sign until signing has been installed along the intersecting road and other roads as necessary to direct the motorist from the intersection to the municipality or traffic generator.

Signing for a seasonal generator *may* be displayed when warranted. Such signing **shall** be removed, covered, overlaid with a "CLOSED" plaque, or fitted with a “CLOSED” flip-panel during the off-season.

Only one supplemental sign designating traffic generators *may* be erected under this policy on the approach to an intersection, and the maximum number of facilities listed on the sign **shall** be three.

Actual sign installation will depend upon sufficient longitudinal space to accommodate the new sign without violating the minimum spacing between signs.

Signing on connecting highways **shall** be the responsibility of the respective local unit of government having jurisdiction. The provisions of this policy **shall not** be construed to be the policy for the signing on connecting highways.

The cost of signs erected under this section of the guidelines, **shall** be segregated from other signs in order to properly invoice the municipality or facility to cover the cost of installation and maintenance of these signs. The cost of the installation **shall** include the cost of the signs, posts, mounting hardware, labor, vehicles and miscellaneous materials, and *may* be based on average costs for a typical installation.

Sign installation and cost reimbursement methods are in **PART 9**.

If only one municipality or facility makes a request but others could qualify later, the initial facility will be invoiced for the total initial installation cost. The subsequent facility will be invoiced only for the additions to the existing installation. The facilities *may* agree between themselves to share the costs in a different manner, but no such agreement **shall** involve the Department. (For example: The first facility *may* request the second to reimburse it for a portion of the post cost.)

Maintenance costs associated with those signs **shall** be shared equally by all facilities in the installation. Maintenance includes replacement of the signs when they wear out and the cost of repairing the signs in the case of damage, when that cost is not recovered from the person causing the damage.

In-Place Signing

1. ~~(1)~~ Conforming to Policy: Signs which are in place and meet all established provisions of this policy *may* remain in place until they have reached the end of their useful life~~,~~ or are rendered useless by damage or vandalism. If desired, the sign(s) will be replaced, and the facility served by the sign **shall** pay the full cost of replacement.

   Before replacing the sign when it wears out, the Department will evaluate other requests for supplemental signing at the same location (if any), selecting the sign with the greatest priority from among the requests prior to contacting a facility with the original sign to determine whether ~~or not~~ they wish the sign replaced

and are willing to bear the cost. The Department is not obligated to leave a sign in place after judging it to be worn out merely because the facility is unwilling to pay for a replacement.

2. Non-conforming Signs will be allowed to remain until the end of their useful life, or are rendered useless by damage or vandalism, or are removed under a sign replacement or highway reconstruction project. Prior to the removal of any non-conforming signs, the Region **shall** contact the Bureau of Traffic Operations to discuss potential political impacts and acceptable signing alternatives.

3. Sign Replacement Program: Periodically, the Department replaces traffic signs along a complete segment of a highway route, so that all devices are uniformly maintained and proper retroreflectivity is assured on all signs. When this activity occurs, supplemental guide signing to traffic generators will generally be included in the replacement program, and facilities will be billed for their particular sign costs.

METHODS FOR SIGN INSTALLATION AND COST REIMBURSEMENT

There are several methods that can be utilized by the regions for the installation and maintenance of signs for supplemental traffic generators. County forces *may* be used for the installation and maintenance of Type II signs. The statewide open-end signing contractor *should* be used for all Type I signs and *may* be used for Type II signs also. Private individuals or facilities themselves **shall not** be allowed to install signs on WisDOT roadways.

The common methods for accomplishing sign installation are detailed below. The regions have the opportunity to work within these guidelines and select a method that best fits the region and/or situation.

Setting up a Professional and Technical Project ID (P & T ID)

When cost reimbursement is part of the permit agreement, the Region **shall** set up an individual P & T project ID to track all costs, which would include sign manufacturing, installation (either County or Contractor), subsequent maintenance and/or replacement, and any Region personnel field layout costs associated with the sign request. Under this method, if county crews install the signs, the signs **shall** be furnished by WisDOT. The Region *should* furnish the P & T project ID to the county to charge their time, fleet and material costs. WisDOT staff *should* stake the sign location(s).

If the statewide open-end contractor is utilized, it is expected that the contractor will furnish the signs. WisDOT will provide the sign fabrication detail to the contractor and field stake the location of the sign(s). Charge the P & T project ID for all sign manufacture, for county installation and/or contractor installation costs once invoices are received.

Permitting the County to Install a Sign Directing to a County Facility

This method would only be utilized if a county were to request a sign for one of their own facilities off the state trunk highway. WisDOT would permit the county to install the sign(s). If this option were utilized, WisDOT would field stake the sign location and *may* either provide a fabrication detail so the county can get the sign made or manufacture and sell the sign to the county. If WisDOT manufactures the sign for the county, the Region *should* utilize the Sales to Others Form (DT1668). The Region *should* fill out the form and send it to the Central Office Sign Mfg. Shop. The requestor will then be invoiced for the sign manufacture costs. This option would only be used for county facilities.

Signing for Government, State University Facilities

For these types of government facilities, the Region *may* elect to have them work directly with the county. If this option were utilized, WisDOT would field stake the sign location and provide a fabrication detail to the requesting agency. The requesting agency would then work directly with the county to get the sign(s) manufactured and installed. The county would direct bill all charges to the requestor.

WisDOT *may* manufacture the sign(s) also. If WisDOT manufactures the sign(s), the Region *should* utilize the Sales to Others Form (DT 1668 form). The Region *should* fill out the form and send it to the Central Office Sign Mfg. Shop. The requestor will then be invoiced for the sign manufacture costs.

Figure 2. REQUEST FOR GUIDE SIGN INSTALLATION ON STATE HIGHWAY (DT1332)

REQUEST FOR GUIDE SIGN INSTALLATION ON STATE HIGHWAY
Wisconsin Department of Transportation
DT1332 2/2018

Sign Requested For
- ☐ College/University
- ☐ Institution
- ☐ Municipality
- ☐ Other: _____

Name of Requesting Facility or Municipality

_____

Street Address City Zip Code

Contact Person: _____ Phone: _____

Email: _____

SIGN MESSAGE or What does the sign direct to?

PROPOSED SIGN LOCATIONS

Hwy. Interchange or Intersection	Town/City/Village	County of	Traffic Direction at Proposed Sign Site _____-bound on Hwy. _____
Hwy. Interchange or Intersection	Town/City/Village	County of	Traffic Direction at Proposed Sign Site _____-bound on Hwy. _____

Additional requests should be submitted on a separate form.

The requesting facility agrees to and will abide by the conditions contained within the Supplemental Guide Sign Policies and general signing policy provisions attached to this application, which is made by the undersigned official under proper authority to act on behalf of the facility represented above. The requestor agrees to pay for installation costs and costs to replace the signs when they have reached the end of their useful life or repairs if they become damaged, when the cost is not recovered from the person(s) causing the damage.

Signature of Authorized Official	Title	Date

☐ APPROVED
☐ DENIED

_____
Regional Traffic Engineer Date

2-15-4 Pictographs on Signs March 2018

PURPOSE

This guideline provides criteria for determining when pictographs *may* be allowed on supplemental traffic generator signs which qualify for a permit under TEOpS 2-15-3 (Sign Categories and Policy for Directional Signing). The term “pictograph” is defined by the Federal Highway Administration as a pictorial representation used to identify a governmental jurisdiction, a governmental agency, a governmental approved university or college, or a branch of the military service. In general, the use of pictographs is limited to those conditions where an easily recognized, widely understood pictograph *may* add to the effectiveness of a standard text sign by providing a quick visual cue to drivers in need of guidance. This guideline establishes criteria for determining when pictographs *may* be used, and establishes standards for the type and design of pictographs in order to assure their effective use through consistent application. The guideline also is intended to prevent the inappropriate use of pictographs as a means of promoting or advertising destinations, as advertising on the right of way is not legal.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two lane or multilane facilities.

Pictographs are defined as a pictorial representation used to identify a governmental jurisdiction, a governmental agency, a military base or branch of service, a governmental-approved university or college, or a government-approved institution.

Logos are defined as a distinctive emblem or trademark that identifies a commercial business and/or the product or service offered by the business.

Symbols are defined as the approved design of a pictorial representation of a specific traffic control message for signs, pavement markings, traffic control signals, or other traffic control devices, as shown in the WMUTCD.

POLICY

Pictographs *may* be used on supplemental traffic generator signs, provided that the following criteria are met:

- The supplemental traffic generator sign **shall** be approved for installation by meeting the criteria outlined in TEOpS 2-15-3 (Sign Categories and Policy for Directional Signing). Central office approval **shall** be obtained for any pictograph requests.
- Pictographs **shall** only be allowed for guide signs that are listed below:
    - Colleges/universities
    - Auto tour route (Great River Road, Lack Michigan/Superior Circle Tour)
    - Wayfinding signing
    - Airport signing
    - Street name signs, including overhead
    - Military branch
- College and university pictographs **shall** be the official seal adopted by the educational institution. Pictorial representatives of college and university programs are not permitted.
- Advanced street name signs **shall not** contain pictographs.
- Per an October 11, 2017 Official Ruling Letter from FHWA (2(09)-(136)I), federal government facilities (US Fish & Wildlife Service, National Park Service, US Forest Service) **shall not** contain pictographs.
- Auto tour route pictographs **shall not** be displayed on advance guide or exit direction signs. Auto tour route pictographs **shall** only be displayed on supplemental guide signs on freeways and expressways. For conventional highways, auto tour route pictographs **shall** be displayed on conventional route assemblies.
- Military branch pictographs **shall not** be displayed on advance guide or exit direction signs. Military branch pictographs, related to military installations, **shall** only be displayed on supplemental guide signs.
- Commercial graphics for businesses **shall not** be used on community wayfinding signs, including within the pictographs.
- Wayfinding signing **shall** be approved for installation by meeting the criteria outlined in TEOpS 2-15-6.
- The pictograph **shall** fit within the sign face and *should* be placed to the left of the accompanying message. Whenever the addition of a pictograph requires a change in the size or shape of a sign, all costs of the change must be paid by the requestor.
- The maximum dimension (height or width) of a pictograph **shall not** exceed the size of the route shield on the guide sign. If the guide sign does not include a route shield, the maximum size of the pictograph (height or width) **shall not** exceed two times the height of the destination legend.

Typical Sizes of Pictographs

Lettering Size on Sign	Pictograph Dimensions
6” upper case / 4 ½” lower case	12” x 12”
8” upper case / 6” lower case	16” x 16”
10” upper case / 8” lower case	20” x 20”
13.33” upper case / 10” lower case	26” x 26”
16” upper case / 12” lower case	32” x 32”
20” upper case / 15” lower case	40” x 40”

- Pictographs **shall** be retroreflective. Colors, arrows, and borders of the logos *should* meet the

requirements defined in TEOpS 2-15-6.

- Pictographs that resemble an official traffic control device **shall not** be used.
- The sign requestor **shall** pay for the manufacture, installation, and maintenance of all pictographs, including the sign(s) and posts. The actual method of pictograph installation will be left up to the discretion of each regional traffic section.
- Pictographs currently installed that do not meet the criteria in this policy will be allowed to remain in place until the end of their useful life. Useful life ends when the pictograph message no longer meets legibility or condition standards. Existing pictographs **shall** be removed prior to the end of their useful life when opportunities arise such as knockdown or damage, when other work is occurring nearby, or projects make removal practical.

2-15-5 Destinations on Signs ~~January 2018~~November 2026

GENERAL

The display of appropriate destinations on guide signs can be particularly helpful to drivers, regardless of the type of road or highway. It is the purpose of this policy to set specific standards and guidelines for the selection of destination names for various types of guide signs on each classification of highway. General guidance is provide din the following sections of the WMUTCD.

Section 2D.36~~2D.37~~ Destination Signs (D1 Series)
Section 2D.43~~2D.36~~ Distance Signs (D2 Series)
Section 2E.04~~2E.07~~ Characteristics of Urban Signing
Section 2E.15~~2E.10~~ Amount of Legend on Guide Signs
Section 2E.27~~2E.12~~ Pull-Through Signs
Section 2E.07~~2E.13~~ Designation of Destinations
Section 2E.21~~2E.30~~ Interchange Guide Signs
Section ~~2E.33~~ 2E.23~~2E.33~~ Interchange Advance Guide Signs
Section 2E.51~~2E.35~~ Other Supplemental Guide Signs
Section 2E.25~~2E.36~~ Exit Direction Signs
Section 2E.48~~2E.39~~ Post Interchange Distance Signs
Section 2E.24~~2E.40~~ Interchange Sequence Signs
Section 2E.52~~2E.41~~ Community Interchanges Identification Signs
Section 2E.53~~2E.42~~ ~~NEXT X EXITS~~ Exits Signs

DEFINITIONS

1. Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.
2. Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.
3. Conventional highways are defined as either divided or undivided roadway facilities that have no control of access or grade separations at intersections. These highways can be two-lane or multi-lane facilities.
4. A major state trunk highway (STH) is defined as
    a. A state highway operated as a freeway
    b. A highway designated as part of the National Highway System, or
    c. A state highway route or segment approved as such by the state traffic engineer, based on its character as a principal route for cross-state traffic, traffic between major cities in Wisconsin and adjacent states, or traffic from major cities to major northern resort areas.
5. A standard highway is defined as any conventional state or local highway which is not a major STH.
6. Urban areas are defined as
    a. An established urbanized area, based on the US Bureau of the Census and adjusted by metropolitan planning organizations and the DOT
    b. Two or more contiguous cities and/or incorporated villages, or
    c. A single city or incorporated village which is not contiguous with any other.
7. National control cities are Chicago, Milwaukee, Beloit, Rockford, Janesville, Madison, Wisconsin Dells,

La Crosse, Albert Lea, Eau Claire, St. Paul, Sheboygan, and Green Bay.

8. Regional Control Cities are defined as
    a. Urban areas in Wisconsin or within 60 miles of the state line with a population in the most recent decennial census of 30,000 or more.
    b. Other communities, such as Sturgeon Bay, Woodruff, Minocqua, and Lake Geneva, which are approved by the State Traffic Engineer based on their character as widely known tourism destinations, and
    c. Urban areas on or north of Highway 64 with a population exceeding 3,500, and urban areas south of Highway 64 with a population exceeding 10,000.
9. Communities are defined as
    a. Any urban area, or
    b. An unincorporated village which is identified on the official state highway map and is not adjacent to or within an urban area.

PRINCIPAL DESTINATION CALCULATION

A Principal Destination is defined as a community served by a standard highway and located within 25 miles of a major state trunk highway, as measured along the standard highway, and having a location and population such that

$$\frac{Pp}{Pc} \geq \frac{Dp}{Dc} \quad \text{where}$$

Pp = Population of Principal Destination (from official state highway map)

Dp = Distance in whole miles from the major STH to the Principal Destination

Pc = Population of the community closest to the major STH and in the same direction from it (from official state highway map)

Dc = Distance in whole miles to the closest community

If more than one community meets the above criteria, the community for which the term

$$\frac{Pp}{Pc} - \frac{Dp}{Dc}$$ is the greatest **shall** be selected.

Notes: When measuring distances Dp and Dc, it is recommended that consistency be applied in what points are being measured to.

Where the through highway passes adjacent to or within the closest community, Dc will approach zero, and Dp will approach infinity.

Dc

Therefore, in this case, the closest community **shall** be the principal destination.

POLICY

On Hwy / Intersecting		Standard STH	Major STH	Interstate Highway
Standard Highway	**Ahead Destination**	Next Community	Regional Control City (1)	(2)
	Crossroad Destination	Next Community	Principal Destination	Principal Destination
Major STH	**Ahead Destination**	Next Community	Regional Control City (1)	(2)
	Crossroad Destination	Regional Control City	Regional Control City	Regional Control City
Interstate Highway	**Ahead Destination**	Next Community	Regional Control City (1)	National Control City
	Crossroad Destination	National Control City	National Control City	National Control City

1. If the major STH is constructed and signed as an expressway or freeway, an ahead destination is generally not displayed except as a pull-though sign at a system or directional interchange.
2. An ahead destination is generally not displayed except as a pull-through sign at a system or directional interchange.

SPECIFIC SELECTION CRITERIA

1. **On standard state trunk highways:** Destination signs (D1 series) *should* be used on the standard state highway approach to a numbered interstate. If designated, the “ahead” destination **shall** be the closest community on the through route. The first choice of destination names for the interstate **shall** be the closest national control city in each direction. The first choice of destination name for other freeways **shall** be the closest regional control city in each direction.
    a. If the intersecting route does not serve a national control city, then the regional control city, next community, or principal destination *may* be designated.
    b. Unincorporated communities meeting the qualifying criteria in definition 9 *may* be displayed on destination signs (D1 series) on conventional state highways.
    c. Unincorporated communities **shall not** be displayed on distance signs (D2 series) unless the community is designated a regional control city according to the definition 8b. However, they *may* be identified as unincorporated on the I2-3 name sign.
2. **On major state trunk highways:** Use regional control cities according to definition 8 and selected as follows:
    a. Select urban areas meeting the criteria of definition 8a & 8b
    b. If less than two meet the criteria of 8a or 8b, select urban area(s) meeting the criteria of 8c
    c. If the distance between areas selected above exceeds 160 miles, select urban areas between them, which meet the criteria of 8c.

    Unincorporated communities **shall not** be displayed on freeway or expressway exit signs, unless the community has been designated a regional control city according to the definition 8b.
3. **On interstate highways:** Use national control cities, except regional control cities or principal destinations *may* be selected as appropriate for intersecting highway destinations.
4. **Urban areas with more than one city or village:**
    a. On highways which serve the largest city in the urban area, only the largest city **shall** be named and **shall** be considered to represent the entire urban area.
    b. Destination signs **shall not** be erected within an urban area directing to a city or village within the same urban area, except:
        i. On major state trunk highways, signs *may* direct to the central business district of the largest city
        ii. On highways near the edge of urban areas, signs *may* direct to the largest city in the urban area which is served by the crossroad

iii. In bi-state urban areas, signs *may* direct to the largest out-of-state city.

5. **Control cities beyond the end of a highway:**

   A national or regional control city located beyond the end of a highway *may* be considered to be served by that highway if the connecting route:

   a. Is of the same or higher classification, and

   b. Continues in the same general direction as the ending highway, and

   c. Carries considerable through traffic from the ending highway.

6. **Bi-state urban areas:**

   In determining the population of an urban area, part of which is in Wisconsin and part of which is in an adjacent state, for the purpose of selecting regional control cities, the population of the in-state and out-of-state cities **shall** be added. Directional signs *may* name the largest Wisconsin city and/or the largest out-of-state city, as provided in criteria ~~4c(3)~~4b(iii) above.

7. **Other supplemental guide signs:**

   Additional communities are allowed on other supplemental guide signs. Only one supplemental guide sign with cities/communities **shall** be allowed per interchange, maximum of two cities/communities per sign.

8. When opportunity presents itself (improvement project, refurbishment project, etc.), the destinations on primary and supplemental guide signs *should* be reevaluated to ensure conformance to this policy.

2-15-6 Community Wayfinding Signs ~~January 2015~~November 2026

PURPOSE

This policy sets the uniform, Wisconsin state standards for signs, which communities *may* install by permit on conventional State Trunk Highways under DOT jurisdiction to provide directional guidance to public facilities and traffic generators within the community.

The WMUTCD Section 2D.5~~50~~ provides guidelines and standards for Community Wayfinding signing. Substantial conformance of these signs to the MUTCD and DOT policy is required by state law. Poorly designed and/or cluttered guide signs will not meet these requirements and could adversely impact safety.

On local streets and connecting highways, local agencies have the authority to install destination signs for local attractions and generators. If there is deviation from state and national standards to the extent that highway signing would adversely affect driving behavior, local agencies *may* face liability problems.

Therefore this policy establishes the following to be applied to Community Wayfinding Signing on State Highways under DOT jurisdiction:

1. the qualifying criteria for Community Wayfinding Signing;
2. guidance on qualifying destinations or facilities;
3. clarification of sign design and installation standards, applicable to WisDOT
4. the application and permit process for roadways under WisDOT jurisdiction.

DEFINITIONS

Community Wayfinding Signs

These are the signs, allowed by permit, which are owned and maintained by the community and direct to

1. municipal area destinations such as Downtown, or Historic District,
2. individual destinations that are publicly leased or owned and operated for public use, such as City Hall, Convention Center, and local parks, or
3. Privately owned non-profit facilities open to the public, such as a local museum or ice center.

Trailblazing Signs

In this context, these are community destination signs that direct subsequent turns on local streets to reach the

destination.

Trailblazing (directional route signing) to state routes is the responsibility of WisDOT and will not be permitted on Community Wayfinding Signs.

POLICY FOR INSTALLATION ON STATE TRUNK HIGHWAYS

The Department will allow the local agency, by permit, to install and maintain community wayfinding signs on the right-of -way of the conventional state trunk highway system, subject to the destinations, design, location, and maintenance of the signs being reviewed and found satisfactory by the Department. These signs **shall not** be permitted on freeways or expressways.

WisDOT *may* fund the installation of wayfinding signs as part of a Community Sensitive Solutions project. For all Community Sensitive Solutions projects that include wayfinding signs, the sign design and locations **shall** be reviewed for conformity to WisDOT and WMUTCD policies by the Region Traffic Operations. Wayfinding signs that are funded and installed as part of a Community Sensitive Solutions project **shall** be maintained by the community.

This policy does not apply to banners or civic displays, which are addressed in TEOpS 13-12-1.

Qualifying Criteria for Community Wayfinding Signing Programs

Community wayfinding signs will not be permitted outside a readily apparent urban developed area, usually characterized by a reduced speed limit, nearby transition to curb and gutter, and dense residential and/or business development adjacent to the highway.

Geographical areas or districts within a community *may* be permitted Community Wayfinding Signing. Two or more adjacent communities in an urbanized area *may* coordinate a common signing program, but the department will issue separate permits to each individual municipality.

No countywide programs will be permitted.

The community must develop a Master Plan for Community Wayfinding Signing, which contains the following information:

1. A map of the community, including the city street/local road system, which clearly identifies:
    a. Exact locations of destinations and attractions to be included in this signing program.
    b. State trunk highway approaches to city street/local road intersections where signing is proposed.
    c. Which destination(s) and attraction(s) are to be signed on each state trunk highway approach at each city street/local road intersection
    d. City street/local road intersections where trailblazing signing is required to direct motorists to each facility.
2. A concept design of a typical community wayfinding sign, which *may* include the city logo, a street name and up to a total of three destinations/attractions. A maximum of three destinations *should* be displayed on a sign.

The Master Plan **shall** be submitted to the WisDOT Regional Traffic Engineer for review. This submittal **shall** be initiated and coordinated by the community and **shall** identify one contact or lead person in the community, through which all Department correspondence and contact will be made.

If a community obtains DOT approval for Community Wayfinding Signing, no new requests for traffic generator signing, which would qualify for Community Destination Signs, will be approved within the community.

Qualifying Destinations or Facilities

Destinations or attractions must be of general interest to the traveling public and **shall not** be a retail, business or manufacturing center. The individual destinations **shall** be publicly leased or owned and operated facilities for public use or privately owned non-profit facilities open to the public.

Destinations which qualify for either Supplemental Traffic Generator signing or Community Wayfinding Signing,

1. *should* be included on the Community Wayfinding Signs,
2. *may* be on permitted supplemental signing,
3. but **shall not** be on both at the same intersection approach.

A specific destination **shall** only be displayed on one sign structure in each direction on a highway unless straight ahead signing is also approved by the Regional Traffic Engineer.

This type of signing **shall not** display advertising for a commercial product or service.

IH, USH or STH directional signage **shall not** be allowed on Community Wayfinding signs.

Sign Design Standards

Shape

The shape of the signs **shall** be rectangular and *may* have rounded corners. A rounded or other regular geometric shape on the top will be allowed to accommodate a logo.

Pictograph

Only one community pictograph *may* be incorporated in the top of the sign subject to WISDOT approval. If used, it **shall** be simple and easily recognizable. The height of the pictograph **shall not** exceed two times the height of the upper-case letters of the principal legend on the sign. For coordinated programs, a unique pictograph for each municipality *may* be used.

If a community name is to be displayed at the top of the sign panel, instead of or in addition to a pictograph, the lettering **shall** be of a size, font style and high color contrast for motorists to read at the posted speed.

All signs in a Community Wayfinding Signing program **shall** have the same format. If a community pictograph, and/or name, and/or street name, is to be used on any sign, it **shall** be used on all signs in the community program.

Pictographs for destinations and attractions **shall not** be permitted, since the traveling public will not recognize pictographs of local destinations.

Facing

Sign panel legends and backgrounds **shall** be reflective to meet the minimum standards of High Intensity sheeting.

Fluorescent reflective sheeting of any color **shall not** be permitted on these signs.

The sign **shall not** contain any animated or moving parts, flashing or moving lights, or flashing disks.

Color

Colors **shall** meet the standards for highway colors specified by the Federal Highway Administration. Color combinations **shall** have high contrast. Two-color combinations which *may* be used are:

1. White or yellow on blue, green or brown.
2. Blue, green, black or brown on white.
3. Red or orange on white, but not the reverse.
4. A third color, if used, must provide suitable contrast (i.e., not red on blue).

The background colors of orange, red, yellow, purple, or the fluorescent versions thereof, fluorescent yellow-green and fluorescent pink **shall not** be permitted on Community Destination Signs. One background color is preferred. A third color for the logo area *may* be used, or that area *may* be reversed in color. Color plaques or accents **shall not** be used under arrows or destination names. Lettering, arrows, and border **shall** be the same color.

Border

Border is optional. If used, it **shall** be plain, retroreflective, not decorative, and the same color as the letters.

Lettering & Sign Size

A minimum Series B font as specified in the Standard Highway Signs manual is preferred. A similar font is allowable, unless the style detracts noticeably from legibility.

The preferred letter size is 6” Upper Case/ 4 ½” Lower Case. In areas, where the posted speed is less than 35 mph, a minimum 5” Upper Case/ 3 ¾” Lower Case or 5” Capital Letters will be allowed.

The resulting sign width **shall not** exceed five feet adjacent to a roadway posted at 35 MPH or above. The sign width **shall not** exceed four feet adjacent to a roadway posted at 30 MPH or below.

Arrows

Arrows **shall** be as big in dimension as the lettering, and the same color as the adjacent lettering. The arrows **shall not** have encircling accents~~,~~ or contrasting mini-backgrounds.

Arrows **shall** be left of the message for left destinations, and right of the message for right destinations.

Ahead arrows **shall not** be used except in combination with left and/or right arrow(s) and destination(s) to pull through to one major area destination, such as DOWNTOWN, or direct ahead to one or more qualifying destinations where the through route turns. When used, ahead arrows **shall** be on the left side of the top line.

Destinations

Destinations/attractions on a community destination sign **shall** be displayed (from top to bottom of sign) in the following sequence:

1. ahead destination (if used);
2. left-oriented destinations/attractions (closest to furthest);
3. right-oriented destinations/attractions (closest to furthest).

Community Wayfinding Signs *should* be limited to three destinations per sign.

Sign Installation Standards

Signs **shall** be installed by the community on separate supports furnished and typically used by the community. They **shall not** be combined with other signing by the community or the Department.

If signing is approved on the state trunk highway directing to a facility, any necessary trailblazing signing **shall** be installed on the city streets/local roads by the community before signing is installed on the state trunk highway.

The community **shall** affix an identification code number label to the back of each sign in accordance with State Statute Section 86.19(5) and TEOpS 2-1-30.

Sign supports **shall** conform to TEOpS 2-15-52.

Sign installation and placement **shall** be in accordance with WisDOT Standard Sign Details A4-3, A4-4, and A4-8, A4-9, A4-11, or A5-9, as applicable.

Signs **shall** be placed in advance of the intersection where a turn would be required.

Only one sign **shall** be permitted in each direction approaching an intersection and it *should* be located on the right side of the roadway.

The preferred sign spacing is 200 feet from any other highway sign. The minimum spacing **shall** be 100 feet.

Signs erected on the state trunk highway system **shall** have their locations approved by the Regional Traffic Engineer. Signs at all locations *should* be installed with due care to be visible, and to not obscure other traffic control devices. Further guidance on location is contained in Section 2A.13~~6~~ of the MUTCD.

Application and Permit

Sign destinations, designs, and locations on State highways under DOT jurisdiction **shall** be approved by the WisDOT Regional Traffic Engineer. Installation of these signs **shall** be through this permit process.

Upon receipt of a master plan for Community Wayfinding Signing, including the typical standard sign design and the identification of the community contact person, the Regional Traffic Engineer will review the plan for

1. appropriate qualifying destinations,
2. direct and effective routing to the destinations, including trailblazing on local roadways,
3. appropriate sign locations,
4. individual sign designs, and
5. roadside conditions and constraints.

In order to expedite the process, the community *should* prepare the master plan in compliance with the guidelines in this policy. Any necessary denials or revisions *may* cause a return of the plan to the community contact person, resulting in a delay of the permit.

The permit will consist of an approved master plan attached to a permit letter signed by the Regional Traffic Engineer, and *may* include the necessary standard sign installation details mentioned above.

All sign panel designs *should* be reviewed and approved by the Regional Traffic Engineer before fabrication.

The community **shall** be responsible for the construction, installation and maintenance of the community wayfinding sign structures and sign panels at its own expense.

If community wayfinding signs are not properly maintained, the community **shall**, upon request by WisDOT, replace or remove the signs at its own expense. If not replaced or removed within 30 days of notification, WisDOT will remove the community wayfinding signs at the expense of the community.

Roadway reconstruction and/or installation of new regulatory, warning or guide signs *may* necessitate relocation or removal of community wayfinding signs by the community at its own expense.

GRANDFATHER CLAUSE

Existing permitted Community Wayfinding Signs will be allowed to remain temporarily without modification or replacement until the end of their useful life, or December 31, 2015, whichever comes first. Unpermitted signs **shall** be removed as soon as possible, unless they meet the standards contained in this policy. In that case, the community *may* apply for a retroactive permit by submitting the required master plan.

SAMPLE PERMIT FORM LETTER

Copy and paste to your Region letterhead.
Provide date, contact name, and address
Modify as needed.

RE: **Community Wayfinding Signing Permit**

This letter **shall** serve as the Community Wayfinding Signing Permit for (city, village, town) of (name) to install and maintain guidance signing on STH (number) as contained and approved in the attached master plan.

No additions or changes will be allowed without a revised and approved master plan.

WisDOT Standard Sign Installation Details, A4-3, A4-4, and (others as needed), are attached. Adherence to these standards is required.

Sincerely,

(signature)

(name, P.E.)
(Region) Traffic Engineer

2-15-7 Temporary Traffic Generator Signing on Improvement Projects ~~January 2013~~November 2026

BACKGROUND AND PURPOSE

Section 2E-~~5135~~ of the WMUTCD allows states and other agencies the option to adopt policies for Supplemental Traffic Generator (Directional Signing). Correspondingly, WisDOT has adopted a Supplemental Traffic Generator policy for permanent signs (TEOpS 2-15-3). However, there are cases (most notably improvement projects) where temporary Supplemental Traffic Generator signs are needed. Temporary Traffic Generator signs *may* be needed to temporarily replace SIS signs or previously approved Supplemental Traffic Generator signs that were previously installed on the roadway, but taken down temporarily for the project. There are other times where a business *may not* have been previously signed, but the improvement project closes off an access to a business and temporary signs *may* be needed to ease the construction impact to the business. In some of these cases, a Temporary Business Guidance Sign *may* be permitted.

The following policy provides guidance on the different types of Temporary Traffic Generator signs that *may* be utilized on improvement projects.

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

POLICY

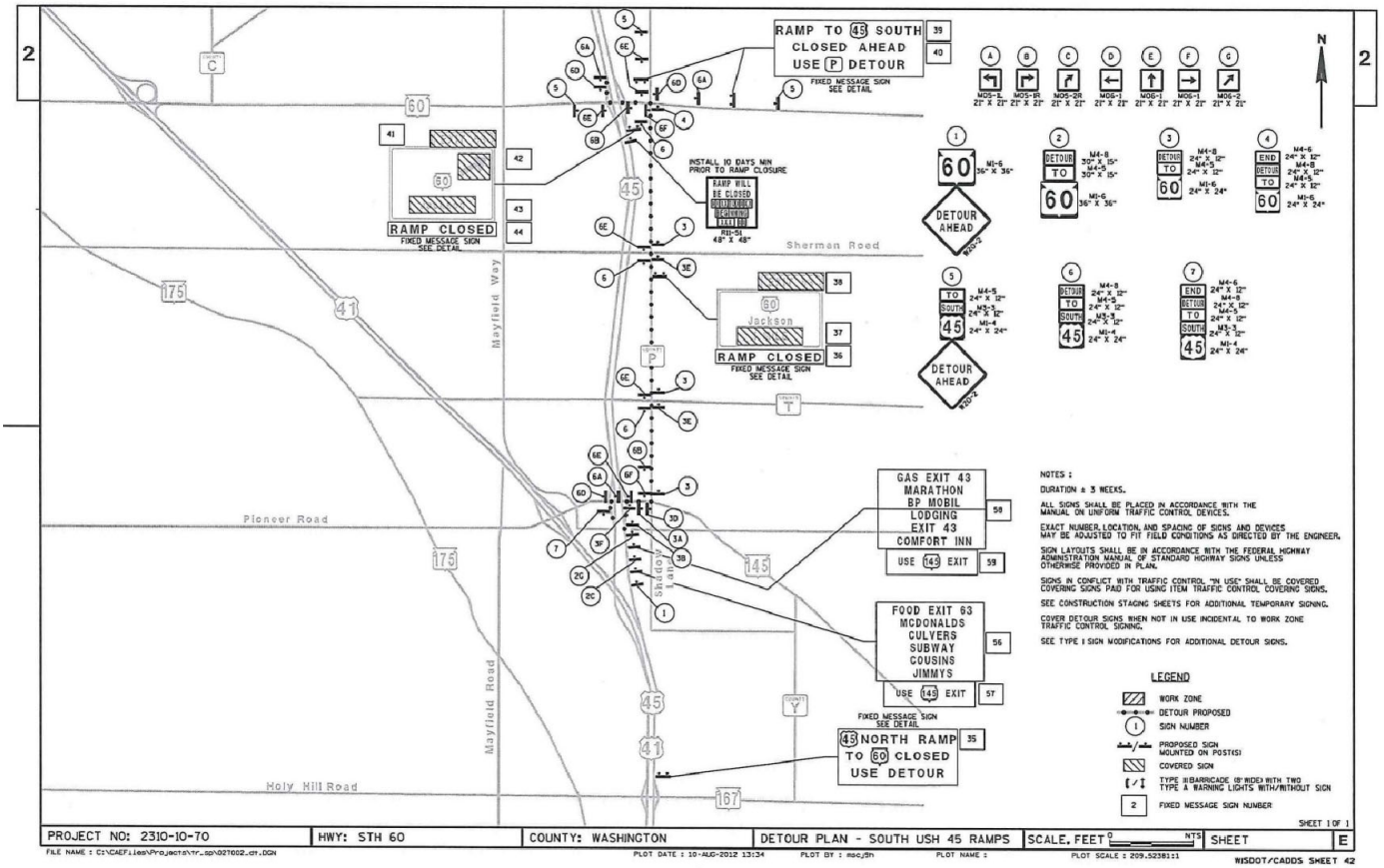
Projects that have previously approved SIS or Supplemental Traffic Generator Signs that have been temporarily removed during construction.

1. Temporary SIS Signs and Supplemental Traffic Generator signs **shall** only be allowed for approved SIS or Supplemental Traffic Generator signs that were removed as part of the improvement project (See Figure 1).
2. Temporary SIS Signs and Supplemental Traffic Generator signs **shall** be black on orange and contain no logos.
3. Temporary SIS Signs and Supplemental Traffic Generator signs **shall** be designed by WisDOT Bureau of Traffic Operations for all Regions, except SE. For SE Region projects, the signs **shall** be designed by the SE Region Traffic Operations. Sign details and installation details *should* be included as part of the improvement project plans.
4. Temporary SIS Signs and Supplemental Traffic Generator signs are typically paid for as part of the improvement project under the bid item, Traffic Control Signs Fixed Message.

Temporary Business Guidance Signs (signs not previously approved as SIS or Supplemental Traffic Generator signs).

1. Temporary directional signing for local businesses *may* be allowed in the highway right-of-way, at locations approved by the Project Manager.
2. Privately erected signs **shall** require an approved permit (see attached Temporary Business Guidance Signs Permit Application). Privately erected signs Temporary directional signing for local businesses **shall not** be allowed on freeways, expressways or at the exit ramp.

Figure 1. Example of Temporary SIS Signs for Improvement Projects



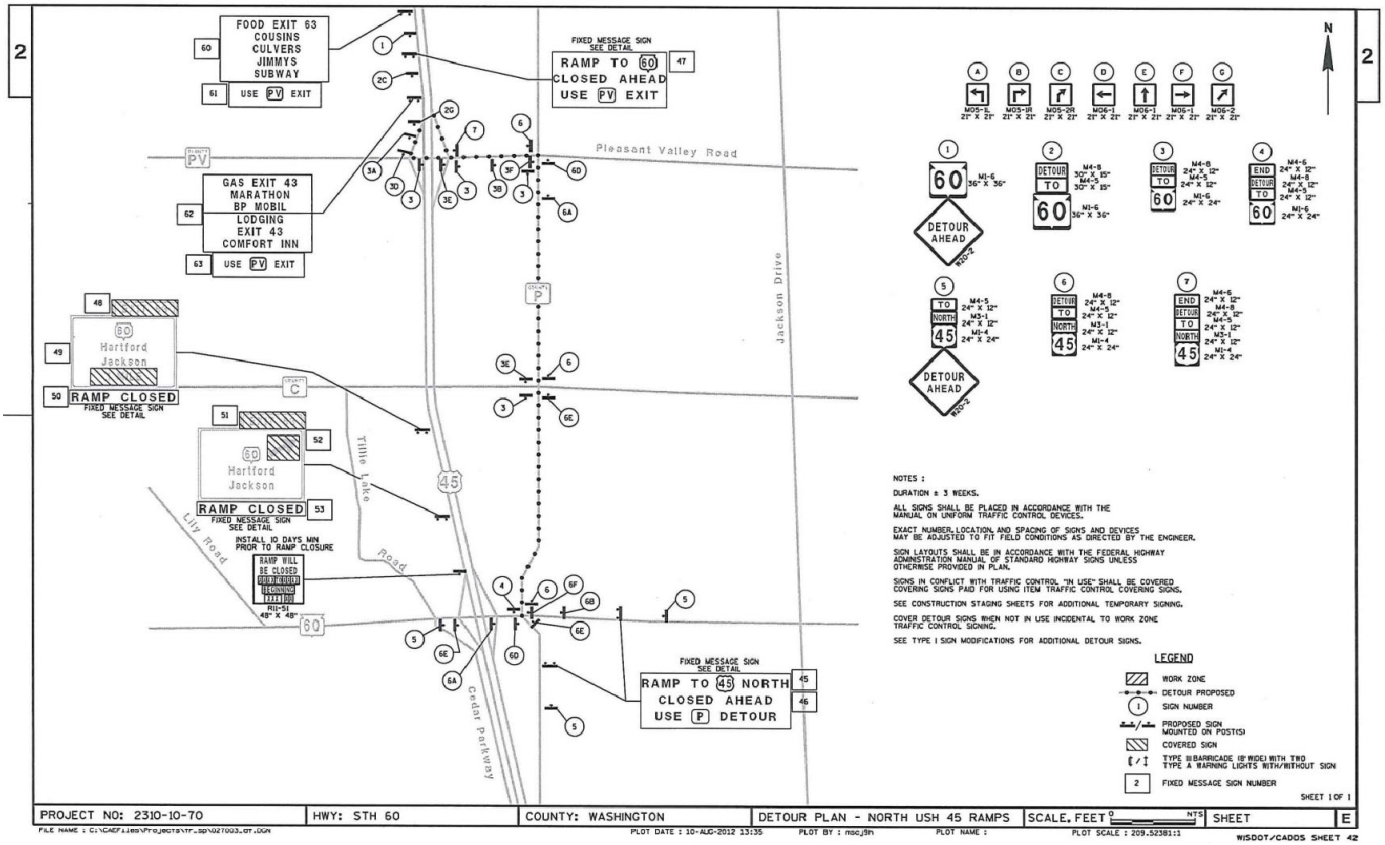


Figure 2. Temporary Business Guidance Signs Permit Application

APPLICATION – PERMIT TO INSTALL TEMPORARY BUSINESS SIGN(S)
On Highway Right-of-Way during Improvement Project
Wisconsin Department of Transportation
DT1932 6/2014

Applicant Name
Business or Activity – Address, City, State and Zip Code
(Area Code) Telephone
Type of Business or Activity
Sign Location(s) – Number and Placement to be coordinated with Project Engineer

On what highway?	**At or approaching intersection with what highway?**
1. On:	At:
2. On:	At:
3. On:	At:
4. On:	At:
5. On:	At:
6. On:	At:
Remarks:	

Two drawings MUST be attached: *One drawing must show the proposed sign design(s) and dimensions and the other must show the proposed sign location(s).*

I apply for permission to install and maintain temporary directional signs at the locations listed and in conformance with the guidelines attached to this application. I agree to comply with these guidelines and will remove all signs upon completion of the project, or when directed by the project engineer. I understand that signs may be removed without notice if they do not comply with the attached guidelines, do not match the attached drawings or do not comply with any additional conditions stated on or attached to the permit.

X _____
(Applicant Signature)

X _____
(Approved by Project Manager) (Date – m/d/yyyy)

X _____
(Maintaining Authority – *if sign location is not on STH)*

Project I.D.:

Guidelines for Installation of Temporary Business Guidance Signs On Improvement Projects

WisDOT may allow the placement of temporary directional signs in the highway right-of-way at locations approved by the Project Engineer. Privately erected signs require an approved permit (see attached permit form) and will not be allowed on the mainline of freeways or expressways. Signs with generic messages not containing individual business names (e.g., Access to Downtown) should be given consideration. Typical locations for generic message signs may include endpoints of the construction project or detour and sideroads approaching the project.

The following guidelines apply to privately erected signs along conventional highways (non-freeway/ non-expressway) or along offramps near the project:

1. The signs will not obstruct the view of, interfere with, or be attached to official traffic control devices such as signs and barricades, or obstruct the view of drivers entering or traveling on the highway. Signs shall be placed to allow at least 6 feet of clearance from edge of gravel shoulder to edge of sign, or at least 2 feet from back of curb to edge of sign. Signs shall be placed as near the right-of-way line as possible and shall not be placed in the median of divided highways.
2. Where several neighboring businesses are affected, every effort shall be made to identify these businesses on common signs. In the interest of legibility and not creating undue distraction to drivers, it may be necessary to identify businesses by their general location, e.g., "Main Street Businesses", "Downtown Businesses", or "City Business District", rather than by individual business names. Use the phrase "Access To" instead of "Open To" on signs to clarify that although access is provided to businesses, the roadway is still closed to through traffic. Signs for an individual business may not be greater than 3' high by 3' wide. If multiple businesses are combined on a single sign, that sign may not be greater than 4' high by 8' wide.
3. If access to the business(s) will be through the closed portion of the highway under construction, one directional sign at the beginning of the detour, from each direction, will be allowed. Additional "trailblazers" may be necessary to guide traffic along the closed portion of the road, as approved by the Project Engineer.
4. If access to the business(s) will be via a road connecting the detour route to the closed portion of the highway, one sign will be allowed in each direction on the detour at the point where a motorist must leave the detour. Additional "trailblazers" may be necessary to guide traffic along the local road system after leaving the detour route. These signs must be approved by the Project Engineer and the local road's maintaining authority.
5. For uniformity and readability, the lettering should be black block style letters on a white background and shall conform to the following size requirements: 4" high for posted speeds less than 45 mph; 6" high for posted speeds 45 mph or greater. Business logos may be used as an alternative to word messages but maximum allowable logo size is 4 square feet.
6. Sign supports shall be of FHWA approved breakaway materials, i.e., 4" x 4" wood posts, or smaller, as appropriate to the size and weight of the sign. It is the responsibility of the sign installer to contact Diggers' Hotline at 1-800-242-8511 prior to installation. When it is not possible to mount the signs on post supports, use portable mounts approved by the Project Engineer. Business signs shall not be placed on any devices that are part of the official traffic control for the project.

The following guidelines apply along freeway/expressway mainline:

- No privately erected signs will be allowed on mainline freeways/expressways.

General Coordination and Permit Conditions for Privately Erected Signs

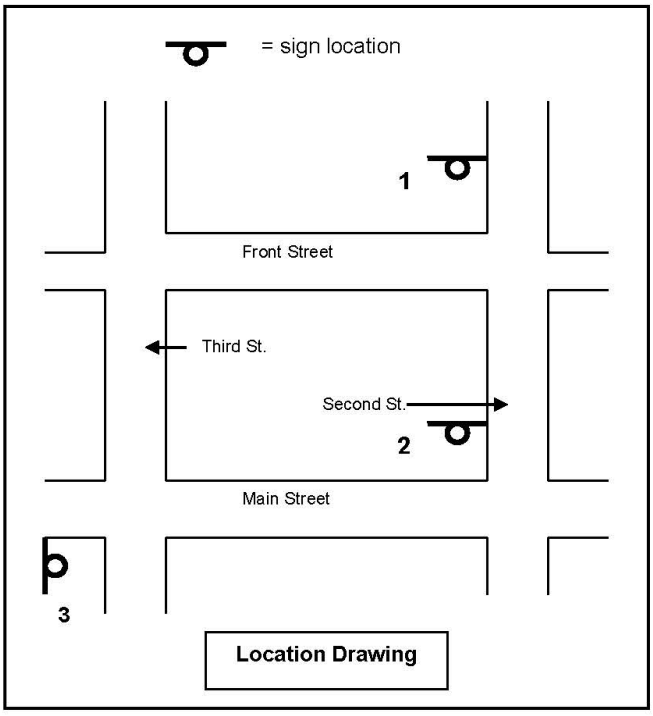
The Project Engineer will coordinate the design and placement of the signs with the owner, and will grant approval. All approved signs, their design and locations, will be documented on the permit form attached to these guidelines. A copy of the permit shall be delivered to the Project Engineer, and the maintaining authority in the case of local roads. The approved signs will be erected and removed at the expense of the applicant.

If non-complying signs or signs with potential to cause safety problems are located on a project, the Project Engineer will notify the business identified on the sign. Such signs not removed or corrected immediately will be removed by the department or its representatives and the cost billed to the sign owner.

All temporary signs must be removed by the applicant within 48 hours following restoration of normal traffic patterns. Such signs not removed after 48 hours will be removed by the department or its representatives and the cost billed to the sign owner.

Examples of Sign Permit Drawings:





2-15-11 Transition, Two to Four Lanes June 2005

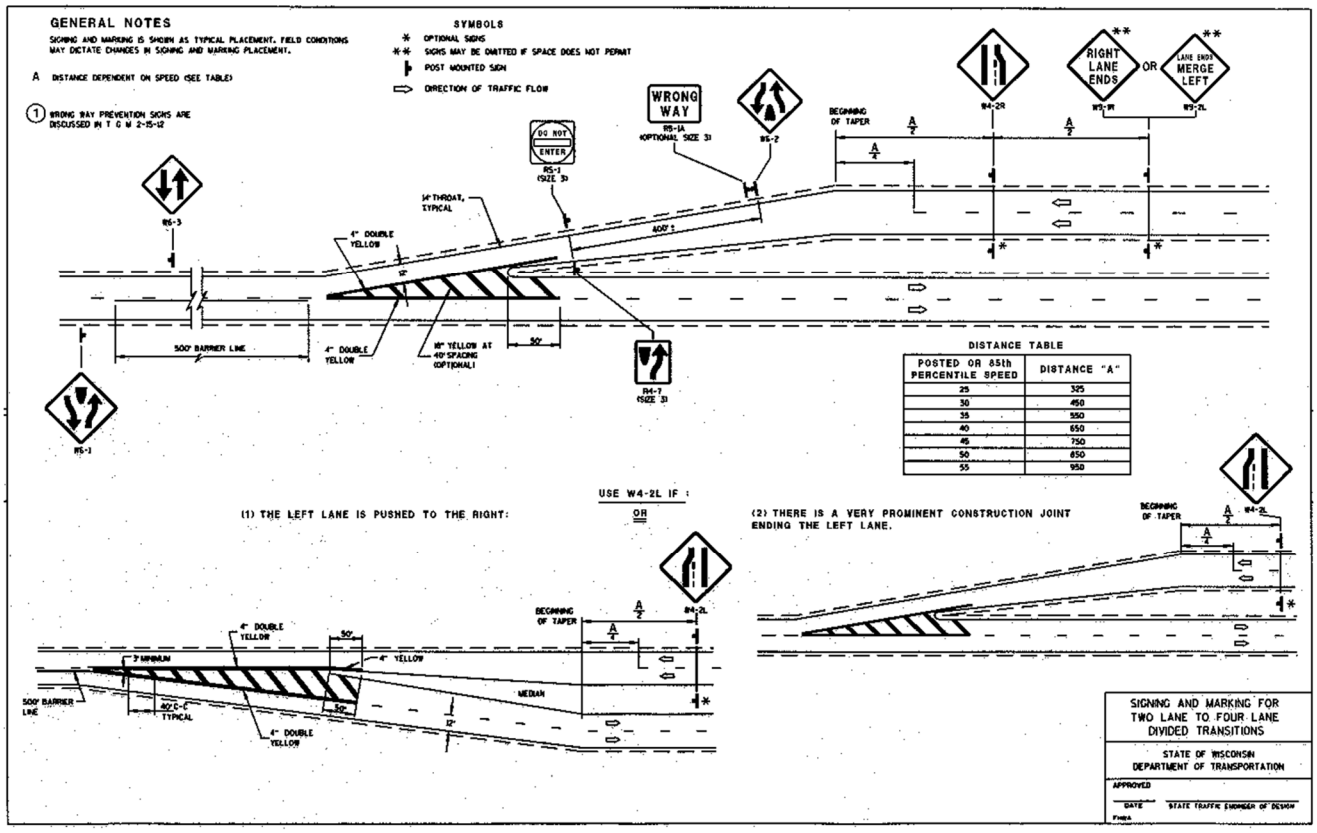
GUIDANCE

Figure 1 portrays recommended pavement markings and signing for typical transitions of two-lane highways to divided highways.

The main feature of the pavement markings is the formation of a large “V,” which will give continuous guidance to the left of the driver leaving the divided section.

The choice between using a W4-2R or L has been debated and has arguments on both sides. The illustration provides an acceptable signing choice in the absence of any other determinant factors.

Figure 1. Marking and Signing for Two-Lane to Four-Lane Divided Transitions



2-15-12 Wrong Way Prevention ~~November 2015~~November 2026

PURPOSE

Prevention of wrong way movement is a concern wherever an entire roadway is dedicated to one-way traffic. Wrong-way prevention signing consists of the appropriate use and placement of Turn Prohibition signs, Keep Right signs, DO NOT ENTER signs, WRONG WAY signs, ONE WAY signs, and Divided Highway Crossing signs.

The need for wrong way prevention signing in any situation is determined by the complexity of the situation requiring positive guidance and the consequence of error. The following guidance and details are intended to define the typical amount of signing for the various applications.

WMUTCD sections 2B.46 through 2B.50 contain further guidance if applications below have been attempted and additional signing options are desired.

APPLICATIONS

DIVIDED HIGHWAY WITH ~~WIDE MEDIAN intersection with~~ TWO-WAY CROSS STREET (See Figure 1)

This typical signing plan *should* be sufficient for most intersections of this type.

~~The MUTCD Section 2B.37 and Figure 2B-12 allows the single installation of DO NOT ENTER and WRONG WAY SIGNS. Where the median width is 30 feet or greater, the signs *should* be installed on the median side.~~

DIVIDED HIGHWAY WITH ~~NARROW MEDIAN intersection with~~ TWO-WAY CROSS STREET (See Figure 2)

This typical signing plan *should* be sufficient for most intersections of this type. This plan *should* also be applied to driveways to business or driveways serving 5 or more residences. ~~Additional needs *may* be met by installing additional signs as shown in MUTCD Figure 2B-15.~~

~~The MUTCD Section 2B.37 and Figure 2B-12 to allow the single installation of DO NOT ENTER and WRONG~~

~~WAY SIGNS. Where the median width is less than 30', the signs *should* be installed on the outer side.~~

DIVIDED HIGHWAY ~~WITH WIDE MEDIAN~~ intersection with DIAMOND INTERCHANGE RAMPS (See Figure 3)

This typical signing plan *should* be sufficient for most intersections of this type. ~~It combines the typical signing requirements from **Figure 1** with the Standards, Guidance and Options in the MUTCD Section 2B.41 and Figure 2B.18, except that the Turn Prohibition signs are designated optional. This is consistent with the last Option paragraph in the MUTCD Section 2B.18.~~

~~DIVIDED HIGHWAY WITH NARROW MEDIAN intersection with INTERCHANGE RAMPS (See Figure 4)~~

~~This typical signing plan *should* be sufficient for most intersections of this type. It combines the typical signing requirements from **Figure 2** with the Standards, Guidance and Options in the MUTCD Section 2B.41 and Figure 2B.18, except that the Turn Prohibition signs are designated optional. This is consistent with the second to last Option paragraph in the MUTCD Section 2B.18.~~

TWO-WAY UNDIVIDED HIGHWAY intersection with DIAMOND INTERCHANGE RAMPS (See Figure ~~5~~4)

This typical signing plan *should* be sufficient for most intersections of this type. ~~It reflects the Standards, Guidance and Options in the MUTCD Section 2B.41 and Figure 2B.18, except that the Turn Prohibition signs are designated optional. This is consistent with the second to last Option paragraph in the MUTCD Section 2B.18.~~

TWO-WAY HIGHWAY intersection with ROUNDABOUT CONTROLLED DIAMOND INTERCHANGE RAMPS (See Figure 5)

This typical signing plan *should* be sufficient for most intersections of this type.

TWO-WAY HIGHWAY intersection with SIDE BY SIDE LOOP ENTRANCE RAMP (WITH RAMP MEDIAN) (See Figure 6)

This typical signing plan *should* be sufficient for most intersections of this type.

TWO-WAY HIGHWAY intersection with SIDE BY SIDE LOOP EXIT RAMP (WITH RAMP MEDIAN) (See Figure 7)

This typical signing plan *should* be sufficient for most intersections of this type.

TWO-WAY HIGHWAY intersection with SIDE BY SIDE LOOP ENTRANCE RAMP (NO RAMP MEDIAN) (See Figure 8)

This typical signing plan *should* be sufficient for most intersections of this type.

TWO-WAY HIGHWAY intersection with SIDE BY SIDE LOOP EXIT RAMP (NO RAMP MEDIAN) (See Figure 9)

This typical signing plan *should* be sufficient for most intersections of this type.

TRANSITION FROM TWO-WAY UNDIVIDED HIGHWAY TO DIVIDED HIGHWAY (See Figure ~~6~~10)

This typical signing plan *should* be sufficient to prevent wrong-way movements in these transition areas. TEOpS 2-15-11 illustrates the overall signing and pavement marking requirements in greater detail.

~~DIVIDED HIGHWAY WITH INTERSECTING SIDEROAD (See Figures 7 and 8)~~

~~These typical signing plans *should* be sufficient for most side roads of these types. Additional needs *may* be met by installing additional signs as shown in the MUTCD Figure 2B-15.~~

~~The MUTCD Section 2B.37 and Figure 2B-12 allows for the single installation of the DO NOT ENTER and WRONG WAY signs. Where the median width is less than 30', the signs *should* be installed on the outer side.~~

DIVIDED HIGHWAY intersection with ~~WITH NARROW OR WIDE MEDIAN~~ DRIVEWAY (See Figures ~~9, 10~~ ~~,~~11~~,~~and 12~~ and 13~~)

These typical signing plans *should* be sufficient for most driveways of these types. ~~Additional needs *may* be met by installing additional signs as shown in the MUTCD Figure 2B-15.~~

~~The MUTCD Section 2B.37 and Figure 2B-12 allows for the single installation of the DO NOT ENTER and WRONG WAY signs. Where the median width is less than 30', the signs *should* be installed on the outer side.~~

~~ROUNDABOUTS (See Figure 14)~~

~~This typical signing plan *should* be sufficient for the prevention of wrong way movements on roundabouts with single and multiple approach lanes and interchange off-ramps.~~

DIVIDED HIGHWAY WITH SIGNALIZED WIDE MEDIAN INTERSECTION (See Figure 16)

This typical signing plan *should* be sufficient for most intersections of this type.

