



TRAFFIC AND SAFETY MANUAL

Chapter 2 - Signing 2C - Warning

Traffic Related Signs

Originally Issued: 12-16-05, Last Revised: 10-13-09

Advance Traffic Control Signs

The Advance Traffic Control signs include the Stop Ahead, Yield Ahead and Signal Ahead signs. The Stop Ahead sign is used in advance of all Stop signs on primary highways. The Yield sign is used at select locations. The State Traffic Engineer will provide assistance for use of this sign at the request of the District Office.

Signal Ahead signs are used on exit ramps controlled by signals. As a general rule it is also used on primary highways at the first signal approaching a highway section with signalized intersections. It is also used on an approach to a signal that is not visible for a sufficient distance to permit the road user to respond to the signal. The visibility criterion is based on having a continuous view of at least two signal faces for the distance specified in [MUTCD Part 4, Table 4D-1](#).

Be Prepared To Stop Signs

A Be Prepared To Stop sign may be used to warn of stopped traffic caused by traffic control signals or in areas that regularly experience traffic congestion.

Speed Reduction Signs

A Speed Reduction sign is used to inform road users of a reduced speed zone as described in [Section 2A-8](#) of the Traffic and Safety Manual.

Traffic Flow Signs

Merge Signs

A Merge sign is used to warn drivers on a major roadway that merging movements might be encountered where lanes from two separate roadways converge as a single traffic lane. The most common example for use of this sign is on a divided highway in advance of an entrance ramp. It may also be used at a large channelized intersection. The Merge sign is installed on the side of the major roadway where merging traffic will be encountered.

Added Lane Signs

An Added Lane sign is used in advance of a point where two roadways converge and merging movements are not required. It is used on both roadways on the side from which the other roadway approaches. It can be modified as appropriate for the number of lanes involved.

Lane Ends Signs

A Lane Ends symbol sign is used to warn of the reduction in the number of traffic lanes in the direction of travel on a multilane highway. A Right (Left) Lane Ends sign is used in advance of the Lane Ends symbol sign, depending on which lane ends. If longitudinal space is not available,

the Right (Left) Lane Ends sign may be eliminated. The signs are used where an extra lane has been added as shown in Figure 9a of [Section 3B-2](#) in the Traffic and Safety Manual.

Two-Way Traffic Signs

A Two-Way Traffic sign is used to warn road users of a transition from a multilane divided section of roadway to a two-lane, two-way section of roadway. It normally follows the Divided Highway Ends sign.

No Passing Zone Signs

A No Passing Zone sign is used on the left side of the roadway at the beginning of a no passing zone identified by pavement markings.

School Bus Stop Ahead Signs

The School Bus Stop Ahead sign is used in advance of locations where a school bus, stopped to load or discharge passengers, is not visible for a distance that is adequate for a road user to have ample time to react to the presence of the bus. This distance is determined from a study described in [Section 7G-3](#) of the Traffic and Safety Manual. It shall have a fluorescent yellow-green background with a black legend and border. The school should be involved since they may be willing to change an operation to mitigate the problem. The location should be monitored to ensure that the sign is removed when no longer needed.

Change in Speed Signs

Advisory Exit, Ramp and Curve Speed signs shall be used where a curve speed study described in [Section 7B](#) of the Traffic and Safety Manual indicates the need to advise road users of the recommended speed on an exit, a ramp, or a curve.

Exit Speed Signs

The Exit Speed sign is used along the deceleration lane at an interchange. It must be visible in time for a road user to make a safe slowing and exiting maneuver.

Ramp Speed Signs

The Ramp speed sign is used along the ramp itself in advance of a location where the ramp speed becomes lower than the exit speed. The Ramp sign is also used instead of an Exit sign where the ramp is used to remain on the route number being followed.

Curve Speed Signs

The Curve Speed sign is used at and beyond the beginning of a curve following a Horizontal Alignment and Advisory Speed combination, or when there is a need to remind road users of the recommended speed, or where the recommended speed changes because of a change in curvature. The State Traffic Engineer will provide assistance for use of this sign at the request of the District Office.

Intersection Signs

Cross Road and Side Road Signs

Intersection warning signs are most often used at locations where the sight distance is less than the minimum for intersection design. It is appropriate to place a Cross Road or Side Road warning sign where the study described in section 7G-2 of the Traffic and Safety Manual indicates that the available sight distance is less than desirable for that location. If it is decided to

use a warning sign for a driveway, a rectangular sign with the legend Driveway is to be placed under the Cross Road or Side Road symbol sign.

Two-Direction Large Arrow signs

The Two-Direction Large Arrow sign is installed on the far side of a T-intersection in line with and at approximately a right angle to approaching traffic. The sign should be installed well back from the edge of pavement, on the order of 30 feet or more if possible.

