



Traffic Guidelines Manual

ORIGINATOR State Traffic Engineer	2-3-36
CHAPTER 2	Signing
SECTION 3	Warning
SUBJECT 36	Ramp Warning Signs

A. Purpose

The MUTCD in [Section 2C.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.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 Wisconsin Supplement to the MUTCD, Table 2C-4 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 using Table 2C-4 in the Wisconsin Supplement to the MUTCD to determine the appropriate sign placement distance. Often times 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.

B. Policy

STOP AHEAD (W3-1), YIELD AHEAD (W3-2), 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 in the 2009 Wisconsin Supplement *should* be used for placement of the signs.

- Assumption of a 10-mph reduction from the mainline speed for the placement of the signs.
- For ramps of a short length (where utilization of Table 2C-4 in the 2009 Wisconsin Supplement cannot be met), placement of these signs *should not* exceed a distance of 50 feet upstream of the Exit Gore sign (E5-1 or E5-1A sign).

EXIT ADVISORY SPEED SIGN (W13-2)

The Exit Speed sign will normally be used at:

- Off-ramps on freeways and expressways when the ramp connects to a conventional state trunk highway or local crossroad.
- 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. Table 2C-4 in the 2003 Wisconsin Supplement *should* be used for placement of the signs.

- Assumption of a 10-mph reduction from the mainline speed for the placement of the signs.
- Utilization of a ball bank indicator or design speed equation, shown in TGM 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 Figure 1 and 2) *may* be used at the following locations provided the following criteria are met:

- 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.
- 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:

- 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.
- 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 W1-2R) with Advisory speed plaque (W13-1) *should* be used. The standard curve warning sign with advisory speed plaque gives motorists 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.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 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 from the Exit Direction signs to avoid its being hidden or obscured. Approach speeds *may* be assumed to be the posted speed limit.

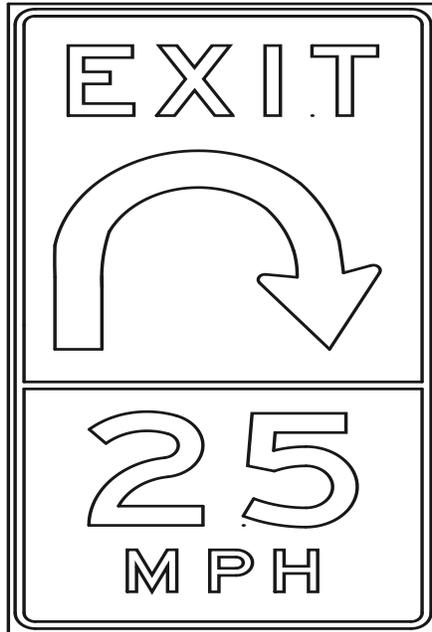


Figure 1. W13-2A Sign

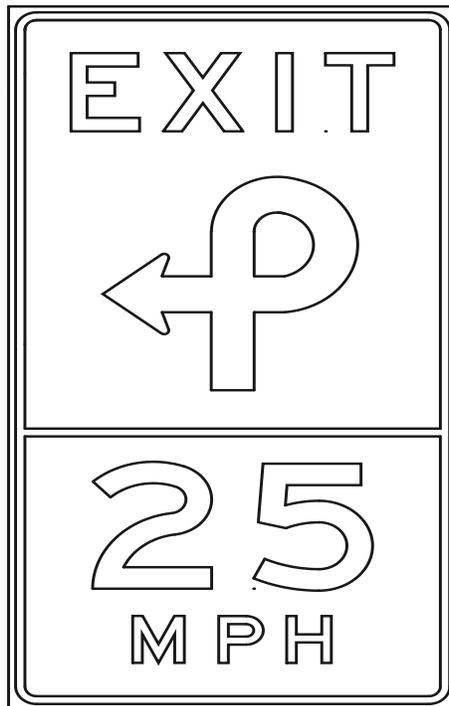


Figure 2. W13-2B Sign