~~The MUTCD Section 2B.37 and Figure 2B-12 allows the single installation of DO NOT ENTER and WRONG WAY SIGNS.~~ Where the median width is 30 feet or greater, the signs *should* be installed on the median side.

DIVIDED HIGHWAY WITH SIGNALIZED NARROW MEDAN INTERSECTION (See Figure ~~17~~14)

This typical signing plan *should* be sufficient for most intersections of this type. ~~Additional needs *may* be met by installing additional signs as shown in MUTCD Figure 2B-16.~~

~~The MUTCD Section 2B.37 and Figure 2B-12 to allow the single installation of DO NOT ENTER and WRONG WAY SIGNS.~~ Where the median width is less than 30', the signs *should* be installed on the outer side.

POLICY

At approaches to multi-lane roadways with median widths less than 30', the R6-1 ONE WAY sign **shall** be installed at the near right installation above the STOP or YIELD sign. At approaches to multi-lane roadways with median widths 30' or greater, two R6-1 ONE WAY signs **shall** be installed back to back at the near right installation above the STOP or Yield sign. The R6-1 ONE WAY sign **shall** be used at "T" intersections with divided highways or above the roundabout directional arrow (R6-4b) sign.

At divided highways with wide medians that have a STOP or Yield sign in the median, a R6-1 ONE WAY sign **shall** be installed back to back above the STOP or Yield sign ~~(See Figure 15)~~.

The R6-2 ONE WAY sign **shall** be used for all other locations on the STH system.

The DO NOT ENTER sign **shall** be installed where it does not obscure the outline or shape of STOP or YIELD signs. If space does not permit, it is permissible to trim the DO NOT ENTER sign into an octagon shape, however the preference is to install the DO NOT ENTER sign on a separate post, next to the STOP sign.

GUIDELINES

Short divided sections with low traffic volumes and a posted speed of 40 mph or less *may* not need the DO NOT ENTER and WRONG WAY signs.

An urban boulevard with frequent cross streets and median openings *should* not need repeated DO NOT ENTER and WRONG WAY signs.

A history of wrong way movements and/or related crashes *may* warrant further measures. If visibility of the far roadway from the side street or ramp is obscured by geometrics or cross section, additional ONE WAY signs *may* be necessary ~~and positioned as shown in the MUTCD Figure 2B-15~~.

Highway lighting *may* be a solution to visibility problems, eliminating the need for extra signing.

Pavement marking arrows *may* be used to supplement signing and reinforce the wrong way prevention message, especially on exit ramps.

Freeway ramps *may* warrant additional signing and marking strategies to help prevent wrong way movements. The following strategies *may* be used at freeway ramp locations that have exhibited problems with wrong way drivers entering the freeway:

~~1. Upsizing of DO NOT ENTER and WRONG WAY signs~~

~~2.~~1. Stop bars and type 4 pavement marking arrows

~~3.~~2. Dotted pavement marking line extensions through the intersection

The following strategies *may* be used in addition to the ones above or on their own. All of the following strategies are optional, and **shall** only be used at side by side ramp locations that have exhibited problems with wrong way drivers entering the freeway:

~~1. Additional WRONG WAY signs mounted below the DO NOT ENTER signs at a 3 foot mounting height as measured vertically from the bottom of the sign to the top of the near edge of pavement.~~

~~2. Reflective strips on WRONG WAY and DO NOT ENTER sign posts. These strips **shall** be 2 inches wide, composed of red Type H sheeting on 0.040 inch sheet aluminum, and **shall** run from the bottom of the sign to within 2 feet above the edge of pavement.~~

~~3.~~1. A FREEWAY ENTRANCE (D13-3) sign placed at the entrance to the on ramp

~~4.~~2. Dynamic (flashing) WRONG WAY signs

Figure 1

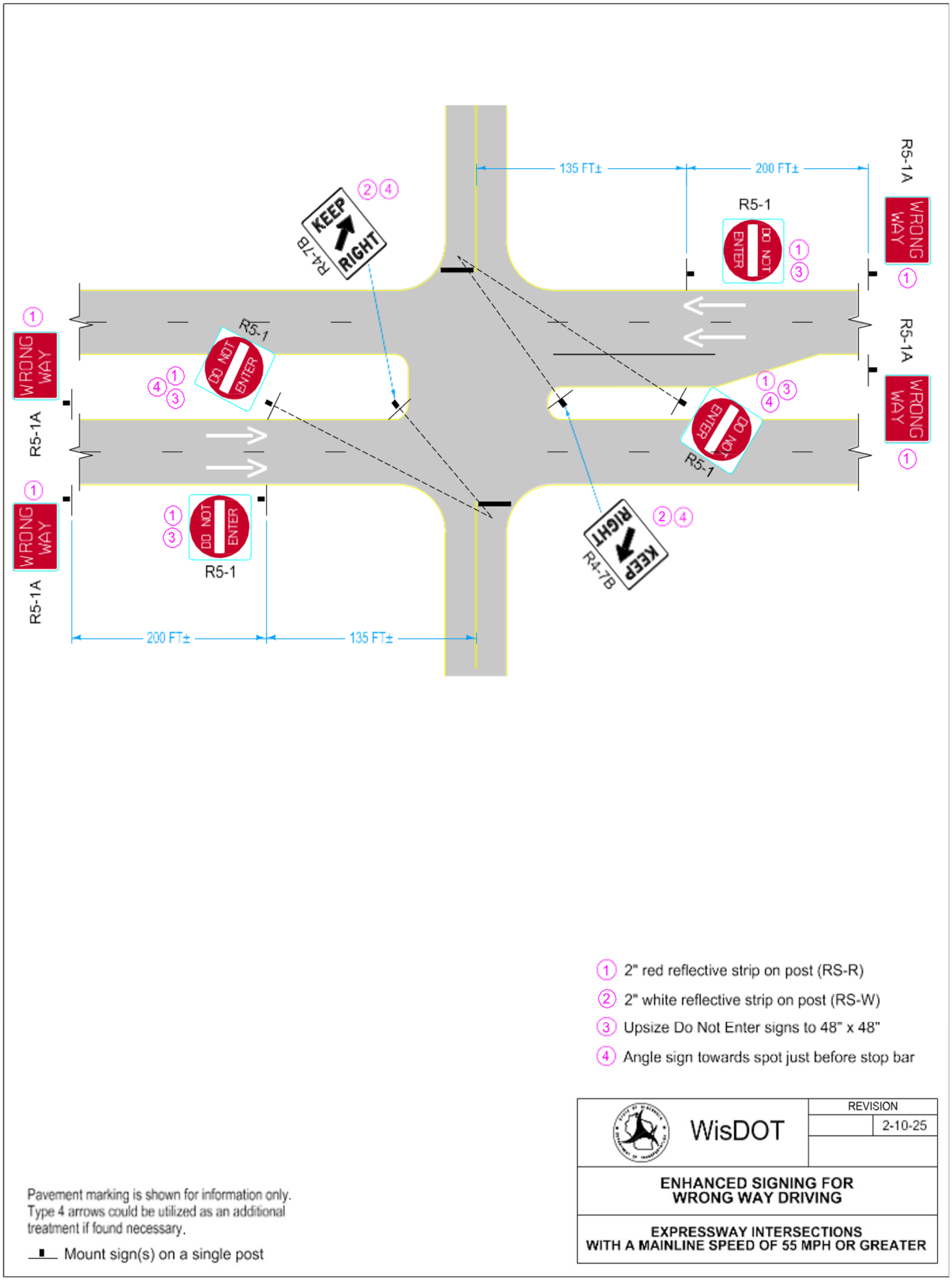
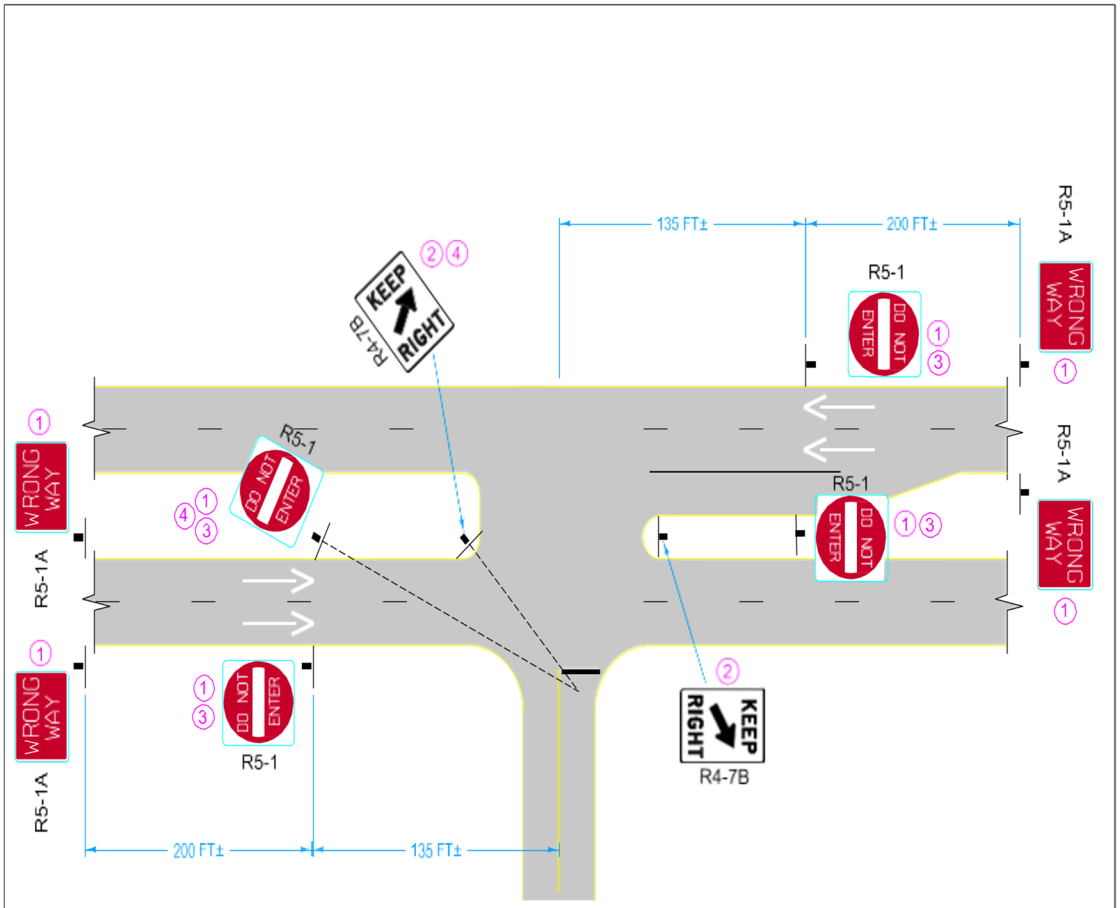

135 FT±
200 FT±
R5-1
R5-1A
WRONG WAY
KEEP RIGHT
R4-7B
DO NOT ENTER
1 2" red reflective strip on post (RS-R)
2 2" white reflective strip on post (RS-W)
3 Upsize Do Not Enter signs to 48" x 48"
4 Angle sign towards spot just before stop bar
Pavement marking is shown for information only. Type 4 arrows could be utilized as an additional treatment if found necessary.
Mount sign(s) on a single post
WisDOT
REVISION
2-10-25
ENHANCED SIGNING FOR WRONG WAY DRIVING
EXPRESSWAY INTERSECTIONS WITH A MAINLINE SPEED OF 55 MPH OR GREATER

Figure 2



1. 2" red reflective strip on post (RS-R)
2. 2" white reflective strip on post (RS-W)
3. Upsize Do Not Enter signs to 48" x 48"
4. Angle sign towards spot just before stop bar

Pavement marking is shown for information only. Type 4 arrows could be utilized as an additional treatment if found necessary.

Mount sign(s) on a single post

WisDOT	REVISION 12-18-25
ENHANCED SIGNING FOR WRONG WAY DRIVING	
EXPRESSWAY T - INTERSECTIONS AND DRIVEWAYS TO BUSINESSES OR 5 OR MORE RESIDENCES WITH A MAINLINE SPEED OF 55 MPH OR GREATER	

Figure 3

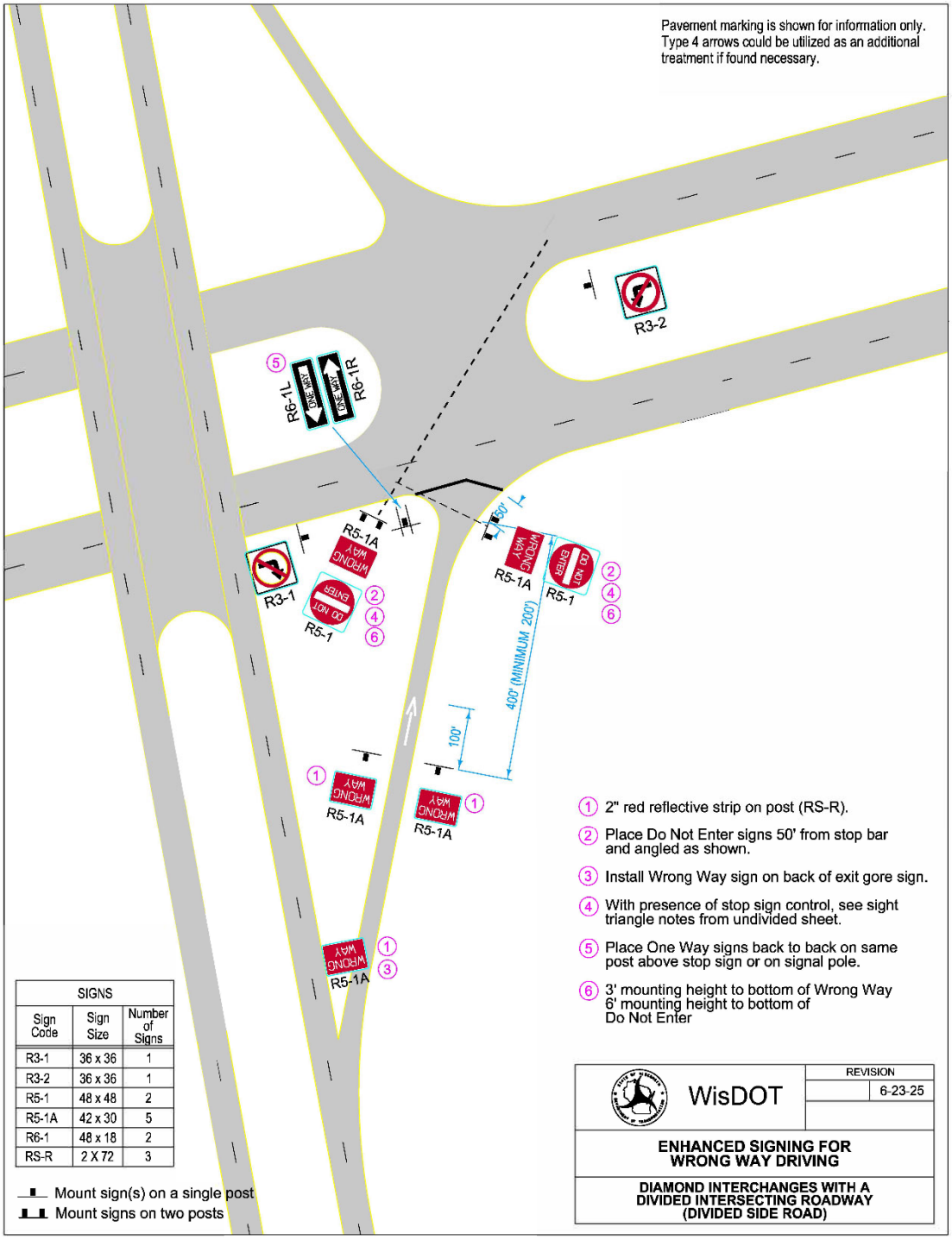

Pavement marking is shown for information only. Type 4 arrows could be utilized as an additional treatment if found necessary.
R3-2
R6-1L
ONE WAY
ONE WAY
R6-1R
R5-1A
WRONG WAY
R3-1
DO NOT ENTER
R5-1
50'
400' (MINIMUM 200')
100'
1 2" red reflective strip on post (RS-R).
2 Place Do Not Enter signs 50' from stop bar and angled as shown.
3 Install Wrong Way sign on back of exit gore sign.
4 With presence of stop sign control, see sight triangle notes from undivided sheet.
5 Place One Way signs back to back on same post above stop sign or on signal pole.
6 3' mounting height to bottom of Wrong Way 6' mounting height to bottom of Do Not Enter
SIGNS
Sign Code | Sign Size | Number of Signs
R3-1 | 36 x 36 | 1
R3-2 | 36 x 36 | 1
R5-1 | 48 x 48 | 2
R5-1A | 42 x 30 | 5
R6-1 | 48 x 18 | 2
RS-R | 2 X 72 | 3
Mount sign(s) on a single post
Mount signs on two posts
WisDOT
REVISION
6-23-25
ENHANCED SIGNING FOR WRONG WAY DRIVING
DIAMOND INTERCHANGES WITH A DIVIDED INTERSECTING ROADWAY (DIVIDED SIDE ROAD)

Figure 4

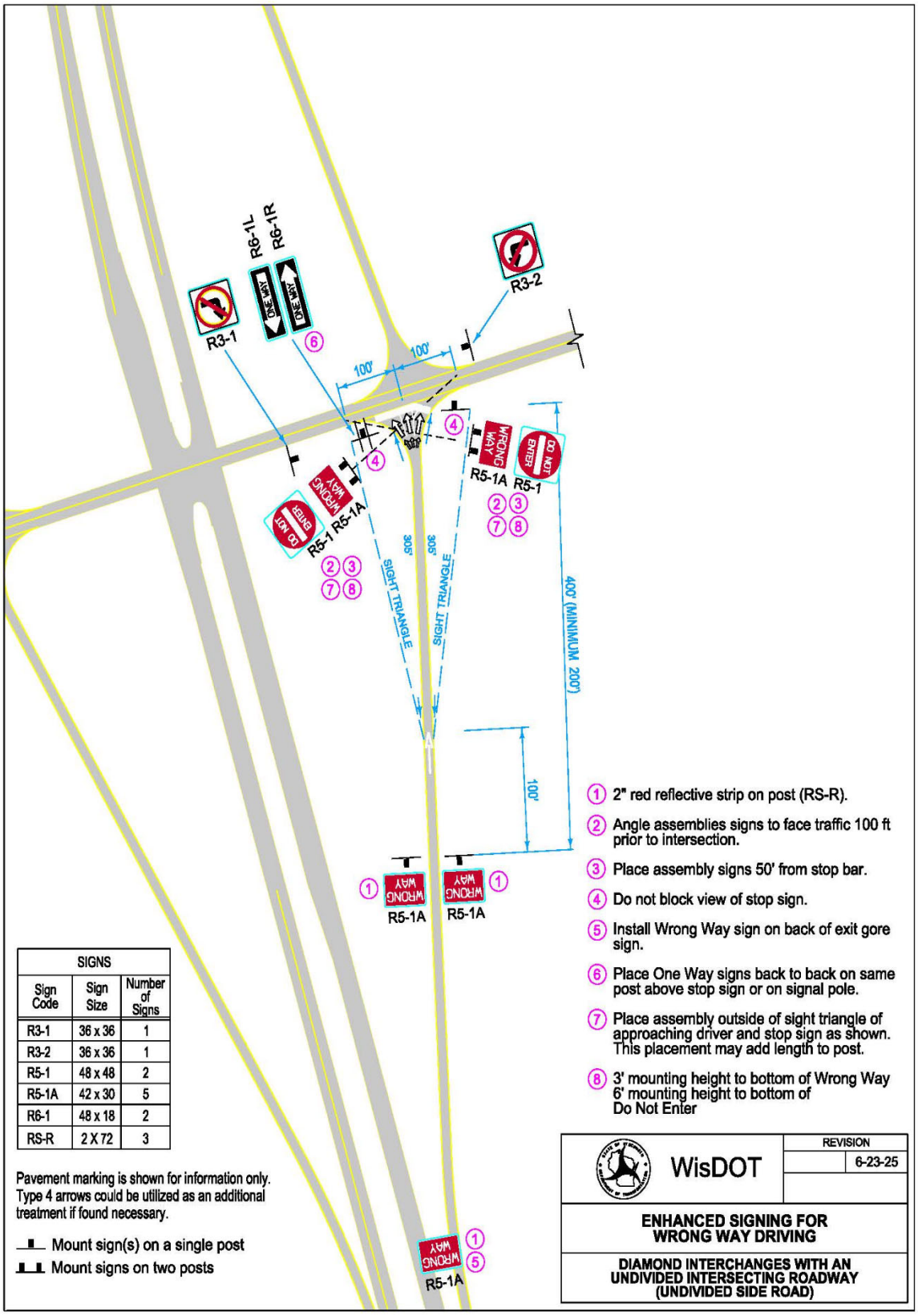
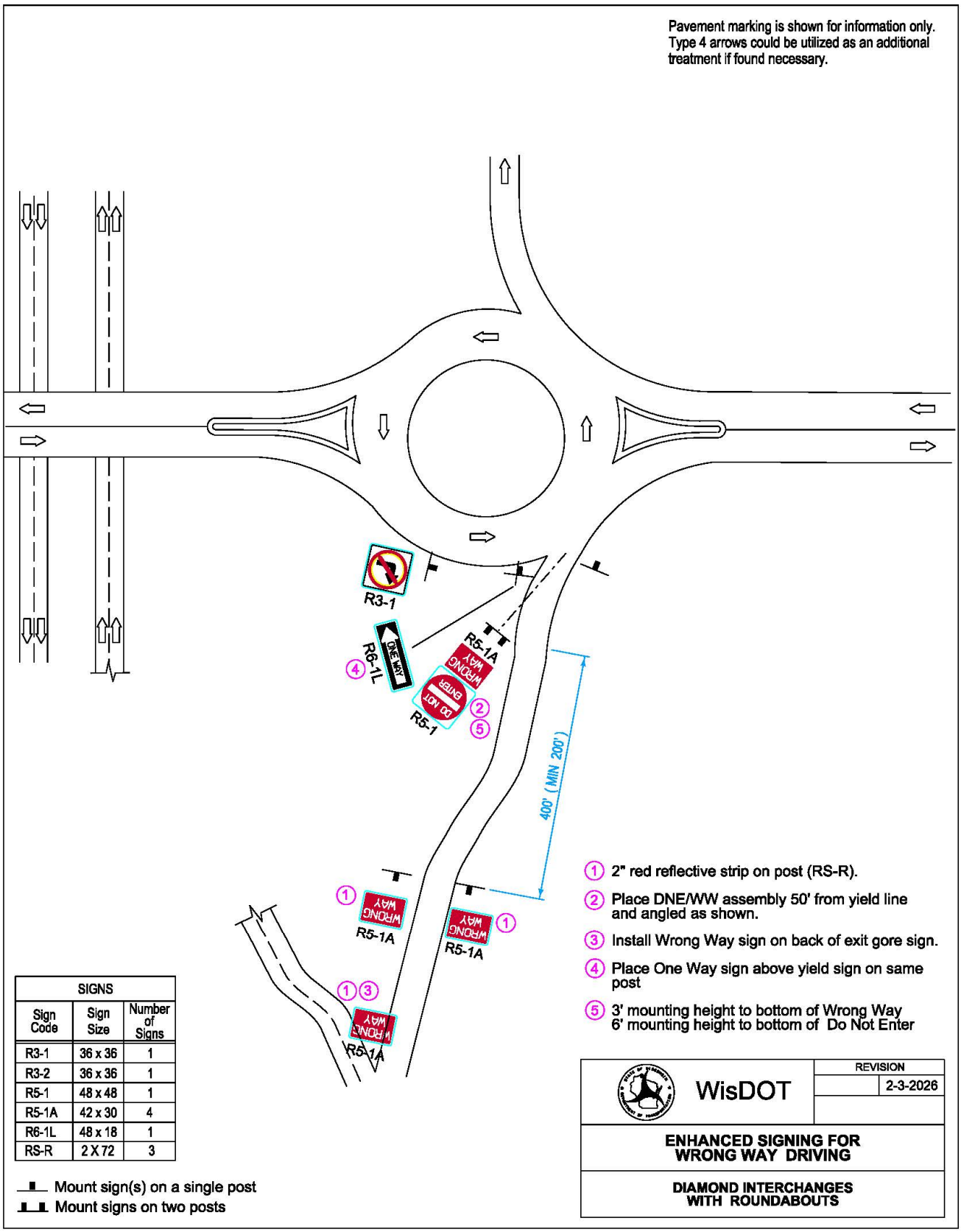
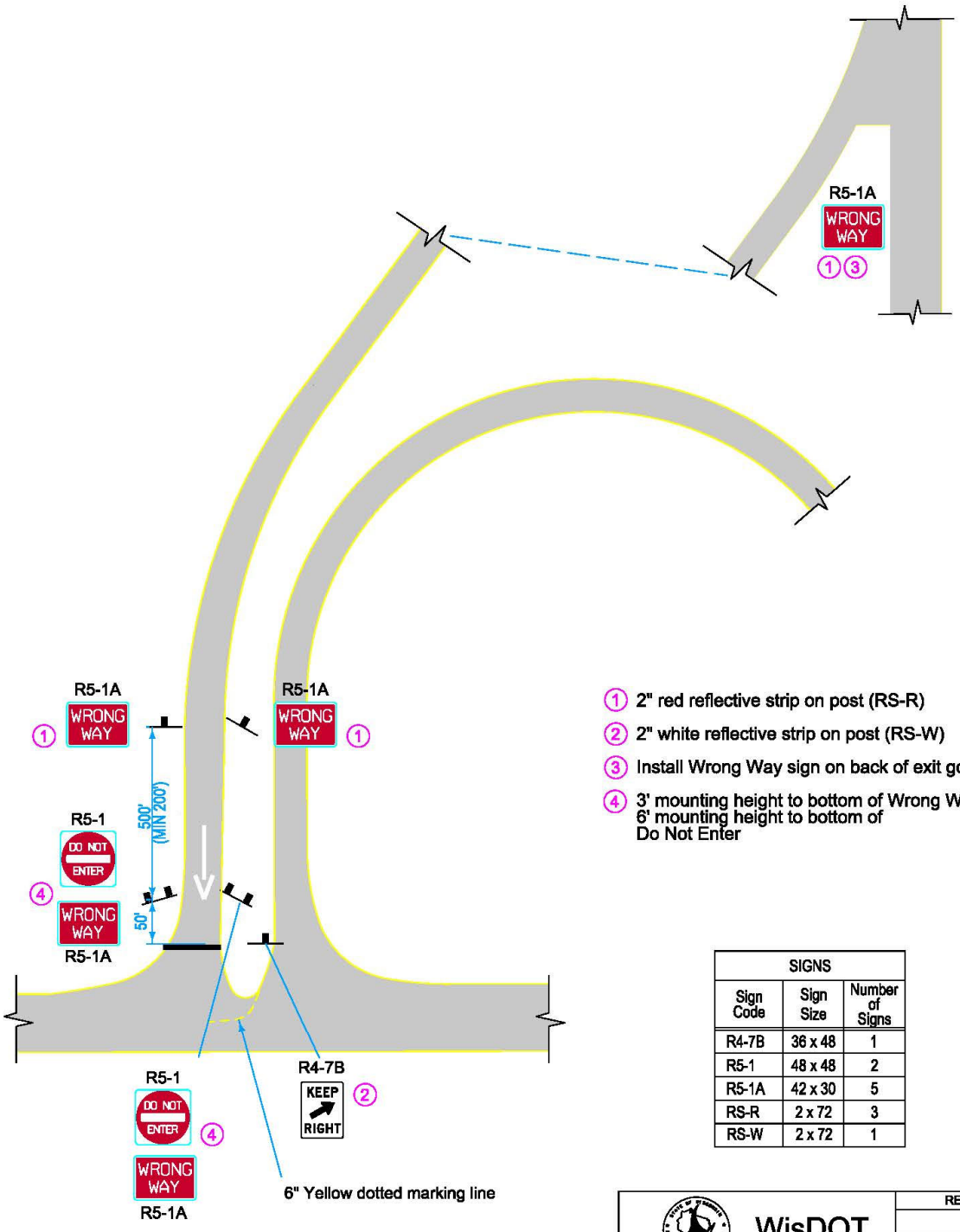

R6-1L
R6-1R
ONE WAY
ONE WAY
R3-1
R3-2
6
100'
100'
4
WRONG WAY
R5-1A
DO NOT ENTER
R5-1
2 3 7 8
305'
305'
SIGHT TRIANGLE
SIGHT TRIANGLE
400' (MINIMUM 200')
100'
1
WRONG WAY
R5-1A
1 2" red reflective strip on post (RS-R).
2 Angle assemblies signs to face traffic 100 ft prior to intersection.
3 Place assembly signs 50' from stop bar.
4 Do not block view of stop sign.
5 Install Wrong Way sign on back of exit gore sign.
6 Place One Way signs back to back on same post above stop sign or on signal pole.
7 Place assembly outside of sight triangle of approaching driver and stop sign as shown. This placement may add length to post.
8 3' mounting height to bottom of Wrong Way
6' mounting height to bottom of Do Not Enter
SIGNS
Sign Code | Sign Size | Number of Signs
R3-1 | 36 x 36 | 1
R3-2 | 36 x 36 | 1
R5-1 | 48 x 48 | 2
R5-1A | 42 x 30 | 5
R6-1 | 48 x 18 | 2
RS-R | 2 X 72 | 3
Pavement marking is shown for information only. Type 4 arrows could be utilized as an additional treatment if found necessary.
Mount sign(s) on a single post
Mount signs on two posts
WisDOT
REVISION
6-23-25
ENHANCED SIGNING FOR WRONG WAY DRIVING
DIAMOND INTERCHANGES WITH AN UNDIVIDED INTERSECTING ROADWAY (UNDIVIDED SIDE ROAD)

Figure 5



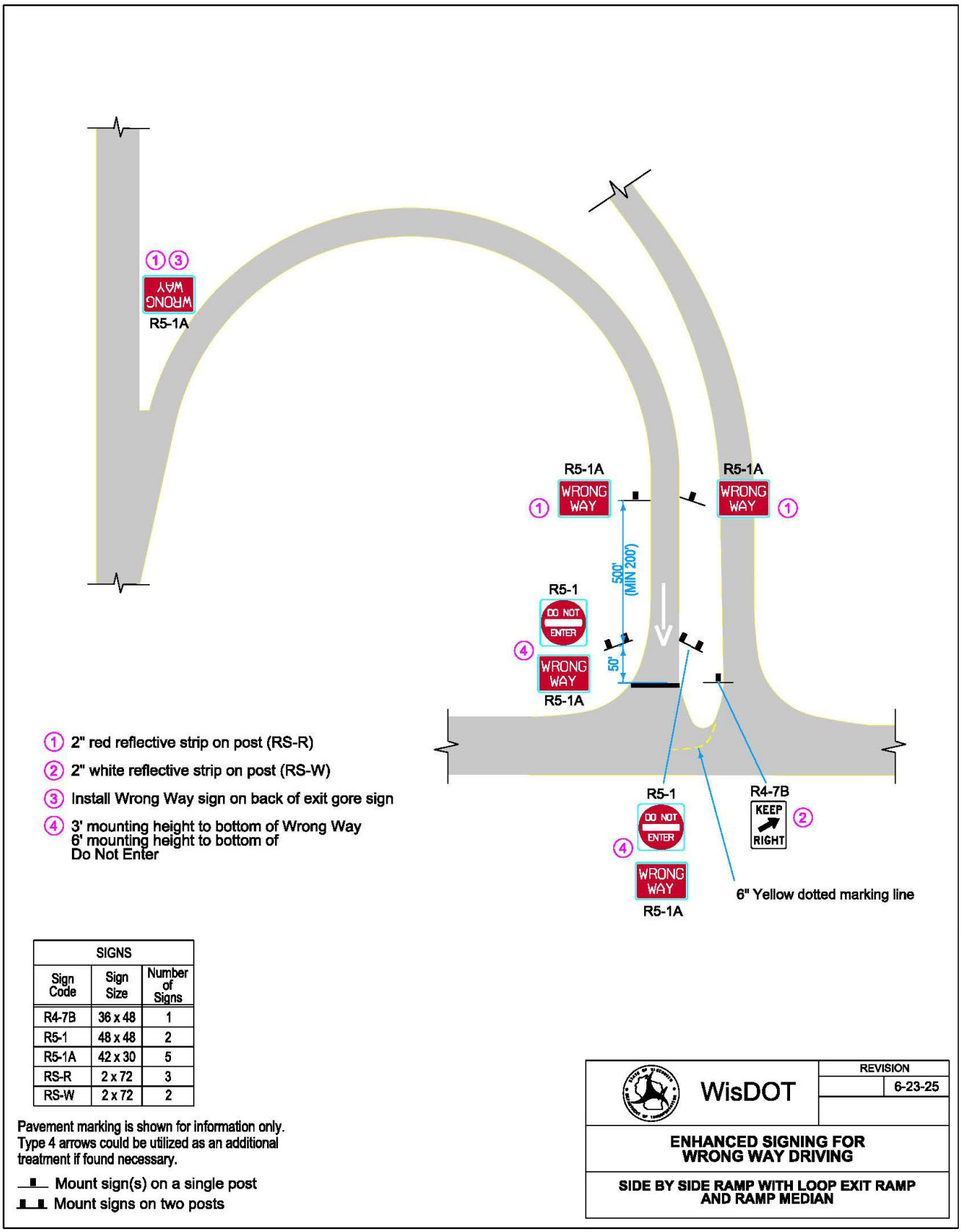
SIGNS		
Sign Code	Sign Size	Number of Signs
R3-1	36 x 36	1
R3-2	36 x 36	1
R5-1	48 x 48	1
R5-1A	42 x 30	4
R6-1L	48 x 18	1
RS-R	2 X 72	3

Figure 6



SIGNS		
Sign Code	Sign Size	Number of Signs
R4-7B	36 x 48	1
R5-1	48 x 48	2
R5-1A	42 x 30	5
RS-R	2 x 72	3
RS-W	2 x 72	1

Figure 7



SIGNS		
Sign Code	Sign Size	Number of Signs
R4-7B	36 x 48	1
R5-1	48 x 48	2
R5-1A	42 x 30	5
RS-R	2 x 72	3
RS-W	2 x 72	2

Pavement marking is shown for information only.
Type 4 arrows could be utilized as an additional treatment if found necessary.

Mount sign(s) on a single post

Mount signs on two posts

WisDOT

REVISION
6-23-25

ENHANCED SIGNING FOR WRONG WAY DRIVING

SIDE BY SIDE RAMP WITH LOOP EXIT RAMP AND RAMP MEDIAN

Figure 8

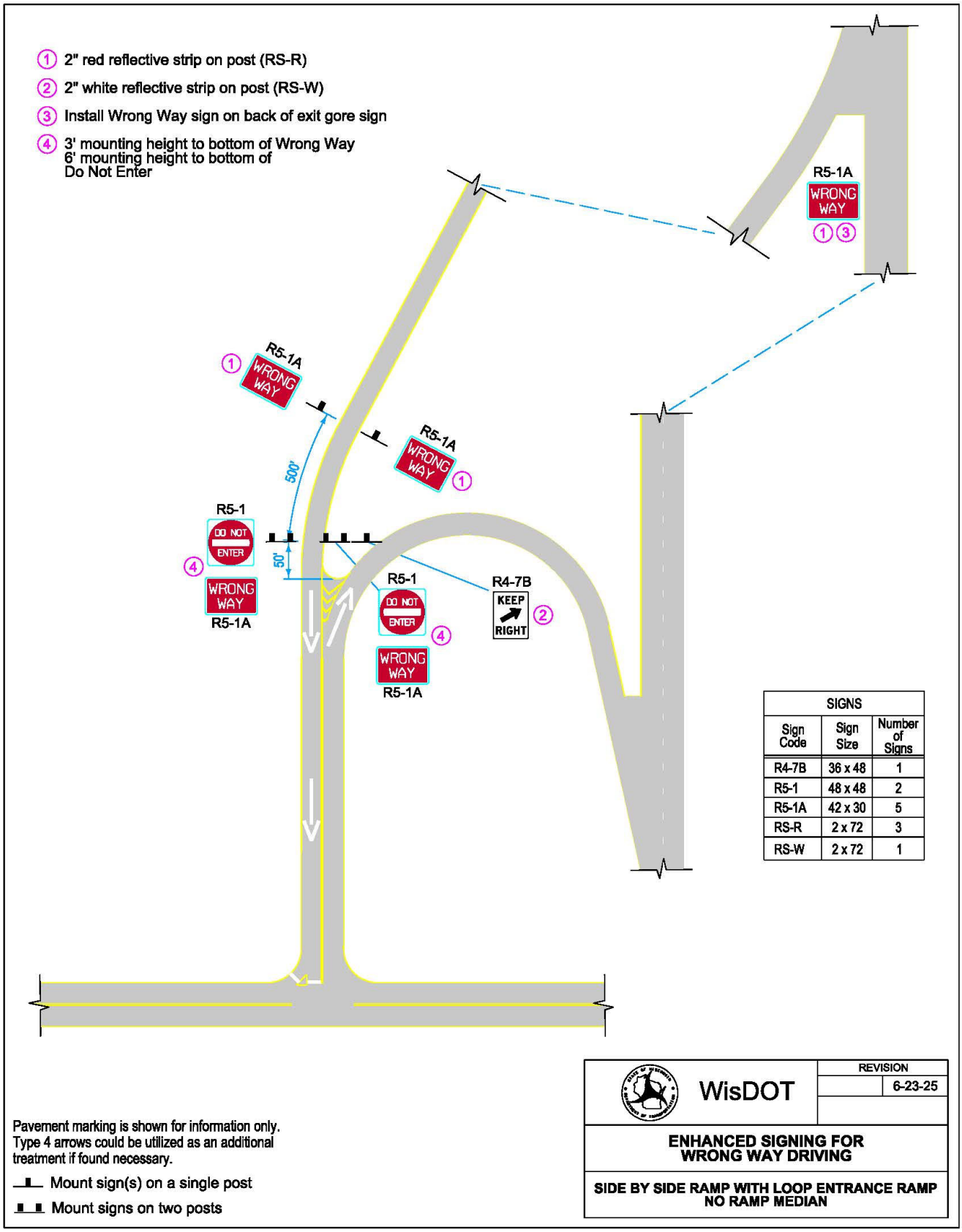
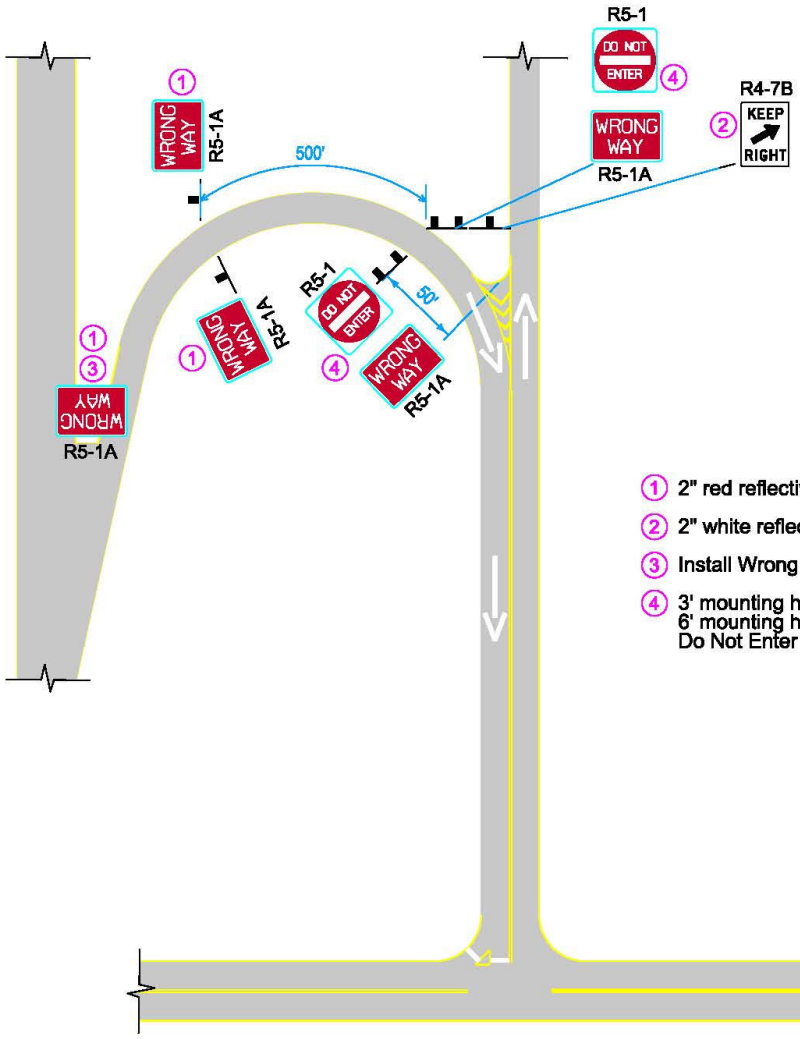

1 2" red reflective strip on post (RS-R)
2 2" white reflective strip on post (RS-W)
3 Install Wrong Way sign on back of exit gore sign
4 3' mounting height to bottom of Wrong Way
6' mounting height to bottom of
Do Not Enter
R5-1A
WRONG WAY
R5-1
DO NOT ENTER
R4-7B
KEEP RIGHT
500'
50'
SIGNS
Sign Code | Sign Size | Number of Signs
R4-7B | 36 x 48 | 1
R5-1 | 48 x 48 | 2
R5-1A | 42 x 30 | 5
RS-R | 2 x 72 | 3
RS-W | 2 x 72 | 1
Pavement marking is shown for information only.
Type 4 arrows could be utilized as an additional treatment if found necessary.
Mount sign(s) on a single post
Mount signs on two posts
WisDOT
REVISION
6-23-25
ENHANCED SIGNING FOR WRONG WAY DRIVING
SIDE BY SIDE RAMP WITH LOOP ENTRANCE RAMP
NO RAMP MEDIAN

Figure 9



1. 2" red reflective strip on post (RS-R)
2. 2" white reflective strip on post (RS-W)
3. Install Wrong Way sign on back of exit gore sign
4. 3' mounting height to bottom of Wrong Way
   6' mounting height to bottom of
   Do Not Enter

SIGNS		
Sign Code	Sign Size	Number of Signs
R4-7B	36 x 48	1
R5-1	48 x 48	2
R5-1A	42 x 30	5
RS-R	2 x 72	3
RS-W	2 x 72	1

Pavement marking is shown for information only.
Type 4 arrows could be utilized as an additional treatment if found necessary.

Mount sign(s) on a single post

Mount signs on two posts

WisDOT

REVISION	
	6-23-25

ENHANCED SIGNING FOR WRONG WAY DRIVING

SIDE BY SIDE RAMP WITH LOOP EXIT RAMP NO RAMP MEDIAN

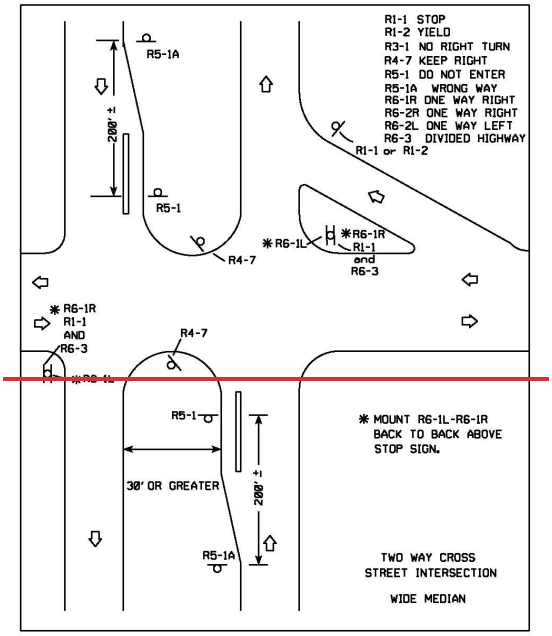


FIG. 1 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

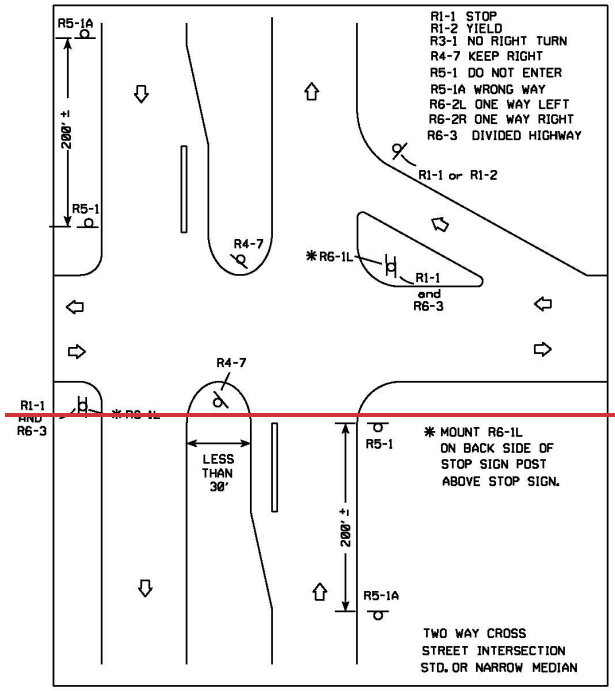


FIG. 2 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

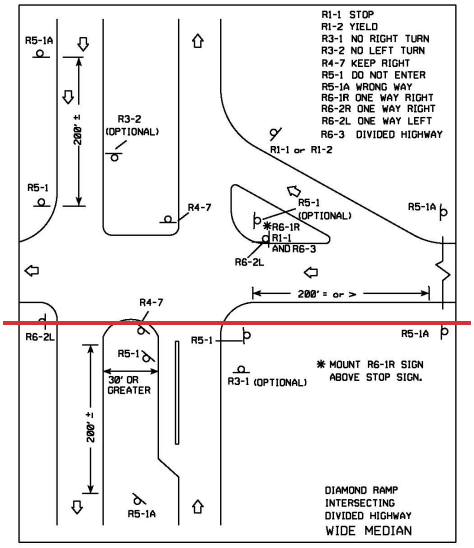


FIG. 3 WRONG WAY SIGNING RELATIVE TO RAMP.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

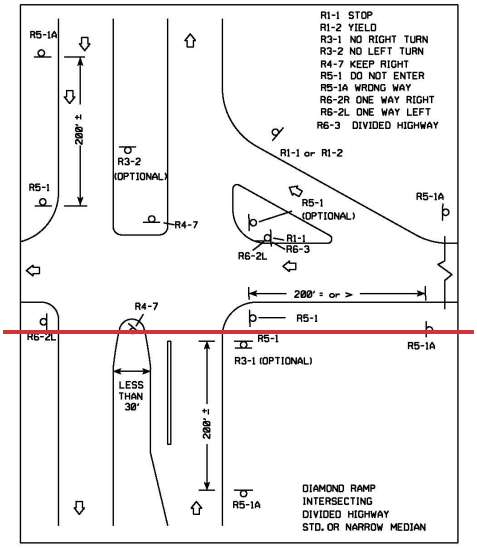


FIG. 4 WRONG WAY SIGNING RELATIVE TO RAMP.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

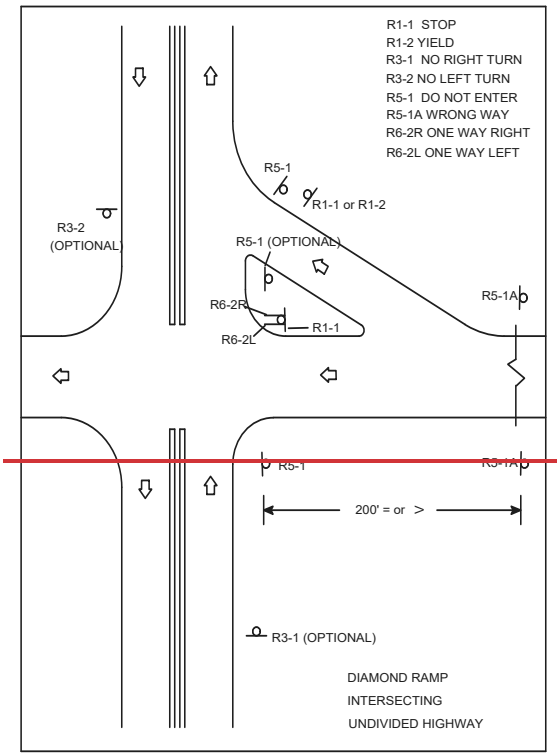
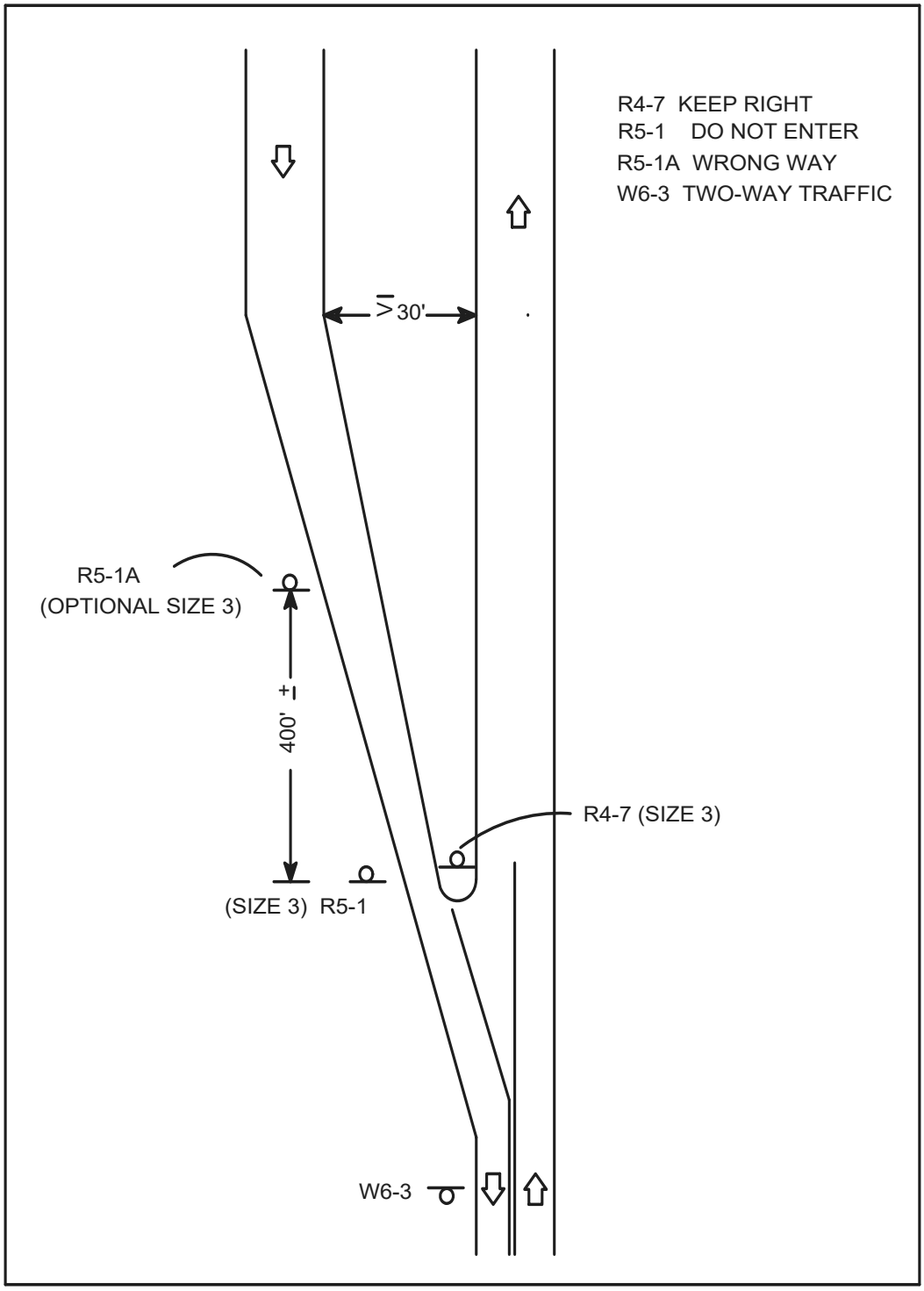


FIG. 5 WRONG WAY SIGNING RELATIVE TO RAMP.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

Figure 10. Transition from Two-Way Undivided Highway to Divided Highway



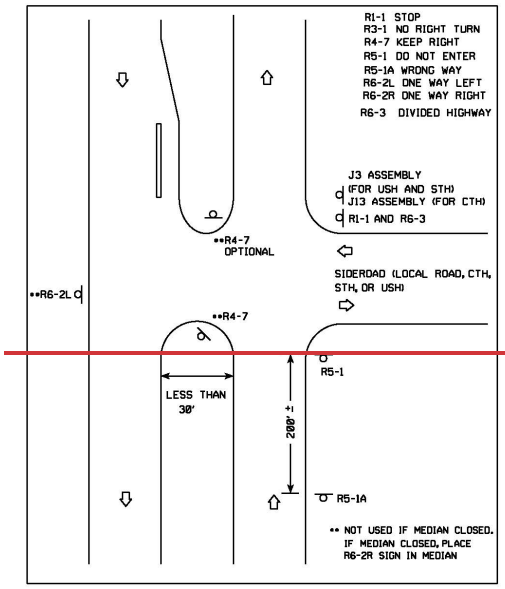


FIG. 7 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

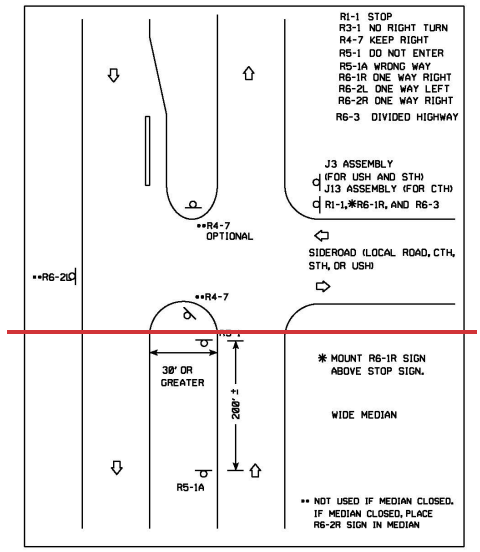
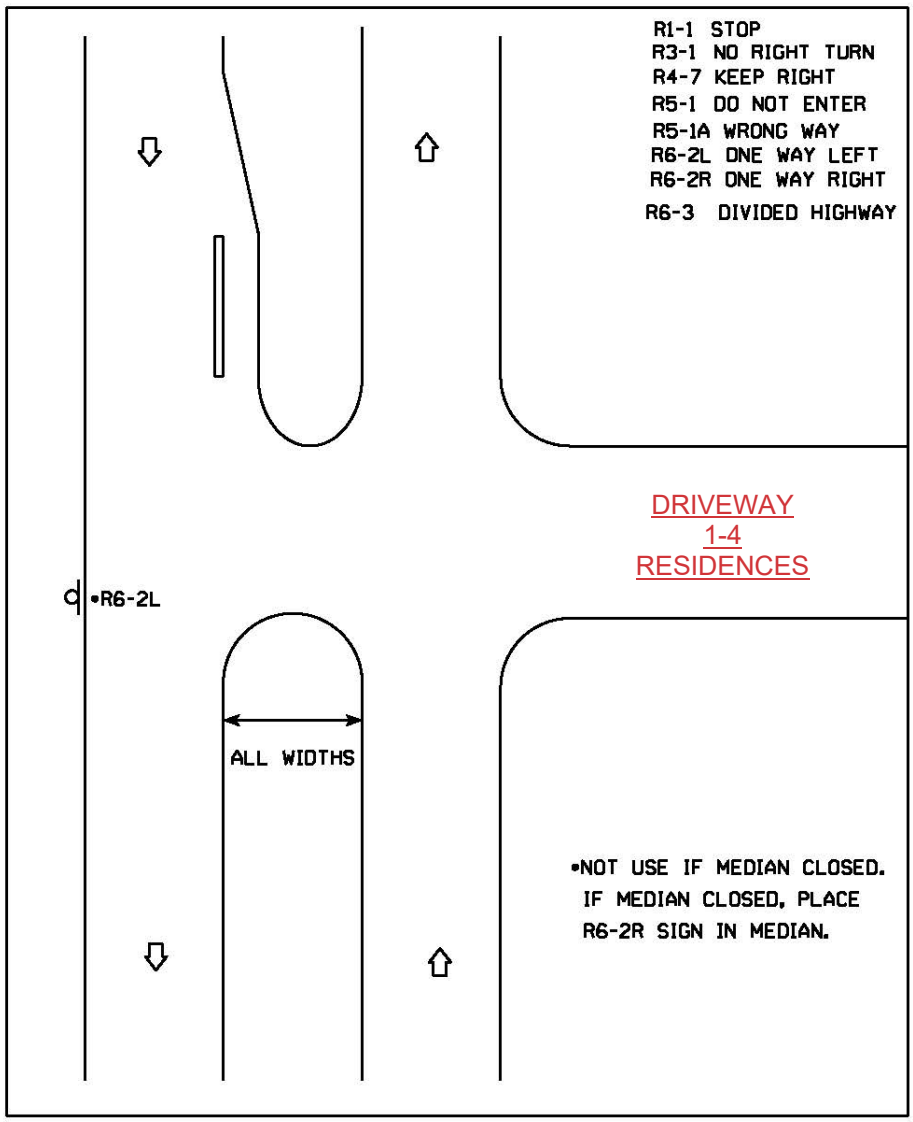


FIG. 8 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

Figure 11


R1-1 STOP
R3-1 NO RIGHT TURN
R4-7 KEEP RIGHT
R5-1 DO NOT ENTER
R5-1A WRONG WAY
R6-2L ONE WAY LEFT
R6-2R ONE WAY RIGHT
R6-3 DIVIDED HIGHWAY
DRIVEWAY
1-4
RESIDENCES
•R6-2L
ALL WIDTHS
•NOT USE IF MEDIAN CLOSED.
IF MEDIAN CLOSED, PLACE
R6-2R SIGN IN MEDIAN.

