

How Will This Be Implemented?

FHWA realizes that no agency can inventory, inspect, design, and replace non-breakaway sign supports overnight. The easiest way to accomplish this is to begin using breakaway supports when installing new signs or replacing damaged supports. All non-breakaway sign supports within the clear zone of roads posted at 50 mph or greater shall be replaced by January 2013.

The retroreflective material on traffic signs has a limited life span. It is recommended that this retroreflective sheeting be upgraded over a seven to ten year span. Costs can be minimized by coordinating the replacement of sign supports with the upgrading of the retroreflective sheeting of signs.



Safer Sign Supports: Are Yours Breakaway Yet?

Where can I get more information?

Manual on Uniform Traffic Control Devices:

<http://mutcd.fhwa.dot.gov>

A Guide to Small Sign Support Hardware by AASHTO/AGC/ARTBA Task Force 13, 1998. This guide may be purchased from the AASHTO web site bookstore, Code GSSSH-1:

<https://bookstore.transportation.org/>

AASHTO Roadside Design Guide, 2002. This guide may be purchased at the AASHTO web site bookstore, Code RSDG-3-M:

<https://bookstore.transportation.org/>

Additional information on crashworthy sign supports and other highway safety topics can be found at:

<http://safety.fhwa.dot.gov/>

Safer Sign Supports: Are Yours Breakaway Yet?



Breakaway Sign Supports are Required

Rigid objects close to a roadway can become deadly hazards when struck by a vehicle that strays off the pavement.

Supports for road signs, frequently placed close to the roadway, are hazards if they are not designed, manufactured, and constructed to break away upon impact. Even relatively small and innocent looking road sign supports can be deadly if they are not designed to break away.

The Manual on Uniform Traffic Control Devices (MUTCD), which is the national standard used for all roads open to public travel, states that roadside sign supports in the clear zone shall be breakaway, yielding, or shielded. This requirement applies to all roads, whether publicly or privately owned. Although state highway agencies are generally in compliance already, the FHWA is concerned that many local agencies may not be aware of this requirement.

MUTCD Section 2A-19:

“... Ground-mounted sign supports shall be breakaway, yielding, or shielded with a longitudinal barrier or crash cushion if within the clear zone.”

What Does Breakaway Mean?

“Breakaway” is often used as an umbrella term to describe crash tested sign supports that break or bend upon impact. This includes sign supports that, when struck by a vehicle, separate from the base and are knocked ahead of or up and over the errant vehicle. It also includes “yielding” sign supports – those that bend, allowing a vehicle to run over them. Many sign supports are yielding at low speeds and breakaway at high speeds. Specific testing and acceptance criteria for breakaway sign supports may be found in the references listed on the back of this brochure. State highway agencies have standard sign support designs that have been accepted as breakaway for installation on the National Highway System. The breakaway mechanics for signs with multiple posts are different than for signs mounted on one post, but both must meet the criteria. If a sign support within the clear zone cannot meet breakaway criteria, it should be shielded with a barrier, such as a guardrail, or a crash cushion.

What is the Clear Zone?

A driver of a vehicle that leaves the roadway might be able to regain control of the vehicle and return to the roadway if the open space adjacent to the roadway is clear, unobstructed, and relatively flat. This area is known as the “clear zone.” The width of the clear zone is a function of the speed of traffic, traffic volume, steepness of the side slopes, and curvature of the road. State highway agencies have accepted procedures for determining the required clear zones for roadways.



Which Sign Supports are Breakaway?

The comprehensive guide to breakaway sign supports is A Guide to Small Sign Support Hardware, published in 1988 by the AASHTO/AGC/ARTBA Task Force 13.

It includes all generic breakaway sign supports that most counties and municipalities will need. This guide may be purchased directly from the AASHTO web site bookstore.

Among the most common breakaway supports are wood posts. One or two 4x4 Southern Pine or Douglas Fir posts supporting a sign is a breakaway design. Larger wood posts must be drilled and positioned in specific ways to ensure that they break in a consistent and predictable manner.

Those who choose to mount signs on steel posts also have a number of available options. This is where the Task Force 13 guide can be invaluable as it details options for mounting small signs, as well as larger signs requiring multiple posts or heavier supports. It also addresses the impact of soil conditions and the types of steel from which the post are rolled.

