

Traffic Engineering Policy & Procedure



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Policies & Procedures Manual

Policy 722.1



IN-STREET CROSSING SIGNS

Statute:

State of Nebraska Statute 60-6,120 assigns jurisdiction for the placement of traffic control devices upon the state highway system. No local authority is authorized to place or maintain any traffic control device upon any state highway, except by permission of the Department of Roads.

For this reason, the Department of Roads shall have final approval of all installations of in-street crossing signs along the state highway system. All communities (including those above 40,000 in population) shall consult with the Department prior to the installation of any signs on the state highway system.

Application Criteria:

Due to the daily placement and removal requirements of the signs, only the in-street schoolchildren crossing signs are allowed. The in-street pedestrian crossing signs will not be allowed on the state highway system.

Municipalities or school districts may use in-street schoolchildren crossing signs to alert motorists of the presence of school crossings.

For locations where in-street schoolchildren crossing signs are proposed (R1-6/ S4-3P, R1-6b), the following criteria shall be satisfied:

- 1. The location in question must be on an existing school route. If the school crossing location is not obvious or intuitive, a school routes plan or other documentation shall be provided to verify the location as a school route crossing.
- 2. The location shall be accompanied by crosswalk markings and school crossing warning sign (S1-1, W16-7P, W16-9P) assemblies. The devices themselves and the justification for their use shall comply with MUTCD guidance.
- 3. The signs shall not be used at signalized locations.

Installation & Maintenance:

If the above criteria are satisfied, the in-street schoolchildren crossing signs may be considered. However, the use of these signs is governed by the following requirements, which must be satisfied to allow for their continued use. If the local public agency cannot fulfill these requirements, the use of these signs shall no longer be allowed. These requirements are as follows:

- 1. The Department shall require the local public agency or school district to obtain a permit through the NDOR District office to install the signs. Before using, the requesting party should first contact local street or highway maintenance staff to coordinate their use. This will ensure that snow plowing or other street maintenance work does not interfere with the signs (and vice versa).
- 2. The signs shall be portable.
- 3. The signs and their use shall conform to all guidance and criteria listed in Section 2B.12 and 7B.12 of the MUTCD (size, retroreflectivity, crashworthiness, etc.).
 - a. The sign and mounting system shall conform to the most current crashworthy requirements at the time of installation, e.g. NCHRP350 or MASH.
 - b. Pursuant to State of Nebraska Statute 60-6,153, the yield version of the crossing signs shall be used (R1-6/ S4-3P and R1-6b). The STOP version (R1-6a, R1-6c) shall not be used.

In-Street Crossing Signs Signed: 10/31/2013

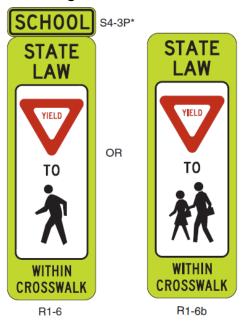
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IN-STREET CROSSING SIGNS

Policy 722.1

In-Street Signs for School Areas



- The signs shall only be used when school is in session and when school children could interact with the crossing in question. Therefore, the signs may only be placed in the roadway up to one hour before the start of school through 30 minutes after the end of school. Between these two times, the signs may be left in the roadway. However, after this time frame, the signs must be removed from the roadway. The requesting agency shall be responsible for arrangements to move the signs to and from the roadway each school day.
- In compliance with federal regulations the individual(s) placing and/or removing the In-Street Sign each day shall wear ANSI Class 2 or 3 high visibility safety apparel (reflective vest).

If after a time, the local public agency can no longer fulfill the preceding requirements, the in-street pedestrian crossing warning signs shall be removed until these requirements can be satisfied. The local school district or jurisdiction shall maintain the entire sign installation. The local jurisdiction shall keep the signs in proper working condition. The Department of Roads personnel may remove or cause to be removed signs in poor condition. The Department of Roads reserves the right to remove these signs or restrict their use at any time without notification.