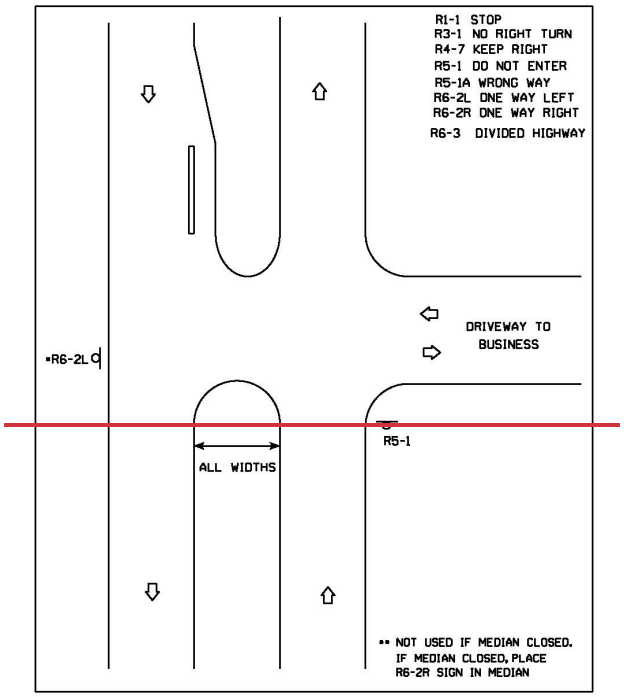


FIG. 10 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

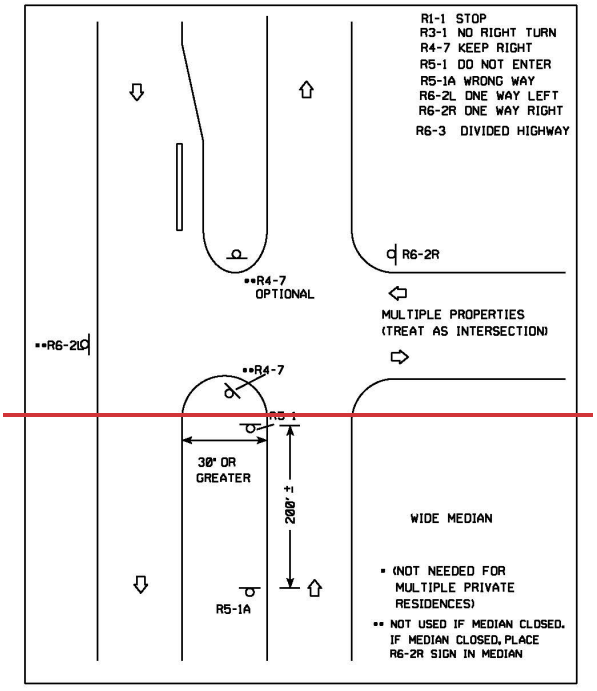


FIG. 11 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

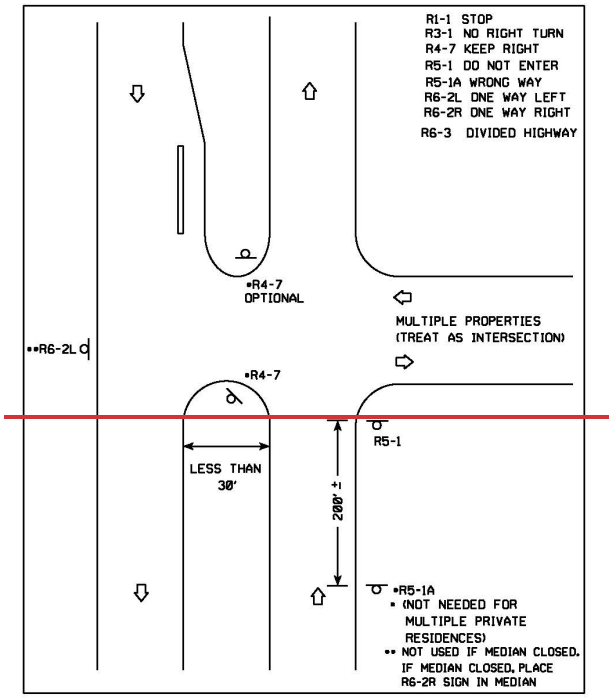
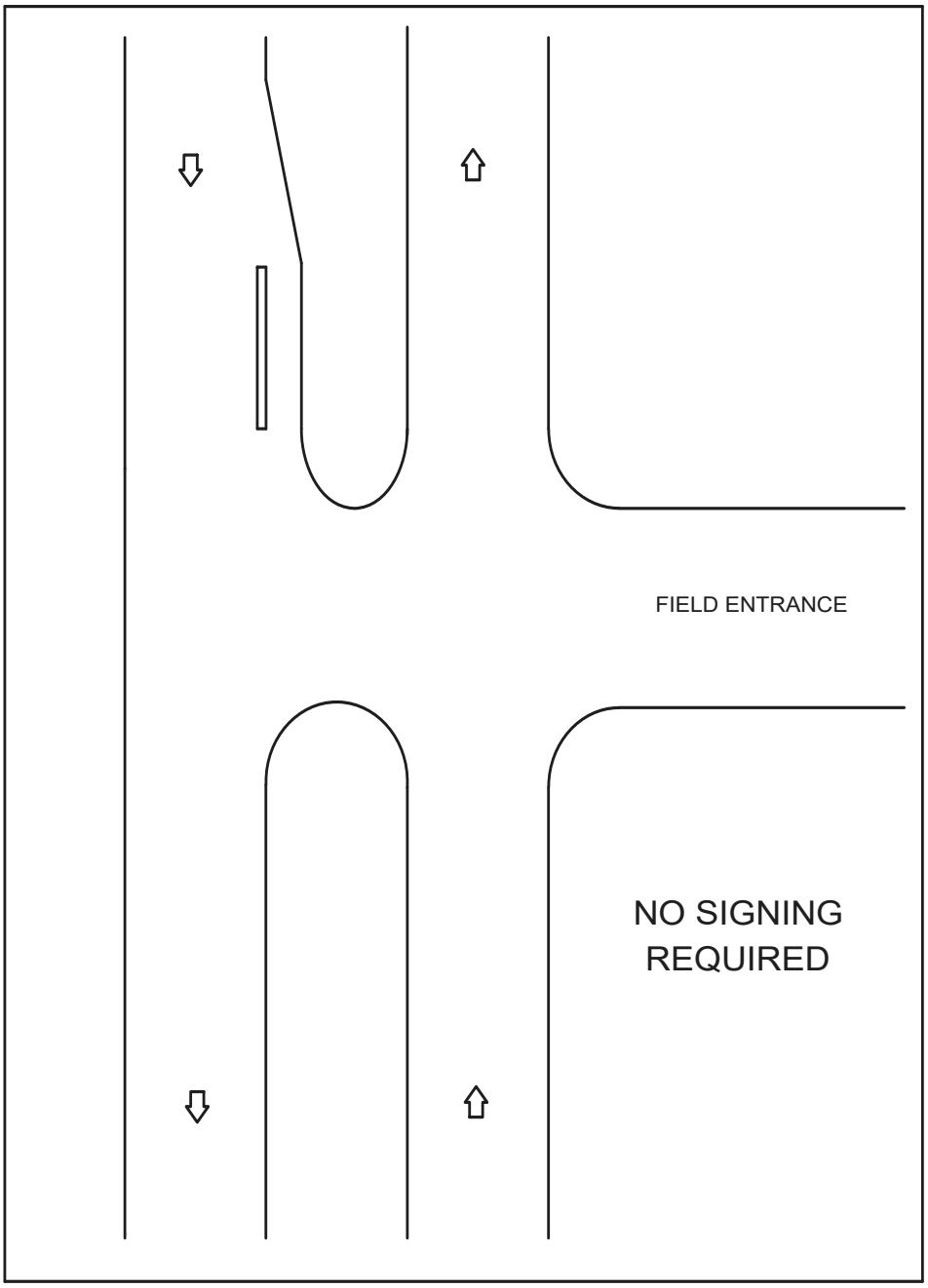


FIG. 12 WRONG WAY SIGNING RELATIVE TO DIVIDED HIGHWAY.

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT.

Figure 12



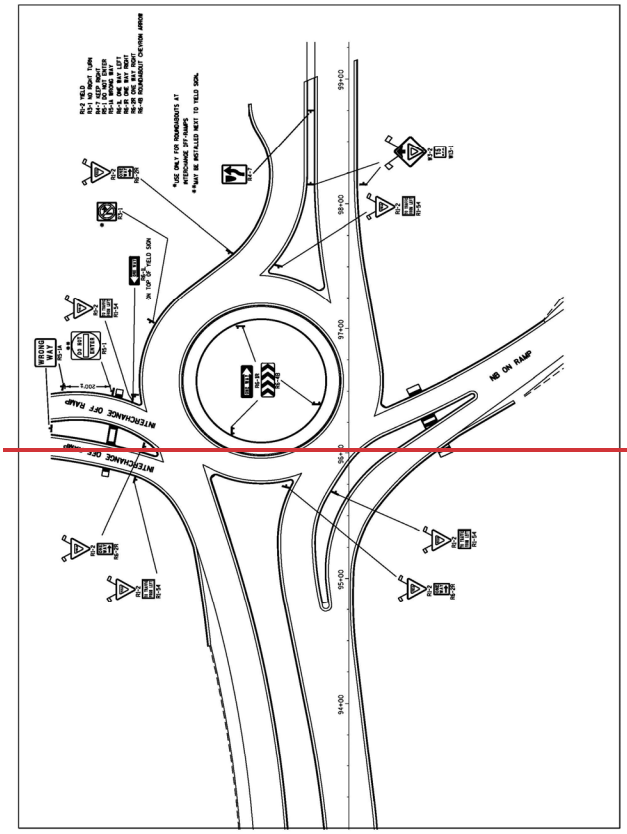


FIG. 14 WRONG WAY SIGNING RELATIVE TO ROUNDABOUT

NOTE: SIGNING IS SHOWN AS TYPICAL SIGN PLACEMENT. FIELD CONDITIONS MAY DICTATE CHANGES IN SIGN PLACEMENT

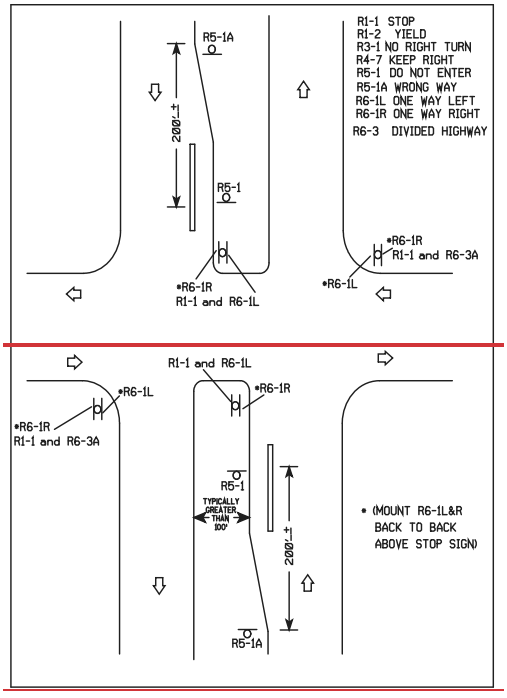


Figure 13

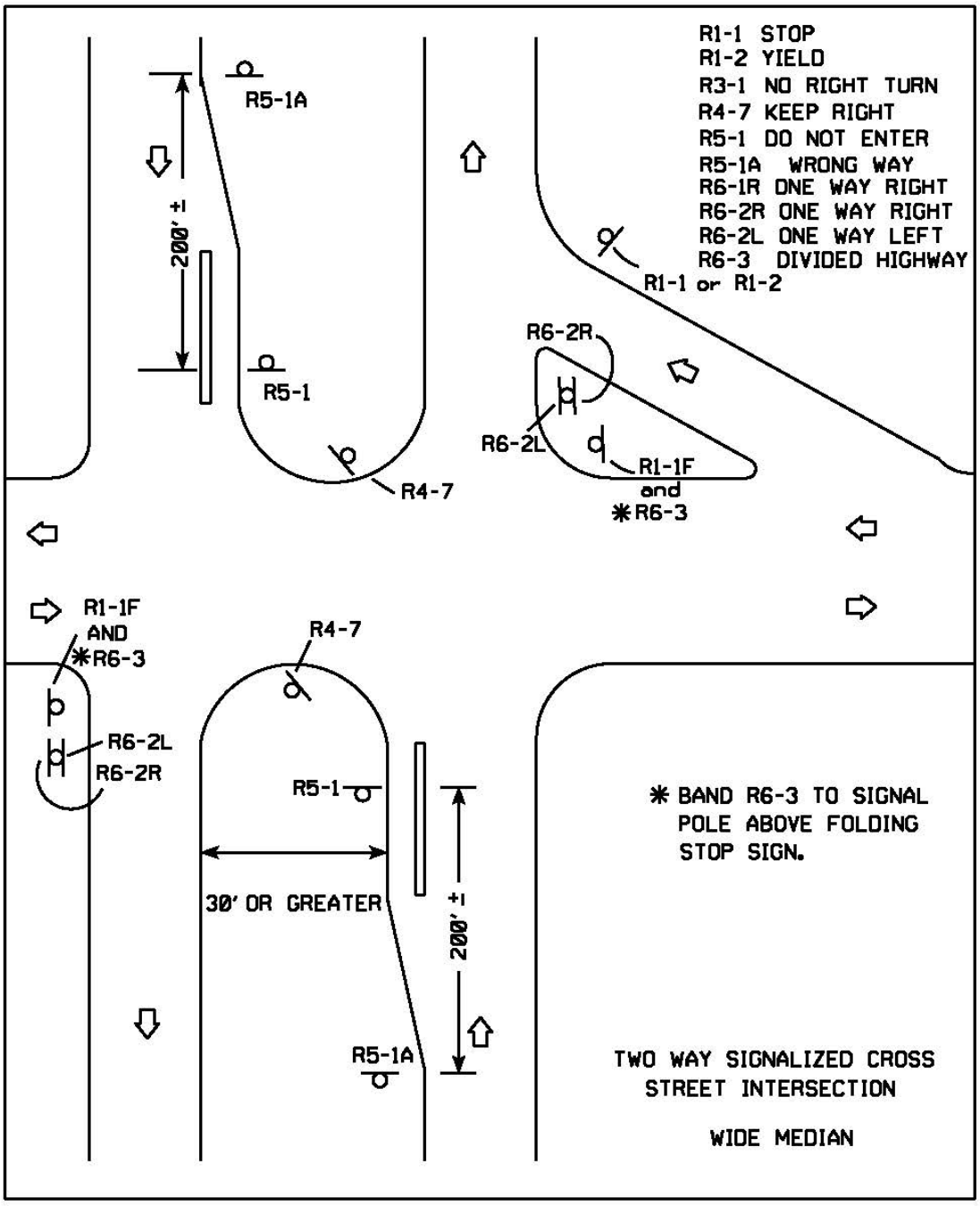
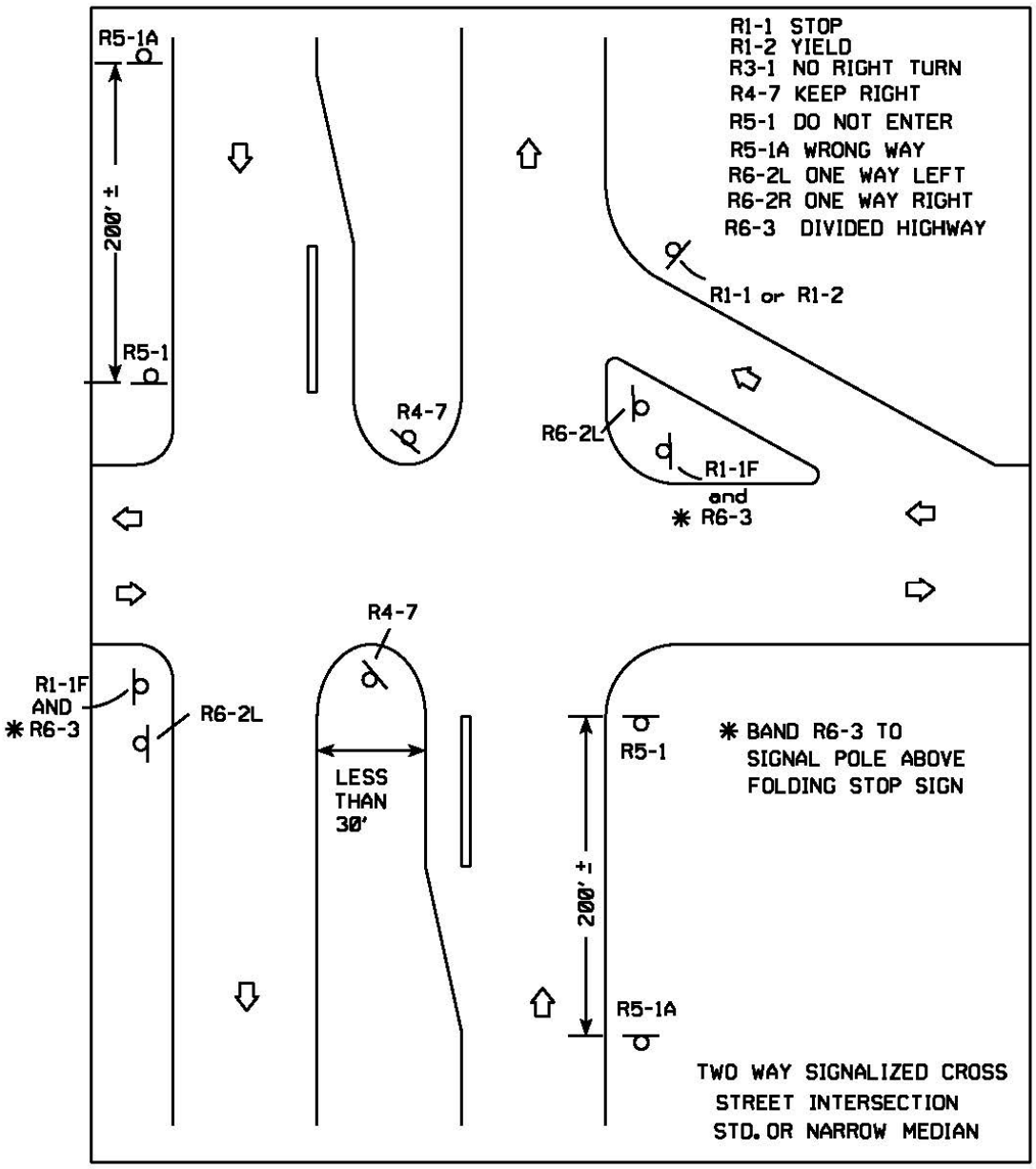

R1-1 STOP
R1-2 YIELD
R3-1 NO RIGHT TURN
R4-7 KEEP RIGHT
R5-1 DO NOT ENTER
R5-1A WRONG WAY
R6-1R ONE WAY RIGHT
R6-2R ONE WAY RIGHT
R6-2L ONE WAY LEFT
R6-3 DIVIDED HIGHWAY
R5-1A
200' +1
R5-1
R4-7
R1-1 or R1-2
R6-2R
R6-2L
R1-1F
and
*R6-3
R1-1F
AND
*R6-3
R6-2L
R6-2R
R4-7
R5-1
30' OR GREATER
200' +1
R5-1A
* BAND R6-3 TO SIGNAL POLE ABOVE FOLDING STOP SIGN.
TWO WAY SIGNALIZED CROSS STREET INTERSECTION
WIDE MEDIAN

Figure 14



2-15-15 Recreational Trail Signing January 2015

PURPOSE

This policy provides guidance for the installation of guide signs to direct traffic to major access points for public recreational trails. This policy does not address warning signs that *may* apply to locations where the recreational trail crosses a highway.

DEFINITION

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two-lane or multilane facilities.

POLICY

The following criteria **shall** apply for a trail to be eligible for signing on WisDOT-maintained roadways:

1. Public recreational trails owned and/or managed by the state government **shall** be the only trails that qualify for signing on freeways.
2. Public recreational trails owned and/or managed by the state or county government, or by a multi-state agency or commissions **shall** be the only trails that qualify for signing on expressways.
3. Public recreational trails owned and/or managed by the state or county government, by a multi-state agency or commission, or by a city, village, or township *may* be signed for on conventional highways.
4. All trailblazing signing off the State Trunk Highway system **shall** be in place prior to the installation of any signs on the State Trunk Highway system.
5. The trail **shall** be constructed and maintained to Wisconsin DNR standards, with an improved surface of compacted aggregate or better and be open year round. National Trails, as established by Congress, on the National Trails System with a natural surface *may* qualify for signing, provided the access points to be signed meet all other applicable criteria, including off-street parking facilities.
6. Evidence of poor trail maintenance or inadequate or poor trailblazing signage will be cause to remove any existing signs from the State Trunk Highway system.
7. The message on the signs *should* read "XX State Trail" for state owned trails and "XX Trail" for county, regional, city, village or township trails. The signs **shall** be composed of white lettering on a brown background.
8. For all roadways, only the trail termini will be signed. Intermediate access points *may* qualify for signing. The intermediate access points **shall** be spaced a minimum of 15 miles. A maximum of 2 signs **shall** be installed, one in each direction of travel, for each trail access point to be signed. For freeways and expressways, a directional sign (D1 sign) **shall** be placed on the freeway/expressway ramp to lead to the trail access.
9. Trail termini and intermediate access points *should* have the following amenities:
    a. Public restrooms or toilets on freeways and expressways, but are optional on conventional highways
    b. Public, off-street paved or gravel parking facilities
    c. Trail information
10. Where trail access points from two different trails have the same point of access from the State Trunk Highway, both trail names **shall** be identified on the same sign.
11. These signs **shall** be placed at the closest State Trunk Highway intersections to the trail termini. Trailblazing signing from a conventional State Trunk Highway to another conventional State Trunk Highway will not be allowed.
12. For freeways, expressways, and conventional highways, trail access points **shall** be no more than 5 miles from the nearest exit or State Trunk Highway.
13. The cost for fabrication, installation, and maintenance of any recreational trail signing **shall** be the responsibility of the trail owner or managing organization or agency. WisDOT **shall** coordinate the fabrication, installation, and maintenance of all signs on State Trunk Highways, including ramps, and **shall** be reimbursed for all costs. Installation of signs *may* be performed by WisDOT forces or by permit/letter.

2-15-16 ATV Route Signing

~~November 2015~~November 2026

PURPOSE

Section 23.33(1)(c) Wisconsin Statute defines an all-terrain vehicle (ATV) route as a highway or sidewalk designated for use by ATV operators by the governmental agency having jurisdiction as authorized under this section. In addition, s. 23.33(11)(am)(3) allows ATV operation on non-interstate highway bridges 1,000 feet in length or less by ordinance of the county and the municipality in which the bridge is located, regardless of jurisdiction.

At some locations on state trunk highway right of way, local agencies *may* erect signing for the purpose of directing and controlling ATV trail operations. This is permissible unless there is some problem generated by the existence of ATVs at specific locations. Signing for ATV trails and routes is described in Administrative Code NR 64.12 and also described with typical applications illustrated in WDNR's "Trail Signing Handbook", 2012. A copy of this book *should* be kept in each traffic section. This policy will clarify that handbook with regards to ATV use on WisDOT maintained highways.

DEFINITIONS

ATV crossing: A location where an ATV route or trail crosses, but does not run along, a highway.

ATV route: Any roadway or sidewalk properly designated for use by ATV operations per s. 23.33.

ATV trail: A marked corridor on public property or on private lands subject to public easement or lease, designated for use by all-terrain vehicle operators by the governmental agency having jurisdiction, but excluding roadways of highways except those roadways that are seasonally not maintained for motor vehicle traffic.

POLICY

ATV crossing warning signs:

1. ATV crossing warning signs (W11-50) are shown routinely in the WDNR Trail Signing Handbook. On state maintained highways, these signs **shall** only be installed by WisDOT, and only where warranted due to sight conditions, per the table in ~~Section 2C.46 of the MUTCD~~TEOpS 2-3-6.
2. WisDOT will assume the installation and maintenance costs for any ATV Trail crossing warning signs installed on the state highway system.

ATV Route guide signs and arrows:

The following policy criteria **shall** be used when ATV Route guide signs are requested from municipalities:

1. ATV Route signs (D11-10) **shall** be installed immediately downstream from where an ATV Route turns onto a State or US Highway. From a safety standpoint, it is desirable to keep ATVs on the shoulder; however, this *may* cause shoulder rutting issues, especially in locations where ATVs will tend to straddle the paved shoulder/gravel shoulder transition. For this reason, it *may* be desirable to supplement the initial D11-10 signs with "STAY ON PAVEMENT" (R4-55) or "STAY ON SHOULDER" (R4-55-S) signs, mounted directly below the D11-10 sign. Region maintenance *should* be consulted to determine if these signs are necessary. A second D11-10 sign **shall** be installed where the ATV Route turns off of the State or US Highway. This sign **shall** be supplemented with an appropriate M7 series arrow.
2. It *should* be noted that the WDNR Trail Signing Handbook shows a 6" x 12" "directional arrow" above a 6" x 6" ATV symbol sign at locations where the ATV route ends at an ATV trail. This combination of sign **shall not** be installed along ATV routes on State or US Highways. This "directional arrow" sign mimics the design of standard large one-direction (night) arrows. As ATV users will be using some or all of the traffic lane, these signs will be installed at the same offset and mounting height as other traffic signs. This could lead to motorist confusion. ATV routes on State or US Highways ending at ATV trails **shall** utilize the D11-10/M7 sign combinations.
3. The county or local municipality **shall** be required to obtain a permit (see TEOpS 2-15-3) for these signs from the WisDOT Region Traffic Engineer. The written request *should* contain:
    a. A copy of both the municipal and county ordinances
    b. A map showing the ATV Route

    The Region Traffic Engineer *should* contact Bureau of Highway Maintenance (BHM), State ROW Permits Engineer, to ensure that the county and municipal ordinances have been reviewed by WisDOT and WDNR. Signs **shall not** be erected until the ordinances are legally in effect. ~~The current BHM contact is Bob Fasick, (608) 266-3438.~~
4. WisDOT will set up a Professional and Technical Project ID to charge costs to and will coordinate manufacture and installation of the signs. All costs for the installation and maintenance of ATV Route signs **shall** be billed to the county or local municipality. For county requested signs, the Sales to Others process *may* be utilized in lieu of the P&T process.
5. All ATV Route signs, auxiliary arrows and plaques, and ATV crossing signs on State or US Highways **shall** be installed on WisDOT standard breakaway supports. Mounting height and offset **shall** follow sign plate A4-3.

Other comments on the WDNR Trail Signing Handbook:

1. Any and all responsibility for signing along trail, off of the state highway, is local, including installation and maintenance.
2. Regarding illustrations in the book:
    a. Warning signs on the trail when visible from the highway *should* be the minimum size specified.
    b. Orange markers on the right-of-way would usually be unnecessary except to mark a turn.
    c. STOP signs are shown too close to the highway. They *should* be back of the snowplowing range, at least 20' from the pavement and desirably more.
    d. STOP signs *should* be parallel to the highway, and the trail approaching the highway *should* be aligned to be as near to a right angle as possible.
3. ~~On page 14 of the handbook:~~ If requested WisDOT will install and maintain guide signs for trail head parking lots. The signs *should* contain the word "Parking".
4. Trail sign posts on the right of way installed by local agencies **shall** meet the same small support safety standards as those erected by WisDOT.
5. Trail signs **shall not** be attached to any of WisDOT's signposts.

ADDITIONAL INFORMATION

BHM has developed a comprehensive policy on ATV routes and Trails that is available at HMM 09-10-11.

2-15-20 Cemetery Signing — April 2022

PURPOSE

This policy provides guidance for the permitting of signs on WisDOT-maintained roadways directing road users to certain cemeteries. These guidelines apply to conventional highways, expressways, and freeways.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

Conventional highways are defined as either divided or undivided roadway facilities that have no control of access with grade separations at intersections. These highways can be two-lane or multi-lane.

POLICY

The following criteria **shall** apply for a cemetery to be eligible for signing on WisDOT maintained roadways:

1. Only veterans' cemeteries that are exclusively for veterans and that are owned and/or managed by the state or national Department of Veterans Affairs are eligible to be permitted for signing under this policy. The primary function of the facility **shall** be a cemetery. Presently, the Northern Wisconsin Veterans Memorial Cemetery in Spooner, the Southern Wisconsin Veterans Memorial Cemetery near Union Grove, and the Northwoods National Cemetery in Harshaw are the only three veterans cemeteries that qualify for signage under this policy.
2. All other cemeteries **shall** not be signed on WisDOT maintained roadways.
3. Signing from one conventional State Trunk Highway to another conventional State Trunk Highway will not be allowed. Any necessary signing off of the State Trunk Highway system **shall** be in place prior to the installation of any signs on the State Trunk Highway system.
4. The signs **shall** be white message on green background.
5. On conventional highways, signs *should* be erected a minimum of 500 feet in advance of the intersection or cemetery entrance.
6. On freeways and expressways, signs *should* be erected within one mile in advance of the exit ramp or side road. Destination signs (D1-1 signs) **shall** be erected at or near the end of the exit ramp or side

road approach.

7. For freeways, expressways, and conventional highways, the cemetery **shall** be no more than 5 miles from the nearest exit or State Trunk Highway.
8. The cost for fabrication, installation, and maintenance of this signing **shall** be the responsibility of the cemetery owner or managing organization or agency. WisDOT **shall** coordinate the fabrication, installation, and maintenance of all signs on State Trunk Highways, including ramps, and **shall** be reimbursed for all costs.

2-15-30 Hydrant Signing November 2015

PURPOSE

Coordination with fire departments has indicated problems with limited identification of fire hydrant locations from the freeway or expressway. This is especially important in areas where the view of fire hydrants from the highway is obstructed. It has been learned that response to freeway or expressway fires can be a two-squad operation. There is response time to the freeway or expressway fire scene, and there is response time to fire hydrants off of the highway right-of-way. The freeway or expressway response crew must coordinate location and hook-up to the hydrant. When location of the hydrant is uncertain, time is lost. The purpose of this guideline is to establish criteria on the usage of fire hydrant location signs and sign identification blades along noise walls.

DEFINITIONS

Freeways are defined as divided arterial highway facilities that have full controlled access, by means of grade separation at interchanges only.

Expressways are defined as divided arterial highway facilities that have partial control of access and generally with grade separations at major intersections.

POLICY

The placement of hydrant signs is most critical where the vision of the fire hydrant or local street from the highway (freeway or expressway) is restricted. Sounds walls are an excellent example of where vision is completely restricted. Topography of landscape *may* also hinder vision. It is the intent of the Department to install hydrant signs that satisfy the following conditions:

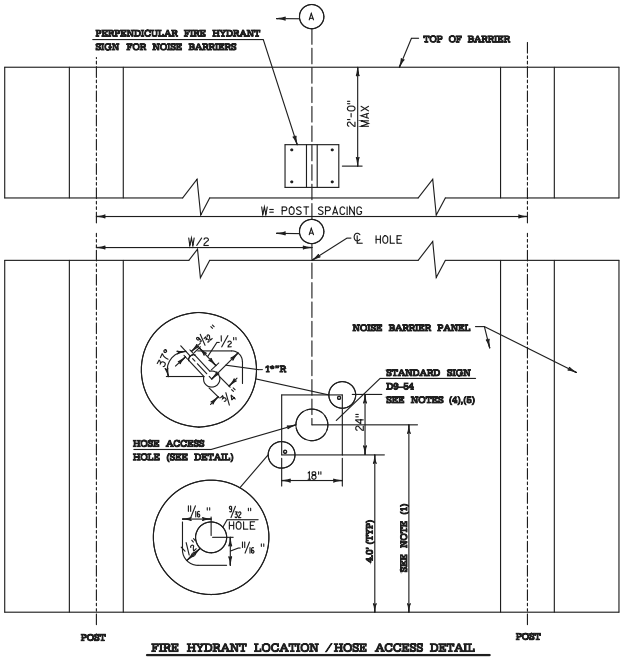
1. At all sound wall installations where the wall creates a visual and physical barrier between the roadway and the hydrant.
2. At locations where topography or landscape create a visual or physical barrier between the highway and the hydrant, the hydrant signs *should* be mounted either on posts or the right-of-way fence on the highway side.
3. At locations where crash experience is above average, and expeditious response is advantageous.
4. At locations where fire hose standpipes have been installed. Signs *should* be mounted on posts near the standpipe access joint.
5. The local fire department or fire district **shall** pay for all costs of the sign, sign blade and all mounting hardware. This includes the costs for initial installation and long-term maintenance. The Department *may* pay for the initial installation provided they are part of a project.

SIGN INSTALLATION

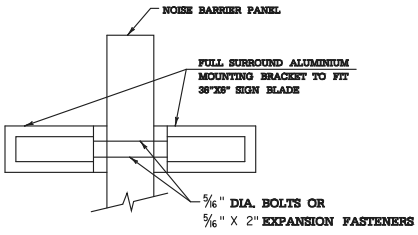
1. The hydrant sign (D9-54 sign) **shall** be placed, with movable capability, over the fire hose access hole (See Figure 1).
2. A two-sided sign blade (D9-54A sign) with blue Type H Reflective sheeting **shall** be placed on all new sound wall installations. Existing sound wall installations without the two-sided blade *should* be retrofitted with the blade as opportunities allow. The sign blade *should* be placed near the top of the sound wall on the highway side, above the fire hose access hole (See Figure 1).

Standard sign plate D9-54 (See Figure 2) has been developed for hydrant signs (See attached sign plate detail). The sign is white on green, containing a fire hydrant symbol and the approximate numerical address of the fire hydrant.

It is strongly encouraged that contact is made with the fire department jurisdictions responding to the freeway or expressway to verify the numerical address of the hydrant.

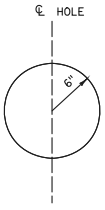


FIRE HYDRANT LOCATION /HOSE ACCESS DETAIL



SECTION A-A

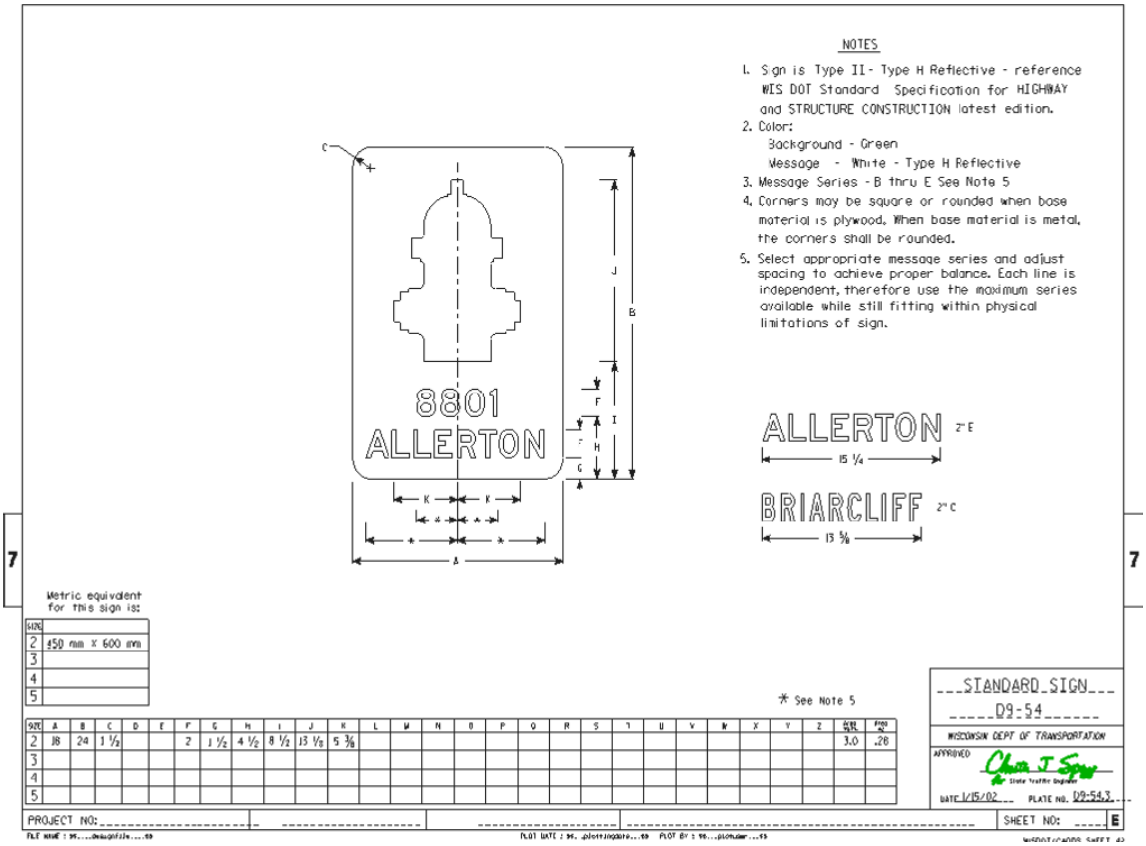
PERPENDICULAR FIRE HYDRANT SIGN FOR NOISE BARRIER

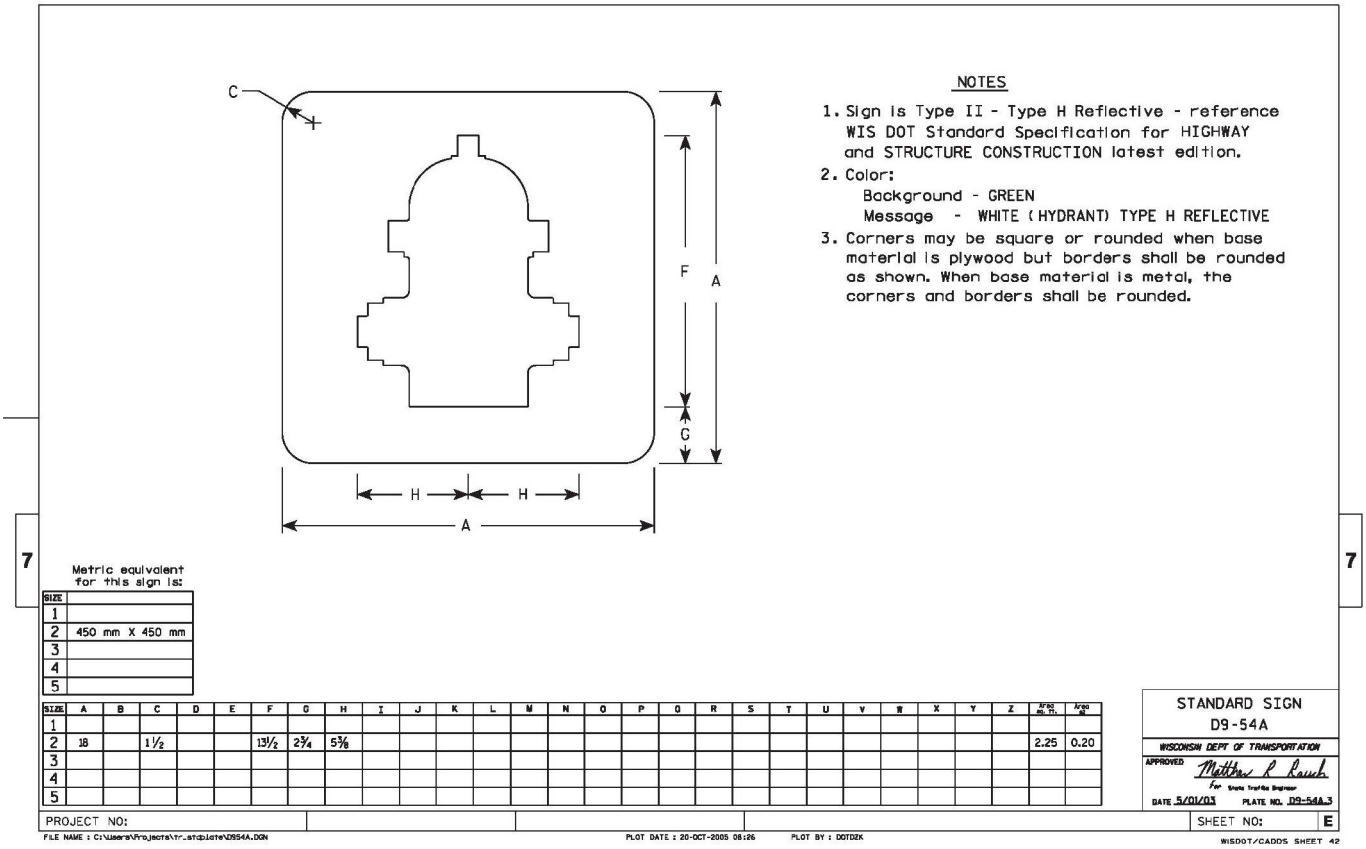


HOSE ACCESS HOLE DETAIL

NOTES:

1. STANDARD SIGNS D9-54 WILL BE FURNISHED BY THE CONTRACTOR. SEE PLAN.
2. THREE STANDARD SIGNS D9-54 TO BE FURNISHED PER STATION. ONE SIGN SHALL BE INSTALLED ON EACH SIDE OF THE BARRIER. ONE ADDITIONAL SIGN TO BE INSTALLED ON FENCE AT R/W LINE WITH MESSAGE FACING AWAY FROM FREEWAY.
3. ADDITIONAL FIRE HYDRANT SIGNS SHALL BE ATTACHED TO THE NOISE BARRIER PANEL NEAR THE TOP OF THE BARRIER. SEE DETAIL ABOVE, PAID FOR UNDER "PERPENDICULAR FIRE HYDRANT SIGN FOR NOISE BARRIERS". SEE SPECIAL PROVISIONS.





2-15-31 Signing for Low Inlets Along Barrier Walls March 2011

PURPOSE

County maintenance personnel, first responders, and WisDOT maintenance staff have indicated problems with identification of low inlets along freeway barrier walls. There could be times that the inlets are covered with snow, ice or other debris that makes location difficult. Clogged inlets can present potential traffic safety issues and efficient, rapid location of them is very essential.

FHWA has indicated that a sign used for marking such inlets would not be considered an official traffic sign. Technically, the sign would not be in the line of sight or directed to passing motorists.

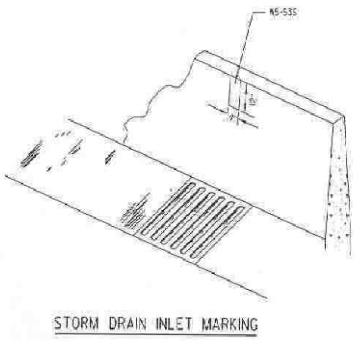
This policy governs the design and placement of signing for low inlets along freeway barrier walls.

POLICY

The sign used for the identification of low inlets along barrier walls is the green object marker (W5-53S) sign. This sign *may* be used, provided the following criteria are met:

1. The request to use the signs **shall** be coordinated with both the WisDOT Region Maintenance Engineer and Traffic Engineer.
2. The signs **shall** be installed on the face of the barrier, near the top to prevent covering by snow. See Figure 1 for typical installation detail.
3. Signs are paid for under the bid item: Signs Reflective Type II.
4. The signs **shall** be manufactured on 0.040” thick aluminum and fastened to the concrete wall with an adhesive with 1 ½” concrete anchor screws at each corner.
5. Replacement signs for maintenance **shall** be obtained through WisDOT.

Figure 1. Typical Installation of Storm Drain Inlet Marking



2-15-36 Distance Signs, D2-Series and Post-Interstate E8-Series ~~February 2018~~November 2026

PURPOSE

The purpose of this policy is to provide guidance for the use of Distance signs on State Highways under Department of Transportation jurisdiction. This policy guidance will address the selection of destinations, consistent determination of appropriate distances, sign design, and typical Distance sign placement.

General guidance on selection of destinations can be found in the WMUTCD Sections 2D.3~~67~~ and 2E.51~~35~~. Specific guidance on the selection of destination cities can be found in TEOpS 2-15-5.

Guidance on the location of Distance signs is found in WMUTCD Sections 2D.~~4438~~ and 2E.~~4839~~.

This policy does not apply to Interchange Sequence signs, which are addressed in WMUTCD Section 2E.~~2436~~.

B. Definitions

Distance Signs are defined as guide signs displaying a sequence of one to three destinations ahead with the distance to reach those destinations.

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

National Control Cities are Chicago, Milwaukee, Beloit, Rockford, Janesville, Madison, Wisconsin Dells, La Crosse, Albert Lea, Eau Claire, St. Paul, Sheboygan, and Green Bay.

Regional Control Cities are defined as

1. Urban areas in Wisconsin or within 60 miles of the state line with a population in the most recent decennial census of 30,000 or more,
2. Other communities, such as Sturgeon Bay, Woodruff, Minocqua, and Lake Geneva, which are approved by the State Traffic Engineer based on their character as widely known tourism destinations, and
3. Urban areas on or north of Highway 64 with a population exceeding 3500, and urban areas south of Highway 64 with a population exceeding 10,000.

Major Crossroads or Side Roads, in most cases, *should* be state highways, but *may* be a county highway or local arterial serving a nearby community.

POLICY

General Guidance

1. The combination Destination Direction and Distance signs, such as is designated D1-1a. D1-2a, or D1-3a in MUTCD, **shall not** be used on state highways.
2. Unincorporated communities **shall not** be displayed on Distance signs unless the community is

designated a Regional Control City.

3. Traffic generator supplemental sign destinations **shall not** be displayed on Distance signs.
4. The sign design format for distance signs **shall** use upper and lower case letters.
5. The letter sizes **shall** be appropriate for the highway class; minimum 6-inch/4½-inch on conventional highways and minimum 8-inch/6-inch on expressways and freeways.

The selection of destinations **shall** be solely for the purpose of guidance and information for the non-local state highway driver, and **shall not** be used to promote communities, facilities, or preferential routes.

The first line of the sign **shall** designate the next selected "destination" in the direction of travel. If used, a second line of the sign *may* designate the second, or an interim, destination of importance in the direction of travel. The bottom line **shall** designate a National Control City or Regional Control City or the last incorporated city or village of the greatest significance, in that order of priority.

Distances **shall** be rounded up or down, as appropriate, to display the even mile.

Specific Guidance – Conventional Highways

The first destination on a Distance sign on a conventional state highway **shall** display either the next incorporated community (city or village), or the next major crossroad or side road, whichever is deemed the most beneficial information for the driver.

If used, the second line of the Distance sign *may* display the second major crossroad or a subsequent incorporated community served by the state highway. Selection of the community *may* be guided by use of the comparative population and distance formula in TEOpS 2-15-5. Selection *may* also be varied on successive Distance signs to display alternative communities served by the route.

The bottom line of a Distance sign on a state highway **shall** designate a National Control City or Regional Control City or the last incorporated city or village of the greatest significance, in that order of priority. The bottom line control city *should* be the same on all successive Distance signs along the route until that city is reached.

If the conventional state highway does not enter the corporate limits of a community, the community **shall not** be displayed on the Distance sign, but *may* appear on a Direction sign (D1-series) at the appropriate location.

Distances to a crossroad **shall** be rounded to the nearest even mile.

Distances to a community **shall** be measured to the community limits (location of population sign). ~~*may* be measured differently depending on the size of the community and how the state highway passes through it.~~

~~If the community is not very large and the highway serves the central business district, the distance *should* be measured to that "downtown" area and *may* be rounded down.~~

~~If the highway does not serve the downtown, the distance *may* be measured to the municipal limits or a major crossroad within the municipal limits and *may* be rounded up.~~

~~If the city is large, the distance *may* be measured to a major crossroad or municipal feature within the city limits.~~

Distance signs *should* be installed downstream from rural interchanges and STH/USH intersections, following the J4 and R2-1 signs. Distance signs are typically not installed within incorporated city or village limits. A distance sign *should* be installed where a conventional highway exits the limits of the last contiguous incorporated city or village, across from the I2-3. Distance signs *should not* be installed where the highway leaves an unincorporated community, unless the community is designated a Regional Control City.

Specific Guidance – Expressways

The first destination on a Distance sign on an expressway **shall** display either the next incorporated community (city or village), or the next major crossroad or interchange, whichever is deemed the most beneficial information for the driver.

If used, the second line of the Distance sign *may* display the second major crossroad or interchange or a subsequent incorporated community served by the state expressway. Selection of the community *may* be guided by use of the comparative population and distance formula in TEOpS 2-15-5. Selection *may* also be varied on successive Distance signs to display alternative communities served by the route.

The bottom line of a Distance sign on an expressway **shall** designate a National Control City or Regional Control City or the last incorporated city or village of the greatest significance, in that order of priority. The

bottom line control city *should* be the same on all successive Distance signs along the route until that city is reached.

If the state expressway does not enter the corporate limits of a community, the community **shall not** be displayed on the Distance sign, but *may* appear on a Direction sign (D1-series) or Exit sign (E1- or E4-series) at the appropriate location.

Distances to a crossroad or interchange **shall** include the exit ramp and **shall** be rounded to the nearest even mile.

Distances to a community **shall** be measured to the community limits (location of population sign).~~*may* be measured differently depending on the size of the community and how the state expressway passes through it.~~

~~If the community is not very large and the highway serves the central business district, the distance *should* be measured to that "downtown" area and *may* be rounded down.~~

~~If the highway does not serve the downtown, the distance *may* be measured to the municipal limits or an interchange or major crossroad within the municipal limits and *may* be rounded up.~~

~~If the city is large, the distance *may* be measured to an interchange or major crossroad or municipal feature within the city limits.~~

Distance signs ~~should~~*should* be installed downstream from rural interchanges and STH/USH intersections, following the J4 and R2-1 signs. At interchanges, a Distance sign *should* be installed on the mainline downstream from the on-ramp, after the J4 and R2-1. Where multiple interchanges serve the same community, a Distance sign *should* only be installed after the last interchange serving that community. Where less than 3 miles exists between the on-ramp taper point and the next off-ramp theoretical gore, the Distance sign *may* be omitted.

Specific Guidance – Freeways

The first destination on a Distance sign on a freeway **shall** display either the next interchange, or the next incorporated community (city or village), whichever is deemed the most beneficial information for the driver.

If used, the second line of the Distance sign *may* display the second interchange or a subsequent incorporated community served by the freeway. Selection of the community *may* be guided by use of the comparative population and distance formula in TEOpS 2-15-5. Selection *may* also be varied on successive Distance signs to display alternative communities served by the route.

The bottom line of a Distance sign on a freeway **shall** designate a National Control City or Regional Control City or the last incorporated city or village of the greatest significance, in that order of priority. The bottom line control city *should* be the same on all successive Distance signs along the route until that city is reached.

If the freeway does not enter or pass within one mile of the corporate limits of a community, the community **shall not** be displayed on the Distance sign, but *may* appear on an Exit sign (E1- or E4- or E9-series) at the appropriate location.

If the freeway does pass within one mile of the corporate limits of a community, the community *may* be displayed on the Distance sign, and *may* appear on an Exit sign (E1- or E4- or E9-series) at the appropriate location.

Distances to an interchange **shall** include the exit ramp to the crossroad and **shall** be rounded to the nearest even mile.

Distances to a community **shall** be measured to the nearest interchange from which a driver can directly access the community.~~*may* be measured differently depending on the size of the community and how the freeway serves it.~~

~~If the community is not very large and the freeway serves the central business district, the distance *should* be measured to a "downtown" interchange and *may* be rounded down.~~

~~If the freeway does not serve the downtown, the distance *may* be measured to the municipal limits or a major interchange within the municipal limits and *may* be rounded up.~~

~~If the city is large, the distance *may* be measured to a major interchange or municipal feature within the city limits.~~

At interchanges, a Distance sign *should* be installed on the mainline downstream from the on-ramp, after the J4 and R2-1. Where multiple interchanges serve the same community, a Distance sign *should* only be installed after the last interchange serving that community. Where less than 3 miles exists between the on-ramp taper

point and the next off-ramp theoretical gore, the Distance sign *may* be omitted.

2-15-45 Changes to Street Names on WisDOT Signs November 2026

PURPOSE

Occasionally municipalities will have reason to change the name of a road under their jurisdiction. This policy details the requirements and process for getting the name changed on signs on the WisDOT system.

POLICY

- The request for WisDOT to change a street name on signs **shall** originate from the maintaining authority of the roadway, on official letterhead.
- The roadway name **shall** be officially changed, prior to the signs being revised.
- If the official road name changes prior to the signs requiring replacement, the requestor **shall** be responsible for all costs associated with the sign replacements/revisions.
- If the signs on the WisDOT roadway are in the process of being replaced, either through an improvement project or routine sign replacement, the Department *may* pay for the costs associated with the sign replacements/revisions.

2-15-51 Routine Sign Replacement Criteria ~~June 2025~~November 2026

PURPOSE

Over time the visual characteristics of signs deteriorate as a result of weather, age and ultraviolet radiation, resulting in reduced legibility performance day and/or night. As a result, signs have to be changed periodically as part of a routine sign replacement. There are a number of mechanisms to accomplish the replacement of signs on the WisDOT system. Often questions arise as to when signs *should* be changed, who *should* change the signs and what criteria *should* be used in determining replacement. Therefore, it is necessary to have clear, consistent guidelines for the routine replacement of signs on state highways.

