

TAP IT!

Technical Assistance Program, Information Transfer
KY Local Technical Assistance Program

Sign & Post Installation

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There are three manuals that are used when determining sign placement, location, and installation procedures.

The Manual on Uniform Traffic Control Devices (MUTCD)¹ covers what signs are required and provides guidance on sign placement. The Standard Highway Signs Manual² provides guidance on what signs should look like. The Roadside Design Guide³ discusses how objects on the roadside should be installed to minimize hazard to drivers.



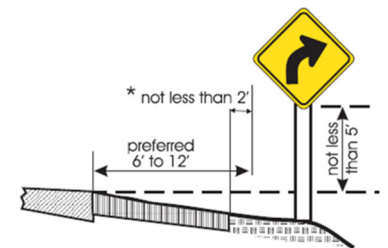
The MUTCD specifies:

*Signs are to provide regulations, warnings, and guidance information for road users.
Words, symbols, and arrows are used to convey the messages.*

Lateral and Vertical Sign Offset

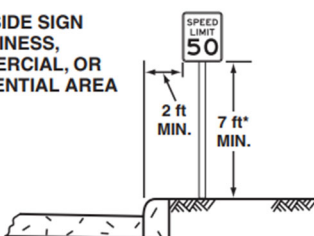
The position off the side of the road and its height is specified when mounting signs to minimize frequency of collisions for vehicles leaving the roadway, provide consistent locations for sign placement and meet driver expectations, and provide adequate space for maintenance and mowing activities. Mounting height is critical to maximize visibility by line of sight and ensure proper breakaway characteristics of the sign post assembly.

In rural areas, the MUTCD dictates that roadway signs shall be a minimum of 12 feet from the edge of traveled way, or 6 feet from the edge of the shoulder, whichever is greater. However, when sufficient distances are not possible due to topography or Right of Way, the near edge of the sign shall be mounted no less than 2 feet from the edge of the travel way. In all instances, the bottom of the primary sign should be mounted 5 feet above the pavement edge.



Roadside sign (rural)

C - ROADSIDE SIGN
IN BUSINESS,
COMMERCIAL, OR
RESIDENTIAL AREA



*Where parking or pedestrian movements are likely to occur

In urban areas, where curb is present, signs should be mounted at least 2 feet from the face of the curb to the near edge of the sign. When signs are placed adjacent to sidewalks and/or where pedestrians may travel, signs should be mounted a minimum of 7 feet from the top of the sidewalk or walking path.

Sign Spacing

Signs that require separate decisions from the road user shall be spaced sufficiently far apart for appropriate decisions to be made. Follow the guidance on Advance Placement of Warning Signs in the table below.

Posted or 85th-Percentile Speed	Advance Placement Distance ¹								
	Condition A: Speed reduction and lane changing in heavy traffic ²	Condition B: Deceleration to the listed advisory speed (mph) for the condition							
		0 ³	10 ⁴	20 ⁴	30 ⁴	40 ⁴	50 ⁴	60 ⁴	70 ⁴
20 mph	225 ft	100 ft ⁶	N/A ⁵	—	—	—	—	—	—
25 mph	325 ft	100 ft ⁶	N/A ⁵	N/A ⁵	—	—	—	—	—
30 mph	460 ft	100 ft ⁶	N/A ⁵	N/A ⁵	—	—	—	—	—
35 mph	565 ft	100 ft ⁶	N/A ⁵	N/A ⁵	N/A ⁵	—	—	—	—
40 mph	670 ft	125 ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—	—
45 mph	775 ft	175 ft	125 ft	100 ft ⁶	100 ft ⁶	N/A ⁵	—	—	—
50 mph	885 ft	250 ft	200 ft	175 ft	125 ft	100 ft ⁶	—	—	—
55 mph	990 ft	325 ft	275 ft	225 ft	200 ft	125 ft	N/A ⁵	—	—
60 mph	1,100 ft	400 ft	350 ft	325 ft	275 ft	200 ft	100 ft ⁶	—	—
65 mph	1,200 ft	475 ft	450 ft	400 ft	350 ft	275 ft	200 ft	100 ft ⁶	—
70 mph	1,250 ft	550 ft	525 ft	500 ft	450 ft	375 ft	275 ft	150 ft	—
75 mph	1,350 ft	650 ft	625 ft	600 ft	550 ft	475 ft	375 ft	250 ft	100 ft ⁶

Sign Positioning

The sign shall be positioned such that it ensures proper sight alignment to driver’s line of sight, enhances normal visibility, obtains maximum retroreflection, and minimizes excess glare to driver. Along horizontal curves, signs should be oriented towards the approaching traffic, NOT perpendicular to the roadway.

Crashworthy Assemblies

Crashworthy assemblies mitigate crash impacts through proper placement and crashworthy design, using breakaway hardware to protect errant drivers. Crashworthy sign posts may yield, fracture, or separate.

<p>Yield Post bends over upon impact</p>	<p>Fracture Post breaks into two pieces upon impact</p>	<p>Separate (slip-base) Post assembly designed to separate at a connection point upon impact</p>
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Installation

- a) Determine sign location
- b) Measure the required horizontal offset for anchor location
- c) Drive the anchor assembly directly into the ground, leaving a maximum of 4 inches above ground
- d) Cut post to length and attach sign to post with rivets
- e) Insert post into anchor and secure with corner bolt

1. Manual on Uniform Traffic Control Devices (MUTCD), Federal Highway Administration. 2009. <https://mutcd.fhwa.dot.gov/>
2. Standard Highway Signs, Federal Highway Administration. 2004. https://mutcd.fhwa.dot.gov/ser-shs_millennium.htm
3. Roadside Design Guide, Association of State Highway and Transportation Officials. 2011. <https://transportation.ky.gov/Highway-Design/Conference%20Presentation/Clear%20Zones%20Areas-9-8-14.pdf>