Other Intersection Warning Signs

Certain other signs such as Turning Traffic Ahead, Watch For Turning Traffic or Turning Trucks Ahead may be appropriate depending on the situation. A Supplemental Plaque with a street name or distance may be used as well. The State Traffic Engineer will provide assistance for use of such signs at the request of the District Office. Parallel Highway-Rail Grade Crossing Signs

If the distance between the railroad tracks and the parallel highway, from the edge of the tracks to the radius of the highway intersection, is less than 100 feet, the Parallel Highway-Rail Grade Crossing sign shall be placed on the parallel highway. Sign placement is in accordance with [Traffic and Safety Manual 2A-8](#) Table 1 for the turning maneuver speed.

Highway-Rail Grade Crossing Signs

A Highway-Rail Grade Crossing sign shall be used on each highway in advance of every highway-rail grade crossing except in certain circumstances listed in MUTCD Section 8B.04. The State Traffic Engineer will provide evaluation assistance at the request of the District Office.

If the distance between the railroad tracks and the parallel highway, from the edge of the tracks to the radius of the highway intersection, is less than 100 feet, the Parallel Highway-Rail Grade Crossing sign shall be placed on the parallel highway. Sign placement is in accordance with [Traffic and Safety Manual 2A-8](#) Table 1 for the turning maneuver speed.

If the highway profile conditions are sufficiently abrupt to create a hang-up situation for long wheelbase vehicles or for trailers with low ground clearance, the Low Ground Clearance Highway-Rail Grade Crossing sign should be installed in advance of the highway-rail grade crossing. This situation could occur on a crossroad near the highway. In this case the Low Ground Clearance Highway-Rail Grade Crossing sign is used in conjunction with the Parallel Highway-Rail Grade Crossing sign. The State Traffic Engineer will provide assistance for use of this sign at the request of the District Office.

Motorized Traffic Signs

Motorized Traffic signs are used to alert road users to locations where unexpected entries into the roadway by farm vehicles, emergency vehicles, snowmobiles or other vehicles might occur. The signs should primarily be used only at locations where the road user's sight distance is restricted. Motorized Traffic signs should not normally be used at intersections since road users are expecting cross traffic at intersections. It may be appropriate, however, to install Emergency Vehicle signs if visibility of approaching emergency vehicles is restricted at an intersection frequently used by emergency vehicles from a nearby station.

Nonvehicular Traffic Signs

Nonvehicular signs may be used to alert road users of locations where unexpected entries into the roadway by pedestrians, bicyclists, golf carts, animals, waterfowl, horse-drawn vehicles, etc. might occur. When used at a crossing, the Nonvehicular warning sign shall be supplemented with a diagonal downward pointing arrow plaque showing the location of the crossing. The decision regarding the use of a Nonvehicular sign is based on engineering judgment but it should be used only at locations where the crossing activity is significant and unexpected or not readily apparent.

Deer Signs

Deer signs are installed where suggested by the general public on highway sections having at least three times the statewide average number of deer per mile being killed by vehicles in the previous three calendar years. The listing of deer killed and current rate is maintained by the Office of Traffic and Safety.

Playground Signs

The Playground sign may be used to give advance warning of a designated children's playground located next to a primary highway or primary highway extension. It shall have a fluorescent yellow-green background with a black legend and border.

School Signs

Warning signs used in the vicinity of schools and at established school route crosswalks should be utilized in accordance with [Part 7 of the MUTCD](#). The standard size (36 x 36 in.) shall be used on conventional roads and the special size (48 x 48 in.) shall be used on expressways. They shall have a fluorescent yellow-green background with a black legend and border.

School Advance Warning Assemblies

The School (S1-1) sign shall be installed at every school district, where the school house is within 200ft of the highway. The school (S1-1) sign shall be supplemented with a school (S4-3P) plaque.

The School Advance Warning sign supplemented with a plaque with the word Ahead shall be used in advance of school crosswalks. It shall also be used in advance of School Speed Limit Assemblies. It shall not be used on an approach controlled by a permanent stop sign.

The School Advance Warning Assembly may be omitted where a School (S1-1) sign and supplemental SCHOOL plaque is installed in advance of the school crossing.

School Crosswalk Warning Assemblies

The School Crosswalk Warning Assembly consists of a School Advance Warning Sign supplemented with a diagonal downward pointing arrow plaque. It shall be used on Primary Highways at marked crosswalks adjacent to schools and on established school routes. The School Crosswalk Warning Assembly shall not be used on an approach controlled by a permanent stop sign but shall be used in conjunction with a portable stop sign as provided by [Administrative Rule Chapter 761, Section 130.1\(1\)](#). It shall be used at established school crossings at signalized intersections.

Document Revision History: 10-13-06