FEDERAL HIGHWAYS MINIMUM SIGN RETROREFLECTIVITY VALUES

Section 2A.22~~08~~ of the WMUTCD requires all units of government to use an assessment or management method that is designed to maintain the retroreflectivity of signs at or above the levels prescribed in the WMUTCD Table 2A-~~5~~3. To maintain compliance with the minimum sign retroreflectivity values in the WMUTCD, WisDOT utilizes the following approved assessment and management methods:

1. Blanket Replacement. All signs in an area/corridor are replaced at specified intervals. This commonly takes place during improvement projects.
2. Expected Sign Life. Age of the sign is tracked and the sign is replaced when it meets its expected life. Current WisDOT expected sign life period is 12 years.
3. Control Signs. Replacement of signs in the field is based on the performance of a sample of control signs. The data from the control signs can provide engineering support to the Expected Sign Life method. Over time the Expected Sign Life replacement cycle *may* be revised based on data from the Control Signs test deck, which is located at the Madison Sign Shop yard.

DETAILED SIGN REPLACEMENT POLICY

General Sign Replacement due to age/condition of sign

1. The Department's Traffic Operations Asset Management System (TOAMS) **shall** be used to track inventory data on signs that include manufacture date of sign, sign sheeting code and condition of sign.
2. Sign date and sheeting code tags **shall** be placed on the upper right corner on the back of Type II signs by the sign manufacturer or contractor. Type I signs **shall** have the sign date and sheeting code tag placed on the lower right corner on the back of the sign. The WisDOT Bureau of Traffic Operations (BTO) Sign Shop provides all date and sheeting code tags to sign manufacturers and contractors.
3. In general, Type II signs *should* be replaced on a twelve-year cycle, based upon the corridor replacement program, established by the Bureau of Traffic Operations.
4. In general, signs needed for let projects will not be supplied through the BTO Sign Shop. The exception to this would be if there is an unexpected lack of signs by the contractor that *may* otherwise

cause a delay in the completion of the project or needed for safety or operational issues. Detailed guidance is given below on the sign replacement criteria for let projects.

5. For Type II signs not installed in projects, County Highway Departments, through Traffic Maintenance Agreements, will handle the installation and maintenance.
6. WisDOT **shall** provide all signs to the County Highway Departments. There are statewide procurement contracts to handle this. Counties **shall not** furnish signs, other than TODS or TRANS 200 arrow boards that are covered by other policies.
7. Routine Type I sign replacements, that are not part of an improvement project, are to be performed by the annual statewide Let Contract. The statewide open-end signing contractor *should* only be used for knock-down repairs and replacements of Type I signs, Type I or Type II Supplemental Traffic Generator sign installations or for safety or operational issues where the county cannot get to the site in the timeframe needed. In general, Type I signs *should* be replaced on a fifteen-year cycle.
8. Any signs or posts that are damaged, illegible, leaning, not in proper orientation to the roadway *should* be repaired or replaced as soon as opportunities permit.

Sign Replacement Due to Changes in Sign Standards

1. Signs no longer meeting mounting height, size, message, letter size or sheeting material criteria *may* be replaced through the following methods:
    a. Let Project or refurbishment project in the area.
    b. Knockdown, storm or vandalism damage that would cause the sign and/or posts to be replaced.
    c. Utilization of 12-year corridor replacement plan.
2. Examples of signs not meeting standards would include:
    a. Too low of mounting height.
    b. Too close to roadway.
    c. Wrong size sign used for roadway.
    d. Wrong letter size used on sign.
    e. Signs containing Engineer Grade sheeting.
    f. Change of Standard in the WMUTCD resulting in a compliance period.
    g. Change of Signing Policy in the Traffic Engineering, Operations & Safety Manual.
3. If there is a safety issue/concern due to a sign not conforming to standards, the sign **shall** be replaced or removed as soon as practical. An example would be a restriction of motorist visibility due to an improper mounting height.
4. Analysis of intersection crash data *may* be used to help determine if sign standards attributed to any safety issues.
5. The methods of sign replacement *should* be followed as explained in the General Sign Replacement due to age/condition of sign part of this policy.

Sign Replacement as part of Let Projects

Below are guidelines that ~~**shall**~~ *should* be followed to help determine if replacement of signs on a let project is feasible.

Type I signs

1. Per Department policy, type I guide signs ~~should~~*should* be replaced in qualifying improvement projects.

    Exceptions to this policy include:
    - It is not required to replace Type I signs on non-pavement-preservation preventive maintenance projects (see FDM 3-5-5), and
    - It is not required to replace Type I signs on Group 3 pavement-preservation preventive maintenance projects (see FDM 3-5-5, work consists of milling, rut filling, seal coating, micro-surfacing and crack filling projects) because:

- When Group 3 pavement strategies are applied early in the pavement life cycle, most signing ~~should~~*should* still be in good condition.
- The work can easily exceed 10% of the project, i.e., it would not meet the requirement for incidental construction.

Exceptions to replacement of overhead mounted Type I guide signs can also be made if there is another improvement project programmed or scheduled on the same roadway segment within the next five years. Any signs not conforming to WisDOT and WMUTCD policies shall be replaced in the improvement project. Any exceptions to replacement of Type I signs shall be coordinated with the Region Signing Engineer or Region Traffic Engineering Supervisor.

2. Galvanized steel I-beams *should* only be replaced if Type I sign is not at the proper offset (30 foot desirable / 17.5 foot minimum from edge line to edge of sign) or if the new Type I sign is larger. All corten steel I-beams and bases **shall** be replaced.
3. Steel I-beams and bases that are re-used *should* have the base bolts replaced by utilizing bid item 635.0300 (Sign Supports Replacing Base Connection Bolts).

Type II signs

1. In general, per Department policy, the replacement of Type II signs will be handled through maintenance as part of a 12-year corridor replacement schedule. However, there are situations that will require Type II signs to be placed in improvement projects that include:
   - Project is on a new alignment.
   - Projects that are installing new signs, signs that are not currently at the needed locations, e.g. changing intersection control or adding chevrons.
   - Updating or adding signs that were not there before, e.g. population, street name signs, overhead signs.
   - Placing no passing zone signs after the roadway has been re-spotted.
2. Projects that require removal, stockpiling and re-installation of Type II signs and posts will use the bid items of Moving Signs Type II and Moving Small Sign Supports.
3. Designers ~~should~~*should* include an undistributed quantity of posts (10% of existing) to account for the replacement of any posts that are rotted, warped, too short or get damaged during the removal/re-installation.
4. The designer ~~should~~*should* consult with the Region Signing Engineer or Region Sign Program Supervisor to confirm the use of improvement projects for the installation of Type II signs.

2-15-52 Maintenance of Signs and Sign Post Designs ~~March 2020~~November 2026

PURPOSE

This policy establishes maintenance responsibility for signs and sign post designs on state trunk highways and crossroads intersecting state maintained highways, either by at-grade intersections or service interchanges. In addition, roundabouts often times add complexity for the responsibility of sign maintenance, especially for local and county roadway approaches. DOT improvement projects often include signs that are installed on county highways and local roads. Because the local unit did not install the signs, there are often questions about the responsibility for maintenance, and many of these signs are left to deteriorate. On several occasions the local unit requests a special type of signpost to be used on state maintained highways through their community. As a result, questions arise as to what type of signposts are acceptable, who would maintain the posts and potential liability issues. Therefore, it is necessary to have clear, consistent guidelines for the maintenance of signing, and designs of signposts, on state maintained highways and at locations of local crossroads intersecting state maintained highways.

SIGN MAINTENANCE POLICY

WisDOT is responsible for maintenance of permanent signs on all state trunk highways. As part of its responsibility, WisDOT *may* contract for services to accomplish the maintenance and *may* require that others fund the costs, for example costs of supplemental traffic generator signs, as approved in TEOpS 2-15-3.

Should WisDOT allow a local unit of government to erect or maintain any signing, a permit in the form of a letter

shall be signed by a representative of the local unit of government and the Region's Traffic Supervisor.

In addition, WisDOT is responsible for maintenance of certain other permanent signs on connecting roadways, local streets and business highways described below. It *should* be noted that this policy is not all-inclusive.

Intersecting and Interchanging Roadways (excluding roundabouts)

1. On local public roadways intersecting state maintained highways, WisDOT will maintain the STOP sign and directional assembly (J3 or J13 assembly), adjacent to the STOP sign.
2. On county roadways intersecting state maintained highways, WisDOT will maintain the STOP sign and directional assembly (J3 or J13 assembly), adjacent to the STOP sign.
3. On local and county roadway interchanges with state maintained highways, between the junction assembly (J1 sign) and the ramp, WisDOT will maintain the route markers and destination signs (D1 signs), including the junction assembly.
4. On local and county roadway interchanges with state maintained highways, between ramp to ramp, WisDOT will maintain all signs. An exception to this would be a special agreement with the local unit of government/county or if WisDOT would not have jurisdiction of the intersecting roadway.
5. On state and U.S. highway interchanges with state maintained highways, WisDOT will maintain all the signs.
6. All advanced signing on local and county roads that intersect state maintained highways **shall** be the responsibility of the county/local unit of government to maintain, regardless of who installed it originally.
7. WisDOT will not maintain street name signs at the intersection.
8. For blinker stop signs and blinker stop ahead signs, refer to the separate policy for criteria and permits.

Roundabouts

1. On all roundabouts with at least one WisDOT maintained approach roadway, WisDOT will maintain, at a minimum, the following signs:

   ~~a. Chevron bank (R6-4b)~~

   ~~b.~~a. One Way signs (R6-1R~~ and R6-2R~~)

   ~~c.~~b. Yield signs (R1-2)

   ~~d. To Traffic From Left Plaque (R1-54)~~

   c. Splitter island signs (J-3 or D1 series)

   ~~e.~~d. Object Markers (OM1-3)

2. On state trunk highway approaches, including interchange ramps, WisDOT will maintain all signs, including overhead sign supports (See Figure 2).

   On county and local road approaches, in addition to the Yield sign (R1-2),~~ To Traffic From Left Plaque (R1-54) and One Way sign (R6-2R),~~ WisDOT will also maintain any overhead guide signs that have an Interstate, U.S. or State highway shield on them, including their associated overhead sign support(s) (See Figures 3A and 3B). The county and/or local unit of government would maintain all other signs and associated sign structures on their approaches, including overhead regulatory lane control signs and the ground mounted map sign (D1-62 sign).

3. For roundabouts on Connecting State Highways, WisDOT will maintain any overhead guide signs that have an Interstate, U.S. or State highway shield on them, including their associated overhead sign support(s). For any overhead guide signs that exclusively contain business route signing, the local unit of government would maintain the sign and associated overhead sign support. WisDOT will also maintain any splitter island signs that have a U.S. or State route shield (J-3 or D1 series) and any U.S. or State reassurance marker (J4 series). All other signs in the roundabout on connecting highways **shall** be maintained by the local unit of government.
4. For roundabouts with county highway and/or local road approaches, it is recommended that early in the design process, a Maintenance Agreement be developed. By having the Maintenance Agreement developed early in the design process, the county or local unit of government will clearly have knowledge of what they are to maintain.

Some particular items that *should* be included in the Maintenance Agreement would include:

a. Specific signs that WisDOT would maintain and what the locals/county would maintain. This would also include signposts.

b. Specific overhead sign supports (if any), that WisDOT would maintain and what the locals would maintain.

c. Recommended inspection frequencies for overhead sign supports that the locals would maintain.

Connecting Highways and Local Streets

1. On connecting highways WisDOT maintains only D-series signs, route markers and trailblazer assemblies, including overhead guide signs that contain interstate, U.S. and State route shields and their associated overhead sign supports or sign bridges. For any overhead guide signs that exclusively contain business route signing, the local unit of government would maintain the sign and associated overhead sign support.
2. On local streets, upon coordination with the local unit of government, WisDOT would maintain only those trailblazer assemblies that are installed and/or approved by WisDOT.

Business Route Signing

1. For business routes located on state maintained highways, WisDOT will install and maintain all route markers.
2. When business routes of state highways are marked over county highways, local streets or highways, WisDOT *may* initially install route markers, but will not be responsible for their maintenance. The installation and maintenance of all other signs **shall** be the responsibility of the local unit of government.
3. Expanded guidance on the usage of business route signing is included in TEOpS 2-4-19.1.

SIGN POST DESIGN POLICY ON STATE MAINTAINED ROADWAYS

1. On state maintained roadways, 4”x6” wood posts and 2”x2” square steel posts are typically used for sign posts. Municipalities *may* be allowed to install signs on customized posts. The municipality **shall** pay for the cost of the customized posts.
2. Any customized posts allowed **shall** be ~~NCHRP 350 or MASH~~ crash compliant (see WMUTCD Section 1D.11). The municipality **shall** provide WisDOT a copy of the certification letter from the Federal Highway Administration.
3. A permit for non-standard sign supports **shall** be filled out by the municipality and signed by the City/Village Engineer or Director of Public Works or Official Governmental Representative and, upon approval, the WisDOT Region Traffic Operations Engineer. A sample Application/Permit form is shown in Figure 4.
4. Municipalities *may* be allowed to paint the posts a neutral color that does not detract from the face of the sign. Acceptable neutral colors are black, brown or dark green.
5. Red, white and orange colors **shall not** be used for signposts. A yellow color *may* only be used if the color is to mark a truck route. The municipality **shall** be required to have a local ordinance in place before painting the posts.
6. For any painted sign posts requiring replacement by WisDOT, the municipality will be responsible for re-painting signposts. Any customized signposts requiring immediate replacement by WisDOT will be replaced with 2”x2” square steel posts or 4”x6” wood posts. The municipality *may* later replace the DOT installed post with a ~~NCHRP 350 or MASH~~ crash compliant (see WMUTCD Section 1D.11) customized post at their cost.
7. Municipalities **shall not** paint the backside of the signs.
8. Signs installed on customized sign posts **shall** meet WisDOT/WMUTCD design and size standards. WisDOT **shall** provide the municipality with all state-owned signs to be installed on customized sign posts. WisDOT *may* require the municipality to replace signs due to age or damage of signs or changes to sign design standards. WisDOT reserves the right to replace existing signs on customized posts owned by the municipality.
9. Sign installation and placement **shall** be to WisDOT standards. See Standard Sign Plates A4-3 and

A4-4 for sign mounting height and lateral offset.

10. Existing customized posts on state maintained highways which are not NCHRP 350 or MASH crash compliant **shall** be replaced immediately with 2”x2” square steel posts, or 4”x6” wood posts. The municipality *may* later replace the DOT installed post with a ~~NCHRP 350 or MASH~~ crash compliant (see WMUTCD Section 1D.11) customized post at their cost.
11. Wood 4”x6” posts **shall** have 1 ½” diameter breakaway holes drilled into the 6-inch face of the post, (see figure 1). Breakaway holes are not required in 4”x6” wood posts if the post is mounted behind beam guard or concrete barrier.

Figure 1. Interchange Roundabout

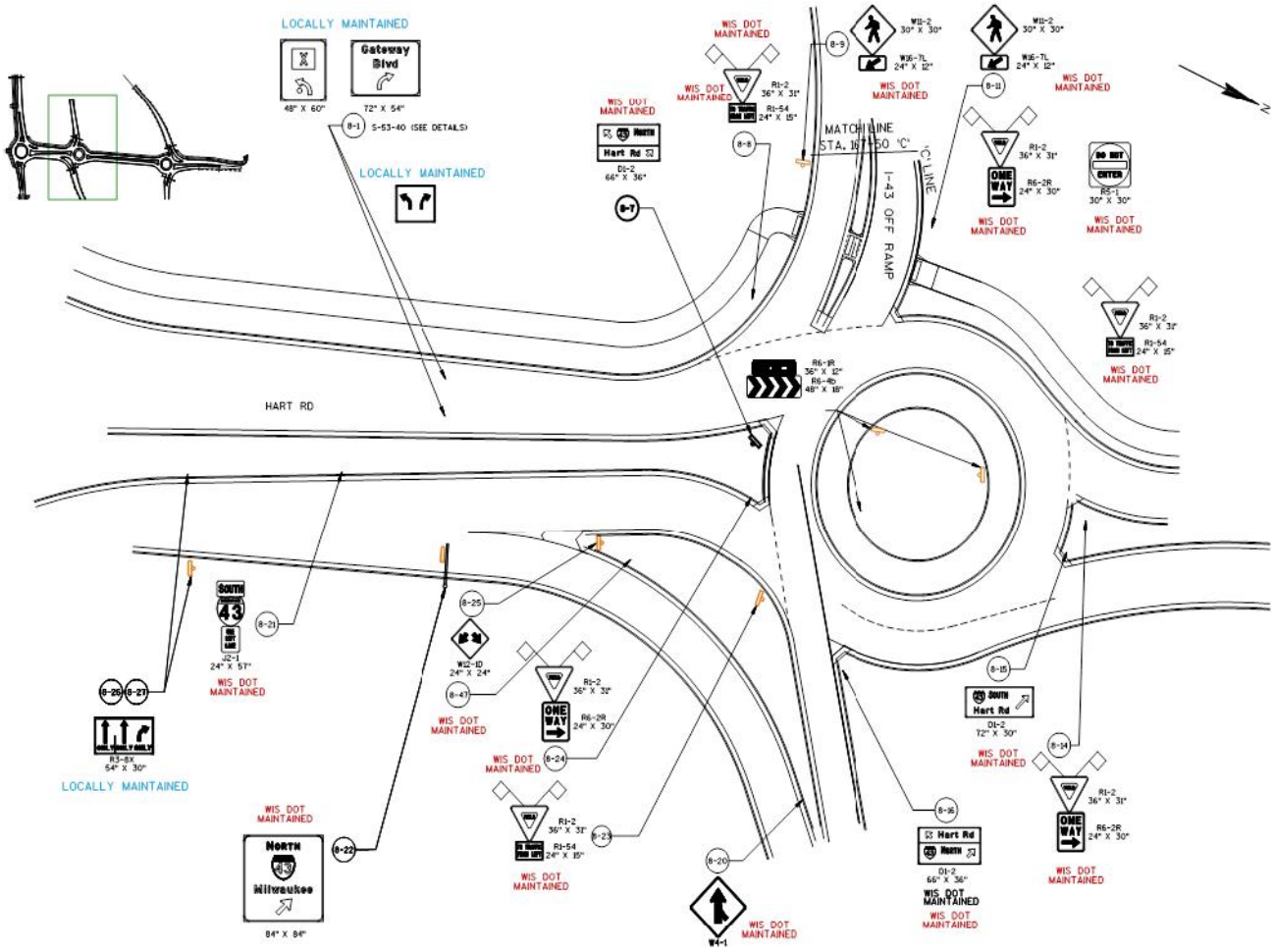


Figure 2A. County Highway / State Highway Roundabout
(Signing for local roads is the same as County Highway signing)

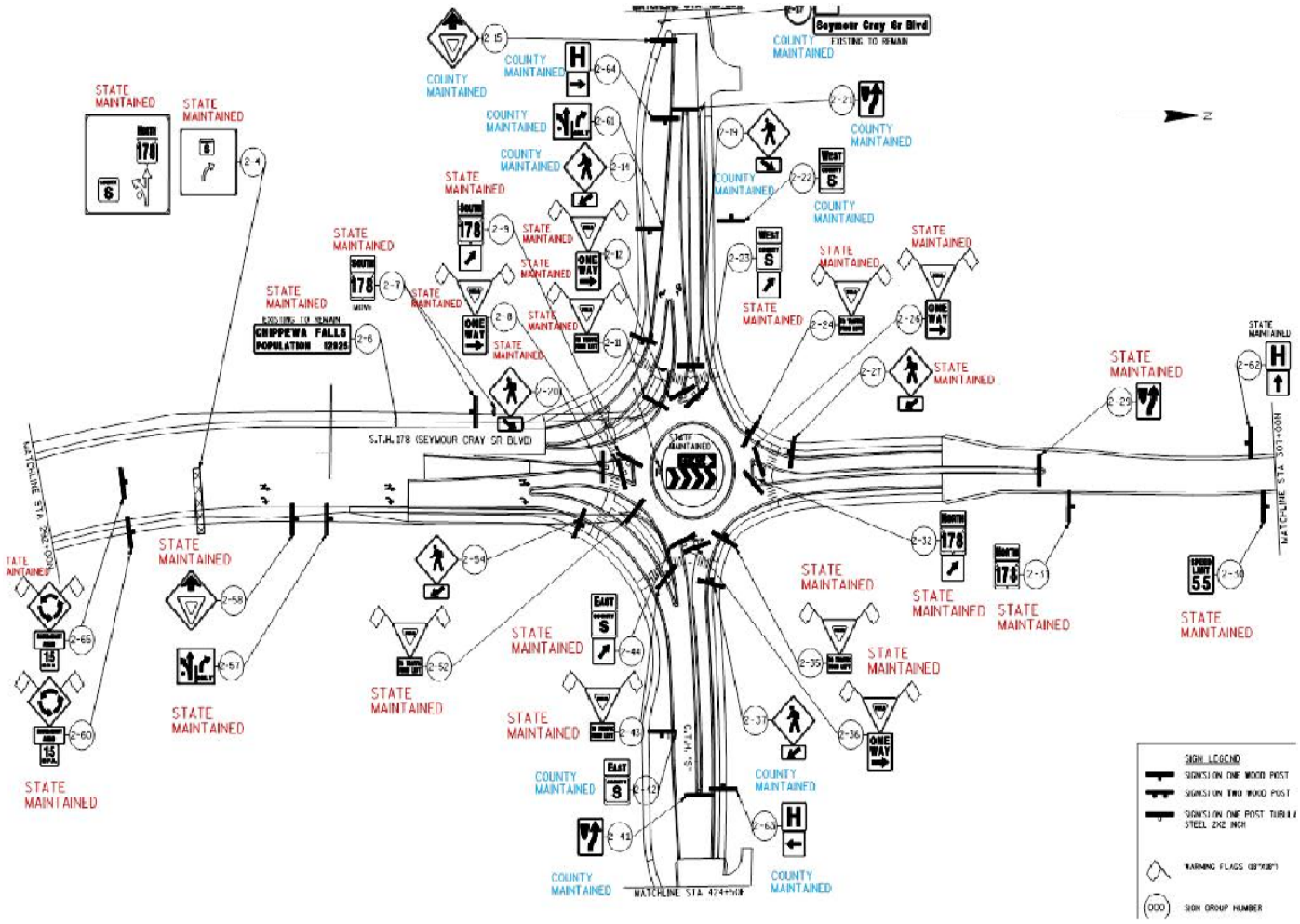


Figure 2B. County Highway / State Highway Roundabout
(Signing for local roads is the same as County Highway signing)

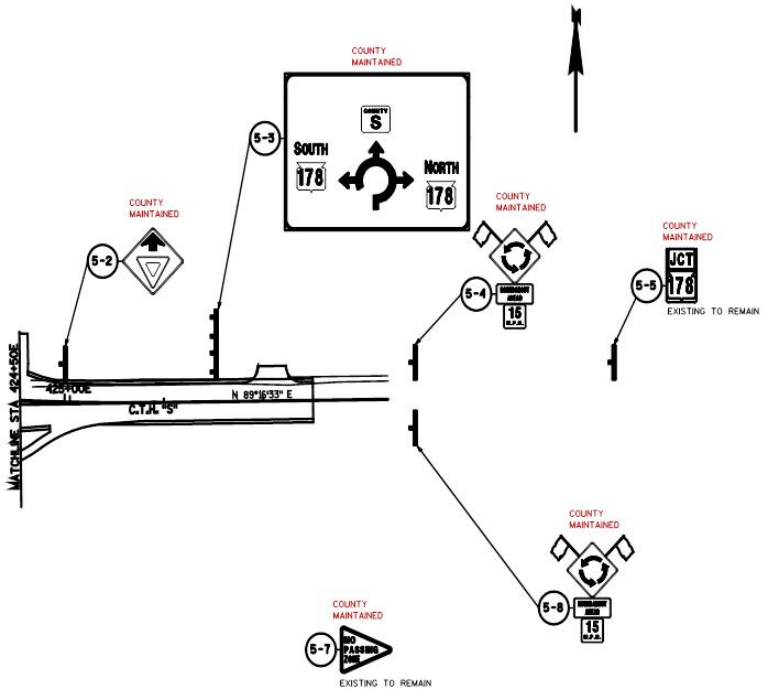


Figure 3. Custom Sign/Post Installation Permit

APPLICATION/PERMIT FOR CUSTOM SIGN POSTS

Wisconsin Department of Transportation
7/2014

When approved, this permit documents the terms and conditions or use by the municipality for installation and/or maintenance of custom sign posts on highways under the jurisdiction of the Wisconsin Department of Transportation. The applicant must obtain this approved permit prior to installation of custom sign posts.

Submit the completed application to the WisDOT Regional Office that has maintenance jurisdiction of the state trunk highway in the county where the posts will be located. A single application may be made for all installations along a continuous segment of highway.

Applicant (City, Village, Town):	County:
Mailing Address:	Area Code-Telephone Number:
	Email Address or FAX Number:
Highway (STH/USH):	Local Street Name of STH/USH:
Installation Limits: From: To:	
Installation Type ☐ Improvement Project Agreement – Project ID: ☐ Installation by Permit – Permit to Work on Highway Right-of-Way (WisDOT form DT1812) required	
Locations:	Items to Install:

Installation Conditions

1. Terms and conditions of this application/permit shall be in conformance with WisDOT Traffic Guidelines Manual Policy 2-15-52 *Maintenance of Signs and Sign Post Designs*. By entering into this agreement, the Municipality agrees to the terms and cost arrangements in this policy document.
2. For permit requests or sign replacement, WisDOT shall furnish all standard state-owned signs to the municipality for installation on custom posts. For let project installations, the custom posts will be installed as part of construction let plans as non-participating item.
3. All custom sign posts shall be NCHRP 350 or MASH crash compliant. A copy of the certification letter from the Federal Highway Administration shall be attached to this application for each manufacturer's model and style of custom post used.
4. Replacement of custom posts from a different manufacturer or model shall require a new permit/application.
5. The applicant shall retain a copy of this permit and supporting documentation for future reference.
6. Custom post details shall be attached to this application. Region Traffic Operations Engineer shall approve final post design.
7. Region Traffic Operations Engineer shall approve final sign locations. For Improvement Project Agreements, these locations shall be included on the final construction plans.
8. The municipality shall be responsible for costs for removal should future highway projects require the removal of the custom posts.
9. Sign installation and placement shall be to Wisconsin Manual of Uniform Traffic Control Devices and WisDOT standards.
10. This application shall be signed by the City/Village Engineer or the Director of Public Works or Official Governmental Representative.

X

Authorized Representative | Date

Print Name | Title

Approved for the Wisconsin Department of Transportation

Permit Number = Region (NC,NE,NW,SE,SW) – County Number – Permit Number in county

Permit Number	X Region Traffic Operations Engineer	Date
	Print Name	Area Code-Phone Number

INDEMNIFICATION

The Applicant shall save and hold the State, its officers, employees, agents, and all private and governmental contractors and subcontractors with the State under Chapter 84 Wisconsin Statutes, harmless from actions of any nature whatsoever (including any by Applicant itself) which arise out of, or are connected with, or are claimed to arise out of or be connected with any of the work done by the Applicant, or the construction or maintenance of facilities by the Applicant, pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, (1) while the Applicant is performing its work, or (2) while any of the Applicant's property, equipment, or personnel, are in or about such place or the vicinity thereof, or (3) while any property constructed, placed or operated by or on behalf of Applicant remains on the State's property or right-of-way pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way; including without limiting the generality of the foregoing, all liability, damages, loss, expense, claims, demands and actions on account of personal injury, death or property loss to the State, its officers, employees, agents, contractors, subcontractors or frequenters; to the Applicant, its employees, agents, contractors, subcontractors, or frequenters; or to any other persons, whether based upon, or claimed to be based upon, statutory (including, without limiting the generality of the foregoing, worker's compensation), contractual, tort, or whether or not caused or claimed to have been caused by active or inactive negligence or other breach of duty by the State, its officers, employees, agents, contractors, subcontractors or frequenters; Applicant, its employees, agents, contractors, subcontractors or frequenters; or any other person. Without limiting the generality of the foregoing, the liability, damage, loss, expense, claims, demands and actions indemnified against shall include all liability, damage, loss, expense, claims, demands and actions for damage to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way in the past or present, or that are located on any highway or State property or right-of-way with or without a permit issued by the State, for any loss of data, information, or material; for trademark, copyright or patent infringement; for unfair competition or infringement of personal or property rights of any kind whatever. The Applicant shall at its own expense investigate all such claims and demands, attend to their settlement or other disposition, defend all actions based thereon and pay all charges of attorneys and all other costs and expenses of any kind arising from any such liability, damage, loss, claims, demands and actions.

Any transfer, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit shall not release Applicant from any of the indemnification requirements of this permit, unless the State is notified of such transfer in writing. Any acceptance by any other person or entity, whether voluntary or involuntary, of ownership or control of any property constructed, placed or operated by or on behalf of the Applicant that remains on the State's property or right-of-way pursuant to this permit, shall include acceptance of all of the indemnification requirements of this permit by the other person or entity receiving ownership or control.

Notwithstanding the foregoing, a private contractor or subcontractor with the State under Chapter 84 Wisconsin Statutes, that fails to comply with sections 66.047 and 182.0175 Wisconsin Statutes (1985-1986), remains subject to the payment to the Applicant of the actual cost of repair of intentional or negligent damage by the contractor or subcontractor to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remains subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the contractor or subcontractor.

Notwithstanding the foregoing, if the State, or its officers, employees and agents, fail to comply with sections 66.047 and 182.0175 Wisconsin Statutes (1985-1986), the State or its officers, employees and agents, remain subject to the payment to the Applicant of the actual cost of repair of willful and intentional damage by the State, or its officers, employees and agents, to any property, lines or facilities placed by or on behalf of the Applicant pursuant to this permit or any other permit issued by the State for location of property, lines or facilities on highway right-of-way, and remain subject to payment to the Applicant for losses due to personal injury or death resulting from negligence by the State, its officers, employees and agents.

No indemnification of private contractors or subcontractors with the State under Chapter 84 Wisconsin Statutes, shall apply in the event of willful and intentional damage by such private contractors or subcontractors to the property, lines and facilities of the Applicant located on the highway right-of-way pursuant to this permit or any other permit issued by the State for the location of property, lines or facilities on highway right-of-way.

2-15-53 New Bypass Signing ~~January 2007~~November 2026

PURPOSE

Quite often, a highway bypass is constructed to divert traffic around a community, thus reducing traffic congestion and increasing traffic safety within the community. However, bypasses have the potential to experience more crashes than expected when designed, due primarily to several human factors issues. Even when designed to the proper geometrics, drivers *may not* be mentally prepared for the increased speed of traffic on the bypass and the quick decisions that need to be made, as a result of the increased speed. This has led to several angle type collisions, primarily at intersections.

In February 2006, FHWA prepared a report for WisDOT that outlines several enhancements that *should* be made to increase safety at bypasses. Several of these enhancements include signing improvements. This policy provides requirements and guidance to the proper usage of signs for new bypasses on state maintained highways.

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

A Bypass is defined as a new route that diverts traffic around a community and re-connects to the existing routes on the outskirts of the community (See Figure 1).

POLICY

Sign Sizes

1. For all bypasses, regulatory, warning and school signs **shall** be minimum size code 3.
2. Route assemblies *should* be minimum size code 2 for conventional highways and minimum size code 3 for four lane divided and expressway bypasses.
3. Advance crossroad name signs ~~(M1-94 sign)~~ **shall** be size code 3 (8” upper case / 6” lower case) for all conventional highway bypasses 45 mph and higher and all four lane and expressway bypasses. Advance crossroad name signs ~~(M1-94 sign)~~ *may* be size code 2 (6” upper case / 4 ½” lower case) for conventional highway bypasses, less than 45 mph.

Regulatory Sign Installations

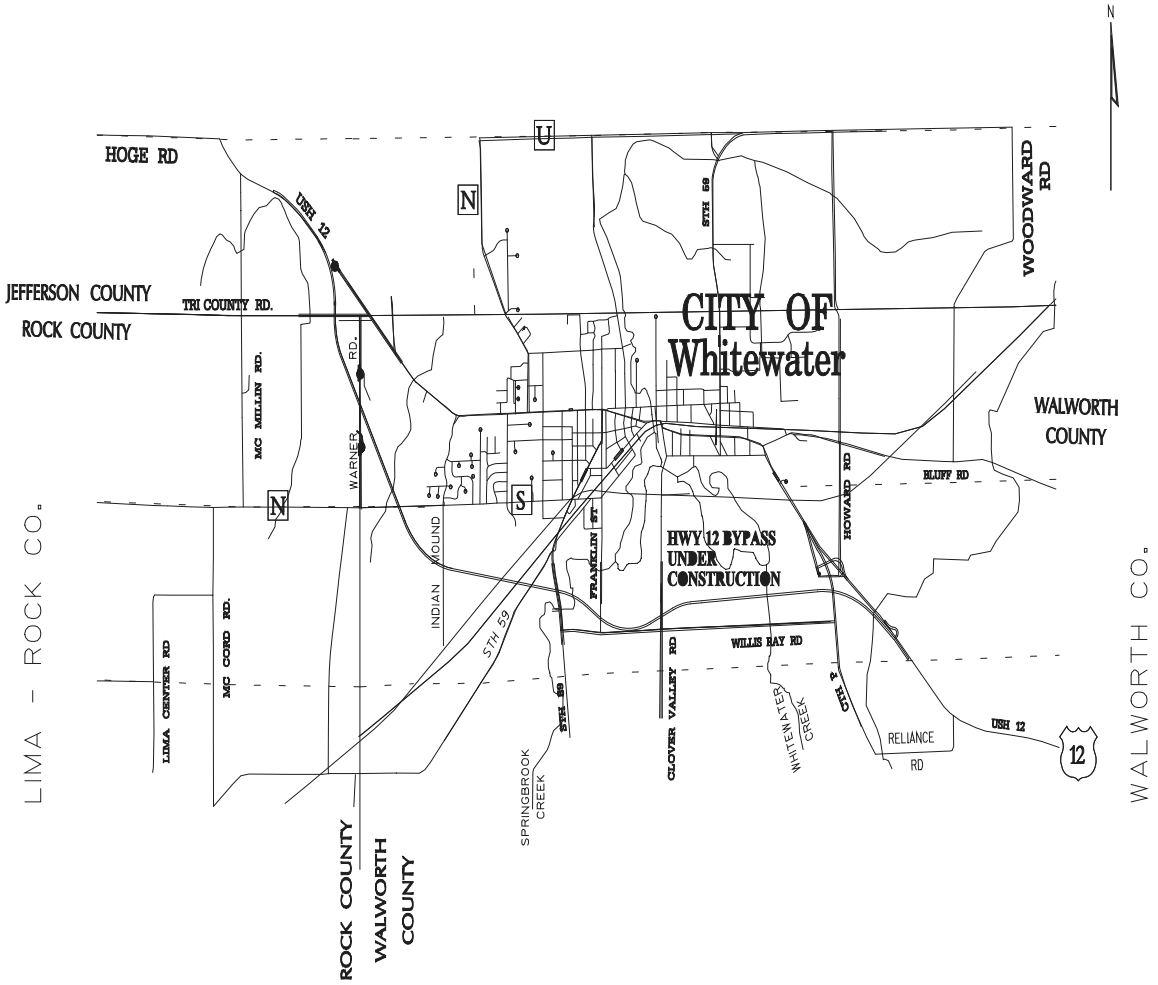
1. Double up STOP signs (R1-1 signs) at all side roads (right and left signs). 200’ minimum of centerline on the side road **shall** be used.
2. STOP signs (R1-1 signs) **shall** be installed in the pork chop islands or in the median island.
3. For median widths greater than 40’ (measured from median edge of travel lane to median edge of travel lane), STOP (R1-1 signs) or Yield (R1-2 signs) signs *should* be installed as appropriate at the second crossroad intersection (in the median) of a four-lane bypass. Typically for median widths 30’ or less, the Yield sign is used in the median to discourage any long trucks from hanging over into the adjacent travel lanes.
4. Cross Traffic Does Not Stop signs (R1-52C sign) **shall** be installed below all STOP signs (R1-1 sign) on both two lane and four lane bypasses. For four lane bypasses, the Cross Traffic Does Not Stop sign (R1-52C sign) *should* be placed below the Divided Highway sign (R6-3 or R6-3a sign).
5. The One-Way sign (R6-1 sign) **shall** be used for all divided bypasses. The R6-1 One-Way signs **shall** be placed above the STOP sign (R1-1 sign). Refer to TEOpS 2-15-12 (Wrong-Way Prevention) for additional criteria on Wrong Way signing.
6. Temporary orange warning flags *may* be added to all STOP signs (R1-1 sign). The flags *should* remain in place until the end of their useful life.
7. ~~The~~ A Divided Highway Now Open – Use Proper Lane sign ~~(R3-57 sign)~~ *should* be installed 300–500

feet in advance of the intersection on side roads for divided highway bypasses. The sign **shall** remain in place for up to a year and then removed.

Warning Sign Installations

1. Supplemental roadway name plaques below the crossroad warning signs (W2-1 and W2-2 signs) **shall not** be used. The crossroad warning sign and advanced crossroad name sign **shall** be on separate installations and spaced properly.
2. Crossroad warning signs *may* be installed at mainline intersections, regardless of sight distance issues.
3. STOP Ahead or Signal Ahead signs **shall** be used on all side roads, regardless of sight distance. STOP Ahead or Signal Ahead signs *may* be doubled up.
4. Temporary orange warning flags *may* be added to all STOP Ahead signs and Signal Ahead signs. The flags *should* remain in place until the end of their useful life.
5. The Two-Way Traffic warning sign (W6-3 sign) **shall** be used if a two-lane bypass is graded or paved for a four-lane capacity that could make it appear like a four lane highway. The Two-Way Traffic warning sign (W6-3 sign) *should* be placed after major intersecting side roads or at least at two mile intervals and *should not* be doubled up.

Figure 1. Sample of New Bypass Highway



2-15-54 Signing for Roundabouts November 2026

GUIDELINES

The typical signing plans included in FDM 11-26 Attachment 12.1 *should* be sufficient for most intersections of this type. The guidance that follows is supplementary to the signing information in the FDM.

Regulatory Signs

- On multilane roundabout entries, the lane configuration will dictate which Intersection Lane Control (R3-8) signs are installed. Consult FDM 11-26 Attachment 12.1 and the Regional Traffic Engineer for sign placement. Modify the R3-8 sign to show the placement of a dot under the left arrow, which graphically helps depict the presence of a roundabout. Only use the dot under a left arrow for the left most lane. Do not install R3-8 signs on single lane entries.



R3-8 Series (with modifications)

- Where the central island of a roundabout allows for the installation of signs, One Way (R6-1R) signs **shall** be used to direct traffic counter-clockwise around the central island. When used in a roundabout, the One Way sign **shall** be 48" x 18". The mounting height of a One Way sign in the central island of a roundabout **shall** be 4' 3" +/- 3", measured vertically from the bottom of the sign to the elevation of the near edge of the traveled way.



- Black and white Chevron Bank (R6-4B) signs are no longer allowed per the WMUTCD and **shall** be removed at the end of their useful life or if knocked down. When taking one Chevron Bank sign out, the Chevron Bank signs on all other approaches **shall** be taken out as well.



- In the past, To Traffic From Left (R1-54) and One Way (R6-2R) plaques were installed as a standard underneath the Yield signs at a roundabout. These signs are no longer necessary and *should* not be installed with a new roundabout. Existing plaques *may* remain until the end of their useful life or if knocked down. These signs *may* be used or perpetuated in cases where crash issues have been identified and the Region Traffic Operations section believes they are necessary.

Warning Signs

When the regulatory speed limit on any one of the approaches is 45 MPH or greater, and if the central island of a roundabout allows for the installation of signs, an 18" x 18" Object Marker (OM1-3) **shall** be installed directly below the One Way (R6-1R) signs on all approaches.

Guide Signs

Intersection destination/direction signs **shall** be installed on all approaches of single-lane and multilane roundabouts on state highways. The ground-mounted diagrammatic style is preferred as the circular shape on the sign provides an important visual cue to all users and reinforces the form, shape, and expected navigation of the upcoming intersection. If lack of space is an issue, Route Sign Assemblies (J Series) *may* be utilized. In both

cases Destination Signs (D1 Series) **shall** be utilized. A diagrammatic sign **shall not** be utilized when Type 1 overhead signs are used on a multilane approach.

Overhead lane guide signs are required on multilane entries to direct the driver into the correct lane on the roundabout approach and discourage lane changes in the roundabout. Consult FDM 11-26 Attachment 12.1 for overhead sign configuration options and placement guidance. If the roundabout is part of a closely spaced corridor of roundabouts (i.e. ramp terminals), the design of all overhead lane guide signs **shall** match to maintain corridor consistency and minimize driver confusion. Generally, use overhead sign supports, not sign bridge trusses. See FDM 11-55-20 for overhead sign support guidance.

Exit guide signs reduce the potential for disorientation. Use conventional intersection direction signs (D1 Series) with an arrow tilted to the right. Exit guide signs with route shields *should* have the shield incorporated into the sign with cardinal direction and arrow.

Urban Intersections

Urban intersections tend to exhibit lower speeds. Consequently, the designer can, on a case-specific basis, consider using fewer and smaller signs in urban settings than in rural settings. However, include some indication of street names in the form of exit guide signs or typical street name signs. Also review proposed signing to ensure that sign clutter will not reduce sign effectiveness. Avoid sign clutter by prioritizing signing and eliminating or relocating lower priority signs.

There are sometimes situations with multilane urban roundabouts where the right of way is tight and there is no physical room for typical overhead sign structures. There *may* also be situations where large overhead guide signs do not align with surrounding aesthetics. Scaled-down versions of overhead guide signs or J-assemblies *may* be utilized for these situations as shown in FDM 11-26 Attachment 12.1.

Compact Roundabouts

The smaller size of a compact roundabout requires additional caution to be used when placing signs so that the driver is not overwhelmed with a large number of signs in a small area. Many of the standard signs used at regular single-lane and multilane roundabouts *may not* have enough space to fit at a compact roundabout. Accommodating large vehicles *may* also influence the type and location of signs in order to reduce the likelihood of signs being knocked down. Signs *should not* be placed in fully traversable central islands or fully traversable splitter islands. Refer to FDM 11-26 Attachment 12.1 for a sample sign layout for a compact roundabout.

Depending on the site context, intersection destination/direction signs *may* be omitted. These signs are less common for intersections in denser, urban locations and conditions *may not* make installing such a sign practical. Intersections of marked CTH, STH, or USH routes **shall** include J-assemblies at a minimum. If the intersection contains several marked routes sharing the same approach, consider the use of a D1-62 diagrammatic sign. Intersections with local system roadways *may* use a D1-60-series Advanced Crossroad Name Sign.

Closely-Spaced Multiple Roundabouts

Often multiple roundabouts *may* be installed in close proximity to each other (roundabouts 1,000 feet apart center to center, or less). This can often happen at interchange ramp terminals and frontage roads. Multiple roundabouts in close proximity to each other can cause signing challenges due to longitudinal space constraints between the roundabouts. As a result, some signing *may* be eliminated between the roundabouts. The roundabout warning assembly signs (W2-6 and W13-1) *may* be eliminated between roundabouts if the visibility distance between the roundabouts exceed the minimum visibility distance shown in TEOpS 2-3-6. Other signs *may* be eliminated with consultation with the Region Traffic Section. The roundabout warning assembly signs would continue to be placed at the approaches to the first roundabouts in the series.

Roundabouts in Close Proximity to Railroad Crossings

Railroad crossings in close proximity to roundabouts can present additional signing challenges due to safety concerns involving railroad crossings and the installations of additional signs in spaces already containing numerous signs. Because each railroad crossing is unique, roundabout designers need to contact the Bureau of Traffic Operations Traffic Design unit and the appropriate Region Traffic Operations section for the proper signing and marking layout if the railroad crossing is 1,000 feet or less from the roundabout.

Sign Installation for OSOW Vehicle Routes

For roundabouts on OSOW routes, install tubular steel signpost assemblies or a comparable system (approved by the Project Engineer) for the following signs:

1. Left side YIELD (R1-2)

2. Right side YIELD (R1-2)
3. Exit Guide signs (D1 series) in the splitter islands
4. ONE WAY (R6-1R) sign assembly in the central island
5. Any signs located on the median island separating a right turn lane from the through lane(s)
6. Any additional signs on the outer portion of the roundabout circle, if directly impacted by OSOW vehicles.
7. Additional consideration *should* be given to sleeving all signs on single-lane roundabout approaches with clear width less than 20'.

Install tubular steel signpost assemblies in accordance with Standard Spec 634.2.5 and standard sign plate A4-9. Refer to the sign plate library.

2-15-55 Signing for Restricted Crossing U-Turns (RCUTs) May 2023

BACKGROUND

The usage of the Restricted Crossing U-Turn (RCUT), formerly referred to as a "J" turn intersection, has been a low cost intersection safety improvement method that was introduced in the early 1980's. A characterization of a RCUT intersection is the prohibition of left turn and through movements from side street approaches. Instead, these side street movements are accommodated by requiring drivers to make a right turn onto the main highway, and then make a U-turn at a median opening downstream. Left turns from the main roadway onto the sideroad *may* be allowed to remain at the existing sideroad intersection, or, in the case of a full median closure, *may* be executed by making a U-turn at the downstream median opening and then turning right onto the sideroad.

The Federal Highway Administration has indicated several advantages in the RCUT concept over grade-separated interchanges and at-grade intersections. Some of these advantages include increased safety, better operational issues, lower construction costs and less right-of-way impacts. Other states that have implemented the RCUT concept have seen significant safety benefits by eliminating the "far side" right angle crash.

PURPOSE

Currently the Federal MUTCD does not contain guidance on the signing of RCUT intersections. As the construction of RCUT intersections increases, it is critical to have a consistent signing practice for motorist expectations. The signing can be accomplished utilizing traditional regulatory, warning and guide signs outlines in the MUTCD.

Below are guidelines that *should* be followed for the signing of RCUT intersections:

GUIDELINES

The attached typical signing plans *should* be sufficient for most intersections of this type. The choice of using J-Panels only or a combination of J-Panels and diagrammatic signs is left to regional preference.

1. For routes that are not numbered or lettered, advance crossroad name signs **shall** be used.
2. On divided roadways with posted speeds of 45 mph or greater or inadequate sight distance, advanced warning signs WATCH FOR TURNING VEHICLES NEXT ½ MILE *may* be used as a warning to motorists for turning traffic.
3. TEOpS 2-15-12 **shall** be followed for placement of Wrong Way signing.

Figure 1a. Diagrammatic RCUT Signing

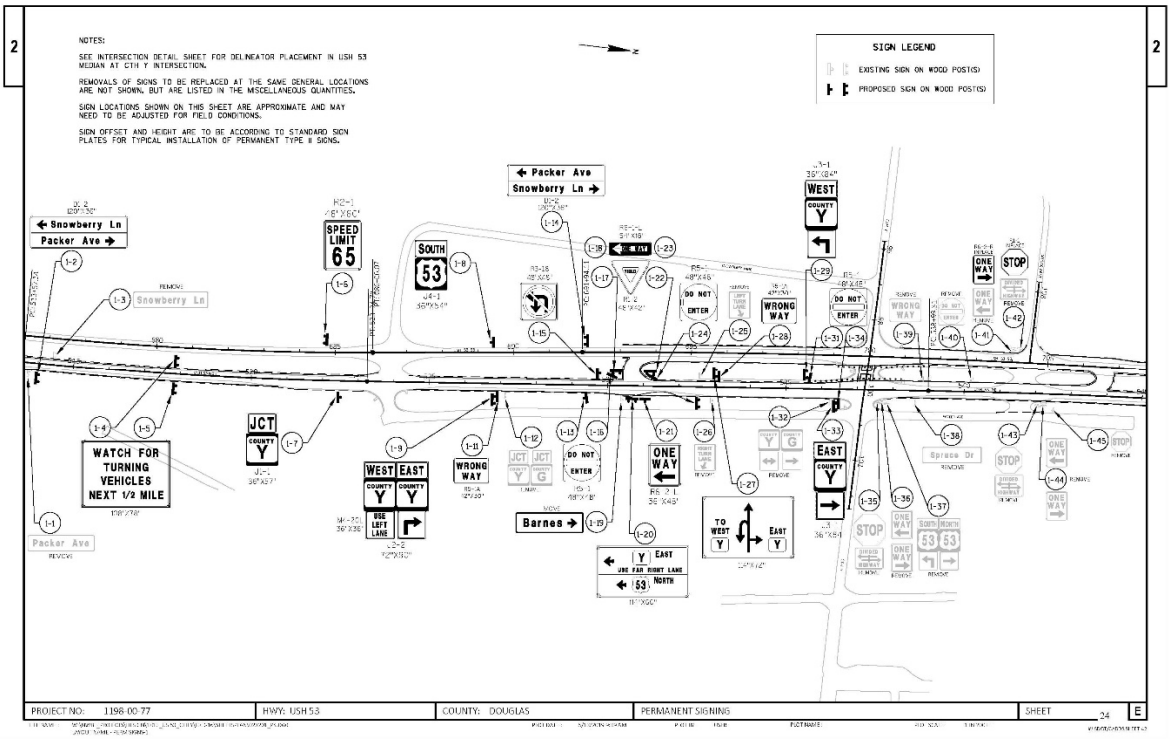


Figure 1b. Diagrammatic RCUT Signing

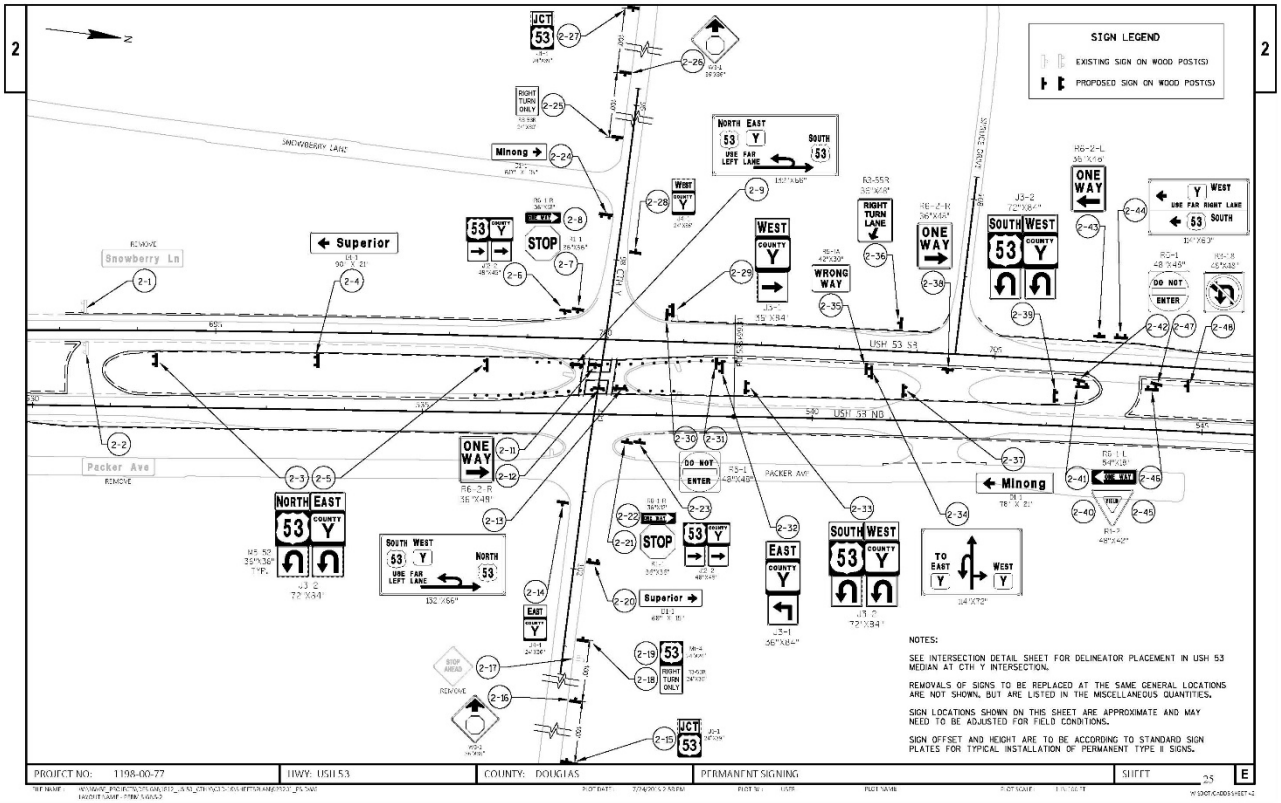


Figure 1c. Diagrammatic RCUT Signing

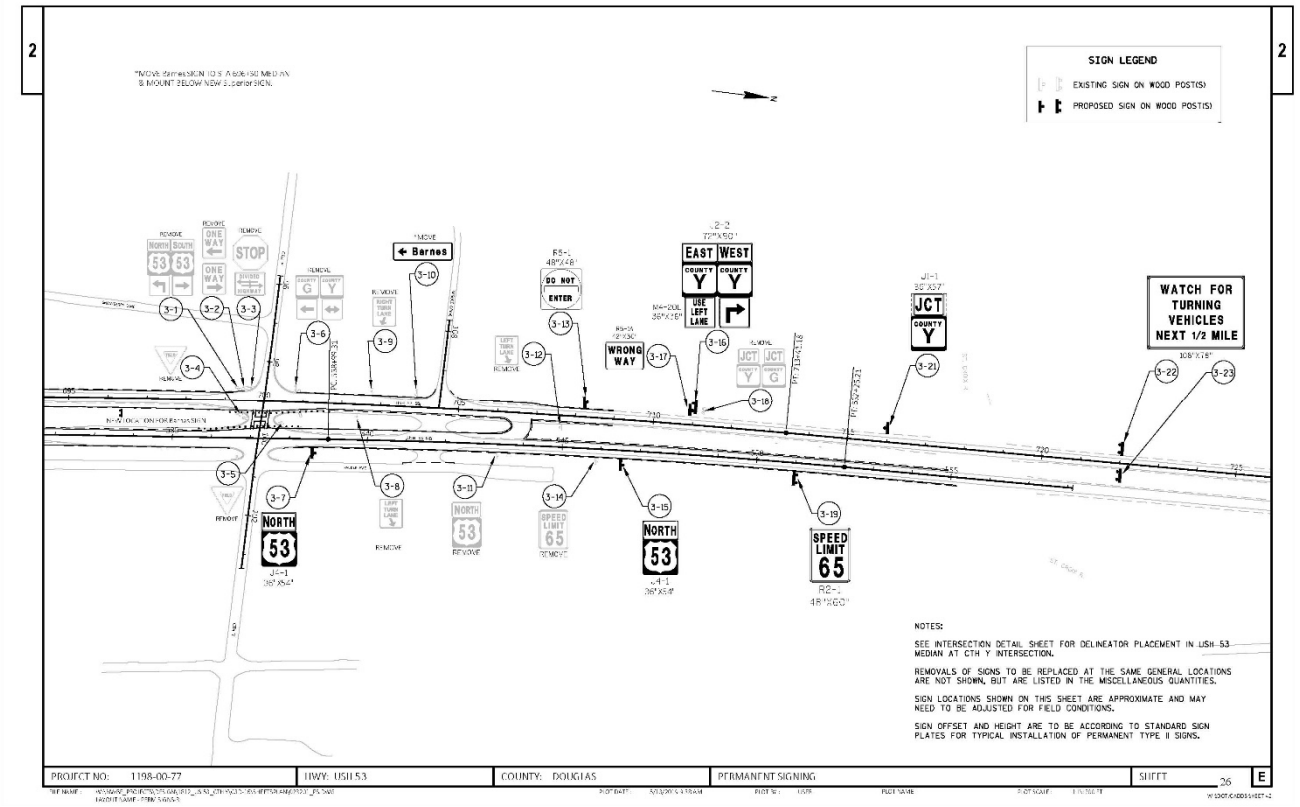


Figure 2. CTH-STH RCUT Signing Using J-Panels Only

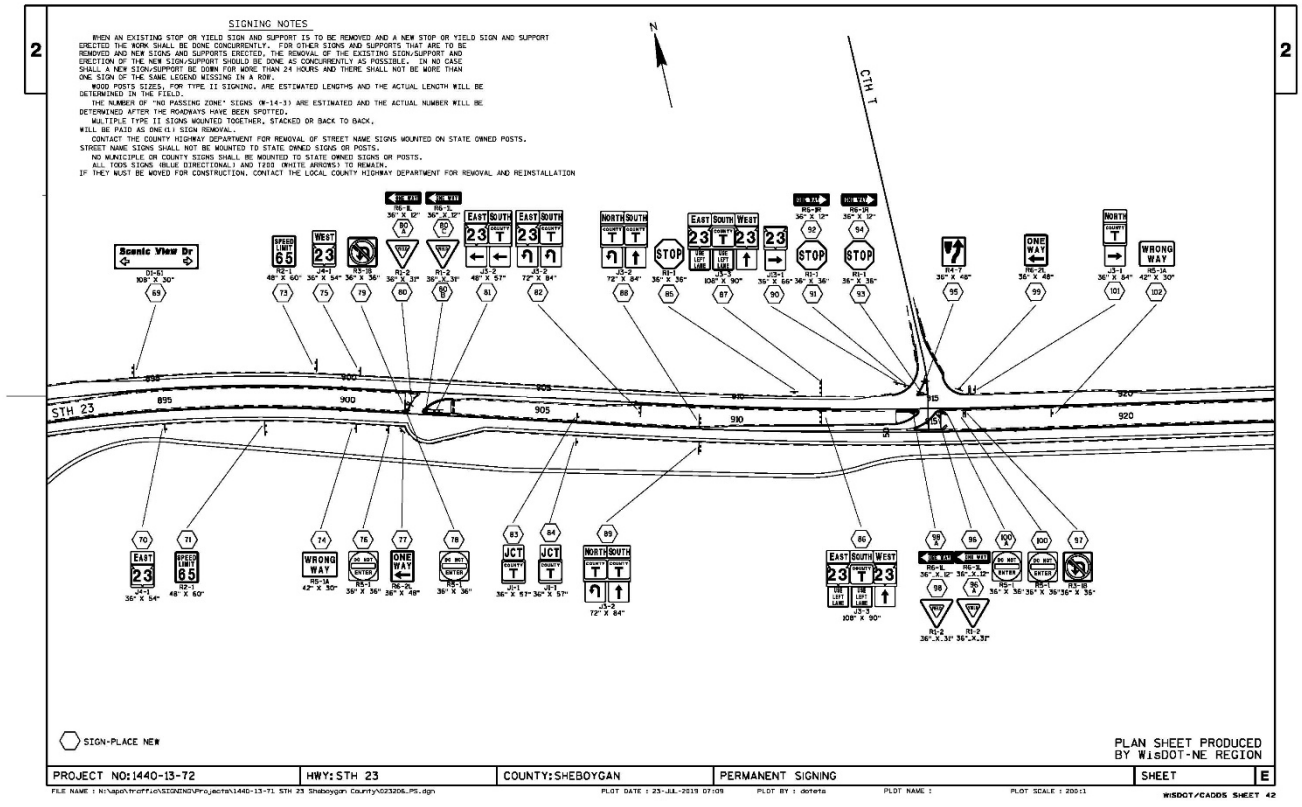


Figure 3a. Local-STH RCUT Signing Using J-Panels Only

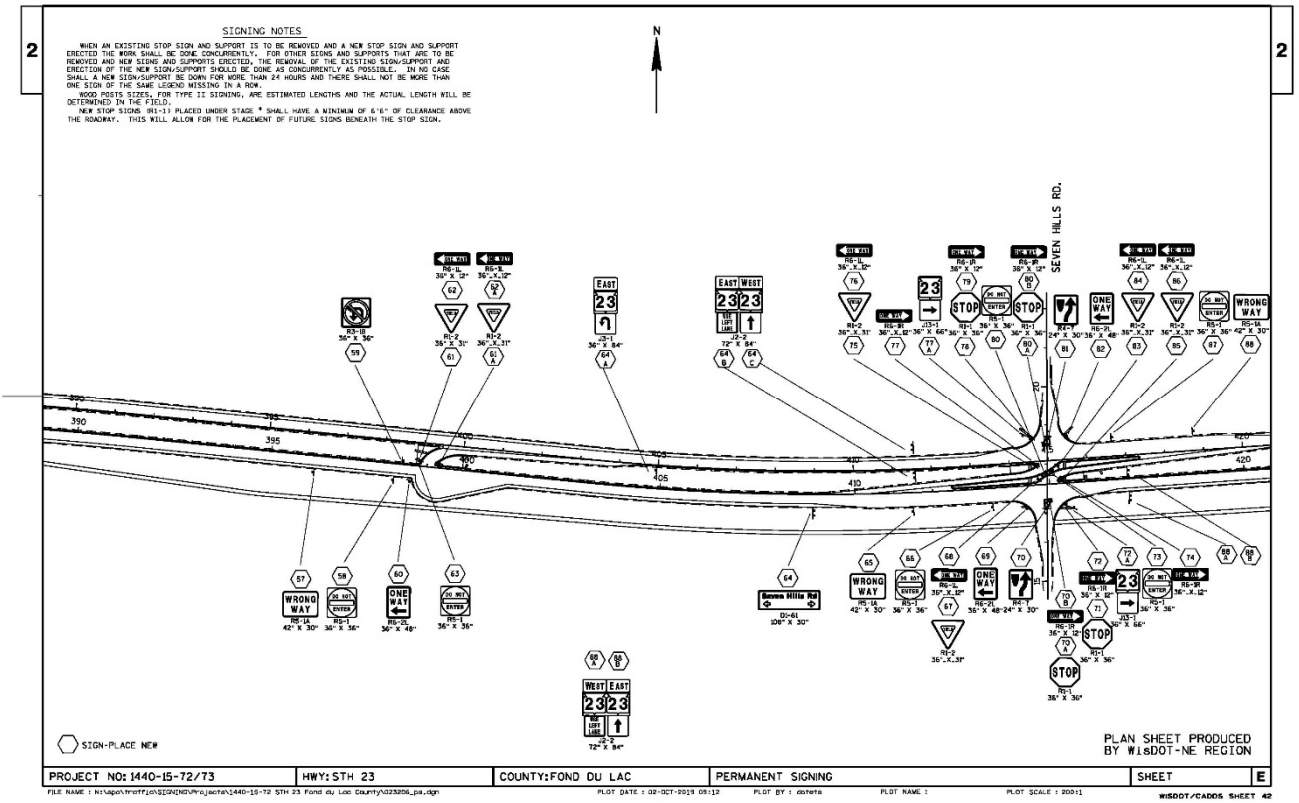
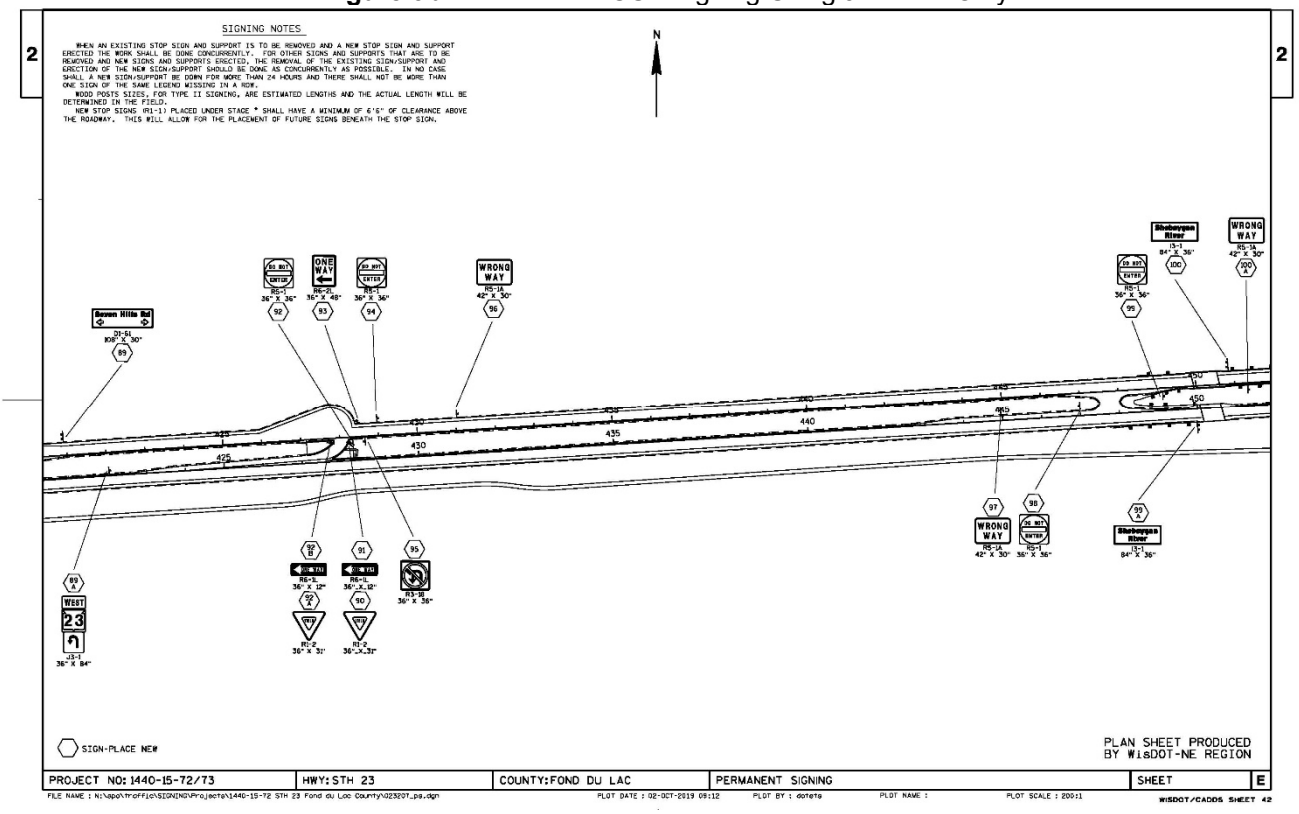


Figure 3b. Local-STH RCUT Signing Using J-Panels Only



2-15-56 Signing for Diverging Diamond Interchanges ~~January 2015~~November 2026

BACKGROUND

The usage of the Diverging Diamond Interchange (DDI) is a relatively new development in highway design in the United States. DDIs allow free-flow left turns from the crossroad to the freeway on-ramps. This is accomplished by crossing traffic on the crossroad from the right-hand side to the left-hand side through the interchange area.

Several advantages in the DDI concept over traditional diamond interchanges include increased safety, increased capacity of left turn movements, and less right-of-way impacts.

GUIDELINES

The attached typical signing plans *should* be sufficient for most interchanges of this type. Figure 1 shows a DDI with the crossroad over the freeway, and Figure 2 shows a DDI with the freeway over the crossroad.

Field review of signing is critical before opening the DDI to traffic. Signing *should* be adjusted to ensure that wrong way prevention signs (Do Not Enter, No Left/Right/U-turns) are positioned to minimize the possibility of confusion for drivers.

Single-lane Crossroad Approach to DDI

1. The double reverse curve warning sign (W24-1) *should* be used on all approaches to DDIs. The W24-1 sign **shall** be used on approaches to DDIs with safe operating speed less than posted/statutory speed of the roadway.
2. R3-5~~0A~~a signs *should* be installed above all through lanes on the signal mast arms within the DDI.
3. TEOpS 2-15-12 **shall** be followed for placement of Wrong Way signing. Sign plate R3-4R (reverse no U-turn) has been developed for use at the signals within the DDI.
4. TEOpS 2-4-44 *should* be followed for placement of guide signs.

Mult~~it~~-Lane Crossroad Approach to DDI

1. The double reverse curve warning sign (W24-1L) *should* be used on all approaches to DDIs. The W24-1L with an advisory speed sign (W13-1P) **shall** be used on approaches to DDIs with safe operating speed 10 mph or more less than posted/statutory speed of the roadway. When a W24-1 is used, an appropriate supplementary plaque (“All Lanes”, “Left 2 Lanes”, etc.) **shall** be placed below the W24-1L.
2. R3-5~~0A~~a signs **shall** be installed above all through lanes on the signal mast arms within the DDI.
3. TEOpS 2-15-12 **shall** be followed for placement of Wrong Way signing. Sign plate R3-4R (reverse no U-turn) has been developed for use at the signals within the DDI.
4. Approaching the DDI, advance overhead lane selection guide signs (E6 series) **shall** be used.
5. For DDIs with the crossroad over the freeway, J2 and D1-7x series signs *should* be used within the DDI. For DDIs with the freeway over the crossroad, overhead guide signs **shall** be used in place of the J2 series signs.
6. If overhead guide signs are used within the DDI, D1 or J3 series signs *may* be used at the on-ramp terminal within the DDI.

Figure 1.

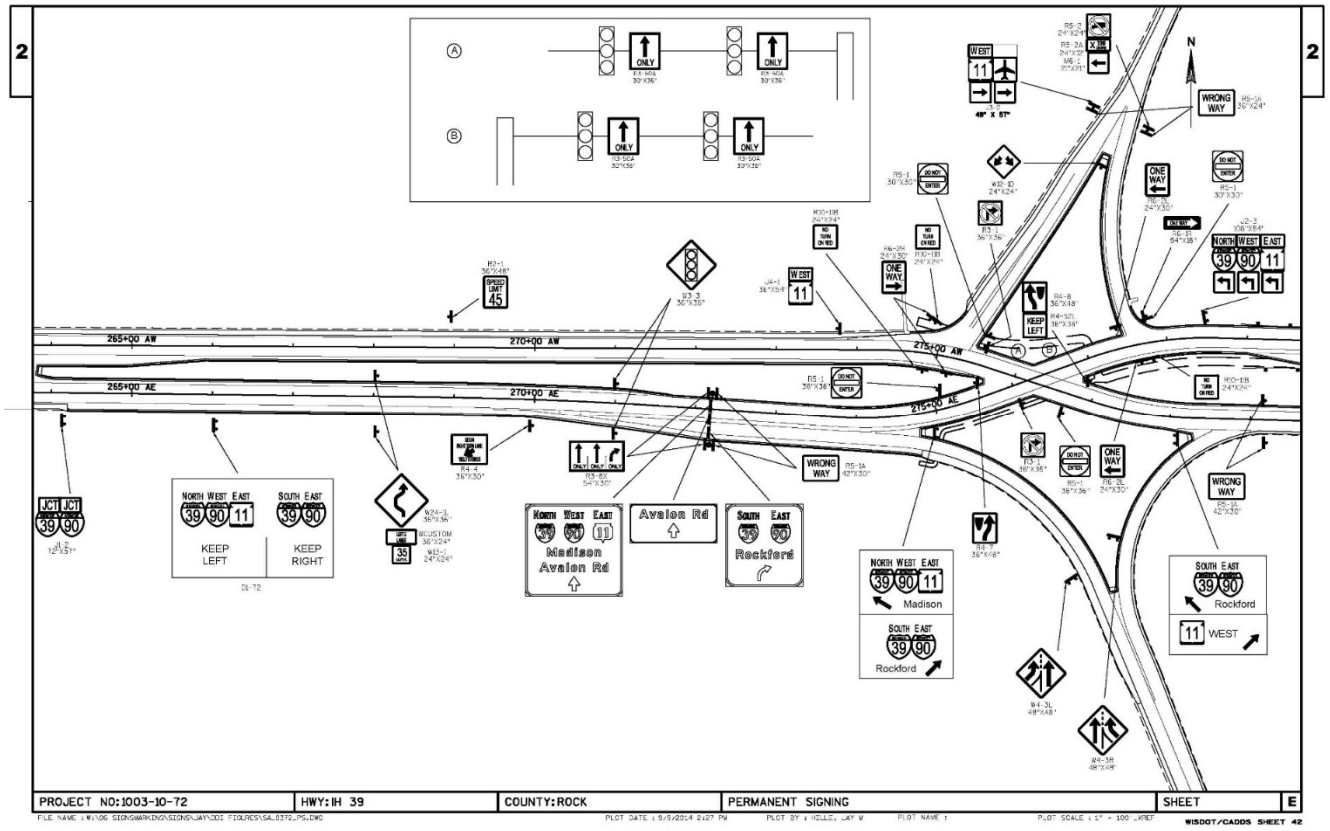

2
2
265+00 AW
270+00 AW
275+00 AW
265+00 AE
270+00 AE
275+00 AE
KEEP LEFT
KEEP RIGHT
NORTH WEST EAST
SOUTH EAST
Madison
Avalon Rd
Rockford
WEST
WRONG WAY
ONE WAY
DO NOT ENTER
PROJECT NO:1003-10-72
HWY:IH 39
COUNTY:ROCK
PERMANENT SIGNING
SHEET
E
WISDOT/CADDS SHEET 42

Figure 1. Continued

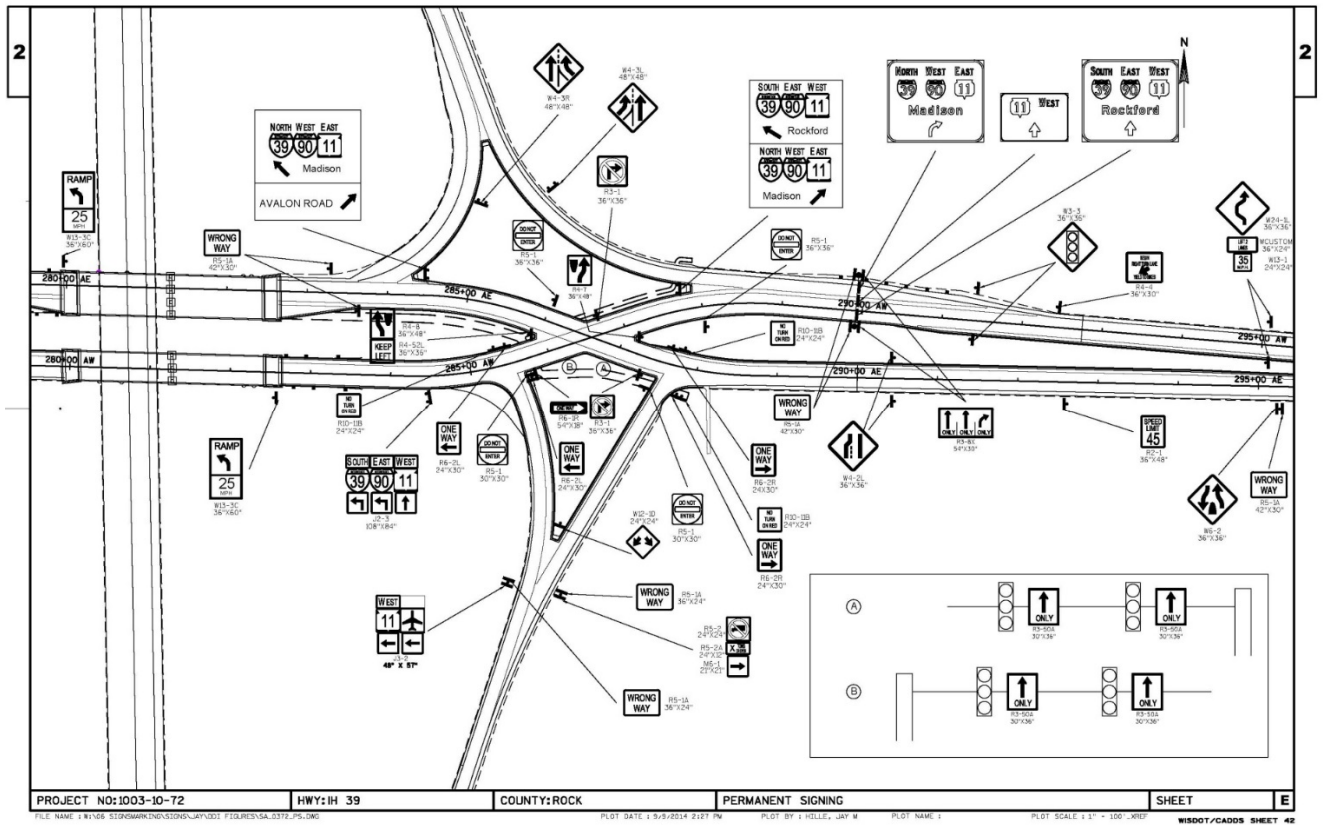


Figure 1. Continued

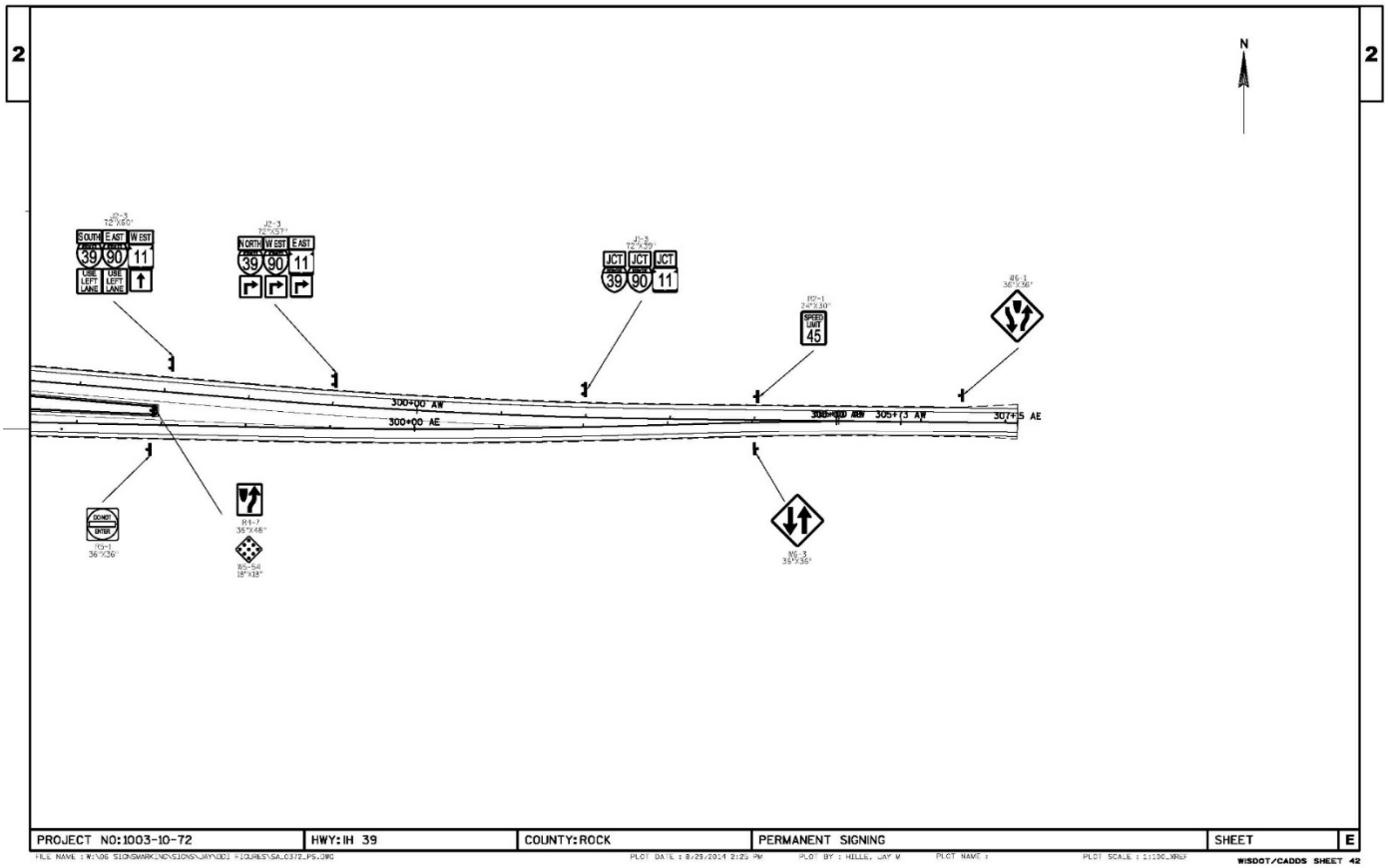


Figure 2.

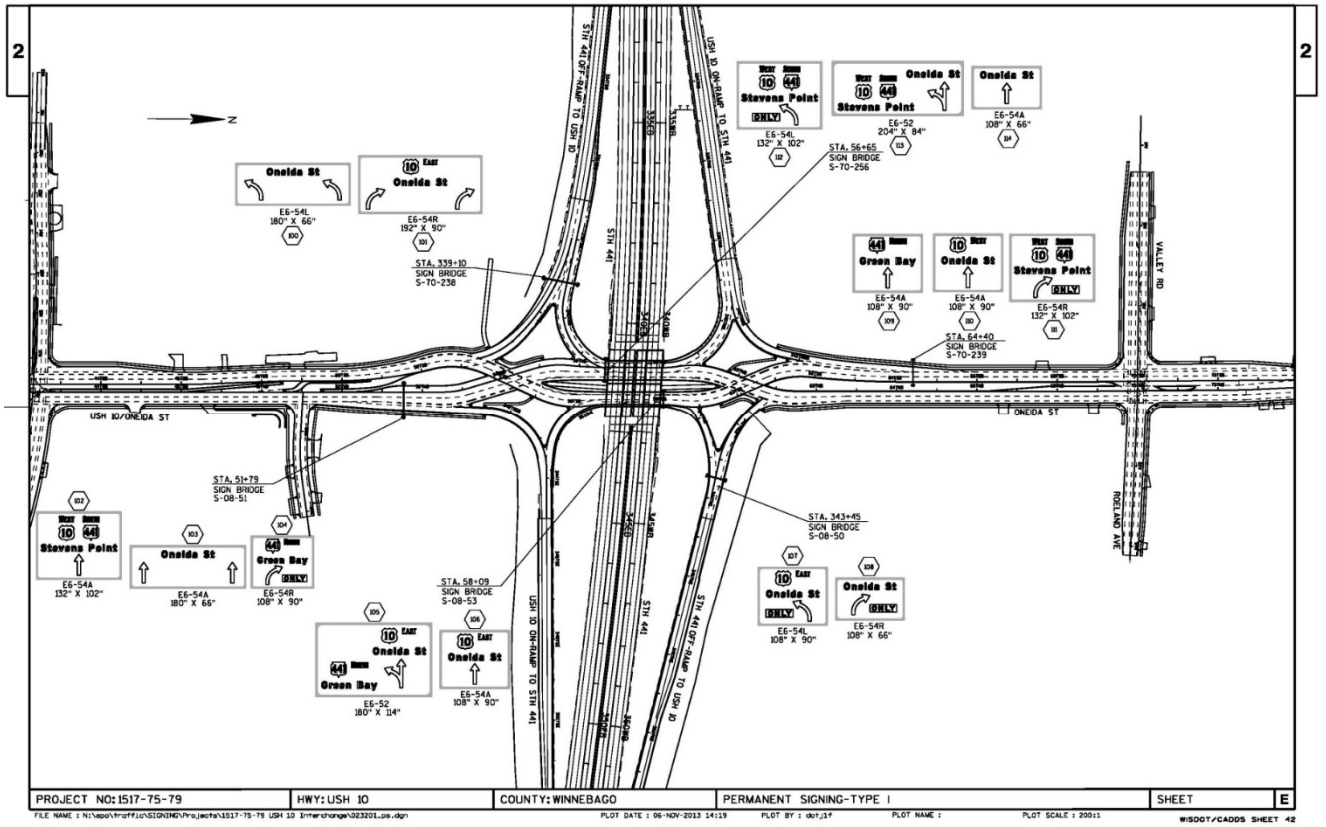


Figure 2. Continued

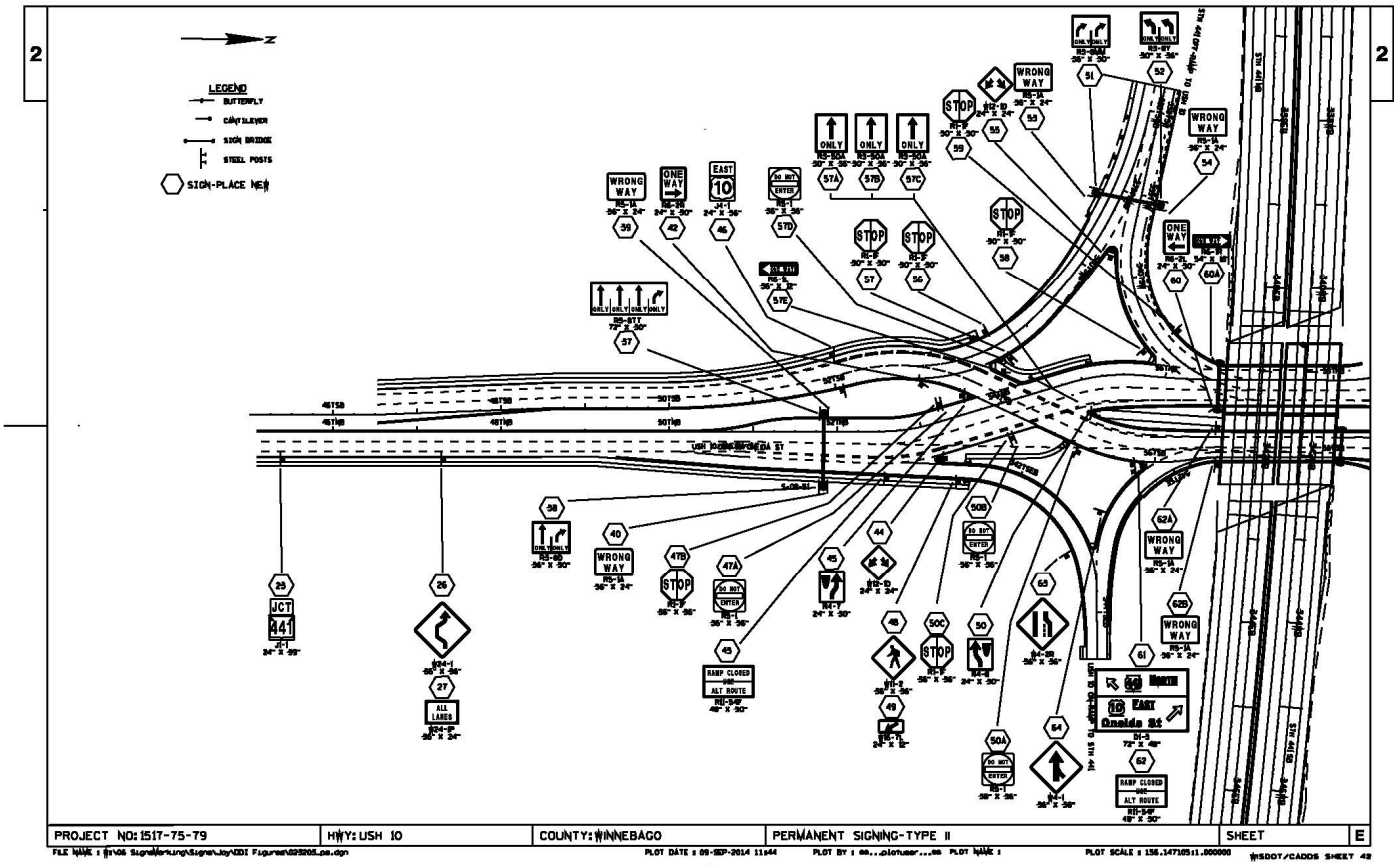
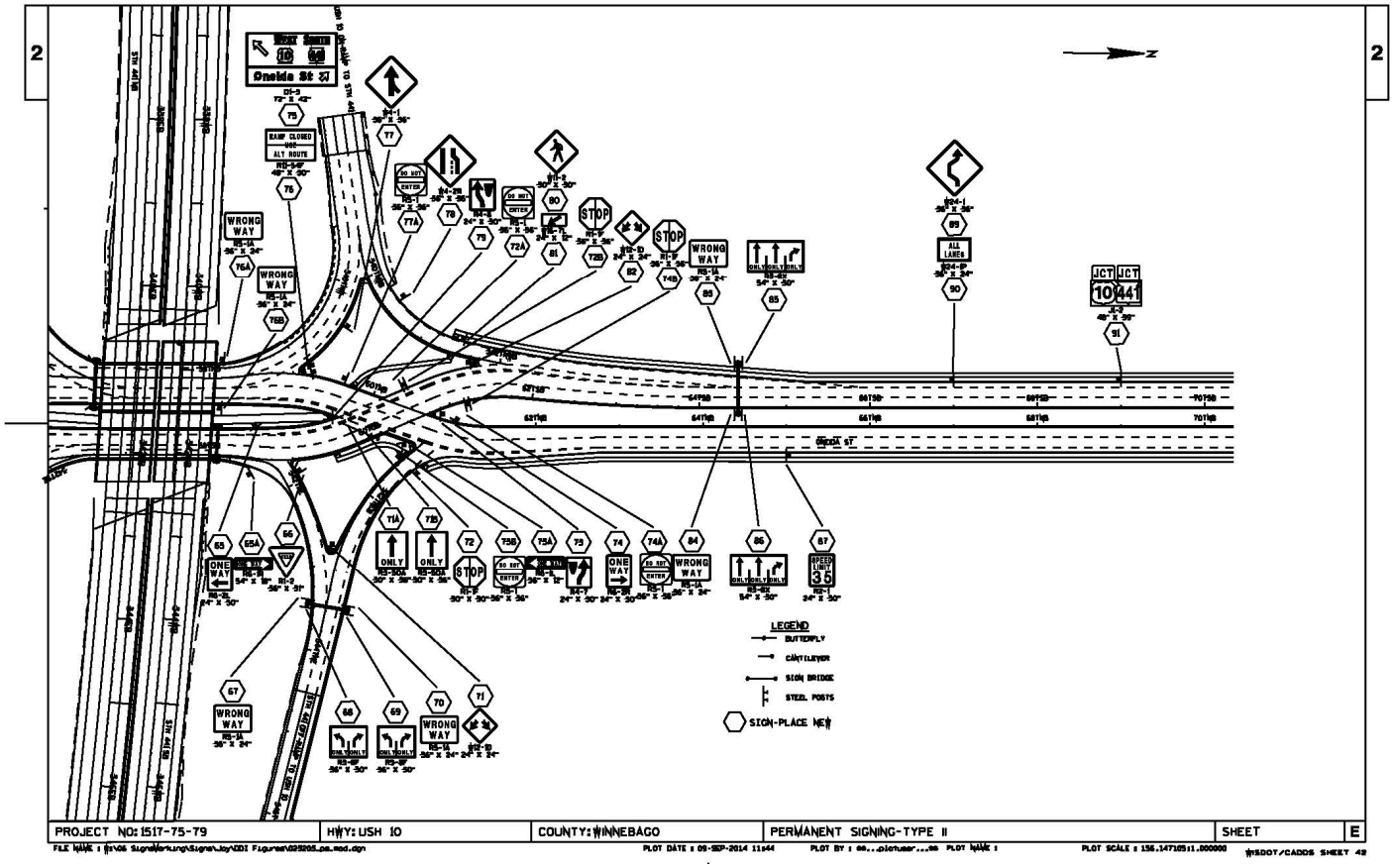


Figure 2. Continued



2-15-58 Specific Information Signs February 2021

PURPOSE

The purpose of this policy is to provide consistent statewide direction for the permitted use of Specific Information Signs under Wisconsin Administrative Code Chapter Trans 200.06 and Wisconsin Statute 86.195.

The Specific Information Signs (SIS) have the business's logos on blue signs. These **shall** only be permitted on SIS highways.

DEFINITIONS

SIS Highway: SIS Highway *may* be a major highway, interstate, freeway, or expressway and are approved by the state legislature. In Trans 200.03, Chapter 86.195 contains all SIS approved highways. (https://docs.legis.wisconsin.gov/statutes/statutes/86/195/2)

POLICY

In addition, the following DOT qualifying considerations **shall** be met.

Gasoline

1. Businesses **shall** be open a minimum of 16 hours per day, seven days a week for freeways and expressways.
2. Businesses **shall** be open a minimum of 12 hours per day, seven days a week for other highways.
3. Businesses **shall** provide a restroom, drinking water, and a public telephone.
4. Businesses **shall** provide vehicle services including fuel, oil and water.
5. Businesses **shall** be within three miles of the exit. If there are no businesses in the same category within three miles of the exit, the maximum distance *may* be extended to 15 miles.

Food

1. Businesses **shall** be open five days per week from at least 10 a.m. to 7 p.m.
2. Businesses **shall** have licensing and approval where required.
3. Businesses **shall** have at least 50 percent of gross receipts from food and non-alcoholic beverages.
4. Businesses **shall** provide restrooms and a public telephone.
5. Businesses **shall** be within three miles of the exit. If there are no businesses in the same category within three miles of the exit, the maximum distance *may* be extended to 15 miles.

Lodging

1. Businesses **shall** have licensing and approval where required.
2. Businesses **shall** have adequate sleeping accommodations.
3. Businesses **shall** provide restrooms and a public telephone.
4. Businesses **shall** be within three miles of the exit. If there are no businesses in the same category within three miles of the exit, the maximum distance *may* be extended to 15 miles.

Camping

1. Businesses **shall** have licensing and approval where required.
2. Businesses **shall** have restrooms, drinking water, and a public telephone.
3. Businesses **shall** have adequate parking accommodations.
4. Businesses **shall** be within three miles of the exit. If there are no businesses in the category within three miles of the exit, the maximum distance *may* be extended to 15 miles.

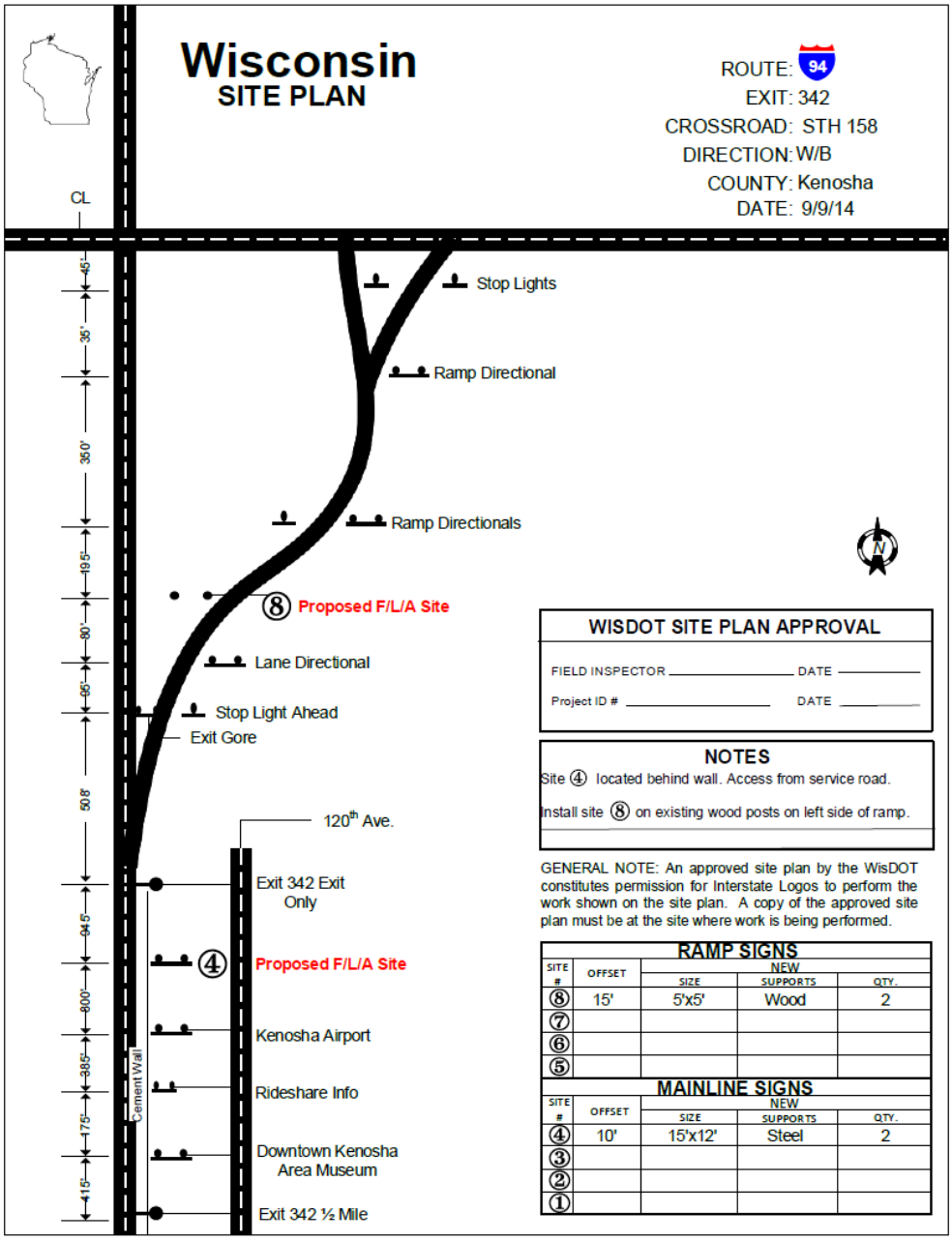
Tourist Attractions

1. The primary purpose **shall** be to provide amusement, historical, cultural, or leisure activities to the public.
2. Businesses **shall** have regional significance and adequate parking accommodations.
3. Businesses **shall** be within 30 miles of the exit.
4. Businesses **shall** be open a minimum of 8 hours per day, 5 days per week, for at least 3 consecutive months.
5. Applications **shall** be sent to BTO and forwarded onto the Advisory Council for approval.

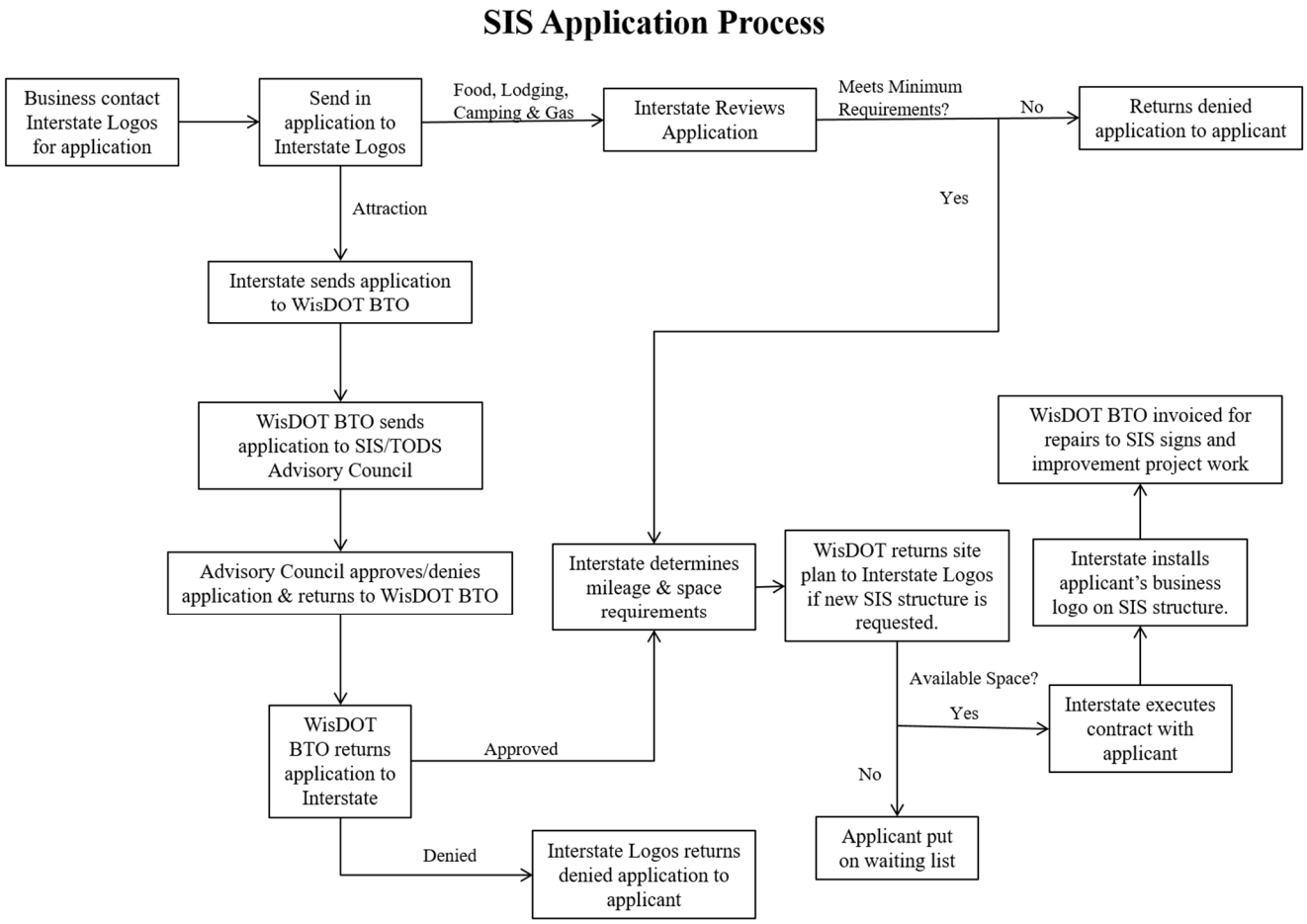
Installation of Specific Information Signs
Contact Interstate Logos for an application.
4918 Triangle St.
McFarland, WI 53558
(844) 496-9163 or (608) 579-1570
www.wisconsin.interstatelogos.com

Improvement Projects

- Site Plans **shall** be requested from Wisconsin Logos (see attached example below).
- Project contractors **shall not** perform work on SIS signs.
- STSP 638-010 **shall** be included in projects with SIS signs.


Wisconsin
SITE PLAN
ROUTE: 94
EXIT: 342
CROSSROAD: STH 158
DIRECTION: W/B
COUNTY: Kenosha
DATE: 9/9/14
CL
45'
35'
350'
19.5'
80'
45'
508'
94.5'
800'
385'
175'
415'
Stop Lights
Ramp Directional
Ramp Directionals
⑧ Proposed F/L/A Site
Lane Directional
Stop Light Ahead
Exit Gore
120th Ave.
Exit 342 Exit Only
④ Proposed F/L/A Site
Kenosha Airport
Rideshare Info
Downtown Kenosha Area Museum
Exit 342 ½ Mile
Cement Wall
N
WISDOT SITE PLAN APPROVAL
FIELD INSPECTOR _____ DATE _____
Project ID # _____ DATE _____
NOTES
Site ④ located behind wall. Access from service road.
Install site ⑧ on existing wood posts on left side of ramp.
GENERAL NOTE: An approved site plan by the WisDOT constitutes permission for Interstate Logos to perform the work shown on the site plan. A copy of the approved site plan must be at the site where work is being performed.
RAMP SIGNS
SITE # | OFFSET | NEW SIZE | NEW SUPPORTS | NEW QTY.
⑧ | 15' | 5'x5' | Wood | 2
⑦ | | | | |
⑥ | | | | |
⑤ | | | | |
MAINLINE SIGNS
SITE # | OFFSET | NEW SIZE | NEW SUPPORTS | NEW QTY.
④ | 10' | 15'x12' | Steel | 2
③ | | | | |
② | | | | |
① | | | | |

The flow chart below describes the application process to obtain a SIS sign.



2-15-59 Tourist Oriented Directional Signs March 2023

PURPOSE

The purpose of this policy is to provide consistent statewide direction for the permitted use of Tourist Oriented Directional Signs under Wisconsin Administrative Code Chapter Trans 200.08 and the Wisconsin Statute 86.196.

The Tourist Oriented Directional Signs (TODS) are white on blue signs. They are not permitted on SIS-designated highways, at the intersection of two state roadways, or inside federal urban areas.

The application/permit form DT1864 incorporates Trans 200.08 and Statute 86.196 and specifies complete guidance on the use of these signs.

DEFINITIONS

SIS Highway: Specific Information Sign highways can be found in TEOpS 2-15-58.

Federal Urban Area: Federal urban areas are defined as "Urban Federal Aid Systems" with populations of 5,000-49,000.

Urban Areas: Urban areas are defined as urban boundaries with populations of 50,000 or greater.

GUIDANCE

The following businesses are qualified for a TODS sign under the gas, food, lodging, or camping categories.

Bed and Breakfast	Campground (private or public)
Hotel	Motel
RV Park	Resort
Restaurant	Service Station
Coffee Shops	

The following table provides a list of facilities which, if open and available to the public, *may be* eligible for a TODS attraction sign.

American Indian Craft	Amusement Park
Antique Shop	Art Gallery
Bait and Tackle Shop	Beach (privately owned)
Bicycle Rental	Boat Tour
Boat/Canoe Rental	Brewery (with tours)
Candy Store (Primary Business)	Cave (with tours0
Cheese Factory Shop (Primary Business)	Farm Tour
Ferry	Fish Farm
Game Farm (open to Public)	Golf Course
Hot Air Balloon Rides	Museum
Orchard	Park
Petting Zoo	Pick-Your-Own Fruits and Vegetables
Rafting/Tubing Business	Sausage Factory Shop (primary business)
Ski Resort/Hill	Stable
Tree Nursery	Wildlife Refuge
Winery (with tour)	Zoo
Botanical Gardens	Fairgrounds
Water Park	Casino/Bingo

The following table proves a list of facilities which are *not* eligible for TODS attraction signs.

Tennis Court	Fireworks
Book Store	Go-Kart Track
Taxidermy Shop	Grotto
Car Rental	Health Club
Swimming Pool/Natatorium	Hobby Shop
Civic Center	Ice Rink/Arena
Conservation Area	Movie Theater
Outlet Mall	Religious Shrine
Sports Arena/Stadium	

POLICY

TODS signs are intended for use in rural or outlying urban areas. They **shall not** be installed at intersections inside Federal Urban or Urban Area boundaries, or for businesses located inside Federal Urban or Urban Area boundaries.

In addition, the following DOT qualifying considerations **shall** be met.

1. Name changes **shall** require cancellation of the old sign and issuance of a new permit.
2. Only the name of the facility and mileage **shall** be allowed on the signs. Additional sign features, such as vacancy, hours of operation or products offered **shall not** be allowed on the sign or on an attached plaque or board.
3. If a conventional highway facility qualifies for signs in more than one category (TODS, SIS, Trans 200 Guidance or Supplemental Guide sign), only one category will be allowed in each direction.
4. If outdoor advertising signs for the facility are within 1,000 feet of the intersection or entrance, guidance signs **shall not** be permitted.
5. Businesses **shall** be within five miles of the intersection and have direct access to the State or U.S. Highway. If the business is not located directly on the crossroad off the State or U.S. Highway, additional supplemental signs *may* be required.
6. Businesses **shall** have no illegal outdoor advertising signs.

Category specific information:

Gasoline

1. Businesses **shall** have fuel, oil, and water available.
2. Businesses **shall** be open a minimum of twelve hours per day, seven days a week if located on a conventional roadway. Businesses located on an expressway **shall** be open a minimum of sixteen hours per day, seven days a week.
3. Businesses **shall** provide a restroom, drinking water, and a public telephone.

Food

1. Businesses **shall** have licensing or approval, where required.
2. Businesses **shall** be open five days per week from at least 10 a.m. to 7 p.m.
3. Businesses **shall** have at least 50 percent of gross receipts from food and non-alcoholic beverages.
4. Businesses **shall** provide a restroom, drinking water, and a public telephone

Lodging

1. Businesses **shall** have licensing or approval, where required.
2. Businesses **shall** have adequate sleeping accommodations.
3. Businesses **shall** have parking accommodations.
4. Businesses **shall** provide restrooms, drinking water, and a public telephone.

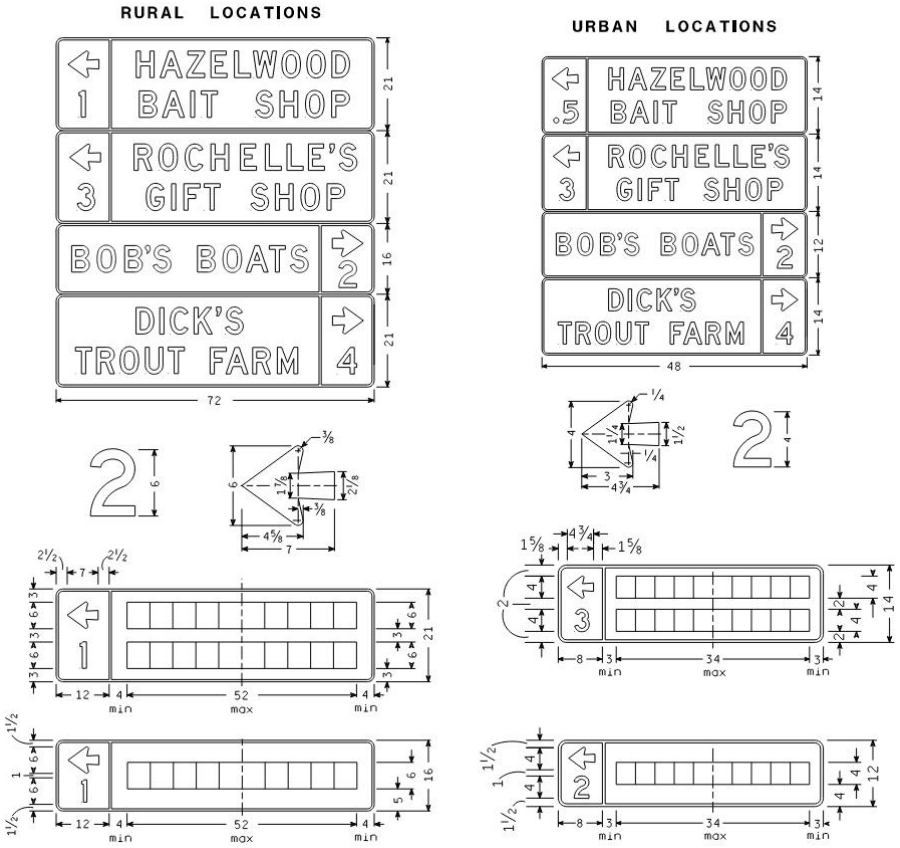
Camping

1. Businesses **shall** have licensing or approval, where required.
2. Businesses **shall** have adequate parking accommodations.
3. Businesses **shall** provide restrooms, drinking water, and a public telephone.

Tourist Attractions

1. Businesses **shall** have licensing or approval, where required.
2. Businesses **shall** be open at least eight hours per day, five days a week for at least three consecutive months.
3. Businesses **shall** provide restrooms and drinking water
4. Businesses **shall** have significant interest to the traveling public, as approved by the Advisory Council.

Figure 1. Standard Plate for TODS signs



As shown on Figure 1 of the Standard Sign Plate E10-82, the sign message **shall** consist of 4 or 6 inch white lettering on type H reflective blue background. Letter sizes and spacing **shall** conform to the standards in the FHWA Standard Highway Signs manual. Overall sign sizes used **shall** conform to the dimensions as shown on the Standard Sign Plate E10-82. Base material is aluminum, with rounded corners. A half inch white border with a 1 ½" radius shall be placed around the sign.

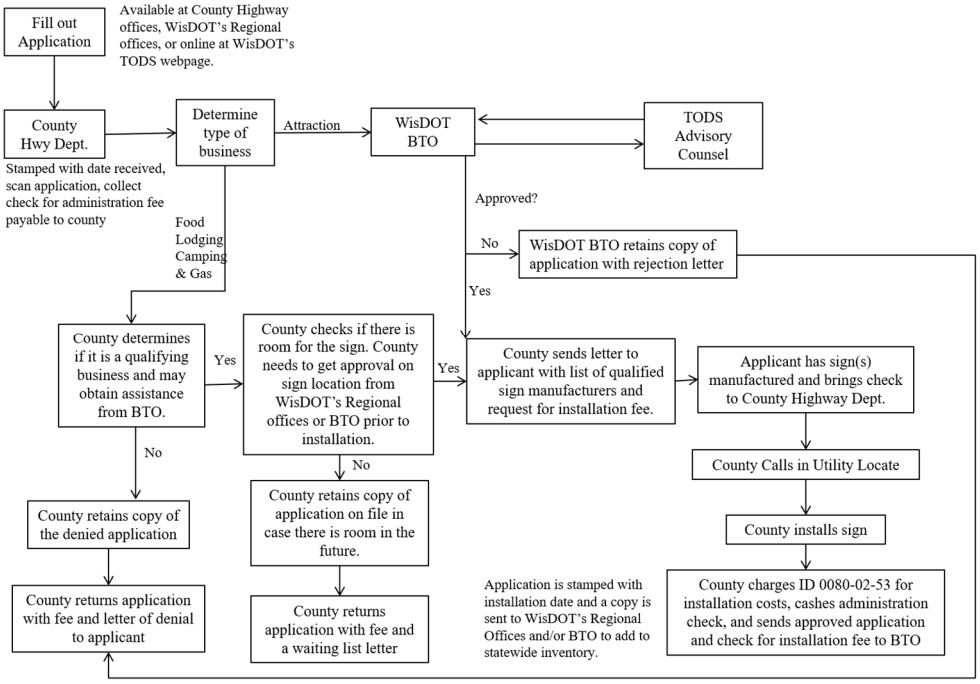
The WisDOT Region office reserves the right to remove non-conforming signs from the highway right-of-way. The owner *may* contact the WisDOT Region office to pick up any signs that have been removed. Upon pickup of the removed signs, the sign owner **shall** be responsible for sign removal costs.

Installation of Tourist Oriented Directional Signs by Counties

1. Businesses **shall** drop off or submit a completed DT1864 form with a check payable to the county for the $100/sign for administration fee. If approved, businesses are required to pay the administration fee every 5 years based on the installation date.
2. All applications **shall** be forwarded to Casey Amans (casey.amans@dot.wi.gov) to verify the location is outside federal urban area boundaries.
3. Once approved, the business *may* have the sign manufactured from one of the businesses on the Qualified Manufacturer list. Signs **shall** be made to state standards.
4. The business **shall** bring in the sign(s), along with a check for $250 per sign payable to the Wisconsin Department of Transportation for the installation fees. These checks *should* be sent to: Wisconsin Department of Transportation, attn: Casey Amans, 3609 Pierstorff St. Madison, WI 53704.
5. Signs **shall** be mounted on 4" x 6" treated posts.
6. For removal and/or installation of signs on existing posts, the removal/installation fees are $100 per sign. Checks *should* be sent to: Wisconsin Department of Transportation, attn: Casey Amans, 3609 Pierstorff St. Madison, WI 53704.
7. All county costs for TODS repairs and installations **shall** be charged to the 0080-02-53 project ID. The county *should* ensure the business submits the appropriate repair/installation fees due to WisDOT.
8. The county *should* only repair damaged TODS when directed to do so by the sign owner. Every repair requires the business to cover the appropriate costs. If the business elects not to repair the sign, the county *may* remove it. If the business wants their sign(s), removal fees would apply.
9. Any existing white arrow boards for the business **shall** be removed before a TODS sign is installed

The application process for a TODS sign is shown below in the Figure 2.

Figure 2. TODS Application Process



TOURIST ORIENTED DIRECTIONAL SIGN (TODS) APPLICATION/PERMIT

Wisconsin Department of Transportation
DT1864 12/2020 s. 86.196 Wis. Stats., Ch. Trans. 200.08 Wis. Admin. Code

INSTRUCTIONS:

1. Complete both sides of the application. PLEASE PRINT CLEARLY.
2. Prepare a check for $100 per sign for the administrative fees. The check is to be made payable to the county in which the requested sign(s) would be located.
3. Staple the check to the upper left corner of this application.
4. Send the application and check to the County Highway Commissioner. The application will be reviewed, and the county will contact you with the results. If the application is denied, the check will be returned.

Make Check Payable To:

Mail To:

NAME of Business/Service/Activity:

Street Address, City, State, ZIP Code:

Business/Service/Activity Category for which TODS are Requested *(Check ONE)*:
☐ Gas ☐ Food ☐ Lodging ☐ Camping ☐ Tourist Attraction

Amenities Available at the Business/Service/Activity:
☐ Restrooms ☐ Parking ☐ Drinking Water ☐ Telephone

Period Business/Service/Activity Operates:
☐ Open All Year ☐ Seasonal Operation

If Seasonal Operation, Open Each Year:
From (month/day): To (month/day):

Hours of Operation:	OPEN	CLOSE
Monday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
Tuesday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
Wednesday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
Thursday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
Friday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
Saturday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.
Sunday	☐ a.m. ☐ p.m.	☐ a.m. ☐ p.m.

Special Rule for the **ATTRACTION** Category:
If you are applying for TODS under the ATTRACTION category, the following information is ***required***:
Number of Visitors per Year: (*5,000 Minimum Annual Attendance)

Special Rule for the **FOOD** Category:
If you are applying for TODS under the FOOD category, the following information is ***required***:

☐ Yes ☐ No 1. Do you serve 2 meals per day?

☐ Yes ☐ No 2. Are at least 50% of your gross annual receipts for food and nonalcoholic beverages?

Sign Conflicts:

☐ Yes ☐ No 1. Do you have a "White Arrow Board" sign (Ch. Trans 200.03, Wis. Admin. Code) at the intersection of the proposed TODS locations?

☐ Yes ☐ No 2. Do you have an outdoor advertising sign, which is not in accordance with s.84.30 Wis. Stats. or Ch. Trans. 201 Wis. Admin. Code?

☐ Yes ☐ No 3. Do you have permitted outdoor advertising signs within 1,000 feet of the proposed TODS locations?

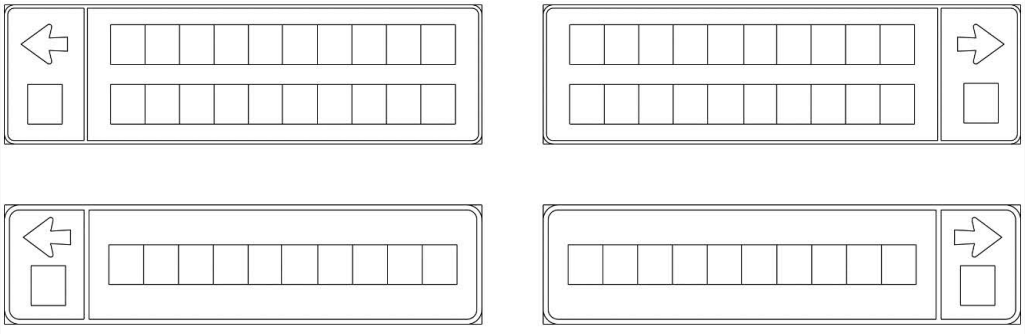
Number of Signs:

☐ One new TODS (Administrative fee is $100 payable to the county)

☐ Two new TODS (Administrative fee is $200 payable to the county)

☐ Replace or Repair Existing TODS (Installation fee is $100/sign if sign only, $250/sign if replacing sign and/or posts, payable to WisDOT)

Proposed Sign Wording:
Fill in the name and the distance from the intersection to the business/service/activity for each TODS requested. Limit the name to one character or space per box.

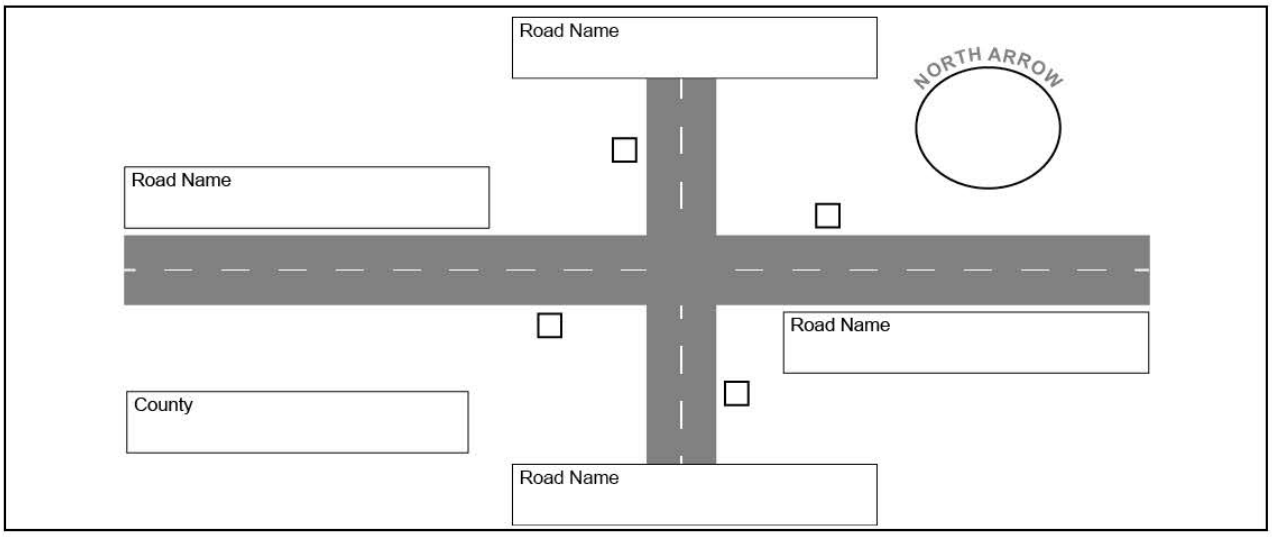


TOURIST ORIENTED DIRECTIONAL SIGN (TODS) APPLICATION/PERMIT *(continued)*

Wisconsin Department of Transportation DT1864

PROPOSED SIGN LOCATION INSTRUCTIONS:

1. Label the intersecting roads.
2. Place an arrow in the circle pointing to the North.
3. Check (X) one or two of the boxes ☐ corresponding to the proposed sign location(s). TODS are only permitted on U.S. or State Highways. They must direct motorists to businesses/services/activities that are located on County Highways or Town Roads.
4. Place an O (circle) at the approximate location of your business.
5. Write the name of the county in the lower left corner.
6. Write in any additional details or comments that would be helpful in determining the proposed sign location. (Optional)



CERTIFICATION:

I, the applicant, certify that the statements contained on this application/permit are true and correct, and that the business identified is conducted in conformity to all laws applicable to nondiscrimination, and that discrimination is not exercised in regard to race, religion, color, sex, sexual orientation, or national origin. I understand that in addition to the attached administration fee, I am responsible for the manufacturing and installation costs for the proposed sign(s). I understand that this permit is revocable, and that it is subject to renewal every five years. I further understand that if my business is a seasonal operation, I am responsible for notifying the county prior to closing and re-opening, and that a "CLOSED" plaque will be placed on my sign when my business is closed for the season.

Applicant Name (First, MI, Last)
(Area Code) Telephone Number

X _____ (Applicant Signature) _____ (Date – m/d/yyyy)

APPROVAL – APPROVED BY WISCONSIN DEPARTMENT OF TRANSPORTATION OR AUTHORIZED AGENT:

Subject to present and continuing compliance by the applicant with all requirements of s.86.196 Wis. Stats. and Chapter Trans. 200.08 Wisconsin Administrative Code, a permit is granted for the TODS sign(s) described. This permit expires on the five-year anniversary date of the installation of the TODS sign panel.

X _____ (WisDOT Region Traffic Engineer) _____ (Date – m/d/yyyy)

X _____ (WisDOT Bureau of Traffic Operations or Authorized Agent) _____ (Date – m/d/yyyy)

DENIAL – DENIED BY WISCONSIN OF DEPARTMENT OF TRANSPORTATION OR AUTHORIZED AGENT:

Reason:

X _____ (WisDOT Bureau of Traffic Operations or Authorized Agent) _____ (Date – m/d/yyyy)

— For WisDOT Use ONLY —					
SIGN SIZE	PERMIT NUMBER		INSTALLATION DATE		
☐ RURAL (72") ☐ URBAN (48")	County	Number	Month	Day	Year

2-15-60 Trans 200 Guidance Signing (White Arrow Boards) ~~February 2021~~November 2026

PURPOSE

The purpose of this policy is to provide consistent statewide direction for the permitted use of guidance signs under Wisconsin Administrative Code Chapter Trans 200.

These narrow horizontal signs are only permitted on conventional state highways or expressway approaches to at-grade intersections. As prescribed in subsection Trans 200.03, these signs *may* be permitted to direct to:

- resorts,
- hotels,
- places of public entertainment or instruction,
- any place of religious worship,
- any county institution,
- any scientific experiment location for the furtherance of agriculture or other science or art.

The term “entertainment” in this case does not include nightclubs, taverns, or similar establishments.

Trans 200.03, this policy, and the Application/Permit Form DT1903 specify complete guidance on the use of these signs.

DEFINITIONS

Freeways are defined as divided highways with fully controlled access at interchanges only. Interstate Highways are freeways with the interstate route designation.

Expressways are defined as divided highways with partially controlled access by a combination of interchanges, at-grade intersections, and driveways.

Conventional Highways are defined as streets or roads other than freeways or expressways. They *may* be divided or undivided, two-lane or multi-lane, and access is available at intersections and driveways.

GUIDANCE

The following table provides a list of facilities which, if open and available to the public, *may* be eligible for a White Arrow Board permit.

MAY BE ELIGIBLE

TYPE OF FACILITY	QUALIFYING CONSIDERATIONS
Agricultural experiment	
Animal shelters	*May* be permitted for County Institutions only.
Athletic fields, facilities	*May* be permitted for facilities that do not qualify for supplemental signing, and community wayfinder signing is not available.
Aviation Flight School	
Cabins, Cottages	For rental periods less than 30 days
Camps, religious or youth	
Campgrounds, RV Parks	Privately owned with rental periods less than 30 days.
Churches	
Condominiums	Only if part of a resort, for rental periods less than 30 days
Convention Center	*May* be permitted for facilities that do not qualify for supplemental signing, and community wayfinder signing is not available.
Country Clubs	Only when open to the public
County Healthcare Facilities	
Cruises, Boat	
Environmental Center	
Event Centers	*May* be permitted if open to the public and for multi-purpose use, including weddings, community gatherings, conferences, etc. Venues that offer wedding services only *should not* be permitted.
Exhibition, Exposition Center	*May* be permitted for facilities that do not qualify for supplemental signing, and community wayfinder signing is not available.
Golf Courses	Only when open to the public
Horseback Riding	Only when open to the public
Hotel, Motel, Bed & Breakfast	*May* be permitted as a substitute for “Lodging” category where SIS or TODS is not permitted.
Humane Society Shelter	*May* be permitted for County Institutions only.
Libraries	
Marinas	

Museums and historic sites	*May* be permitted for facilities that do not qualify for supplemental signing, and community wayfinder signing is not available.
Recreational facilities	Facilities open to the public for recreational activities including ATV parks; amusement parks; archery ranges; boat, kayak or canoe launches, tours or rental facilities; bowling alleys; casinos; caves; concert venues; curling venues; disc golf courses, fishing piers; go-cart tracks, hanggliding; horseshoe facilities; ice skating rinks; paintball facilities; playgrounds; riding stables; rock climbing; shooting ranges; skate parks; skydiving facilities; sledding hills; splash parks; swimming pools; tour providers (airplane helicopter, tram, boat, walking); volleyball courts; waterski or wake board shows; waterparks.
Religious Worship Facilities	
Research Facilities	
Resorts	For rental periods less than 30 days
Restaurants, Supper Clubs	*May* be permitted as a substitute for "Food" category where SIS or TODS is not permitted.
Schools	
Scientific Experiments	
Seminaries	Only if it contains a public place of worship.
Shooting Ranges, Gun Clubs	Gun clubs **shall** be open to the public as shooting ranges. See types of shooting ranges under Qualifying Considerations for Recreational Facilities.
Theaters	Live entertainment only
Trails - Recreation, Nature, Skiing, Biking, Hiking, Snowshoeing, Snowmobiling, ATV or other vehicle trails	Directing to trailhead access with parking.
Train rides	*May* be permitted as a substitute for "Attractions" category where SIS or TODS is not permitted.
Wildlife Refuges	To instructional centers only
Zoo	*May* be permitted for facilities that do not qualify for supplemental signing, and community wayfinder signing is not available.

The following table provides a list of facilities which are **not eligible** for a White Arrow Board permit. As a general class, all retail or wholesale sales or service establishments **shall not** be approved for White Arrow Board.

NOT ELIGIBLE

Agricultural Farms	Berry Patches	Cranberry Marshes	Tree Farms
	Tree, Plant Nurseries	Produce Stands	Greenhouses
Air Traffic Control			
Animal Hospitals			
Animal Ranches	Game Farms		
Apartments	Buildings	Complexes	
Artists	Art Dealers	Artist Studios	
Auto Repair	Auto Body Repair		
Barber, Beauty Shops			
Builders, Contractors	Carpenters	Electricians	Landscapers
	Painters	Plumbers	Tree Service
Bus Terminals			
Cemeteries		(see TEOpS 2-15-3 & 2-15-20 re: Veterans Cemeteries)	
Clinics			
Crafts supplies, outlets			
Dance Halls			
Factories			
Freight Terminals			
Government Offices			
Halfway Houses			
Health Clubs			
Highway Departments	Maintenance Facilities		
Historic Neighborhoods			
Hospitals			
Jails			
Kennels			
Lakes	Landings		

Malls, Shopping Centers			
Mental Health Facilities (except County)			
Mobile Home Parks			
Movie Theaters			
Nursing Homes, Assisted Living, Private			
Office Buildings			
Pharmacies			
Post Offices			
Power Plants	Utilities		
Private Clubs			
Realtors			
Recycling Station			
Rehabilitation Centers (except County)			
Residences			
Retirement Facilities (except County)			
Sales, Retail or Wholesale		Antique Dealers	Auto Dealerships
	Bait & Tackle Shops	Grocery Stores	Hardware Stores
	Home Furnishings	Home Improvements	Liquor Stores
	Lumber Dealers	Materials Suppliers	Mobile Home Sales
Storage Units			
Subdivisions			
Taverns	Bars	Pubs	Taps
Taxidermists			
TV & Radio Stations			
UW Extension Offices			
Veterans Memorials			

POLICY

White Arrow Boards are intended for use in rural or outlying urban areas. They *should not* be installed in dense urban areas due to sidewalks, terraces, and right of way constraints.

In addition, the following DOT qualifying considerations **shall** be met.

1. The facility **shall** be open to the public.
2. Lodging facilities **shall** have three or more units that **shall** be available for less than 30-day rental periods.
3. Signs *may* only be permitted on the state highway(s) nearest the facility:
   a. Directing to the facility's entrance off the state highway, or
   b. Directing to the facility's entrance on a local or county road.

Signs directing to facilities beyond other state, US, or Interstate highways **shall not** be permitted.

4. Guidance signing **shall not** be permitted on the right of way at the entrance to a facility if there is sufficient sight distance in which to identify the activity, facility or other type of signing at the entrance. This applies both to businesses that front the roadway and also to those not fronting the roadway, but are visible from the roadway. Minimum visibility distances, based on the posted speed, are found in the following table from TEOpS 2-3-6~~MUTCD Section 2C.36~~.
5. Businesses **shall** have the appropriate operating licenses to receive, maintain, or renew a permit.
6. Name changes **shall** require cancellation of the old and issuance of a new permit.
7. Only the name of the facility **shall** be allowed for guidance. Additional sign features, such as vacancy, hours of operation or products offered **shall not** be allowed on the sign or on an attached plaque or board.

Posted Speed	Minimum Visibility Distance
25 mph	280 ft
30 mph	335 ft
35 mph	390 ft
40 mph	445 ft
45 mph	500 ft
50 mph	555 ft
55 mph	610 ft
60 mph	665 ft
65 mph	720 ft

70 mph	775 ft

8. If a conventional highway facility qualifies for signs in more than one category (TODS, SIS, White Arrow Boards or Supplemental Guide sign), only one category will be allowed. In this case, the White Arrow Boards *should* be discouraged because it is not retroreflective.
9. If outdoor advertising signs for the facility are within 1,000 feet of the intersection or entrance, guidance signs **shall not** be permitted.
10. No more than one arrow board for a facility **shall** be permitted on a state highway in each direction.
11. Guidance sign assemblies **shall** be limited to a maximum of six arrow boards. Signs utilizing the Standard Sign Plate E10-83A alternate two-line design ~~should~~*should* count as two.
12. There *may* be a maximum of two guidance sign assemblies per intersection approach in the same direction.

As shown on Figure 1 of the DT1903 form and on the Standard Sign Plate E10-83, the sign **shall** be a non-reflective white arrow, on a non-reflective black rectangular background with rounded corners, consisting of 4 ½ inch black block lettering. Base material is aluminum. Letter sizes and spacing **shall** conform to the standards in the FHWA Standard Highway sign manual. Overall sign sizes used **shall** conform to the dimensions as shown on Figure 1 of the DT1903 form.

An alternate two-line design, as shown on Standard Sign Plate E10-83A, is available for facilities requiring additional lettering. If the alternate two-line design is utilized, the sign **shall** be for a single facility only and **shall** otherwise conform to the same standards as the E10-83 design. When approved for use, the WisDOT Region ~~should~~*should* provide the facility the E10-83A standard sign plate for manufacturing purposes. In most scenarios, the standard E10-83 design ~~should~~*should* be preferred.

The WisDOT Region office reserves the right to remove non-conforming signs from the highway right-of-way. The owner *may* contact the WisDOT Region office to pick up any signs that have been removed. Upon pickup of the removed signs, the sign owner **shall** be responsible for sign removal costs.

Upon approval as a qualifying facility, the region *may* issue the permit Form DT1903, “AUTHORITY TO ERECT DIRECTIONAL SIGNS ON THE STATE HIGHWAY SYSTEM APPLICATION”. There is no permit fee. Installation **shall** be by the requestor’s choice of a WisDOT approved signing contractor or county signing crew in accordance with Department signing standards as detailed on Figure 2 of the DT1903 form. All costs of sign manufacturing, installation, maintenance, and modification of assemblies **shall** be the responsibility of the requestor(s).

Installation of White Arrow Board Signing by Counties

1. Upon approval, the permittee will be provided a list of qualified manufacturers that they ~~may~~*may* contact to make the signs. All manufacturing costs are the responsibility of the approved business. In addition to the qualified manufacturers, the permittee ~~may~~*may* also contact the county to inquire about manufacturing the signs (some counties will offer that service). If the county makes the signs, the county ~~should~~*should* invoice the approved business for the manufacturing costs.
2. Installation costs shall be $250 per sign if new posts are needed. All signs shall be installed on 4x6 treated wood posts. For removal and/or installation of signs on existing posts, the removal/installation fee shall be $100 per sign.
3. The permittee shall provide a check for installation fees payable to: Wisconsin Department of Transportation, and it ~~should~~*should* be sent to Wisconsin Department of Transportation, Attn: Casey Amans, 3609 Pierstorff St, Madison, WI 53704. The permittee ~~should~~*should* be advised to either drop the check off at the county or WisDOT Regional offices, who will forward the check to the department, or mail it directly to the above address.
4. The county ~~should~~*should* only repair damaged white arrow boards when directed to do so by the sign owner. Every repair or replacement requires the permittee to cover the associated installation costs (see costs in step #2).
5. The county shall charge their costs to install or repair white arrow boards to Project ID: 0080-02-63. The county ~~should~~*should* ensure that the business submits the appropriate repair/installation fees due to WisDOT.

APPLICATION TO ERECT WHITE ARROWBOARD SIGNS ON THE STATE HIGHWAY SYSTEM

Wisconsin Department of Transportation
DT1903 3/2021

Submit completed application to Wisconsin Department of Transportation Regional Office

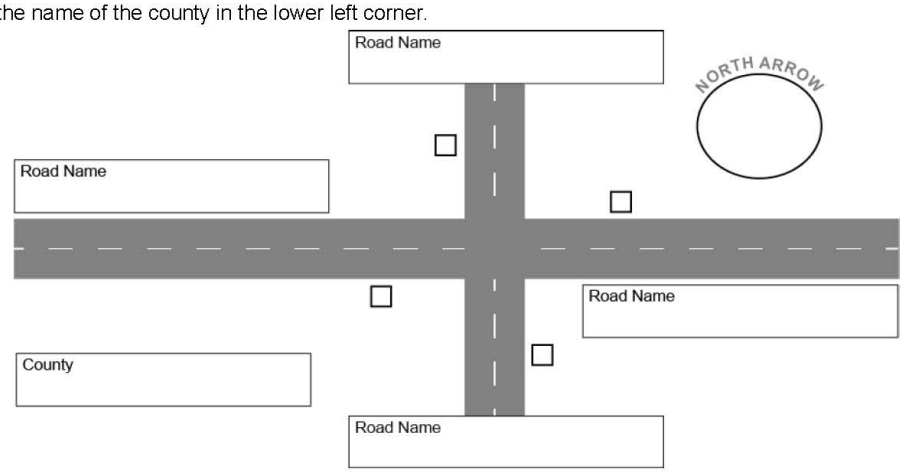
NAME of Business/Service/Activity:

Street:	City:	State:	ZIP Code:

Email Address:	(Area Code) Telephone Number:

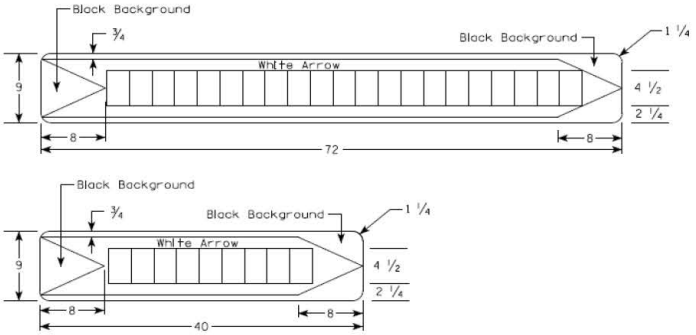
Proposed Sign Location Instructions:

1. Label the intersecting roads.
2. Place an arrow in the circle pointing to the North.
3. Check (X) one or two of the boxes ☐ corresponding to the proposed sign location(s).
4. Write the name of the county in the lower left corner.



Proposed Sign Wording:

Figure 1: Fill in the name of the business. Limit the name to one character or space per box. Signs shall contain 4.5" black block lettering on a non-reflective background.



Number of Signs (select one):

- ○ 1 Sign
- ○ 2 Signs

Signs placed on (select one):

- ○ New Posts
- ○ Existing Posts

***Installation Fees:**

- $250/sign with new 4x6 posts
- $100/sign with existing posts
- Payable to WisDOT

I apply for authority to erect and maintain guidance signs at the locations listed on this application. I certify and agree that these signs will conform to the approved design of the Wisconsin Department of Transportation and that I will comply with all the regulations under which authority these signs may be erected. I acknowledge that I would be responsible for the manufacturing and installation costs of the requested sign(s), and I certify that I will comply with the attached administrative codes and figures.

X

Applicant Signature Date (m/d/yy)

X

WisDOT Region Signature Date (m/d/yy)

☐ **APPROVED** ☐ **DENIED – Reason:**

APPLICATION TO ERECT WHITE ARROWBOARD SIGNS ON THE STATE HIGHWAY SYSTEM

(continued)

Wisconsin Department of Transportation DT1903

Sign Erection Regulations

Extracted from Chapter Trans 200, Wisconsin Administrative Code

Trans 200.02 Authority for the erection of signs.

1. The Department of Transportation or its authorized representatives in the case of the marked routes of state trunk highways, and local authorities with respect to highways under their exclusive jurisdiction, may place and maintain such traffic signs and signals as they deem necessary to warn, guide, inform, and regulate traffic, and also such signs and signals as are expressly permitted or required by the statutes or by these regulations, subject, however, to such limitations and restrictions as are contained in the statutes and these regulations.

2. The Department of Transportation with respect to the state trunk highway system, and local authorities with respect to highways under their jurisdiction, may erect or permit any department of the federal, state or local government to erect such standard signs as the Department of Transportation or local authorities deem necessary to inform and warn the public of federal or state laws, local ordinances and lawful regulations by any such department.

Trans 200.03 Guidance signs for resorts, hotels, county institutions, etc.

1. Any person or persons conducting a summer or winter resort, hotel, or any place of public entertainment or instruction, or any place of religious worship, or persons having charge of any county institution or of any scientific experiment for the furtherance of agriculture or other science or art may be permitted to erect guidance signs of a type approved by the Department subject to the conditions contained in this section.

2. No guidance sign may be permitted on freeways, including the national system of interstate highways.

3. Only where such institution or business location is removed from the state trunk highway system may such guidance signs be erected.

4. Such guidance signs may be erected at only two intersections of the state trunk highway system with county highways or town roads, and at such intersections of county or town highways as are deemed necessary by the local authorities having jurisdiction over those highways.

5. One sign of an approved size and shape may be erected at the entrance to any of the enumerated institutions or businesses.

6. No person may be permitted to erect or maintain a guidance sign on a highway if that person has any advertising in the vicinity of the intersection where the guidance sign is proposed to be erected or has a business sign under 200.06 on the same highway.

7. All guidance signs erected on any public highway shall be of a type and design approved by the Department. No flashing, illuminated, or reflecting signs or installation shall be permitted.

8. No guidance sign may be erected upon state trunk highway right of way at an intersection with the state trunk highway system until the location and manner of erection of the have the written approval of the Department. No guidance sign may be erected on the right of way of a county and town highway until the location and manner of erection of the sign have the written approval of the local authorities having jurisdiction over the said highway.

9. All guidance signs and their supports shall be maintained in good condition. **Signs or installations not satisfactorily maintained shall be removed by the officers in charge of the maintenance of the highway.**

Trans 200.04 Prohibited signs and signals.

1. No person may erect, cause to be erected, permit to be erected or maintain any advertising, warning, route, guide, information, or regulatory sign or signal within the limits of any highway except as authorized in sections 200.02, 200.03, 200.05 or 200.06.

2. No person may place or maintain nor may any public authority permit upon any highway any official traffic control device bearing thereon any commercial advertising except as authorized in 200.06.

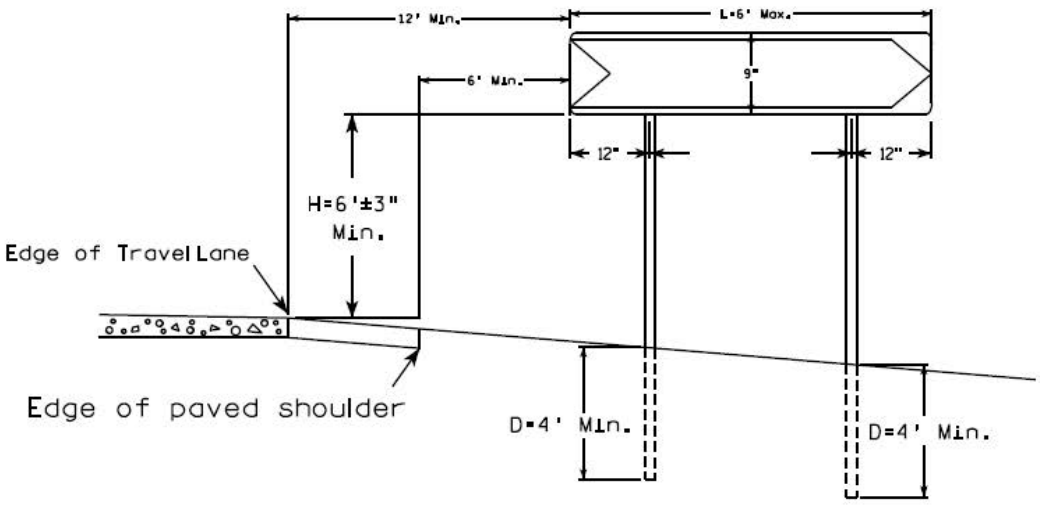
APPLICATION TO ERECT WHITE ARROWBOARD SIGNS ON THE STATE HIGHWAY SYSTEM

(continued)

Wisconsin Department of Transportation DT1903

Figure 2. Typical Installation Detail for Arrow Board Signs

(Supplement to form DT1903)



Sign Installation Requirements for Permittees & Counties:

1. Upon approval, the permittee shall be responsible for having the signs manufactured to state specifications (a non-reflective white arrow, on a non-reflective black rectangular background with rounded corners, consisting of 4 ½ inch black block lettering). A list of qualified manufacturers will be provided, from which the permittee can choose to have the signs manufactured (the permittee shall be responsible for all manufacturing costs).

2. After the signs are manufactured, the permittee is to drop them off at the county (some qualified manufacturers may ship signs directly to the county). Once received, the county will install the sign(s) at the approved location(s). Counties shall charge their installation costs to Project ID: 0080-02-63.

3. The permittee shall submit payment for the installation fees to cover the county's costs. **Costs are $100/sign if installed on existing posts, or $250/sign if new 4x6 posts are needed.** Checks shall be made to: Wisconsin Department of Transportation, and should be sent to Wisconsin Department of Transportation, Attn: Casey Amans, 3609 Pierstorff St, Madison, WI 53704. It is recommended the permittee drop off the check when delivering the signs to the county (the county will forward it to WisDOT), or it can be mailed directly to the above address.

4. Signs are to be mounted per dimensions shown above and are to project approximately 1 inch above the top of the post.

5. Sign posts are to be treated **4x6 wood suitable for ground contact** (4x4 wood posts shall not be used).

6. Signs less than 4 feet in length may be mounted on a single post; all other dimensions shown above apply.

7. If multiple signs are "stacked" on the same posts, all signs are to be the same length. In this case, the minimum mounting height shall be 5'3" for rural areas. Sign assemblies shall be limited to a maximum of six signs.

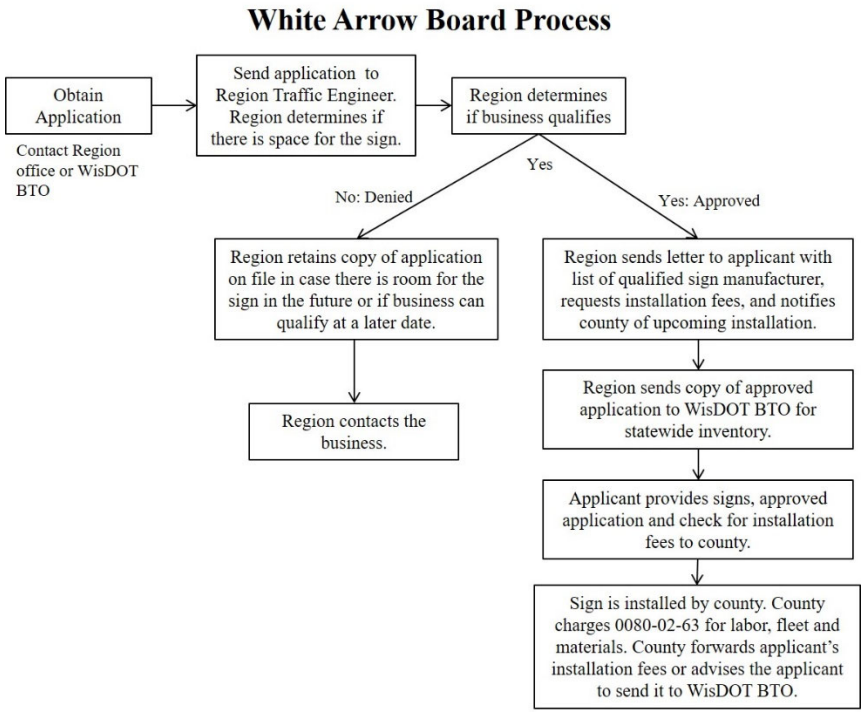
8. There may be a maximum of two guidance sign assemblies per intersection approach in the same direction (Maximum of total 12 signs, no more than 6 signs on each assembly). If a sign is approved at an intersection that already has two full assemblies, do not install and notify the WisDOT Region as soon as possible.

9. Contact Diggers Hotline prior to any excavation.

10. Signs are to be white arrows on a black, rectangular background with rounded corners (new design as of March 2021, replaced the traditional cut-out arrow design). Base material is aluminum. Do not install any signs that have reflective sheeting.

11. **All repair and replacement costs are the responsibility of the permittee.** If an existing sign is damaged or worn, the county should only repair or replace it with the permittee's approval. If a sign is repaired or replaced, the permittee shall be responsible for all manufacturing costs and the associated installation costs (same costs as noted in #3, payable to Wisconsin Department of Transportation). If the permittee elects not to repair a damaged sign, the county should remove it.

The flow chart below describes the application process for a White Arrow Board.



2-15-61 Signing and Marking Maintenance of Roadside Facilities February 2017

PURPOSE

In addition to the roadways maintained by the Department, there are several types of ancillary facilities that are either constructed or maintained by the Department. This includes rest areas, SWEFs, waysides, park & ride lots, etc. These facilities *may* be maintained either by the Department, or by county or municipal forces via signed agreements. In the past, the maintenance of signs and pavement markings for these facilities has been inconsistent, due to lack of guidance as to how they *should* be maintained. This policy will clarify which signs and pavement markings are to be maintained by the Department, and how this maintenance **shall** be funded.

POLICY

Rest Areas

All rest area signing and pavement marking **shall** be maintained by the Department. All signs along the mainline highway **shall** be paid for either under the standard county RMA Project ID (00XX-01-65) or the appropriate improvement project. In addition, all signing along the exit ramp, up to and including the R8-74 (Cars, Trucks, Trailers, etc.) sign, and all signs along the entrance ramp beginning with the R1-2 (Yield) sign, **shall** also be paid for either under the standard county RMA Project ID or the appropriate improvement project. These signs **shall** be replaced as part of the normal sign replacement cycle.

All sign and pavement marking replacement within the rest area, between the R8-74 sign and the R1-2 sign, **shall** be paid for under the Rest Area maintenance Project ID, which will be provided by the Bureau of Highway Maintenance. These signs and pavement markings **shall** be maintained by the department, and *should* be replaced on the normal replacement cycle. The Region **shall** coordinate with BHM before replacing any signs or pavement markings within rest areas.

Waysides

All wayside signing and pavement marking **shall** be maintained by the Department. All signs along the mainline highway **shall** be paid for either under the standard county RMA Project ID or the appropriate improvement project. This includes any regulatory signs (R1-1, R5-1, R6-2, etc.) located at the wayside driveway. These signs **shall** be replaced as part of the normal sign replacement cycle.

All sign and pavement marking replacement within the wayside **shall** be paid for under the Wayside maintenance Project ID, which will be provided by the Bureau of Highway Maintenance. These signs and pavement markings **shall** be maintained by the department and *should* be replaced on the normal replacement

cycle. The Region **shall** coordinate with BHM before replacing any signs or pavement markings.

SWEFs (Safety and Weight Enforcement Facilities)

All SWEF signing **shall** be maintained by the Department. All signs and pavement markings along the mainline highway **shall** be paid for either under the standard county RMA Project ID or appropriate improvement project. The signs and pavement markings **shall** be replaced as part of the normal replacement cycle.

All sign and pavement marking replacement within the SWEF **shall** be paid for under the appropriate maintenance Project ID for that SWEF, which will be provided by the Bureau of Highway Maintenance. These signs **shall** be maintained by the department and *should* be replaced on the normal replacement cycle. The Region **shall** coordinate with BHM before replacing any signs or pavement markings.

Park & Rides

The Department has several Park & Ride lots that were constructed under WisDOT LET projects, but that are maintained by either the county or municipality via signed agreement. The Region *should* read these agreements to verify which signs the Department is responsible for. This *may* include off-system directional (D4-series) signs. These signs **shall** be paid for either under the standard county RMA Project ID or the appropriate improvement project and **shall** be replaced as part of the normal sign replacement cycle.

The Department also has several Park & Ride lots that do not have any such maintenance agreements. For these lots, all signs and pavement markings **shall** be maintained by the Department. These signs and pavement markings **shall** be paid for under the standard county RMA Project ID, and **shall** be replaced as part of the normal replacement cycle.

2-15-62 Memorial Signing ~~February 2020~~November 2026

PURPOSE

The state legislature will occasionally adopt an act memorializing a highway or bridge. Once signed into law, these acts will direct the department to erect signage to inform motorists of the memorialization. This policy will establish the requirements, design, and installation practices for memorial signing.

DEFINITIONS

State Trunk Highway System: All Interstate, US, and State numbered highways, except for any connecting highway limits.

Memorial Bridge: A bridge on the state trunk highway system that has been designated in Chapter 84 of the Wisconsin State Statutes as a memorial.

Memorial Highway: A section of state trunk highway that has been designated in Chapter 84 of the Wisconsin State Statues as a memorial.

POLICY

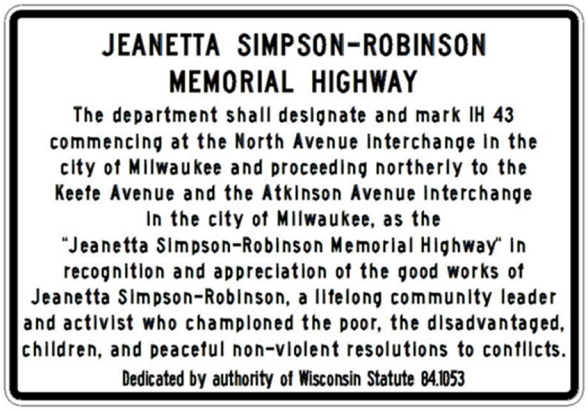
Memorial signing **shall** only be installed for highways or bridges designated as memorial highways or memorial bridges in Chapter 84 of the Wisconsin State Statues. All requirements listed in the designating statute **shall** apply.

Memorial Highways

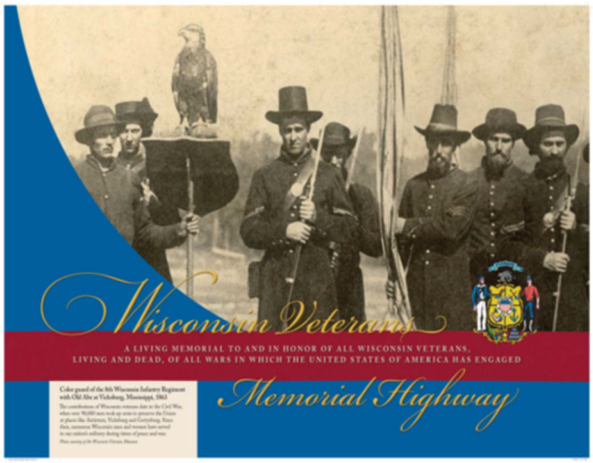
Per W~~is~~MUTCD Section 2M.10, memorial signs *should not* appear on or along a highway. Therefore, these signs **shall not** be installed along state trunk highways where they are visible to vehicles operating along the highway. Rest areas, scenic overlooks, parks, and municipal buildings are potential locations for these signs. The requesting, party **shall** work with the owners of any potential sites on an agreement for installation. The site chosen *should* be located along the designated section of highway, and *should* have ample free parking, to allow motorists a proper viewing experience. Two signs *may* be installed, one near each end of the designated section of highway.

There are two options for off right-of-way memorial highway signing:

Option 1 - The sign *may* have black lettering on a white background, and would list the name of the memorial highway, as designated by statute. It would also contain the text of paragraph (1) of the statute and include the statute number. An example of this sign option is shown below.



Option 2 - The sign *may* be a multi-colored interpretive sign with a choice of wording and design. The interpretive sign could be installed in a covered display case with a 45-degree orientation to the viewer. The Bureau of Traffic Operations would work with the requesting group(s) to develop a sign design. An example of this sign option is shown below.



Memorial Bridges

Because the installation of memorial bridge signs off the main roadway is not practical, these signs **shall** be installed along the highway, one at each end of the bridge. For one-way bridges, only one sign **shall** be installed.

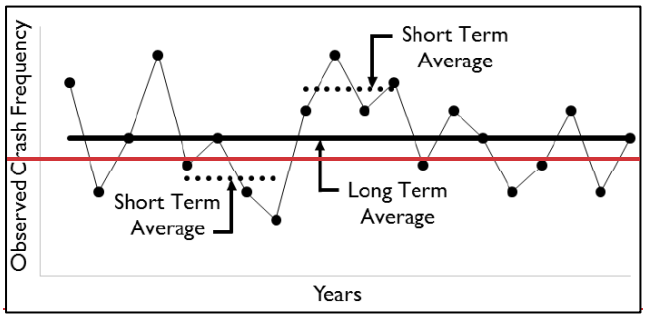
The sign **shall** have white lettering on a brown background, and will list the name of the memorial bridge, as designated by statute. For bridges over roadways, the name of the roadway *should* be listed below the memorial bridge designation, in white letters on a green background. For bridges over waterways, if the waterway qualifies for signage under TEOpS 2-4-55, the name of the waterway **shall** be listed below the memorial bridge designation, in white letters on a green background. For all other bridges, the memorial bridge designation **shall** be the only information included on the sign.

12-4-1 Safety Certification Process ~~April 2023~~November 2026

PURPOSE

~~Quantifying safety early in the project development process is key to determining safety improvement impacts to projects. Proposed safety improvements in a project must be balanced with other competing fiscal needs such as operational, environmental, and pavement factors. Historically, safety benefits have been assumed inherent, or "built-in", to design policies and practices. The safety treatments were proposed at locations that were identified using the existing (observed) short-term crash data. This method was not representative of the long-term conditions of the subject location as it did not account for the Regression to the Mean (RTM) of crash data. RTM is defined as the natural variation of crash data. A location that was being reviewed could be analyzed when it was seeing a randomly high fluctuation of crashes, but the long-term period saw the location operating within typical safety norms. Likewise, a location could be overlooked from review due to it having a randomly low fluctuation of crashes. Figure 1 displays RTM bias.~~

~~**Figure 1.** Variation in short-term observed crash frequency to illustrate RTM bias~~



~~There are methods and tools available to quantify safety benefits in the development and analysis of alternatives in projects while accounting for RTM. This allows WisDOT to employ a PBPD approach. Within the safety evaluation of a project, to facilitate the safety comparison of alternatives, predictive crash modeling and an economic appraisal is used to compare the cost of crashes to the cost of roadway improvements. Predictive crash modeling is used to estimate crash frequencies and severities for alternatives on a project. Economic appraisal techniques are then used to assign average costs to the crashes for each alternative to monetize safety benefits. In this way, safety can be compared with other costs (construction, real estate) to evaluate alternatives. For a discussion on alternative viability, see FDM 11-38-15.1.~~

~~The Safety Certification Process (SCP) follows the Highway Safety Manual's (HSM's) Road Safety Management Process (RSMP). This is a step-by-step process of determining whether safety improvements should be included on a project by quantifying alternatives, monetizing the resulting safety benefits, completing benefit-cost comparisons of the alternatives, and documenting decisions and judgements throughout the process.~~

~~This requires the analyst to use and document sound engineering judgement and experience based on specific project conditions, context, and modal priorities.~~

~~The Safety Certification Process is detailed in FDM 11-38.~~

See FDM 11-38-1.2.

APPLICATIONS

For information on what projects and work types that the Safety Certification is applied, see FDM 11-38-1.3.

ACRONYMS AND DEFINITIONS

Tables 1.1 and 1.2 provide common acronyms and definitions that are used throughout the Safety Certification Process.

Table 1.1. Acronyms

Acronym	Definition
AADT	Average Annual Daily Traffic
CMF	Crash Modification Factor
EB	Empirical Bayes
FDM	Facilities Development Manual
FHWA	Federal Highway Administration
HSM	Highway Safety Manual
IHSDM	Interactive Highway Safety Design Manual
LOSS	Level of Service of Safety
NEPA	National Environmental Policy Act
RSMP	Road Safety Management Process
SCP	Safety Certification Process
SCW	Safety Certification Worksheet
SOCD	Safety and Operations Certification Document
SPF	Safety Performance Function
WINSS	Wisconsin's Network Screening Spreadsheet

Table 1.2. Definitions

SCP Element	Definition
AASHTOWare Safety	AASHTOWare Safety is the primary tool that WisDOT uses to complete procedures within the Safety Certification Process. AASHTOWare is a cloud-based software platform that ingests multiple datasets to aid in making data-driven decisions. AASHTOWare Safety can be found at the following link: https://wisconsin.aashtowaresafety.com/ WisDOT-specific help articles discussing data sources, decisions and on-demand training are available within the help center. To request a user account, please fill out the associated form. Questions can be directed to DOTBTOSafetyEngineering@dot.wi.gov.
Base Case	The base case is the scenario each alternative will be compared to. In most cases, the base case scenario will not include safety improvements and should be modeled as the existing geometric and traffic control conditions for the evaluation period.
Calibration Factor	See TEOpS 12-3-5.
Crash Cost	Crashes result in economic costs including the costs of vehicle repairs, providing emergency services, traffic delays, medical services, workplace productivity losses, and damage to private property and roadway infrastructure. Crashes involving death or severe injury may also result in intangible costs such as physical pain or emotional suffering. These costs are referred to as quality-adjusted life years (QALY). The comprehensive costs of a crash are the sum of the economic and QALY costs. Crash costs are developed using FHWA's *Crash Costs for Highway Safety Analysis* guide.
Crash Modification Factor (CMF)	See TEOpS 12-3-5.
Crash Reports	See TEOpS 12-3-1.

SCP Element	Definition
Discount Rate	Discount rates, used in the economic appraisal, reflect the time value of money. That is, benefits and costs experienced in the near-term are worth more than benefits and costs experienced at the end of the evaluation period. WisDOT uses a 5% discount rate within its economic analysis procedure. For more information, reference FHWA's *Highway Safety Benefit-Cost Analysis* guide.
Empirical Bayes (EB)	EB is a statistical method that weights the predicted crash frequency and the observed crash history.
Expected Crash Frequency	The result of using the Empirical Bayes (EB) method to combine the observed crash history and the predicted crash frequency together. This typically yields more robust results than either observed crash history or predicted crash frequency alone. See TEOpS 12-3-3 for more information.
Interactive Highway Safety Design Model (IHSDM)	IHSDM is a suite of software analysis tools used to evaluate the safety operational and economic effects of design decisions on roadways. This software provides a Crash Prediction Module to implement the HSM Part C methodology.
Level of Service of Safety (LOSS)	See TEOpS 12-3-3.
Observed Crash History	The total number of crashes that were reported over a period of time, typically 5 years, and are usually summarized by crash severity and crash type. See TEOpS 12-3-3 for more information.
Predicted Crash Frequency	The result from a crash prediction model (CPM) used to calculate a predicted number of crashes at a given site based on the site's parameters. See TEOpS 12-3-3 for more information.
Regression to the Mean (RTM)	The natural variation in crash data. If regression to the mean is not accounted for, a site might be selected for study when the crashes are at a randomly high fluctuation or overlooked from study when the site is at a randomly low fluctuation.
Safety Flag	A performance indicator used within network screening to identify a location which is used to identify a Safety Site of Promise. Used interchangeably with Flag or Flagged location. See TEOpS 12-4.2.2.2.
Safety Performance Function (SPF)	See TEOpS 12-3-5.
Safety Site of Promise	Segment(s) or intersection(s) within a project's limits that have potential for safety improvement(s) which have validated safety flags.

POLICY

Process Overview

The Safety Certification Process (SCP) follows the Highway Safety Manual's (HSM's) Road Safety Management Process (RSMP) and is used to support all safety improvements on a WisDOT project except for projects noted otherwise in FDM 11-38-1.3.The SCP is a step-by-step process to determine if safety improvements should be included on a project by quantifying alternatives, monetizing the resulting safety benefits, completing benefit-cost comparisons of the alternatives, and documenting decisions and judgements throughout the process.

This requires the analyst to use and document sound engineering judgement and experience based on specific project conditions, context, and modal priorities. The SCP uses the following steps (see Safety Certification Process flowchart):

1. **Network Screening for Safety Sites of Promise:** A screening procedure which identifies segments and intersections (Safety Sites of Promise) with the highest potential for crash reduction to best utilize resources.
2. **Diagnosis of Safety Sites of Promise:** Investigate the Safety Sites of Promise to understand why crashes are occurring, identify the contributing factors at those sites, and vet crashes where there is no engineering solution. Crashes that are treatable through an engineering solution should remain regardless of a specific pattern or trend.

3. **Countermeasure Identification:** Analyze whether geometric features contributed to the crash history and identify possible countermeasures.
4. **Safety Evaluation and Economic Appraisal:** This two-part procedure involves predictive crash modeling and application of economic appraisals to determine benefit-cost ratios. Overall, these two procedures allow direct safety benefit comparison of alternatives.
5. **Documentation:** A Safety and Operations Certification Document (SOCD) is produced which serves to document the process, engineering judgment, and support for safety improvements within a project. If operational improvements are investigated through the Operations Certification Process (OCP), the results are also documented within the SOCD. See FDM 11-52-15 for more information on the OCP.

For more information on the RSMP, see TEOpS 12-3-2. Crash data is used throughout the SCP to identify needs and investigating improvements. For more information on how crash data is used through each of these steps, please refer to the flowchart which outlines how WisDOT uses the RSMP.

Tools

The following tools, resources, and documents are used to support the Safety Certification Process.

1. **Network Screening**
    a. AASHTOWare Safety
    b. Wisconsin Network Screening Spreadsheet (WINSS)
2. **Diagnosis and Countermeasure Identification**
    a. Intersection Control Evaluation (FDM 11-25-3)
    b. Engineering Judgement
    c. Application of design standards
    d. Other support-level resources:
        i. WisDOT's countermeasure selection table
        ii. WisDOT's crash modification factor (CMF) table
        iii. FHWA's proven safety countermeasures
3. **Safety Evaluation and Economic Appraisal**
    a. FHWA's Interactive Highway Safety Design Model (IHSDM)
    b. Highway Safety Benefit-Cost Analysis Tool
4. **Documentation**
    a. Safety Certification Worksheet
    b. Safety and Operations Certification Document
        i. Guidance
    c. Safety and Operations Certification Document Amendment
        i. Guidance
5. **Process Flowcharts**
    a. Safety Certification Process Flowchart
    b. Safety Certification Methodology Selection Flowchart
    c. WisDOT's Road Safety Management Process: How crash data is used throughout the process

NETWORK SCREENING FOR SAFETY SITES OF PROMISE

General

All WisDOT improvement projects that are required to complete an SOCD start by performing network screening. The goal of this first procedure is to identify the project's Safety Sites of Promise, which are roadway segments or intersections along the project corridor that have a high potential to reduce crashes with targeted, cost-effective improvements. Only segments or intersections that are identified as a Safety Site of Promise are

required to move forward within the SCP. Any segment or intersection that is not identified as a Safety Site of Promise can be investigated as part of the SCP but are not required. Any locations investigated shall follow the same procedures as outlined throughout this policy.

Network Screening for Safety Sites of Promise Procedure

For the SCP process, Network Screening is performed within AASHTOWare Safety using the Advanced Network Screening applications for Segments and Intersections. The following procedure shall be used to identify Safety Sites of Promise along a specific project corridor:

1. Identify the project corridor limits. Use a Project (Design ID) filter, a Project (Construction ID) filter, or the map tools to filter to the project limits. Refer to Figures 1.1 and 1.2 for a sample screenshot of screening results.

Figure 1.1. Sample Screenshot of Network Screening Results - Segments

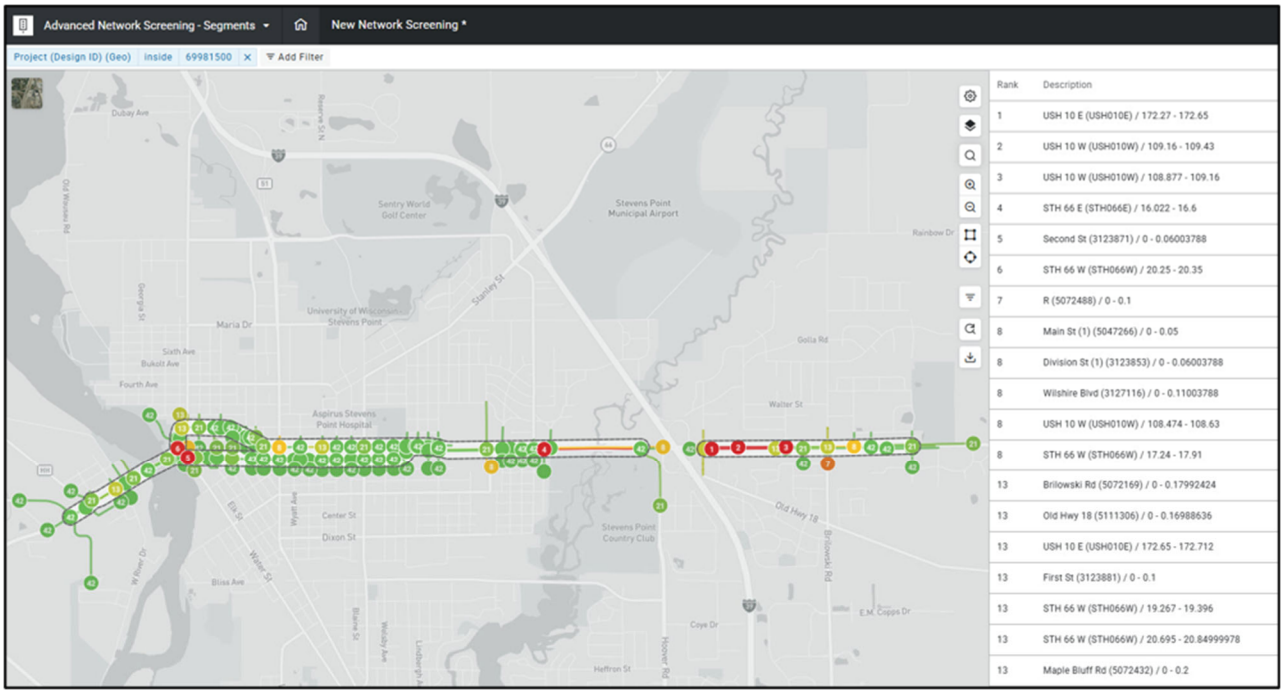
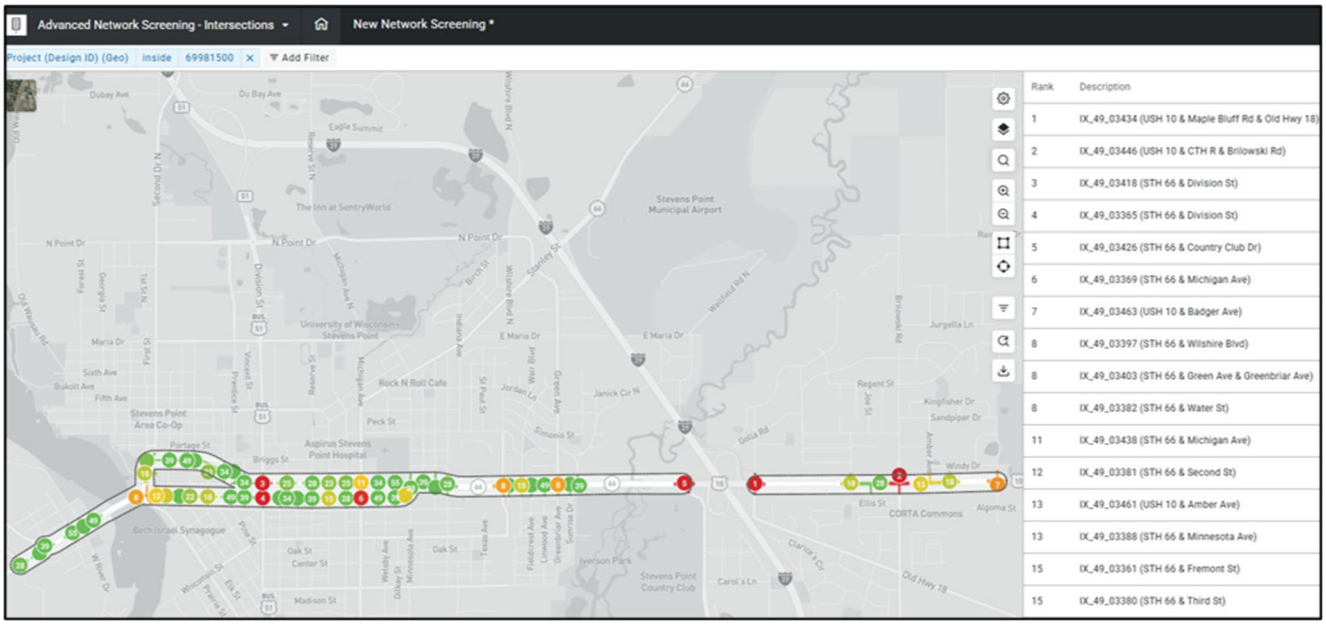
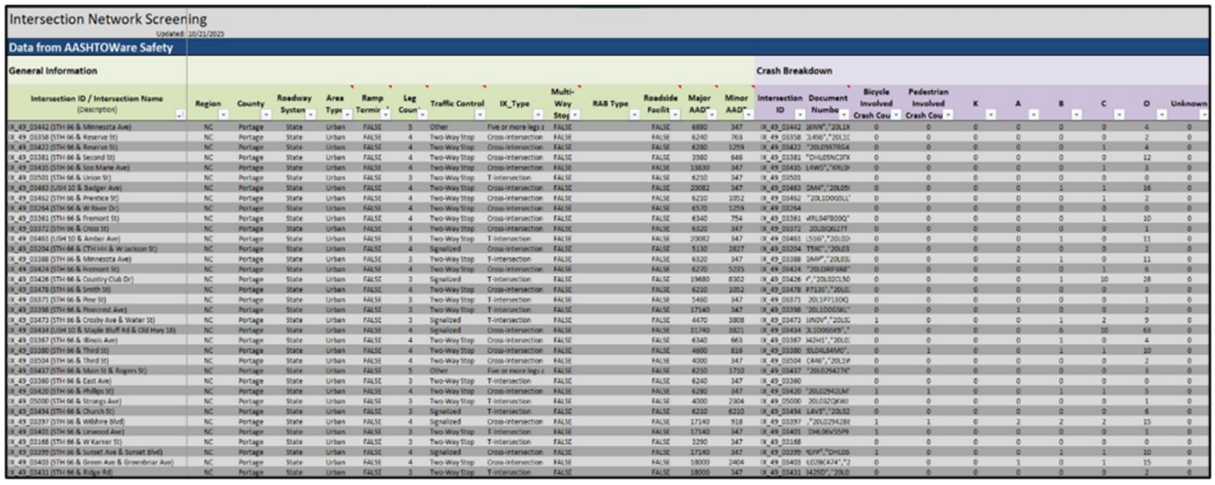


Figure 1.2. Sample Screenshot of Network Screening Results – Intersections



2. Export the associated worksheets for all intersections and segments within the project limits from AASHTOWare Safety (Advanced Network Screening) – Intersections and Segment applications.
    a. Utilize the Download feature located on the bottom right-side of the page, or the Export tab on the upper right-side of the page to download/export the Worksheet (.xlsx) files.
    b. Copy the exported data into the Wisconsin Network Screening Spreadsheet (WINSS).
        i. Copy all associated data that is required within the WINSS. Do not copy the AASHTOWare Safety template ranking column or headings.
        ii. Save a copy of this data as the original data and include in the SOCD. Refer to Figure 1.3 for a sample screenshot of the intersection screening results.

Figure 1.3. Sample Screenshot of the Wisconsin Network Screening Spreadsheet


Intersection Network Screening

Updated: 10/21/2025

Data from AASHTOWare Safety

General Information

Crash Breakdown

Intersection ID / Intersection Name (Description)	Region	County	Roadway System	Area Type	Ramp Termini	Leg Count	Traffic Control	IX_Type	Multi-Way Stop	RAB Type	Roadside Facility	Major AAD	Minor AAD	Intersection ID	Document Number	Bicycle Involved Crash Count	Pedestrian Involved Crash Count	K	A	B	C	O	Unknown
X_49_03442 (STH 66 & Minnesota Ave)	NC	Portage	State	Urban	FALSE	5	Other	Five or more legs	FALSE		FALSE	6880	347	IX_49_03442	16NN","20L1X	0	0	0	0	0	0	4	0
X_49_03358 (STH 66 & Reserve St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6240	763	IX_49_03358	3,490","20L1C	0	0	0	0	0	0	2	0
X_49_03422 (STH 66 & Reserve St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6280	1259	IX_49_03422	"20L05979G4	0	0	0	0	0	1	4	0
X_49_03381 (STH 66 & Second St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	3980	648	IX_49_03381	"QH4J9NC3FX	0	0	0	0	0	0	12	0
X_49_03435 (STH 66 & Soo Marie Ave)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	13830	347	IX_49_03435	L4WQ","KRLD	0	0	0	0	0	1	3	0
X_49_03501 (STH 66 & Union St)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	6210	347	IX_49_03501		0	0	0	0	0	0	0	0
X_49_03463 (USH 10 & Badger Ave)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	20082	347	IX_49_03463	2AAE","20L05	0	0	0	0	1	1	16	0
X_49_03462 (STH 66 & Prentice St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6210	1052	IX_49_03462	"20L1D0G1LL	0	0	0	0	0	1	2	0
X_49_03264 (STH 66 & W River Dr)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6570	1259	IX_49_03264		0	0	0	0	0	0	0	0
X_49_03361 (STH 66 & Fremont St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6340	754	IX_49_03361	xRL04TB00Q"	0	0	0	0	0	1	10	0
X_49_03372 (STH 66 & Cross St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6320	347	IX_49_03372	20L0QKLLYY	0	0	0	0	0	0	1	0
X_49_03443 (USH 10 & Amber Ave)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	20082	347	IX_49_03443	1536","20L0D	0	0	0	0	1	0	11	0
X_49_03204 (STH 66 & CTH HH & W Jackson St)	NC	Portage	State	Urban	FALSE	4	Signalized	Cross-intersection	FALSE		FALSE	5130	2827	IX_49_03204	T5NC","20L03	0	0	0	0	0	0	2	0
X_49_03388 (STH 66 & Minnesota Ave)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	6320	347	IX_49_03388	1MP","20L01	0	0	0	2	1	0	11	0
X_49_03424 (STH 66 & Fremont St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6270	5205	IX_49_03424	"20L09F98E"	0	0	0	0	0	1	6	0
X_49_03426 (STH 66 & Country Club Dr)	NC	Portage	State	Urban	FALSE	3	Signalized	T-intersection	FALSE		FALSE	19680	8302	IX_49_03426	r","20L02CL50	0	0	0	0	1	10	28	0
X_49_03478 (STH 66 & Smith St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6210	1052	IX_49_03478	P71J5","20L0	0	0	0	0	0	0	3	0
X_49_03371 (STH 66 & Pine St)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	5460	347	IX_49_03371	20L1P71I0Q	0	0	0	0	0	0	1	0
X_49_03398 (STH 66 & Pinecrest Ave)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	17140	347	IX_49_03398	20L1D0C9KL	0	0	0	1	0	0	2	0
X_49_03473 (STH 66 & Crosby Ave & Water St)	NC	Portage	State	Urban	FALSE	3	Signalized	T-intersection	FALSE		FALSE	4470	3808	IX_49_03473	1INQV","20L0	1	0	0	0	1	2	9	0
X_49_03434 (USH 10 & Maple Bluff Rd & Old Hwy 18)	NC	Portage	State	Urban	FALSE	4	Signalized	Cross-intersection	FALSE		FALSE	31740	3821	IX_49_03434	3L1D0GVX",""	0	0	0	0	6	10	63	0
X_49_03367 (STH 66 & Illinois Ave)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6340	663	IX_49_03367	HZW1","20L01	0	0	0	0	1	0	4	0
X_49_03380 (STH 66 & Third St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	4600	816	IX_49_03380	35DL6L84W0",""	0	1	0	0	1	1	10	0
X_49_03504 (STH 66 & Third St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	4000	347	IX_49_03504	C446","20L1#	0	0	0	0	0	0	2	0
X_49_03417 (STH 66 & Main St & Rogers St)	NC	Portage	State	Urban	FALSE	5	Other	Five or more legs	FALSE		FALSE	6210	1710	IX_49_03417	"20L0294279(	0	0	0	0	0	0	3	0
X_49_03360 (STH 66 & East Ave)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	6240	347	IX_49_03360		0	0	0	0	0	0	0	0
X_49_03420 (STH 66 & Phillips St)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	6280	347	IX_49_03420	"20L0294LLM"	1	1	0	0	1	1	5	0
X_49_05000 (STH 66 & Strongs Ave)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	4000	2304	IX_49_05000	20L0JQKW0	0	0	0	0	0	0	1	0
X_49_03494 (STH 66 & Church St)	NC	Portage	State	Urban	FALSE	3	Signalized	T-intersection	FALSE		FALSE	6210	6210	IX_49_03494	L4V5","20L02	0	0	0	0	0	0	6	0
X_49_03397 (STH 66 & Wilshire Blvd)	NC	Portage	State	Urban	FALSE	4	Signalized	Cross-intersection	FALSE		FALSE	17140	918	IX_49_03397	"20L0294288	1	1	0	0	2	2	15	0
X_49_03401 (STH 66 & Linwood Ave)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	17140	347	IX_49_03401	DHL06V55P9	1	0	0	0	0	0	1	0
X_49_03168 (STH 66 & W Karner St)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	3290	347	IX_49_03168		0	0	0	0	0	0	0	0
X_49_03399 (STH 66 & Sunset Ave & Sunset Blvd)	NC	Portage	State	Urban	FALSE	4	Signalized	Cross-intersection	FALSE		FALSE	17140	347	IX_49_03399	"K4PF","DHL06	1	0	0	0	1	1	10	0
X_49_03439 (STH 66 & Green Ave & Greenbriar Ave)	NC	Portage	State	Urban	FALSE	4	Two-Way Stop	Cross-intersection	FALSE		FALSE	18000	2404	IX_49_03439	L028K474","2	0	0	0	1	0	1	15	0
X_49_03431 (STH 66 & Ridge Rd)	NC	Portage	State	Urban	FALSE	3	Two-Way Stop	T-intersection	FALSE		FALSE	18000	347	IX_49_03431	34Z90","20L0	0	0	0	0	0	0	2	0

3. Identify segments and intersections with a Safety Flag. Locations are flagged if any of the following conditions are true:
    a. The Level of Service of Safety (LOSS) is category 4 for Total Crashes, with a minimum of two crashes.
    b. The Level of Service of Safety (LOSS) is category 4 for Injury Crashes (KABC), with a minimum of two crashes.
    c. The Pedestrian Crash Total has at least one crash.
    d. The Bicycle Crash Total has at least one crash.
4. Review and validate input data. This includes checking the area type, roadway type, traffic volumes, and associated geometric data for all locations shown in the General Information section of the WINSS sheet. Data sources may vary in age and contain estimates which should be reviewed for any errors. If inputs are not accurate, revise the data and associated flags will automatically recalculate.
    a. Modify WINSS data only in the General Information and Crash Breakdown Sections; highlight any cells where data was modified (e.g., yellow highlight and red font). See Figure 1.4). Do not modify or change cell or font color in any other sections as they are calculated fields.

    Validated Safety Flags are identified as Safety Sites of Promise and shall continue through the SCP. Save a copy of the updated data, noting/highlighting any changes, and include in the SOCD. Refer to Figure 1.4 for an example of data corrections and the updated screening results.

Figure 1.4. Updated Screening Results

Intersection Network Screening

Updated:

Data from AASHTOWare Safety

General Information										Crash Breakdown								
Intersection ID / Intersection Name (Description)	Area Type	Ramp Terminal	Leg Count	Traffic Control	IX_Type	Multi-Way Stop	Roadside Facility	Major AADT	Minor AADT	Intersection ID	Bicycle Involved Crash Count	Pedestrian Involved Crash Count	K	A	B	C	O	Unknown
IX_63_01047 (STH 47 & Country Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	9,906.0	64.0	IX_63_01047	0.0	0.0	0	0	0	0	3	0
IX_63_01110 (STH 47 & S Farming Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	9,906.0	770.0	IX_63_01110	0.0	0.0	0	0	1	0	3	0
IX_63_01117 (STH 47 & Lakeland Dr)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,510.0	64.0	IX_63_01117	0.0	0.0	0	0	0	0	1	0
IX_63_01137 (STH 47 & Johnson Creek Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,510.0	64.0	IX_63_01137	0.0	0.0	0	0	1	1	3	0
IX_63_01177 (STH 47 & Arnett Rd & Mattke Rd)	Rural	FALSE	4.0	Two-Way Stop	Cross-Intersection (four legs)	FALSE	FALSE	4,838.0	442.0	IX_63_01177	0.0	0.0	0	1	1	1	3	0
IX_63_01618 (STH 47 & CTH F & E Boundary Trl)	Rural	FALSE	4.0	Two-Way Stop	Cross-Intersection (four legs)	FALSE	FALSE	4,838.0	801.0	IX_63_01618	0.0	0.0	0	0	0	0	0	0
IX_63_01902 (STH 47 & Wishow Lake Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	64.0	IX_63_01902	0.0	0.0	0	0	0	0	1	0
IX_63_01941 (STH 47 & E Fence Lake Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	64.0	IX_63_01941	0.0	0.0	0	0	0	0	2	0
IX_63_01951 (STH 47 & Bolton Lake Rd & Frying Pan Camp Ln)	Rural	FALSE	4.0	Two-Way Stop	Cross-Intersection (four legs)	FALSE	FALSE	4,290.0	64.0	IX_63_01951	0.0	0.0	0	0	0	0	0	0
IX_63_01979 (STH 47 & W Bolton Lake Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	64.0	IX_63_01979	0.0	0.0	0	0	0	0	0	0
IX_63_01989 (STH 47 & Circle Dr)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	64.0	IX_63_01989	0.0	0.0	0	0	1	0	1	0
IX_63_02044 (STH 47 & Stearns Lake Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	64.0	IX_63_02044	0.0	0.0	0	0	0	0	0	0
IX_63_02058 (STH 47 & Beanskin Cir)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	2,350.0	64.0	IX_63_02058	0.0	0.0	0	0	0	0	0	0
IX_63_02064 (STH 47 & Whitefeater St)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	2,350.0	25.0	IX_63_02064	0.0	0.0	0	0	1	0	0	0
IX_63_02071 (STH 47 & Longs Point Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	2,350.0	64.0	IX_63_02071	0.0	0.0	0	0	0	0	0	0
IX_63_02083 (STH 47 & Simpson Ave)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	2,350.0	100.0	IX_63_02083	0.0	0.0	0	0	0	1	1	0
IX_63_02087 (STH 47 & CTH D & Little Pines Rd)	Rural	FALSE	4.0	All-Way Stop	Cross-Intersection (four legs)	FALSE	FALSE	3,930.0	1,458.0	IX_63_02087	0.0	0.0	0	0	1	1	4	0
IX_63_02091 (STH 47 & Wa-Swa-Gon St)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,930.0	150.0	IX_63_02091	0.0	0.0	0	0	0	0	1	0
IX_63_02098 (STH 47 & Chippewa St)	Rural	FALSE	4.0	Two-Way Stop	Cross-Intersection (four legs)	FALSE	FALSE	3,930.0	300.0	IX_63_02098	0.0	0.0	0	0	2	0	2	0
IX_63_02117 (STH 47 & N Fence Lake Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	64.0	IX_63_02117	0.0	0.0	0	0	1	0	0	0
IX_63_02129 (STH 47 & CTH H)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	4,290.0	1,292.0	IX_63_02129	0.0	0.0	0	0	0	0	2	0
IX_63_02130 (STH 47 & Potts Bay Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,940.0	64.0	IX_63_02130	0.0	0.0	0	0	0	0	0	0
IX_63_02132 (STH 47 & Raven Lake Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,940.0	64.0	IX_63_02132	0.0	0.0	0	0	0	0	2	0
IX_63_02133 (STH 47 & Adventurers Camp Ln)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,940.0	64.0	IX_63_02133	0.0	0.0	0	0	0	0	0	0
IX_63_02138 (STH 47 & CTH D)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,940.0	923.0	IX_63_02138	0.0	0.0	0	1	0	0	3	0
IX_63_02140 (STH 47 & Thorofare Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,940.0	64.0	IX_63_02140	0.0	0.0	0	0	0	1	2	0
IX_63_02144 (STH 47 & N Indian Village Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	670.0	588.0	IX_63_02144	0.0	0.0	0	0	0	0	0	0
IX_63_04001 (STH 47 & Gaulke Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,940.0	500.0	IX_63_04001	0.0	0.0	0	0	0	0	0	0
IX_63_04002 (STH 47 & Cedar Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,930.0	100.0	IX_63_04002	0.0	0.0	0	0	0	0	2	0
IX_63_04006 (STH 47 & Gaulke Rd)	Rural	FALSE	3.0	Two-Way Stop	T-Intersection	FALSE	FALSE	3,930.0	350.0	IX_63_04006	0.0	0.0	0	0	1	0	0	0

5. Document all segments and intersections within the project limits in the Safety Certification Worksheet (SCW).

Project corridors that do not have any validated flagged segments or intersections do not require a safety evaluation. Network Screening decisions, or to include locations not identified through network screening, shall be documented in the SOCD. Refer to FDM 11-38-15 (TEOpS 12-4-3) for information on the SOCD.

The network screening procedure is expected to be completed one time during the scoping phase of the project and should be viewed as a snapshot in time to support the purpose and need of an improvement project. If recent crash history or public involvement identifies additional concerns, isolated locations can be updated using newer crash data and documented through the amendment process. The entire project analysis should not be updated in these cases, as the network screening performance metrics are developed using statewide data and are updated on a regular basis. Refer to FDM 11-38-15 (TEOpS 12-4-3) for information on the amendment process.

DIAGNOSIS OF SAFETY SITES OF PROMISE

General

After determining the project corridor includes at least one Safety Site of Promise, a comprehensive crash diagnosis procedure ensues. Historical crash data are reviewed to verify the crashes are correctable through engineering countermeasures.

Diagnosis of Safety Sites of Promise Procedure

Within the SCP, the Diagnosis for Safety Sites of Promise procedure is used to further investigate Safety Sites of Promise to understand what is causing crashes, identify the contributing factors to crashes at those sites, and vet crashes where there is no engineering solution. The procedure is outlined below:

1. Obtain crash reports
2. Review each crash report
3. Vet crashes
4. Document crashes, contributing factors, and engineering judgement

Step 1: Obtain crash reports

Obtain the crash reports for all flagged segments and intersections identified by Network Screening for Safety Sites of Promise.

Step 2: Review each crash report

The analyst should review each crash report to determine contributing factors leading to the crash.

After reviewing the crashes individually, the analyst should review crashes collectively, looking for trends in the data. Consider sorting the crash records by:

1. Type
2. Severity

3. Contributing factors (e.g., geometric conditions, pavement quality conditions, etc.)
4. Daylight condition (e.g., day, night)
5. Road condition (e.g., dry, wet, snow, ice)
6. Time of day/year

Step 3: Vet crashes

After reviewing the contributing factors and trends, identify which crashes should be targeted for engineering improvements. Crashes that are treatable through an engineering solution should remain regardless of a specific pattern or trend. Use engineering judgement to determine which crashes should be vetted out and considered in other safety, educational or enforcement programs.

1. Vet out crashes that occurred outside of the flagged segment or intersection limits or were incorrectly located.
2. Vet out crashes where the initial cause of the crash was due to an animal.
3. Vet out crashes relating to roadway conditions not affiliated with the highway or geometric conditions (e.g., debris on the roadway).
4. Vet out crashes with vehicle factors (e.g., blown tire, engine fire, etc.) as the primary cause of the crash with no other roadway geometric contributing factors.
5. If present, evaluate bicycle and pedestrian crashes. Identify if human error or roadway geometrics were a contributing factor to the crash and determine if there are engineering countermeasures that could be used to mitigate the crashes. In most cases, bicycle or pedestrian crashes are infrequent occurrences with no apparent trends or patterns. Considerations should be given to roadway characteristics and roadway context when evaluating countermeasures for these types of crashes.

Step 4: Document crashes, contributing factors, and engineering judgement

As crash reports are reviewed, it is a best practice to document the contributing factors within a spreadsheet containing crash data references. If any of the crashes are vetted out, document these decisions in a "*Vetted Comments*" column within the diagnosis documentation (refer to Figure 1.5). Identify the number of crashes reviewed and the number of crashes correctible by an engineering solution in the Diagnosis of Safety Sites of Promise section of the SCW. The crashes correctible by an engineering solution shall be further evaluated in the Countermeasure Identification procedure.

Figure 1.5. Sample Crash Data Spreadsheet with vetting comments

DOCTNMBR	ACCDDATE	ACCDTIME	ACCDSVR	INJSVR	ACCDTYPE	MNRCOLL	WTHRCOND	Distance from Intersection	Intersection	Initiating Unit	Unit Struck	Crash Type	Contributing Factor(s)	Include/Exclude	Comments
J9L1DKRB0G	6/27/2020	1600	PD			REAR	CLR	AT	BURLEIGH ST	BURLEIGH EB RT	BURLEIGH EB RT	Rear End	Uncertain	INCLUDE	UNIT 1 TURNING RIGHT FROM BURLEIGH, REAR ENDED BY UNIT 2, UNIT 2 FLED, HIT AND RUN
J9L1GK13F4	8/27/2020	2355	PD			HEAD	CLR	AT	BURLEIGH ST	BURLEIGH EB	STH 181 NB	Angle	Disregard of Traffic Control	INCLUDE	UNIT 1 AND UNIT 2 CLAIM THE OTHER RAN A RED LIGHT, UNCLEAR WHO WAS AT FAULT
J9L1K78HLW	8/3/2023	1039	PD	O		REAR	CLR	AT	BURLEIGH ST	STH 181 SB	STH 181 SB	Rear End	Uncertain	INCLUDE	UNIT 1 REAR ENDED UNIT 2 WHILE TRYING TO YIELD FOR EMERGENCY VEHICLE
J9L1M6J8Z5	11/26/2024	905	PD	O		ANGL	CLR	AT	BURLEIGH ST	BURLEIGH WB	STH 181 SB	Angle	Disregard of Traffic Control	INCLUDE	UNIT 2 WB RAN THE RED LIGHT AND STRUCK UNIT 1 SB
J9L1P5S2CN	7/6/2024	1845	PD	O		REAR	CLR	AT	BURLEIGH ST	STH 181 SB	STH 181 SB	Rear End	Unsafe Backing	EXCLUDE	UNITS 1 AND 2 STOPPED AT RED LIGHT, UNIT 1 REVERSED INTO UNIT 2
J9L1TZ0CJ4	2/20/2024	1725	INJ	B	PED	NO	CLR	AT	BURLEIGH ST	PED EB	STH 181 SB	Ped	Failure to Yield R/W	EXCLUDE	PED EXITED BUS AND ATTEMPED TO CROSS EB IN NORTHERN CROSSWALK, SB 181 LIGHT WAS GREEN, SO PED DID NOT HAVE RIGHT OF WAY
J9L2RC716D	12/9/2021	2212	INJ	C		ANGL	CLDY	AT	BURLEIGH ST	STH 181 NB LT	STH 181 SB	Angle	Failure to Yield R/W	INCLUDE	UNIT 1 NB TURNING LEFT FAILED TO YIELD TO UNIT 2 SB
J9L2TKW13R	5/22/2023	1230	PD	O		SSS	CLR	AT	BURLEIGH ST	STH 181 SB	STH 181 SB	Sideswipe - Same	Unsafe Lane Change	EXCLUDE	UNIT 1 CHANGED FROM RIGHT TO LEFT LANE, DIDN'T SEE UNIT 2 IN LEFT LANE AND STRUCK UNIT 2
J9L2TT97ZH	5/2/2024	1311	INJ	C		ANGL	CLR	AT	BURLEIGH ST	BURLEIGH EB	STH 181 NB	Angle	Failure to Yield R/W	INCLUDE	UNIT 2 NB IN FUNERAL PROCESSION WITH THE RIGHT OF WAY, UNIT 1 EB FAILED TO YIELD
M5L1CBQ6VK	5/9/2022	1500	PD	O	OTHFX	NO	CLDY	150FT N	BURLEIGH ST	STH 181 SB RT	NONE	No Collision	Vehicle Malfunction	EXCLUDE	UNIT 1 ENTERING PARKING LOT NORTH OF BURLEIGH, AND BRAKES MALFUNCTIONED
J9L1HPL4RM	1/15/2024	1455	PD	O	OTH NC	NO	CLR	186FT S	KEEFE AVE	STH 181 SB	STH 181 SB	Angle	Unsafe Lane Change	EXCLUDE	UNIT 1 CHANGED FROM LEFT TO RIGHT LANE, DIDN'T SEE UNIT 2 IN RIGHT LANE, UNIT 2 SWERVED AND STRUCK UNIT 3 WHO GOT STUCK ON SNOW IN MEDIAN, SNOWY ROADS
J9L1P4K13K	10/27/2020	500	PD		PK VEH	SSS	CLR	218FT N	KEEFE AVE	STH 181 SB	STH 181 SB PARKED	Sideswipe - Same	Uncertain	INCLUDE	UNITS 2 AND 3 LEGALLY PARKED, UNIT 1 STRUCK UNITS 2 AND 3 AND ENDED UP IN MEDIAN, FLED ON FOOT, HIT AND RUN

COUNTERMEASURE IDENTIFICATION

General

If there are crashes that can be mitigated with engineering countermeasures, they are evaluated further to determine if existing geometric features contributed to the type and severity of those crashes. If existing geometric features did not contribute to the crashes, other possible countermeasures should be identified to target the contributing factors.

Countermeasure Identification Procedure

The procedure is as follows:

1. Review the crash data and contributing factors for each Safety Site of Promise as identified in the

Diagnosis of Safety Sites of Promise procedure.

2. Determine possible countermeasures that target the type or severity of the crashes. WisDOT's countermeasure selection table is a tool that can be used to help identify potential countermeasures. This example table identifies crash types, potential contributing factors, and common countermeasures. This table does not contain all available countermeasures and should only be used as a brainstorming resource.
3. Document countermeasures identified or that no practical countermeasures exist in the SCW and SOCD.
    a. For intersection sites of promise, if a proposed countermeasure includes a change of traffic control, complete an Intersection Control Evaluation (ICE) report. Further information on the ICE process can be found in FDM 11-25-3.

SAFETY EVALUATION AND ECONOMIC APPRAISAL

General

The Safety Evaluation and Economic Appraisal procedure is initiated if safety improvements are identified within the Countermeasure Identification procedure. Each safety improvement identified shall be evaluated to determine the cost-effectiveness. This is a two-step procedure which involves determining the safety effectiveness of potential countermeasures and performing an economic appraisal.

Safety Evaluation Procedure

The Safety Evaluation procedure uses predictive crash modeling methodology to quantify the future safety performance of each potential countermeasure to account for RTM bias. This modeling shall be completed using the Interactive Highway Safety Design Model (IHSDM) software when applicable, or the Highway Safety Benefit-Cost Analysis Tool when IHSDM cannot be used. Predictive modeling is used to compare long-term safety performance for any proposed alternatives.

Safety Evaluation Procedure Steps

1. Determine the base case scenario
2. Determine the analysis method for the base case and each alternative
3. Compile the required data for the analysis
4. Perform the safety analysis
5. Document the results

Step 1. Determine the base case scenario

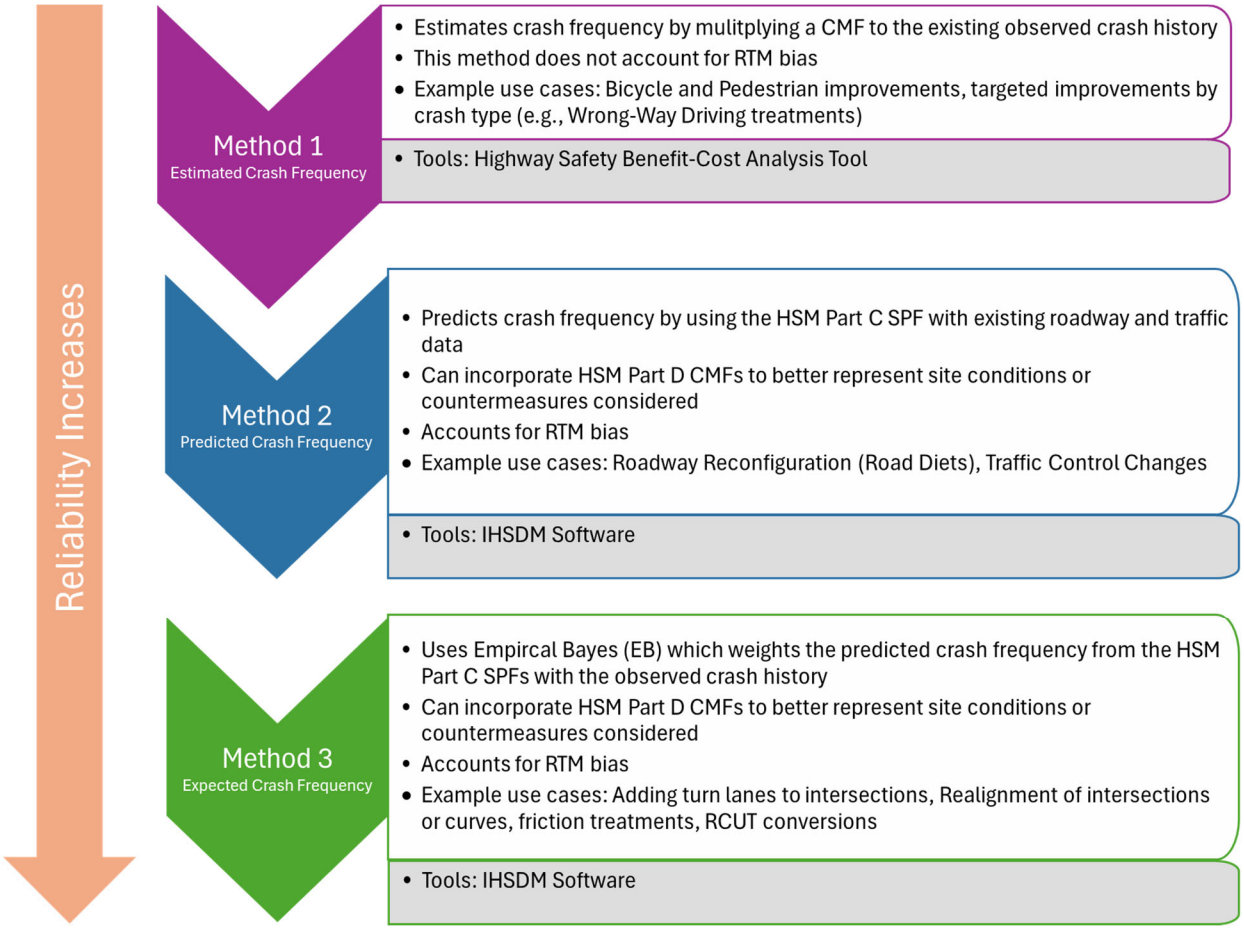
The base case scenario for each Safety Site of Promise is the condition that the proposed alternatives are compared to. In most cases, the base case will not include safety improvements and is considered the "no-build" or "replace in kind" alternative. For the base case alternative, it should be modeled with existing roadway geometric and traffic control conditions for the evaluation period, beginning with the year after construction of the improvement is completed.

If a proposed alternative is less expensive than the no-build alternative, the least expensive alternative should be used as the base case alternative to accurately compare the benefit-cost results. In this scenario, the least expensive alternative may reduce the benefit-cost thresholds by comparison, and it should be noted in the SOCD.

Step 2. Determine the analysis method for the base case and each alternative

Several methods exist to evaluate alternatives. WisDOT has grouped these into three methods: Method 1, 2 and 3. Figure 1.6 outlines the differences between these methods. A Safety Evaluation Procedure (Methodology Selection) flowchart is available to guide analysts through determining the correct analysis method for a given alternative being considered.

Figure 1.6 Safety Evaluation Methodologies



HSM Part C Adjustment Factors vs HSM Part D CMFs:

When determining which analysis method to use, it is important to know the distinction between the types of factors that adjust the HSM Safety Performance Functions (SPFs):

1. HSM adjustment factors are used in conjunction with the HSM Part C SPFs to adjust the base conditions of the SPFs. Adjustment factors are an estimate of the effectiveness of the implementation of a particular countermeasure or treatment and are not consistent across all models.
2. HSM Part D CMFs, called CMFs, are used to modify the Part C SPF prediction to more closely represent the site conditions. These are used when the countermeasure or treatment is not captured in the existing SPF and its associated adjustment factors.

Empirical Bayes Applicability

When determining between Method 3 and 2, whether Empirical Bayes (EB) is applicable or not, the HSM defines that EB (Method 3) is applicable when:

- Sites at which the roadway geometrics and traffic control will not change (e.g., the “do-nothing” alternative).
- Projects in which the roadway cross section will be modified but the basic number of through lanes will remain the same. This could include projects for which lanes or shoulders will be widened or the roadside will be improved.
- Projects in which minor changes to the alignment will be made, such as flattening individual horizontal curves, while leaving most of the alignment intact.
- Projects in which a passing lane or a short four-lane section will be added to a rural two-lane, two-way road to increase passing opportunities.
- Projects in which a weaving section will be added to a freeway.
- Any combination of the above improvements.

The EB method (Method 3) is not applicable to the following types of improvements and Method 2 should be

used when:

- Projects in which a new alignment will be developed for a substantial proportion of the project length.
- Intersections or crossroad ramp terminals at which the basic number of intersection legs or type of traffic control will change as part of the project.
- Segments where the number of through lanes changes for a substantial proportion of the project length, other than short passing lane sections or when a weaving section will be added to a freeway.
- Any other major geometric improvement where the observed crash data for the existing conditions is not indicative of the crash experience that is likely to occur in the future.

Overall Methodology Selection

The HSM2 allows flexibility in methodology selection depending on the alternatives being investigated. For each alternative evaluated, the analyst should select the most reliable method available to complete the safety evaluation procedure for that alternative. This may result in evaluations being compared with different methodologies. The following guidance applies when combining methodologies:

- In most circumstances, the default analysis method for the base case, which is typically the “no-build” or “replace in kind” alternative, shall be Method 3. When the base case is not the no-build alternative, the analyst should select the most reliable method available for the alternative, and Method 3 shall be applied to the no-build alternative.
- If an alternative requires Method 1, it **shall not** be compared with alternatives that are analyzed with Methods 2 or Method 3. A separate analysis at the same site using Method 1 may be acceptable for the given alternative.

The methodology flowchart can assist with the selection of the appropriate methodology.

Step 3. Compile the required data for the analysis

Table 1.3 provides a high-level overview of the required inputs for each of the safety evaluation methods.

Table 1.3. Required Inputs for the Safety Evaluation Procedure

Inputs for Each Analysis Method	Method		
	1	2	3
Geometry and traffic control for each segment or intersection	Required	Required	Required
Roadway segment AADTs or intersection approach AADTs for all years in the evaluation period and historical years when using EB.	Required	Required	Required
All observed crash data for each segment or intersection being analyzed	Required		Required
SPFs contained in IHSDM		Required	Required
WisDOT calibration factors, stored in IHSDM Admin file		Required	Required
CMFs for countermeasures	Required	As Needed	As Needed

The following steps should be followed when collecting data for the Safety Evaluation:

1. Determine the years of the observed crash period from the Network Screening results.
    a. Statewide network screening uses five years of historical crash data by default to develop screening metrics. Confirm no geometric or traffic control changes have occurred over the duration of the crash data. If changes have occurred, utilize only the years of crash data after the change, with a minimum of two years of data.
    b. For some situations (e.g., rural intersections) where traffic volumes, traffic generators, and site conditions remain consistent for many years, additional crash data beyond five years could be reviewed and included in alternative analysis with a maximum of ten years of data. To include additional crash data beyond the default network screening results, please coordinate with the Bureau of Traffic Operations Traffic Analysis and Safety Unit.
2. Compile the crash data for the observed crash period.
    a. Identify the number, type, and severity of the crashes.
3. Obtain the AADTs for the observed crash period.
4. Determine the AADTs for the evaluation period.
    a. Obtain, at a minimum, the forecasted volumes for the first year and last year of the evaluation

period. The analysis tools will automatically interpolate between the two volumes for each year. If additional forecasted volumes are known, they should be included.

5. If CMFs are needed for the base case or any alternative, obtain the appropriate CMFs from the WisDOT CMF Table or reach out to BTO for approval. Refer to TEOpS 12-3 for WisDOT's CMF policy.
    a. For each CMF, document the treatment name and CMF# in IHSDM.
    b. For each countermeasure, assume the *Start CMF Year* is the first year of the evaluation period (i.e., the first year after construction is completed) and the *End CMF Year* is the last year of the evaluation period.
6. For each analysis location, identify the largest "footprint" for all the alternatives. This is the area that should be evaluated for all alternatives, including the base case.
7. For each alternative, obtain roadway characteristics and geometric inputs.
8. Determine the years of the evaluation period.
    a. The evaluation period shall be ten years for all safety analyses
    b. The first year of the evaluation period is the first year the roadway is open to traffic after the proposed construction is completed

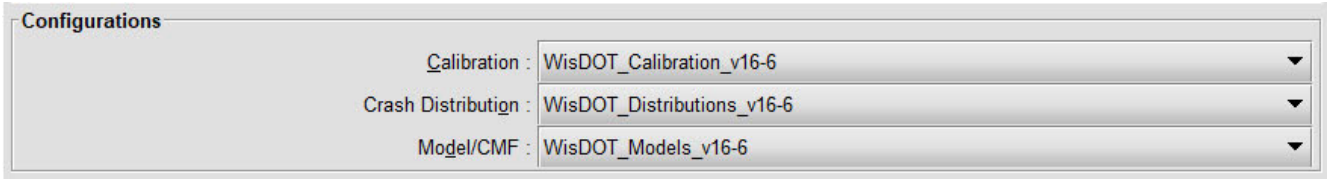
Step 4. Perform the safety analysis

For the base case and each alternative, perform the safety analysis with the method identified in Step 2. Determine the number of total crashes, fatal and injury (KABC) crashes, and property damage only (PDO) crashes.

- Method 1 uses the Highway Safety Benefit-Cost Analysis Tool
- Methods 2 and 3 use the IHSDM software for analysis

When using IHSDM, select the WisDOT Calibration File, as shown in Figure 1.7.

Figure 1.7 IHSDM Crash Analysis Configurations



Step 5. Document the results

For the base case and each alternative, document the number of total crashes, fatal and injury (KABC) crashes, and property damage only (PDO) crashes in the SOCD. Also, document any CMFs that were used and any other assumptions or judgements pertinent to the analysis.

Economic Appraisal Procedure

The purpose of the Economic Appraisal procedure is to compare the estimated safety benefits of a proposed safety improvement with the estimated costs of that improvement. The economic appraisal procedure can be used to determine the cost-effectiveness of proposed safety improvements, identify and prioritize improvements with the highest return on investment, and help select an alternative in the decision-making process. To ensure projects are compared consistently, the evaluation period (i.e., return on investment period) is assumed to be ten (10) years. Key outputs of this process include an estimated benefit-cost ratio and the net-present value of each safety improvement alternative. Each of these outputs should be considered when selecting the most appropriate improvement option. Refer to Table 1.2 for definitions of terms used in the Economic Appraisal procedure.

Cost Estimating

The SCP focuses on evaluating safety impacts of each proposed alternative and currently does not evaluate other factors such as vehicle travel time, delay, vehicle operating costs, or vehicle emissions. A cost estimate shall be completed for each of the alternatives, including the base case. The base cost includes any cost associated with the programmed improvement strategy (Perpetuation, Rehabilitation, Modernization) that would occur regardless of any proposed alternatives. Cost estimates for alternatives shall include any program costs associated with the construction of the alternative. These costs include the let construction cost and other

associated costs with the improvement (e.g., real estate, utilities, railroad, etc.). Costs that are excluded from the analysis include any design or construction delivery, maintenance, and operating costs. To provide project consistency, each alternative shall be evaluated within the economic appraisal using the actual cost of the improvement (i.e., not the cost difference between the base case and alternative. Any cost estimates evaluated within the economic appraisal are to be viewed as a snapshot in time.

Crash Costs

Crash costs are estimated monetary values that a state agency adopts to quantify the impact of a change in safety performance as part of a benefit-cost analysis.

Table 1.4 summarizes the approved crash costs for use in the Economic Appraisal procedure.

Table 1.4. Crash Costs for Benefit-Cost Analysis in 2025 Dollars

Crash Severity (WisDOT terminology)	KABCO Abbreviation (Most severe injury in crash)	Crash Severity (HSM Terminology)	WisDOT Crash Cost
Fatal	K	Fatal	$16,085,401
Suspected Serious Injury	A	Serious Injury or Disabling	$818,160
Suspected Minor Injury	B	Evident Injury or Non-disabling	$258,751
Possible Injury	C	Possible Injury	$146,882
Property Damage Only (PDO)	O	No Injury	$19,499

Wisconsin-specific crash costs were developed using the methods described in FHWA's *Crash Costs for Highway Safety Analysis* guide. These crash costs were developed along with the Highway Safety Benefit-Cost Analysis Tool and can be downloaded for use in IHSDM in the tools section below. Crash costs are periodically updated to reflect changes in economic measures.

Safety Evaluation and Economic Appraisal Tools

The following tools shall be used when conducting the Safety Evaluation and Economic Appraisal:

1. IHSDM
    a. IHSDM applies the HSM analysis methods and economic appraisal process. WisDOT created state-specific files to improve the reliability of the crash analysis and economic appraisal results. Analysts shall use the following files:

File Purpose	File Name
Calibration Data Sets	WisDOT_Calibration_v16-6
Crash Distribution Data Sets	WisDOT_Distributions_v16-6
Model Data Sets	WisDOT_Models_v16-6
Economic Analysis Model Data Sets	WisDOT_Economics_v16-6

    These files can be downloaded from WisDOT's Traffic Operations Manual webpage under the *Safety and Operations Certification* section. To utilize these files within IHSDM, save a copy in the "config" folder.

    Additional information and detailed tutorials can be found at: https://highways.dot.gov/turner-fairbank-highway-research-center/software/IHSDM
2. Highway Safety Benefit-Cost Analysis Tool
    a. Used only for Method 1 analyses. The calculations for the economic appraisal are completed in the same manner as those implemented in the IHSDM.
3. WisDOT CMF Table
    a. Contains a list of WisDOT-approved CMFs, as well as a CMF calculator to combine CMFs. For more information regarding WisDOT's CMF policy, go to TEOpS 12-3.

DOCUMENTATION

Safety and Operations Certification Document (SOCD)

The Safety Certification Process's (SCP) purpose is to analyze the full range of alternatives and strategies in order to meet the purpose and need of the project by mitigating identified safety issues. To document the SCP, a Safety and Operations Certification Document (SOCD) is produced (See SOCD template or guidance

document). The SOCD documents all alternatives evaluated within the process, regardless of resulting benefit-cost ratio values, and should not state a definitive recommendation for an alternative. The benefit-cost ratio that is calculated through the Economic Appraisal procedure captures only the safety benefit of a project. For a Safety Site of Promise, alternatives with a benefit-cost ratio of greater than 1.0 are economically justified from a safety perspective and are considered reasonable alternatives. Alternatives with a benefit-cost ratio between 0 and 1 may be considered reasonable when combined with other factors in addition to safety (e.g., operations, bicycle/pedestrian, oversize/overweight (OSOW), and environmental). These other benefits can be considered for a more comprehensive analysis but are not included within the SOCD. The other benefits and factors would be documented as part of the Final Scope Certification (FSC) document, see FDM 11-4-3. For alternatives that improve safety at locations not identified as a Safety Site of Promise, a benefit-cost ratio of greater than 2.0 is required to economically justify the improvement from a safety perspective. The National Environmental Policy Act (NEPA) process isn't complete until all input is appropriately considered for the project. In some cases, it is possible that an alternative that does not have the highest safety benefit-cost ratio is the preferred alternative.

Safety and Operations Certification Document Amendment

After the SOCD has been signed, if a new alternative is developed or project limits are expanded, the SCP shall be followed and documented with an amendment to the SOCD (See SOCD-Amendment template or guidance document). If this occurs within the scoping phase of a project, the amended SOCD shall be documented within the FSC and supersedes the original SOCD. If this occurs after the scoping phase, the SOCD amendment shall be documented within the Design Study Report (DSR) and environmental document, as appropriate.

Approval Process

Approval by the Bureau of Traffic Operations (BTO), Traffic Analysis and Safety Unit, is required for all projects with SOCDs that consider safety countermeasures and complete the Safety Evaluation and Economic Appraisal Procedure. This review and approval process shall occur prior to approval by the Regional Planning or Traffic Supervisor. The intent of BTO's review is to ensure the policy, methods, and tools described in FDM 11-38 and TEOpS 12-4-1 are applied appropriately and consistently statewide. Review of detailed inputs and outputs shall be completed by the Region.

Send the SOCD and all supporting documents to DOTBTOSafetyEngineering@dot.wi.gov. BTO will review the SOCD and provide comments or concurrence to the Region within 15 business days.

The Regional Planning or Traffic Supervisor shall approve all project Safety and Operations Certification Documents. For projects that do not require an SOCD, per FDM 11-1-10 Attachment 10.1, the supervisor can delegate to the analyst to approve the SOCD.

EXAMPLES OF THE SAFETY CERTIFICATION PROCESS

Examples for the SCP can be found on the Traffic Operations Manuals webpage:

https://wisconsindot.gov/Pages/doing-bus/local-gov/traffic-ops/manuals-and-standards/manuals.aspx

The examples cover each method and associated Economic Appraisals. These examples are limited in nature and are for demonstrative purposes in exemplifying the Safety Certification Process.

REFERENCES

1. Highway Safety Benefit-Cost Analysis Guide. FHWA Safety Program. Federal Highway Administration. February 2018.

2. Crash Modification Factors in Practice, Quantifying Safety in the Roadway Safety Management Process. FHWA Office of Safety. Federal Highway Administration.

3. Highway Safety Benefit-Cost Analysis Tool: Reference Guide. FHWA Safety Program. Federal Highway Administration.

4. Crash Modification Factors in Practice, Using CMFs to Quantify Safety in the Development and Analysis of Alternatives. FHWA Office of Safety. Federal Highway Administration.

5. Highway Safety Manual. American Association of State Highway and Transportation Officials. 2010.

6. Highway Safety Manual User Guide. National Cooperative Highway Research Program 17-50. Lead States Initiative for Implementing the Highway Safety Manual. August 2014.

7. Crash Cost for Highway Safety Analysis. FHWA Safety Program. Federal Highway Administration. January 2018.

8. Interactive Highway Safety Design Model (IHSDM): Overview. Federal Highway Administration. September 10, 2021. https://highways.dot.gov/turner-fairbank-highway-research-center/software/IHSDM

12-4-2 Highway Safety Improvement Program April 2023

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. Projects are identified by statewide screenings and WisDOT regional safety engineers on the state-owned system and by local agencies on the local system. All candidate projects must compile crash data and develop a proposed treatment strategy as part of a competitive application process. The applications are considered through a peer review process that involves statewide and regional safety engineering staff, as well as HSIP program management staff.

Federal HSIP guidance can be found on the FHWA HSIP website. Wisconsin-specific HSIP information can be found on the Wisconsin HSIP website. WisDOT HSIP program guidelines are available for internal use only.

13-5-1 Statutory Authority and the Approval Process

November ~~TBD~~ ~~2024~~2026

Speed limits are absolute limits that are established for a roadway under ideal conditions. They also help traffic enforcement by setting standards for what is an unsafe speed. Setting speed limits appropriately helps to reduce the significant risks drivers impose on others – especially vulnerable road users.

The concept of establishing speed limits is based upon the nationally accepted principle that the majority of drivers are cautious, prudent and drive at speeds that are reasonable, regardless of the posted speed limit. This ~~"~~"*reasonable and prudent*"~~"~~ theme is part of the Wisconsin State Statutes in ss. 346.57 (4) and ss. 349.11 (7).

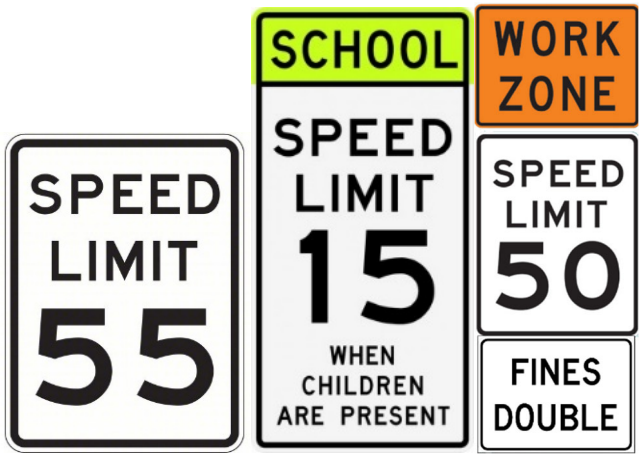
The policy described within aligns with Wisconsin State Statutes and the Wisconsin Manual on Uniform Traffic Control Devices (WMUTCD) [1].

13-5-2 Types of Speed Limits

~~November TBD~~ November 202~~6~~4

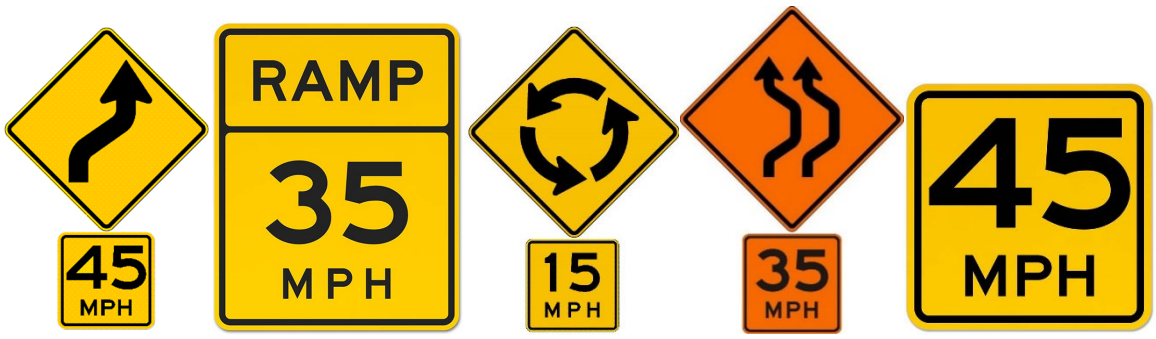
Regulatory

Speed limit signs~~s~~ posted with a white background and black legend ~~sign~~ are maximum speed limits that a road user must adhere to under average or ideal conditions. These are referred to as regulatory speed limits and examples are shown below. Regulatory speed limits are absolute speed limits, above which it is unlawful to drive regardless of roadway conditions, traffic volumes, pedestrian presence, school activity, highway construction or maintenance workers or other factors.



Advisory

Speed limit signs~~s~~ posted with a yellow or orange background ~~with~~ and black legend ~~sign~~ are warning signs used to advise a road user of a recommended driving speed for an upcoming road condition or hazard. These are used in situations where there is a small section of road that *should* be traveled at a lower speed. These can be used at curves, intersections with reduced visibility, or within work zones. These signs are advisory and not enforceable in Wisconsin unless a driver is driving too fast for conditions. Below are examples of advisory speed limits.



13-5-3 Types of Regulatory Speed Limits

~~November~~ TBD ~~2024~~2026

Statutory Speed Limits

Statutory speed limits are established by state law and are based on the classification (or type) of roadway (e.g., 70 mph on freeways, 45 mph on rustic roads). Statutory speed limits in Wisconsin are governed by ss. 346.57 which establish maximum/minimum speed limits for all roadways. These limits are established legislatively and are applied throughout Wisconsin on public roadways. Statutory speed limits ensure a limit is in place on all roads.

Modified Speed Limits (Modifications to Statutory Speed Limits)

Modified speed limits are typically established on roadways where the statutory speed limit or existing limit is no longer appropriate due to a change in land use, road design, access, traffic volumes, construction/maintenance activity, or number of crashes or crash potential along a roadway. Modified speed limits *should not* be used to address spot safety issues. Often, other engineering countermeasures are more appropriate to address safety issues.

Unless speed limits are set initially by state statutes (statutory speed limits), all speed limits in Wisconsin must be established through an engineering and traffic investigation (engineering study).

Speed limits that are not used in Wisconsin are as follows:

- Nighttime speed limits – limits that are adjusted based on day or night conditions.
- Minimum speed limits – limits establishing the lowest allowable speed for a roadway.
- Specialty vehicle speed limits (e.g., trucks, golf carts, etc.) – limits applied to certain classes of vehicles.
    - Exceptions include: All-Terrain Vehicles (ATV) and Utility Terrain Vehicles (UTV)
- Seasonal speed limits – limits that are applied for a specified period(s) during the year, generally at locations with significantly different levels of roadside activity at different times (e.g., high traffic tourist area popular in summer).

13-5-4 Definitions

~~November~~ TBD ~~2024~~2026

An engineering and traffic investigation is the analysis and evaluation of available pertinent information including, but not limited to, the safety and operational efficiency of all road users, and the application of appropriate principles, provisions, and practices as contained in the WMUTCD.

The following provides definitions of information typically included within an engineering and traffic investigation.

Roadway Context Terminology

Roadway Geometry is information on the roadway facility's features and dimensions such as lane widths, shoulder widths, curb and gutter presence, curves, sidewalk/pathways, presence of lighting, and available sight distance.

Traffic Volume is used to describe the number of vehicles at a given location on an average day of the year. This is often expressed as either an Average Daily Traffic (ADT) or Annual Average Daily Traffic (AADT) count.

Area Type is a designation for the setting of the environment where the roadway facility is located. There are three area types:

- Urban – locations that have a population of 5,000 or greater. In urban settings there is minimal undeveloped land and several buildings including schools, commerce centers and others.
- Rural – locations that have a population less than 5,000. In rural settings there are typically large areas of undeveloped land with minimal buildings or residences. These may include small towns and unincorporated communities.
- Suburban – transitional areas between rural and urban settings. These typically are locations that are built up areas on the outskirts of cities and villages.

Functional Classification is a transportation planning term that defines how a route *should* perform in serving the flow of traffic through a highway network. It is the grouping of highways, roads and streets by the character of service they provide (e.g., principal arterial, minor arterial, collector (major/minor), local street).

Roadway Context Classification considers the land use characteristics of a roadway's surrounding community with the use that occurs on the roadway. It is the physical, economic and social setting through which a roadway runs. It is different than *Area Type* such that it helps categorize the roadway purpose and function based on the built environment. WisDOT has eight context classification categories based on the intensity of surrounding development, types of buildings along and near the roadway, building setbacks and frontage, roadway facilities and parking.

- Natural - Roadways that travel through an undeveloped or sparsely developed area, where people often visit to enjoy the natural beauty.
- Rural - Roadways that are typically surrounded by farmland or generally low-intensity residential.
- Rural Community - Encompasses fourth-tier cities which are defined in ss. 62.05(1). These include small cities, villages, towns, and unincorporated areas of populations of 10,000 or less. Rural communities have a low intensity cluster of buildings and typically revolve around a central main street or auto-oriented commercial area.
- Suburban Residential - Roadways situated between rural and urban areas where the surrounding buildings are typically one to two stories high with varying setbacks.
- Suburban Commercial - Roadways often serve as the economic backbone and main thoroughfare of a suburban community. These roads are typically surrounded by large, developed parcels featuring commercial and office spaces.
- Urban - Roadways vary based on their proximity to the urban core and the surrounding land uses. A grid system of connecting streets and smaller blocks is commonly present.
- Urban Core - Roadway is highly dense and can be adjacent to nearly any type of land use. Setbacks are often minimal or nonexistent, with buildings potentially rising above ten stories.
- Industrial, Warehouse or Port - Roadways that pass-through areas specifically designed to be separated from other land uses due to their secondary effects, such as noise, pollution or other undesirable impacts.

Vulnerable Road User encompasses non-motorists including people walking, biking or rolling. These include pedestrians, bicyclists, other cyclists, and individuals utilizing other means of personal transportation.

Speed Terminology

Operating Speed (Free-Flow Speed) is defined as the speed at which a driver operates a typical vehicle, or a speed at which the overall traffic operates during free-flow conditions. Free-flowing speed is defined as conditions in which a driver has the ability to choose a speed of travel without undue influence from other traffic, traffic control devices (e.g., traffic signals, roundabouts), conspicuous police presence, or environmental factors. In other words, the driver of a free-flowing vehicle chooses a speed that they find comfortable on the basis of the appearance of the road [2] [3]. WisDOT measures free-flowing vehicle speeds when there is a gap of five seconds or more between vehicles per lane.

Design Speed is the speed selected during the roadway design process that determines the various geometric design features of the roadway such as horizontal alignment, vertical alignment, and cross-section design elements [4]. This includes lane widths, shoulder widths, curb and gutter presence, curves, and available sight distance.

The following are definitions for speed-related performance metrics:

- 85th Percentile Speed is the speed at or below which 85 percent of the sample of free-flowing vehicles travel.
- 50th Percentile Speed (also known as the median speed) is the speed at which 50 percent of the sample of free-flowing vehicles travel.
- Average speed is the typical speed of the sample of free-flowing vehicles. This is calculated by taking the sum of all observed speeds within the same sample and dividing by the total number of observations.
- Pace is the 10-mph range of travel speeds containing the largest number of observed vehicles. This is a metric used to assess the speed dispersion or spread of vehicle speeds. A normal speed dispersion *should* have approximately 70% of the vehicles within this 10-mph range.
- Speed variance is the difference in travel speeds of vehicles traveling on the same stretch of roadway simultaneously. Large speed variances increase the potential for crashes.

Roadway Classifications

State Trunk Highways (STH) are highways that include both Wisconsin State Highways and United States (US) Highways that are maintained by WisDOT. In Wisconsin, these are highways designated with numbers.

County Trunk Highways are highways maintained by County Highway Departments or other municipalities. In Wisconsin, these are highways designated with letters.

Local Streets are roadways that are maintained by incorporated municipalities (i.e., villages/cities) that serve primarily residential traffic and provide a connection between highway systems.

Town Roads are typically low-volume roadways that are maintained by townships.

Rustic Roads are roadways designated by the Rustic Roads Board which have characteristics that promote natural features or wildlife and low volume for the purposes of recreational enjoyment. For more information see the ~~Rustics Road webpage~~Rustic Road webpage.

Alleys are roadways that are narrow passages between or behind development.

Freeways are high-speed roadways that are access-controlled, and all crossroads are grade-separated (i.e., interchanges/overpasses).

Expressways are high-speed roadways that are partially access-controlled, and crossroads can be either at-grade intersections or grade-separated (i.e., interchanges/overpasses).

Other

Variable speed limits are regulatory speed limits that can dynamically change based on traffic, weather or other conditions. These can be used in permanent scenarios for certain events (e.g., congested traffic or weather events) or on a temporary basis (e.g., work zones).

Connecting Highways are local streets and roads that carry state highway ~~travel~~ traffic and are marked as STHs through cities and villages.

Outlying district is an area contiguous to any highway within the corporate limits of a city or village where on each side of the highway within any 1,000 feet, buildings are spaced on average more than 200 feet apart.

Semiurban district is an area contiguous to any highway where on either or both sides of the highway within any 1,000 feet, buildings are spaced on average less than 200 feet apart.

13-5-5 Background ~~November~~ TBD ~~2024~~2026

Modified speed limits are typically established on roadways where the statutory speed limit or an existing speed zone is no longer appropriate due to changes in land use, access, traffic volumes, number of crashes or crash potential along the highway. Speed zoning is a means of establishing uniform regulatory speed limits for similar driving conditions throughout the state. It is a means of informing motorists who may be unfamiliar with the road of the "reasonable" driving speeds under ideal operating conditions. Speed limits are established under ideal conditions and not based on temporary situations (e.g., construction, seasonal variations in traffic/pedestrian volumes, special events).

Unreasonably low speed limits, also called irrational speed limits, are not effective in changing driver behavior and have several negative effects. While irrational speed limits do not result in desired driver behavior, resulting negative effects include higher financial cost due to the need for increased enforcement, higher potential for

crashes due to larger variability in vehicle speeds, and encouragement of motorist disregard of other, rational posted speed limits. Irrationally low speed limits also promote a false sense of security among residents and pedestrians who may expect that posting lower limits will change drivers' speed behavior.

Driving environment is the main influence on motorists' speeds. Drivers rely heavily on cues from the roadway environment to judge how fast they are traveling. The primary basis for how a motorist estimates their speed is the visual sensation they observe from the roadway geometrics (e.g., lane width, presence of curves, on-street parking, access along the roadway, bicycle and pedestrian activity, sidewalks/pathways, presence of lighting, etc.) and other information about objects in their immediate vicinity. Roadway design and driving environment *should* be balanced to achieve the following goals [2]:

- The driver's perceptual experience of the roadway *should* be consistent with the intended travel speed
- There *should* be some consistency between relevant roadway cues and the posted regulatory speed.

13-5-6 Authority ~~November~~ TBD ~~2024~~2026

The statutory authority for establishment of regulatory speed limits is provided in ss. 346.57 and ss. 349.11. These statutes vest WisDOT with the authority to establish regulatory speed limits on the state trunk highway system. Furthermore, the statutes provide WisDOT with approval authority (refer to ss. 349.11(3)(c)) for some regulatory speed limits that local units of government establish.

Statutes define that all speed limit changes **shall** be based on an engineering and traffic investigation, including modifications allowed under Statute.

- Section 1C.02 of the WMUTCD defines the requirements of an engineering and traffic investigation (engineering study). Per section 1C.02, an engineering and traffic investigation **shall** be documented in writing.
- Section 1D.03 of the WMUTCD defines the requirements of who can complete an engineering and traffic investigation. It is expected that the performance of engineering studies and exercising engineering judgment are presumed to include the use of engineering technicians or other qualified personnel who are trained in the principles and practices of traffic engineering studies or traffic control devices, and whose normal duties include performing engineering studies and designing, placing, operating and maintaining traffic control devices within a jurisdiction. ~~An engineering and traffic investigation **shall** be performed by a registered professional engineer with appropriate traffic engineering expertise and/or experience in traffic engineering studies, or by an individual working under the supervision of such an engineer, through the application of procedures and criteria established by the engineer. An engineering and traffic investigation **shall** be documented in writing.~~

Local units of government *should* follow the guidance outlined within this policy to satisfy the requirements of an engineering and traffic investigation.

Connecting Highway

Connecting highways are local streets and roads that carry state highway traffic and are marked as State Trunk Highways. Wisconsin ss. 84.02(11) and ss. 86.32(1) define connecting highways and the funding provided to maintain these roadways. Connecting Highway funding aids are used to maintain these streets and roads at state trunk highway system standards and compensate local governments for the incremental costs of through-traffic routed over municipal streets. For more information see the Connecting Highway webpage.

Connecting Highway speed limits are maintained by the respective municipality. Wisconsin ss. 86.32 states such maintenance, operation and traffic control of the connecting highways and swing and lift bridges **shall** be subject to review and approval by WisDOT.

Municipalities that maintain connecting highways are responsible for the maintenance and traffic control of the roadway which includes establishing speed limits. Thus, local authorities responsible for these roadways **shall** follow information within Table 6.1~~Table 6.1~~ to establish speed limits. Proposed changes to speed limits on these facilities that impact the operation of connecting highways **shall** be subject to review and approval by WisDOT.

Approval Authority

Local Government

- Local units of government, under their respective maintenance jurisdictions, can approve speed limit modifications as allowed in Table 6.1~~Table 6.1~~.
- When speed limits are recommended outside of the approval authority defined by ss. 349.11, local units of government are required to coordinate with WisDOT. For information on how to request WisDOT to review a speed limit modification, see TEOpS 13-5-7 Engineering and Traffic Investigation Procedure~~13-5-7.1~~.
- Local units of government *should* follow the guidance outlined within TEOpS 13-5 to satisfy the requirements of an engineering and traffic investigation.

Table 6.1 Speed Limits and Local Authority

	per ss. 349.11(3) and (7)
70 mph – Freeway/Expressway	N/A
65 mph – Freeway/Expressway	N/A
55 mph – State Trunk Highway	N/A
55 mph – County Trunk Highway	Lower the speed limit to 50 or 45 mph
55 mph – Town Road	Lower the speed limit to 50 or 45 mph
45 mph – Rustic Road	Lower the speed limit to 40, 35 or 30 mph
35 mph – Town Road with average driveway spacing less than 150 feet	Lower the speed limit to 30 or 25 mph
25 mph – Inside corporate limits of a city or village	Raise the speed limit up to 55 mph Lower the speed limit to 20 or 15 mph
15 mph – Street or Town Road adjacent to a public park	Lower the speed limit to 10 or 5 mph
15 mph – Alley	Lower the speed limit to 10 or 5 mph
15 mph – Pedestrian Safety Zone (with a public transit stop)	No changes permitted
Construction or temporary maintenance zones	See TEOpS 13-5-16 **Temporary Traffic Control Zones**~~13-5-16~~ and 13-5-17 **Maintenance Work Zones**~~13-5-17~~
School zone/School crossing	See TEOpS 13-5-12 **School Zones**~~13-5-12~~
Connecting Highway	Subject to WisDOT approval
(a) All speed limit changes shall be based on an engineering and traffic investigation, including modifications allowed under Statute. Local governments can implement speed limit changes on the local road system without WisDOT approval when proposals are within the constraints identified above.	

WisDOT Regional offices

- ~~Regional offices are authorized to approve speed limit changes on local roads and streets, including county trunk highways, where those changes fall outside the authorized limits that the local authorities may exercise as specified in the statutes.~~
- ~~Regional offices are authorized to establish reductions in speed limits in construction zones on a temporary basis while the need for the reduction exists.~~
- For state-maintained highways, a traffic engineer with a Wisconsin Professional Engineer (PE) License is required to approve a speed limit modification.
- Regional offices are authorized to establish reductions in speed limits in construction zones on a temporary basis while the need for the reduction exists.
- Regional offices are authorized to approve speed limits on the state roadway or local roadway system which fall within 5 mph of the measured 85th percentile speed and no more than 2 mph below the measured average speed, or where speed limits are established based on statutory requirements. In the absence of speed information, regional staff **shall** coordinate with WisDOT Bureau of Traffic Operations (BTO). Exceptions include:

- Adjusting speed limits due to relocations from development, access modifications or adjusting due to signage requirements. Extensions *should not* exceed 300' without BTO approval. ~~Speed~~ Engineering studies *may* be required for extensions due to these changes.
- ~~o~~ Construction of new roadway facilities or reconstruction of existing facilities in which speeds are posted in accordance with the design speed. If speeds are posted below the design speed, coordination with BTO is required.
- ~~Regional offices are authorized to approve speed limit changes on local roads and streets, including county trunk highways, where those changes fall outside the authorized limits that the local authorities *may* exercise as specified in the statutes.~~

WisDOT Bureau of Traffic Operations (BTO)

- The following **shall** be approved by the Traffic Analysis and Safety Unit (TASU) within BTO:
  - Speed limits not meeting the criteria defined above and within Table 6.1~~Table 6.1~~.
  - ~~Speed~~ Engineering studies that are not able to collect speed data (e.g., short roadways, cul-de-sacs, unique roadway design).
  - Modifications or proposed modifications on expressways/freeways with posted speeds greater than or equal to 65 mph~~.~~
  - Use of variable speed limits~~.~~

13-5-7 Engineering and Traffic Investigation Procedure ~~November~~ TBD ~~2024~~2026

Request Process

Requests to review a speed zone on the State Trunk Highway (STHs) **shall** be submitted in writing by a local unit of government or County Traffic Safety Commission and include the following:

- Current regulatory speed limit and begin/end points
- Proposed regulatory speed limit
- Proposed begin/end points of proposed zone(s)
- Reasoning for the request (e.g., change in land use, access, traffic volumes, crash trends)

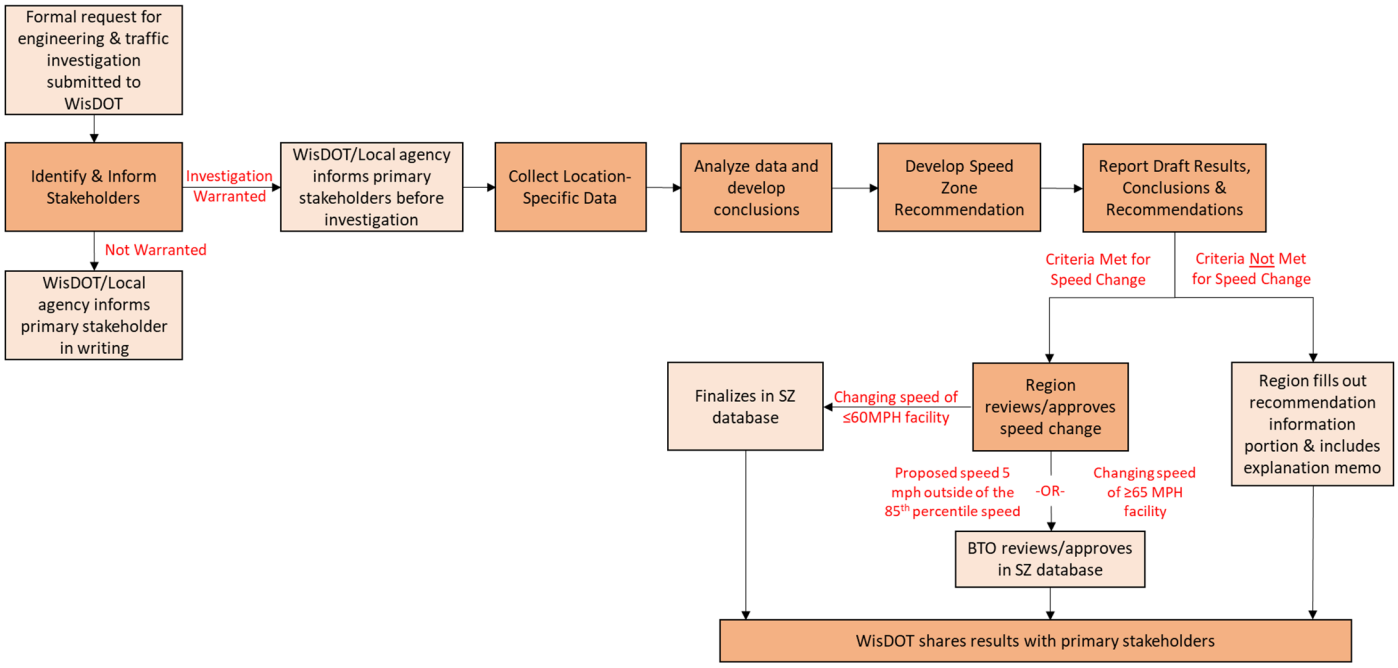
For contact information, please see the WisDOT Speed Limits webpage.

Upon receipt of request, WisDOT will then determine if a review of the speed limit is appropriate. WisDOT does not entertain requests to modify speed limits from individual citizens or advocacy groups. Considerations for speed limit adjustments **shall not** be based solely on the following:

- Noise complaints
- Accommodating specialty vehicles (e.g., ATV/UTV)
- Correcting spot safety concerns
- Future concerns that have not yet occurred (e.g., future development, future roadway improvements)

If an engineering and traffic investigation is warranted, WisDOT will then follow a process outlined in Figure 7.1~~Figure 7.1~~.

Figure 7.1 Engineering and Traffic Investigation Process



Requirements

For a speed limit to be effective, it *should*:

- Reflect consistent application of traffic engineering principles
- Be a reasonable speed so the majority of drivers will comply voluntarily
- Be based on ideal or average conditions and not temporary situations (e.g., construction, seasonal variations in traffic/pedestrian volumes, special events)
- ~~Local units of government *should* follow the guidance outlined within this manual to satisfy the requirements of an engineering and traffic investigation.~~
- ~~For state-maintained highways, a traffic engineer with a Wisconsin Professional Engineer License is required to approve a speed limit modification.~~

An engineering and traffic investigation **shall** include the following section headings. Include information within each section as appropriate based on the study location.

1. Roadway Context Information
    - Primary function or purpose of roadway (e.g., residential street, thoroughfare, commuter route, freight route, recreational route, etc.)
    - Roadway environment (e.g., development adjacent to the road, average building setback, and types of land use)
    - Roadway context classification (i.e., Natural, Rural, Rural Community, Suburban Residential, Suburban Commercial, Urban, Urban Core, or Industrial/Warehouse/Port)
    - Roadway characteristics (e.g., number of lanes, lane widths, shoulder type and width, roadway curvature, median type, sight distance, presence of curb and gutter, etc.)
    - Roadside features (e.g., presence of and distance to roadside hazards including trees, rock outcrops, street furniture, embankments, edge drop-off, side slopes, water bodies, etc.)
    - Area Type (e.g., urban, suburban, rural)
    - Access density (e.g., number and type of driveways and intersections, etc.)
    - Road users (e.g., pedestrians, bicyclists, ATV/UTV, horse and buggies, other vulnerable road users, etc.)

- Traffic Volumes (e.g., AADT/ADT, truck volumes and proportions, pedestrian and bicycle volumes, etc.)
- Public transit volume and location or frequency of stops
- Other information relevant to the roadways purpose and function (e.g., parking practices, functional classification, design speed, etc.)

2. Safety Information
   - Years reviewed (minimum of 3 years of reported crash history)
   - Number and type of crashes
   - Number of injury and fatal injury crashes
   - Number of vulnerable road user crashes
3. Speed performance metrics
   - 85th percentile speed
   - 50th percentile speed
   - Average speed
   - Pace
4. Other relevant information
   - Review of past ~~speed~~ engineering studies to identify any trends in operating speeds
   - Recent significant changes (traffic control changes, speed limit adjustments, lane adjustments, new development, etc.)
   - Current level of enforcement

For urban and suburban roadways, and on rural roadways that serve as main streets through developed areas of communities, speed performance metrics *should not* be used as the sole criterion to establish speed limits without consideration of roadway context factors described above. On a freeway, expressway, or rural highway (outside urbanized locations or conditions), the speed limit that is posted *should* be within 5 mph of the 85th percentile speed of free-flowing traffic as long as all the factors described within the roadway context section of this policy have been considered and determined to be non-mitigating [1].

After analyzing information collected above as part of an engineering and traffic investigation, the analyst **shall** use it to develop and support speed zone recommendations. The engineering and traffic investigation **shall** provide a recommendation indicating whether conditions warrant a need to modify the speed limit of the studied section of roadway or not. Decisions regarding the potential change in a speed limit *should* be based on the objective findings of the engineering and traffic investigation and on conditions that exist at the time of the evaluation.

There are expert system tools available to aid in the process of determining appropriate speed limits which can be used to supplement the requirements listed above:

- USLIMITS2
- NCHRP 966: Posted Speed Limit Setting Procedure and Tool

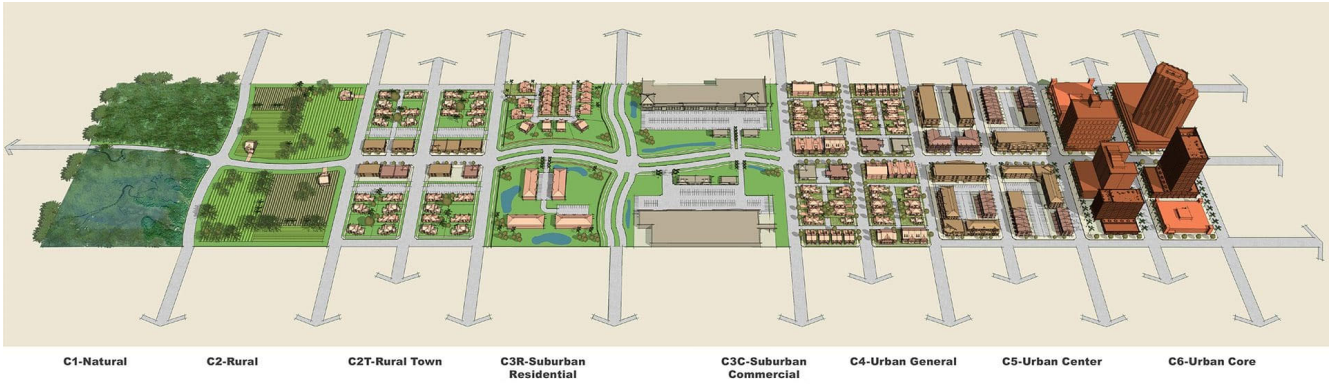
13-5-8 Transitioning between Speed Limits ~~November~~ TBD ~~2024~~2026

Roadway context and environmental factors play a critical role in establishing appropriate speed limits. Drivers must perceive the need to transition from one speed to another. Development density adjacent to the roadway, building setback distance, the number of streets and driveways that access the roadway, sight distance, roadway features including the presence of curb and gutter, shoulders, medians, sidewalks, pedestrians, bicyclists, and other vulnerable road users provide cues to the driver based on their past experiences. Other aspects considered when setting appropriate speed limits are the number and type of crashes observed, traffic volumes, and observed speeds.

Figure 8.1~~Figure 8.1~~ illustrates an example graphic of roadway context classifications from Florida DOT.

Wisconsin is developing similar classifications based on the definitions outlined in TEOpS 13-5-4. ~~several different roadway context scenarios.~~

Figure 8.1 Roadway Context Classifications



Source: *Florida DOT's context classification, 2020* [5]

~~Table 8.1~~ provides planning-level maximum and minimum speed limit recommendations based on Wisconsin's ~~the~~ roadway context classifications and functional classifications.~~.~~

~~**Table 8.1** Design speeds based on context classifications~~

Table 8.1: Maximum/Minimum Speed limits by Functional Classification and Roadway Context Classification

Type/Context		Roadway Context Classification							
		Natural	Rural	Rural Community	Suburban Residential	Suburban Commercial	Urban	Urban Core	Industrial, Warehouse or Port
Functional Classification	Freeway	-	70	-	-	-	50-70	-	-
	Expressway	-	65	-	-	-	50-65	-	-
	Principal Arterial	45-55	45-55	25-50	25-45	35-45	25-35	25-30	35-45
	Minor Arterial	45-55	45-55	25-50	25-45	35-45	25-35	25-30	35-45
	Major Collector	45-55	45-55	25-50	25-45	35-45	25-30	25-30	35-45
	Minor Collector	35-55	35-55	25-40	25-40	25-45	25-30	20-30	25-45
	Local	35-50	35-50	25-35	25-30	25-40	25-30	20-30	25-40

Minimum speed zone lengths *should* follow the guidance in Table 8.1~~Table 8.2~~. Engineering judgement *should* be used in determining the appropriate length given the roadway context. If conditions require lengths shorter than those described below, coordinate with BTO's Traffic Analysis and Safety Unit for approval.

Table 8.1~~2~~ Minimum length of speed zones

Speed Limit (mph)	Minimum Length (miles)
≤40	0.3
45, 50, 55	0.6
60, 65, 70	1.0

Note: *Adjusted values from Methods and Practices for Setting Speed Limits* **[6]**

Speed Zone Termination Points

The begin and end points of a speed zone *should* ~~be located in~~be in locations with adequate sight distance and

in advance of where the roadway environment changes (e.g., driveway density, lane transitions, curb and gutter presence, etc.) such that a driver may expect a different speed.

When the roadway environment or roadway characteristics change (e.g., driveway density, lane transitions, curb and gutter presence), the regulatory speed limit sign **shall** be located at the changed condition. Examples include placing speed limit signage within straight sections of roadway or prior to entering a community where there is minimal development, but the roadway characteristics change (e.g., unpaved shoulders to curb and gutter). In advance of the ~~of~~ changed condition, the reduced speed limit sign **shall** be located based on TEOpS 2-3-30. The location of the reduced speed limit sign *should* be adjusted based on engineering judgement such that it is located where adequate sight distance is available or in advance of the changed condition based on site conditions.

Both travel directions of speed zones *should* begin and end at the same location to align with driver expectation. Roadway conditions, existing signage and other factors play a role in locating where speed limit signs can be placed in the field. When posted, the beginning and end points of a speed zone **shall** match the ordinance/declaration description as close as possible.

Roadway characteristics such as access points and intersections sometimes prevent speed zones from being aligned in both directions. In situations where a speed zone is written to change at an intersection, the signs **shall** be posted on either side of the intersection. When reviewed as part of a study or within an improvement project, efforts *should* be made to modify these speed zones to align on one side of the intersection.

- For situations in which the separation of the begin and end points is significant or different speeds are posted for each direction, engineering judgement *should* be used.
- If conditions require an offset speed zone, coordinate with BTO's Traffic Analysis and Safety Unit for approval.

Gateway Treatments

Gateway treatments are used to capture the attention of a driver to provide awareness of changes in the roadway environment and encourage them to reduce their speed. Examples of this include enhanced signing (e.g., additional warning signage, beacons, ~~dynamic~~ vehicle speed ~~display~~ feedback signs), median islands, curb extensions/bump-outs, roundabouts, chicanes, etc. Gateway treatments are important tools to consider in areas where there are large reductions in the posted speed due to an abrupt change in the roadway environment.

13-5-9 Data Collection Best Practices ~~April~~ TBD 2026

A speed investigation *should* be performed during non-peak traffic conditions, during daylight hours, and under ideal weather conditions on a typical weekday, when motorists are likely to be traveling at uninterrupted/free-flow speeds. Collecting speed data during peak commute times, unique events, weekends, or holidays may unintentionally capture more variable travel characteristics.

A template for summarizing and reporting speed performance metrics is available on the Speed Limit References and Resources webpage.

Below are best practices for collecting speed performance metrics:

- The observer or speed-measuring device *should* be inconspicuous to the observed traffic so unusual driver behavior does not skew data.
- Speed data *should* be collected away from factors that might influence vehicle speeds, such as railroad crossings, intersections, horizontal and vertical curves, and work zones.
- Vehicle headway (the time between successive vehicles per lane) of five or more seconds *should* be present for reliable speed observations. Measurements collected with smaller headways may not reflect free-flow conditions, as the lead vehicle may influence the speed of the vehicle(s) behind it.

Sample Size Requirements

Selecting a sample size (number of observations) is an important step in collecting speed performance metrics. Below are requirements to help set an appropriate sample size:

- A minimum sample size for speed data collection *should not* be less than 100 vehicles per lane per direction. Examples of an acceptable sample size are as follows: ~~For example:~~

- 2-lane undivided roadway: 200 total vehicles (100 per direction)
- 4-lane undivided roadway: 400 total vehicles (200 per direction)

- ~~for a roadway with one through lane in each direction~~
- ~~400 vehicles for a roadway with two through lanes in each direction~~

- For roadways classified as very-low volume local roads, the minimum sample size *should not* be less than 30 vehicles. If the analyst anticipates that only a small sample size could be collected within ~~a sample of 30 vehicles cannot be collected within~~ a reasonable amount of time, coordinate with BTO's Traffic Analysis and Safety Unit to identify alternative data sources or collection methods.

Data Collection Methods

A variety of methods are available to measure speeds. These methods can generally be grouped based on the installation location of the collection equipment:

- Manually operated, handheld devices that are portable and can be used in most places (e.g., radar gun, LiDAR gun)
- In-road devices that are installed into or on top of the roadway surface (e.g., pneumatic road tubes, loop detectors)
- Out-of-road devices that are installed overhead or to the side of the roadway surface (e.g., radar recorders, toll-tag readers)
- Probe vehicles that operate within the traffic stream

Ideally, data collection uses techniques that capture typical traffic behavior without affecting it. For example, vehicles equipped with radar detectors may detect the scatter from a radar beam measuring the speed of a vehicle ahead, causing those drivers to slow down before their speed can be measured.

Each device has distinct advantages and disadvantages for collecting and analyzing data that may factor in determining the appropriate device to use for a particular location. The analyst or agency should make a concerted effort to use devices that incorporate the most advanced data collection technologies available to them. In doing so, a more accurate representation of vehicle speeds can be obtained while minimizing observer-related biases. See WisDOT's Data Collection Methods document for more information [7].

13-5-10 Documentation ~~November 2024~~TBD 2026

Speed Zone Database

The approval process for speed limit modifications proposed by WisDOT on the State Trunk Highway system is conducted electronically within the ~~Speed Zone Database~~Speed Zone Application. The following summarizes the different levels of review and approval.

1. If an engineering and traffic investigation is completed on an established speed zone, the investigation findings and other relevant documents **shall** be stored within the database.
2. If WisDOT Regional office authority is met (see TEOpS 13-5-6 Authority~~13-5-6~~), the designated Regional approver **shall** electronically sign/approve the speed zone declaration.
3. If WisDOT Bureau of Traffic Operations (BTO) approval is needed, coordinate with BTO's Traffic Analysis and Safety Unit for approval of the speed zone declaration.

Format

Speed zone declarations **shall** reference recognizable and permanent landmarks (e.g., intersections or highways) and denote a distance to or from these landmarks. Landmarks that change (e.g., construction limits, city limits, building names, railroad crossings, etc.) **shall not** be used.

13-5-11 Local Speed Limits ~~November~~ TBD ~~2024~~2026

Request Process

Coordinate with the appropriate government agency to discuss concerns or proposed modifications on county highways, city or village roads, or town roads. Upon receipt of request, local authorities can initiate action to modify a speed limit and create a new speed zone on a local road through an engineering and traffic investigation. TEOpS 13-5 is provided to help guide local agencies in establishing appropriate speed limits.

Wisconsin ss. 346.57 and ss. 349.11 are most applicable to modification of regulatory speed limits. These statutes, and local government authority are summarized in Table 6.1~~Table 6.1~~.

The following are common examples for local agencies:

- The roadway does not currently have a posted speed and is rural in nature (e.g., sparse development, no curb and gutter, gravel shoulders and grass ditches). In this scenario, by ss. 346.57, the speed limit is 55 mph.
- Lowering a 55-mph county trunk highway or rural roadway to 50 or 45 mph. In this scenario, the county or township *may* lower the speed limit to either 50 or 45 mph under the approval authority listed in ss. 346.57 and ss. 349.11 without WisDOT approval, but an engineering and traffic investigation is required to support the change.

Ordinances

It is recommended that the local approval process include legal adoption of the speed zone recommendation through passage of an ordinance. This establishes a legal record of the speed limit modification and allows the speed zone to be enforceable by law enforcement agencies. Proposed changes that lie outside the constraints presented in Table 6.1~~Table 6.1~~ **shall** be reviewed and approved by WisDOT before legal adoption by local authorities. It is recommended that the local process conclude with the local authority responding to the submitting party in writing, providing notification of approval or an explanation of the reasons for denial. The following is an example county ordinance.

Sample Ordinance

Establishment of Speed Zones

The Board of Supervisors of the County of Alpha do ordain as follows:

A traffic and engineering investigation having been made on the following described highways, the maximum permissible speed at which vehicles *may* be operated on said highways, which speed is herewith established as reasonable and safe pursuant to Section 349.11, Wisconsin Statutes, **shall** be as set forth herein subject to approval by the Wisconsin Department of Transportation, and upon the erection of standard signs giving notice thereof, all in Alpha County Wisconsin:

1. County Trunk Highway “A”, Town of Soup, Alpha County.

   Forty-five miles per hour from its intersection with County Trunk Highway “B”, northerly to its intersection with State Trunk Highway 201.

2. County Trunk Highway “B”, Town of Blank, Alpha County.

   Thirty miles per hour from the intersection of Rabbit’s Foot Ave, northerly to a point 0.35 miles north of said intersection.

Documentation

Typical documentation of an engineering and traffic investigation can include a cover letter, memo describing the background and roadway context, ~~,~~map and/or photos of the area, safety information, speed performance metrics, findings, methodologies, and any other documentation to help support the recommendation. Contact the local WisDOT Regional office for an example of an engineering and traffic investigation or for any questions on the speed limit setting process. See WisDOT’s ~~Speed Limit webpage~~speed limit webpage for contact information.

Speed Limits Within and Outside Incorporated Areas (Outlying District and Semiurban District)

Outlying District and Semiurban Districts are defined in ss. 346.57(1)(ar) and 346.57(1)(b) respectfully. These statutes are meant to establish speed limits based on access (building) density and *should not* be used as the sole criteria to establish a speed limit without consideration of other factors listed within TEOpS 13-5-7 Engineering and Traffic Investigation Procedure~~13-5-7.2~~.

13-5-12 School Zones ~~TBD November 2024~~November 2026

Wisconsin State Statute 346.57(4)(a) and (b) provide a statutory fixed speed limit of 15 mph with the following conditions:

(a) Fifteen miles per hour when passing a schoolhouse at those times when children are going to or from school or are playing within the sidewalk area at or about the school.

(b) Fifteen miles per hour when passing an intersection or other location properly marked with a "school crossing" sign of a type approved by the department when any of the following conditions exists:

1. *Any child is present.*
2. *A school crossing guard is within a crosswalk at the intersection or the other location or, if no crosswalk exists, is in the roadway at the intersection or the other location.*
3. *A school crossing guard is placing in or removing from the roadway at or near the intersection or the other location a temporary sign or device that guides, warns, or regulates traffic.*

While this statutory limit is allowed, in~~In~~ many cases the practice of installing 15 mph school speed limits, regardless of the existing posted speed limit, can lead to impractical situations and compliance issues. WisDOT's adoption of the 2023 WMUTCD led to the reinterpretation of the standards outlined in the MUTCD to provide better consistency of the MUTCD implementation nationwide. For the state highway network, WisDOT established a consistent application to provide school speed limits statewide. To align with Wisconsin's statutory theme of "*reasonable and prudent"* speed limits, WisDOT recommends installing school speed limits that are 10 mph less than the existing posted speed limit. Posted school speed limits **shall not** be lower than 15 mph to match the statutory language. This practice would apply for any public, private or tribal school providing any combination of grade levels ranging from pre-kindergarten through grade 12 that meets at least one of these conditions:

- Has direct access to a state highway.
- Has school grounds, athletic fields, or playgrounds adjacent to the state highway in which vehicles may park along the roadway for school events, or pedestrians may reasonably access for school events, or public use.
- Identified as a need from the municipality or school district through a formal written request.
- Recommended as part of a Safe Routes to School plan or similar planning document.

Posting school speed limits outside of this practice would only be accepted if documented as part of a community plan (e.g., Safe Routes to School). These plans should outline typical school routes for vehicles and pedestrians, transportation activities and provide recommendations on school speed limits and crossing locations.

Historically established school speed limits that differ from this practice would remain in place unless a change in roadway context or design occurs, or the Region coordinates with the community when reviewing the area for routine signing updates or replacements.

~~Wisconsin State Statutes require that school advance warning signs be installed and maintained on every highway where a school ground is contiguous to the highway. There is no requirement that a school speed limit be posted except where it differs from the 15-mph provision in ss. 346.57 (4)(a) and (b). These two provisions place the requirement on the motorist to reduce speed to 15 mph when children are present, even in the absence of speed limit signs.~~

Sign ~~Requirements~~ing for School Zones

School speed limits are required to use a regulatory school speed limit sign. Where school speed limits are posted, it is considered good practice to omit the full-time regulatory speed limit signs in the school zone to prevent confusion or avoid giving motorists grounds for disobeying the school speed limit. ~~The physical arrangements of schools along state trunk highways vary greatly.~~ For specific signing guidance in school zones, see ~~The following are examples to help illustrate guidelines within this policy. Other locations not fitting these will have to be reviewed to determine the appropriate use of school zone signs.~~ TEOpS 2-3-54.

~~School speed limits require the use of a regulatory school speed zone sign. For more information on school~~

~~signage, see TEOpS 2-3-54. If used, they *should* be posted at 10 mph less than the posted regulatory speed limit of the roadway.~~

~~The physical arrangements of schools along state trunk highways vary greatly. The following are examples to help illustrate guidelines within this policy. Other locations not fitting these will have to be reviewed to determine the appropriate use of school zone signs.~~

~~**Urban Areas**~~

- ~~In a built-up section of a city or village, where the roadway speed limit is low (i.e., ≤30 mph) and sidewalks are present, many or most of the children walk to school. However, some children may be transported by vehicles which can lead to congestion.~~
- ~~In developed areas, sudden stoppages and slowdowns are common. If the roadway is a higher speed facility (e.g., 35 mph or greater) it would be desirable to study the location to determine the appropriate school speed limit for the roadway.~~

~~**Rural Areas**~~

- ~~In a rural area, the school may be the only development along the roadway. In these areas, speed limits often are higher and there are few to no children who bike or walk to school. It is WisDOT's policy to refrain from posting school speed limits under these conditions.~~
- ~~Since children are unlikely to be present in vicinity of the roadway, school speed limit signs are ineffective at changing a motorist's behavior. If there are no children present, do not post a school speed limit sign. See TEOpS 2-3-54 for information on school signage.~~

~~**Conflicts with signs**~~

~~Where school speed limits are posted, it is considered good practice to omit the full-time regulatory speed limit signs in the school zone to prevent confusion or avoid giving motorists grounds for disobeying the school speed limit.~~

13-5-13 ~~Dynamic~~ Vehicle Speed ~~Display~~ Feedback Signs ~~November~~ TBD ~~2024~~2026

Vehicle speed feedback signs may be used in transitional zones, such as municipal limits, school zones, speed limit transitions points, or where increased visibility of speed limits is necessary (e.g., pedestrian crossings, visibility concerns). See ~~TEOpS 2-1-7~~TEOpS 2-1-7TEOpS 2-3-8 regarding policy for ~~dynamic~~ vehicle speed ~~display~~ feedback signs. Permitted vehicle speed signs on the state highway system **shall** comply to WisDOT's approved product's list (See *Signing and Marking*) and be documented with DT2175.

13-5-14 Posted versus Design Speeds ~~November 2024~~TBD 2026

Design speed is used to establish design parameters for the various features of the roadway. The selected design speed *should not* be based on speed measurements but *should* be established based on factors such as the anticipated adjacent land use, topography, crash risks, and operating speed of the roadway. The posted speed **shall not** exceed the statutory speed limit and *should* be equal to or 5 mph lower than the selected design speed. When conditions prevent a roadway feature or element from meeting design speed requirements, the posted speed **shall not** be based on the individual design speed of the feature (e.g., curb and gutter type).

Local agencies *should* coordinate with the WisDOT regional offices if they have any questions with respect to statutory ~~design~~ speeds and approval authorities outlined in Table 6.1~~Table 6.1~~.

Policy

For construction of new roadway facilities or reconstruction of existing facilities, the posted speed limit *should* be posted in accordance with the design speed. See FDM 11-10 for design speed information. Below are considerations for establishing appropriate speed limits on new or reconstructed facilities:

- For WisDOT improvement projects, the project team **shall** coordinate with the regional traffic and planning sections to mutually agree upon an appropriate speed limit. The regional traffic unit **shall** document the speed zone with a speed zone declaration. See TEOpS 13-5-10 Documentation~~13-5-10~~.
- Posted speeds *should* generally be equal to or ~~or within~~ 5 mph below ~~of~~ the selected design speed.

- ~~o~~ There are cases, however, where the posted speeds *may* be higher or lower than the design speed for a section of highway (e.g., a curve was designed for 45 mph but is within a 55-mph posted speed corridor). For all other scenarios, reach out to the
- ~~For speed limits posted below the design speed, coordination with the~~ Traffic Analysis and Safety Unit (TASU) in the Bureau of Traffic Operations (BTO) is required.
- Isolated intersections with reduced speed limits **shall** be investigated for design modifications rather than maintaining a posted reduced speed. See TEOpS 13-5-15 Speed Limits on Approach to Controlled Intersections~~13-5-15~~.
- ~~Conversion of a two-lane roadway to a four-lane roadway **shall not** automatically constitute changing the speed limit from 55 mph to 45 mph.~~
- Where local roads are converted to state highways or built on relocation, such as bypasses, the speed limit *should* be based on the new geometrics of the roadway and the function and purpose of the highway as either an expressway or conventional highway.
    - The function of the highway includes adjacent land use, spacing of access points and proximity to the roadway.
    - The speed limit that existed prior to the conversion to a state highway *may not* necessarily be retained.

Design parameter considerations

Design parameters and features of the roadway are initially based on a design speed but careful consideration *should* be used to design a roadway to achieve an appropriate operating speed. Design speeds are used to design a roadway to operate safely and efficiently to serve its intended purpose. In some situations, there may be features that are unable to meet these design thresholds and may require a motorist to travel at a reduced speed. See FDM 11-10-1.5 for more information and documentation requirements.

Individual design features such as isolated horizontal and vertical curves **shall not** dictate posted speed limits unless safety issues are identified post-construction. ~~Other e~~Examples include:

- **Free-flow ramps at system and service interchanges** - Ramps are signed with advisory speeds mounted under a horizontal alignment sign and ramp speed warning sign.
- **Curves and/or turns with a speed rating less than design speed on a section of highway** – Curves and/or turns are signed with horizontal alignment signs and an advisory speed that provides a motorist with the recommended safe operating speed of the curve or turn.
    - Example: A ~~55 mph~~55-mph rural section of highway often has turns and curves that necessitate the driver to lower their speed in order to safely negotiate the curve or turn. The regulatory speed limit is not changed for each one of these turns or curves.
- **At transition sections from 4 to 2 lanes** - The transition area where a divided highway becomes an undivided highway *should* use engineering judgement to determine the proper location of where these speed limit transitions occur. Conversion of a two-lane roadway to a four-lane roadway **shall not** automatically constitute changing the speed limit from 55 mph to 45 mph.
- **Other design features -** such as the presence and offset of curb, curb type (e.g., vertical face, sloped face), wider or narrower shoulders, or other design features **shall not** be a determining factor in establishing an appropriate speed limit in isolation.

13-5-15 Speed Limits on Approach to Controlled Intersections ~~November~~ TBD ~~2024~~2026

Sections of the state highway system in the immediate vicinity of a controlled intersection *should not* be considered for a speed ~~zone~~ reduction due strictly to the presence (or planned presence) of an intersection control condition. Intersection control conditions include stop conditions (one-way, two-way or all-way), traffic signals, roundabouts, or access restrictions (controlled either by regulatory signs or channelizing islands).

If requests for a modified speed limit in advance of a controlled intersection stem from safety concerns, roadway improvements *should* be considered that pertain to the specific site (e.g., channelized or extended turn lanes, modification to signal phasing or timing, rumble strips, advance warning signs, warning beacons,

signing/marking enhancements, etc.). Speed limit reductions in advance of the intersection will likely not influence safety and may even promote poor engineering decisions in the future (e.g., signal equipment placement, signal timing or sign placement).

Existing locations that do not comply **shall** be allowed to remain until such time as the intersection is resurfaced or reconstructed.

Rather than establishing a lower speed limit in advance of a controlled intersection, consider design features such as:

- Stop Conditions – Proper placement of advance warning signs (per WMUTCD).
- Traffic Signals – Intersection lighting (per TEOpS Chapter 11~~-4-2~~) and ~~Dilemma~~ dilemma zone detection on high-speed approaches (per ~~Traffic Signal Design Manual (TSDM) 8-1-6~~TEOpS 4-8-1).
- Roundabouts – Proper geometric design of splitter islands, roadway curvature (per FDM 11-26) and lighting (per TEOpS 11-4-3).
- Corridor Access Management – Proper geometric design principles (per FDM 7-35).

13-5-16 Temporary Traffic Control Zones (Construction Work Zone Speed Limits) TBD 2026~~November 2024~~

Refer to Temporary Traffic Control Plans, of the WMUTCD for more information on reducing the speed in temporary traffic control zones (i.e., construction work zones). Reductions in speed limits for temporary traffic control zones *should* be evaluated according to the criteria in this policy. Table 16.1~~Table 16.1~~ provides an illustration of different temporary traffic control zone scenarios.

There is often less need for reduced speed limits in temporary traffic control zones on rural conventional highways. On rural conventional highways, drivers do not have the same expectation for free-flowing traffic as they do on rural freeways. With driveway access and crossing movements on conventional highways, drivers tend to be alert to such movements and other similar conflicts even without reduced speed limits.

Temporary traffic control zones which require lower operating speeds due to changes in alignment (e.g., crossovers and transitions) or other work activities that occupy a short work area, *should* use warning signs with advisory speed plaques in lieu of regulatory speed limit signs.

Authority

The WisDOT work zone operations engineer within BTO has approval authority for temporary traffic control zone speed limits on all interstates and facilities with a posted speed of 65 mph or greater. The WisDOT regional work zone engineer has the authority to approve and establish temporary traffic control zone speed limits on all other roadways.

Policy

Engineering judgment **shall** be used when determining appropriate speed zones. This policy is intended to assist with the development of an appropriate work zone speed limit. Contact the regional work zone engineer or BTO for assistance with applying this policy.

Speed zones provide drivers an indication of what is considered a reasonable speed for that section of roadway. Proximity to construction activities, drop offs, lane closures, narrow lanes/shoulders and pavement condition all influence the driver's determination of a reasonable speed. The type of construction work, project length, area type (i.e., urban vs. rural), facility type, occurrence of night work and traffic mix (e.g., commuter, recreational, truck percentages) all impact driver expectations and the determination of what is a reasonable speed. The policy criteria described below *should* only be used for facilities during intermediate-term and long-term work activities as defined in WMUTCD Part 6.

Speed reductions in segments without active work can lead to disregard of the posted speed. Work with your project manager to incorporate standard special provisions for removing temporary speed zones when active work is not taking place.

Policy criteria 1 through 6 *should* be evaluated, along with engineering judgment, to develop an appropriate work zone speed limit. The most restrictive work zone impact *should* be used as the determining condition.

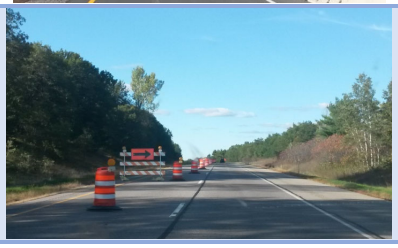
All reduced work zone speed limits **shall** be approved prior to approval of the 90% Transportation Management Plan (TMP).

Temporary Traffic Control Zone Policy Criteria

1. Interstates and Expressways with 70 or 65 mph speed limit:
    - If bi-directional traffic separated by concrete barrier temporary precast, then speed limit *may* be lowered to 60 mph if warranted.
    - If bi-directional traffic separated by tubular markers, then reduce to 55 mph.
    - If workers are present within 12 feet of live traffic without positive protection* for any length or work area, then reduce to 55 mph.
    - If work area is less than or equal to 0.5 miles in length with lane shifts or narrowed travel lanes and has positive protection*, then post warning signs with an advisory speed plaque.
    - If work area is less than or equal to 0.5 miles in length with no lane shifts or narrowed travel lanes and has positive protection*, then do not lower the speed limit.
    - If work is taking place outside the clear zone, then do not lower the speed limit.
    - During periods of no work activity, restore speed limit to posted speed. Such speed limit reduction **shall** be subject to documented approval by the BTO work zone operations engineer. When a reduced work zone speed limit is recommended in the TMP, a temporary speed zone declaration **shall** be completed and sent to BTO for approval.
2. Expressways and other multi-lane highways with 55 or 50 mph speed limit:
    - Reduce to 45 mph only in situations that have a combination of extreme lane shifts, narrowed lanes, bi-directional traffic, or milled surfaces.
    - Restore speed limit to ~~normal~~ posted speed when reduction criteria are not present.
3. Multi-lane highways with 45 mph speed limit:
    - Reduce speed limit to 35 mph only in situations that have a combination of extreme lane shifts, narrowed lanes, bi-directional traffic, or milled surfaces.
4. Two-lane rural highways with 55 mph speed limit:
    - Reduce to 45 mph only in situations that have a combination of extreme lane shifts, narrowed lanes or milled surfaces.
    - A flagging operation in and of itself would typically not warrant a reduced speed limit since motorists are controlled by the flagging devices.
5. Two-lane rural roadways with speed limit of 45 mph or less:
    - Typically, no reduction in speed limit.
    - *May* consider a speed reduction up to 10 mph in increments of 5 mph in situations that have a combination of extreme lane shifts, narrowed lanes or milled/gravel surfaces.
6. Two-lane urban roadways with speed limit of 40 mph or less
    - No change in speed limit except reduction to 35 mph *may* be considered in situations that have a combination of extreme lane shifts, narrowed lanes or milled/gravel surface.

*Positive protection is defined by FHWA as a temporary precast concrete barrier that contains or redirects vehicles and separates workers from the active travel lanes.

Table 16.1 Example Temporary Traffic Control Zone Scenarios

	Bi-directional traffic separated by flexible tubular markers
	Active work areas within 12-ft. of live traffic without positive protection
	Lane shift to shoulder or temporary pavement
	Lane closure without positive protection

Work Zone Temporary Speed Zone Declarations

Reduced speed limits in temporary traffic control zones are subject to approval by the BTO work zone operations engineer. A Temporary Speed Zone Declaration (TSZD) **shall** be submitted through the Department's online Wisconsin Transportation Management Plan (WisTMP) system.

- Complete the Temporary Speed Zone Declaration Form and attach it to Section 4 of the TMP.
- The TSZD will be approved by BTO and/or the regional work zone engineer by signing the 90% TMP.

Work Zone Temporary Speed Zone Declarations in Construction

Before the project team requests a work zone temporary speed zone declaration in construction from BTO, review the policy and determine if a speed reduction is warranted.

If a request to lower the speed limit is warranted, the project team **shall** follow the steps below to request a work zone temporary speed zone declaration during construction:

1. Provide crash data, break out severity and weather related, since construction started
2. Provide pictures of the work zone from the advance warning area to the end road work sign including the work area
3. Provide justification for the temporary speed zone declaration

Submit all the above information to the Bureau of Traffic Operations email: DOTBTOWorkzone@dot.wi.gov.

BTO will review the information provided and will determine if a temporary speed zone declaration is warranted or if an engineering and traffic investigation needs to be completed. If an investigation is not warranted, the project team will be notified that the temporary speed zone declaration request is approved. If an investigation is warranted, BTO will complete the investigation and will follow up with the project team to discuss the results and

notify the project if the request for a temporary speed declaration has been approved or denied. ~~Depending on BTO schedules and weather, the investigation and results should take about 3 weeks.~~

13-5-17 Maintenance Work Zones TBD 2026~~November 2024~~

Wisconsin ss. 349.11(10) provides that a county *may* establish a speed limit through a maintenance work zone on a state trunk highway less than the authorized speed limit. This includes all freeways and interstate highways. The State Patrol will enforce the speed limit but need to be informed of its inauguration and the ordinance, resolution, or action enacting it.

Follow TEOpS 13-5-16 Temporary Traffic Control Zones~~13-5-16~~, policy criteria 1-6 when establishing a temporary speed zone reduction for maintenance activities.

Document the reduced regulatory speed in the Wisconsin Lane Closure system (WisLCS).

13-5-18 References ~~April~~ TBD 2026

[1] **Wisconsin Department of Transportation, ~~Federal Highway Administration,~~** *Wisconsin Manual on Uniform Traffic Control Devices for Streets and Highways, 11th Edition*, FHWA, ~~December~~ February ~~2023~~2026.

[2] **National Cooperative Highway Research Program**, *Human Factors Guidelines for Road Systems*, Washington D.C.: NCHRP, 2012.

[3] **Federal Highway Administration**, *Safe System Approach for Speed Management*, FHWA, May 2023.

[4] **American Association of State Highway and Transportation Officials**, *A Policy on Geometric Design of Highways and Streets, 7th Edition*, AASHTO, 2018.

[5] **Florida Department of Transportation**, *FDOT Context Classification Guide*, FDOT, July 2020.

[6] **Federal Highway Administration**, *Methods and Practices for Setting Speed Limits*, FHWA, 2012.

[7] **Federal Highway Administration**, *Speed Limit Setting Handbook*, FHWA, January 2025.