In-Street Crossing Signs Signed: 10/31/2013

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Policies & Procedures Manual

Policy.723.1



SCHOOL BUS STOP AHEAD

The SCHOOL BUS STOP AHEAD sign should be installed in advance of locations where a school bus, when stopped to pick up or drop off passengers, is not visible for the following distances in advance of the bus stop:

Posted Roadway Speed	Sight Distance on Grade	Sight Distance on a Downgrade	/
(MPH)	Less than 2% (Feet)	6% or less (Feet)	BI
50 - 55	500	560	
60	570	640	
65	650	730	
70	730	830	



For downgrades greater than 6% the AASHTO "A Policy on Geometric Design of Highways and Streets" for stopping sight distance recommendation should be used.

If the sight distance is less than the above values a SCHOOL BUS STOP AHEAD sign should be installed. If the sight distance is greater than the above values then the sign should **not** be installed.

SCHOOL BUS STOP AHEAD signs will not be placed in urban areas.

The SCHOOL BUS STOP AHEAD sign shall have a standard size of 36" x 36".

It is **not** intended that these signs be used everywhere a school bus stops to pick up or drop off passengers but for use *only* 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. A sign should only be installed in the direction where limited sight distance exists. This sign shall not be used in locations where a school bus turns off of or on to the highway.

At the beginning of each school year, all existing SCHOOL BUS STOP AHEAD sign installations should be reviewed for continued need of signing, by the local district maintenance personnel. Signs no longer needed shall be removed.



Policies & Procedures Manual

Policy 724.0



RURAL SCHOOL SPEED ZONES

The Nebraska Department of Roads has developed the following policy that recommends specific traffic control for various rural school scenarios that serve high school aged drivers. These recommendations are accompanied by various criteria that must be satisfied before school zone traffic control can be implemented.

School zones are designated roadway segments approaching, adjacent to, and beyond school buildings or grounds, or along which school-related activities occur. These zones are established to promote safe and efficient interaction between highway and high school related traffic, for both pedestrian and drivers alike. The Manual on Uniform Traffic Control Devices (MUTCD) provides general guidance and standards for the use of all types of traffic control devices, including those used at or near schools. However, the Manual does not provide specifics for the use of these devices in every situation or scenario. This includes scenarios where rural schools abut or are located near the state highway. The following sections describe the various situations and the associated criteria to be eligible for signing.

The *general* guiding criteria for this policy are as follows:

- 1) The MUTCD states that the use of traffic control devices must be accompanied by an engineering study which justifies their use. As a result, an engineering study must be completed before the associated traffic control can be implemented. However, the study will give significant consideration to whether the school meets the minimum criteria listed in the remaining portion of this policy. The engineering study usually considers site characteristics such as:
 - i) ADT and Peak Hour Volumes
 - ii) Origin and destination of student drivers at the study school.
 - iii) Crash History
- 2) Where equipment is prescribed in this policy, it will be the responsibility of the school or school district or local governmental agency to pay for all operational, maintenance, and power costs of said equipment. The initial capital costs of obtaining the equipment will be split 50/50 between NDOR and the school/school district or local governmental agency. To affect these things, the school or school district will first need to enter into an agreement with the NDOR that details these responsibilities.
- 3) This policy is only intended for use at schools where <u>high school aged drivers</u> regularly report. In addition, traffic control plans prescribed by this policy are only intended for use at intersections where a significant portion of the school's student driving population passes through.
- 4) For school scenarios not covered in this policy (i.e. grade schools, middle schools, urban locations, suburban locations, etc.), appropriate traffic control will be determined using guidance in the MUTCD along with an engineering study and/or engineering judgment.
- 5) This policy is only intended for application at rural unsignalized intersections.
- 6) For schools where traffic control was erected in accordance with this policy **and** that school either closes or vacates its high school aged drivers, all policy-driven traffic control devices will be removed.



RURAL SCHOOL SPEED ZONES

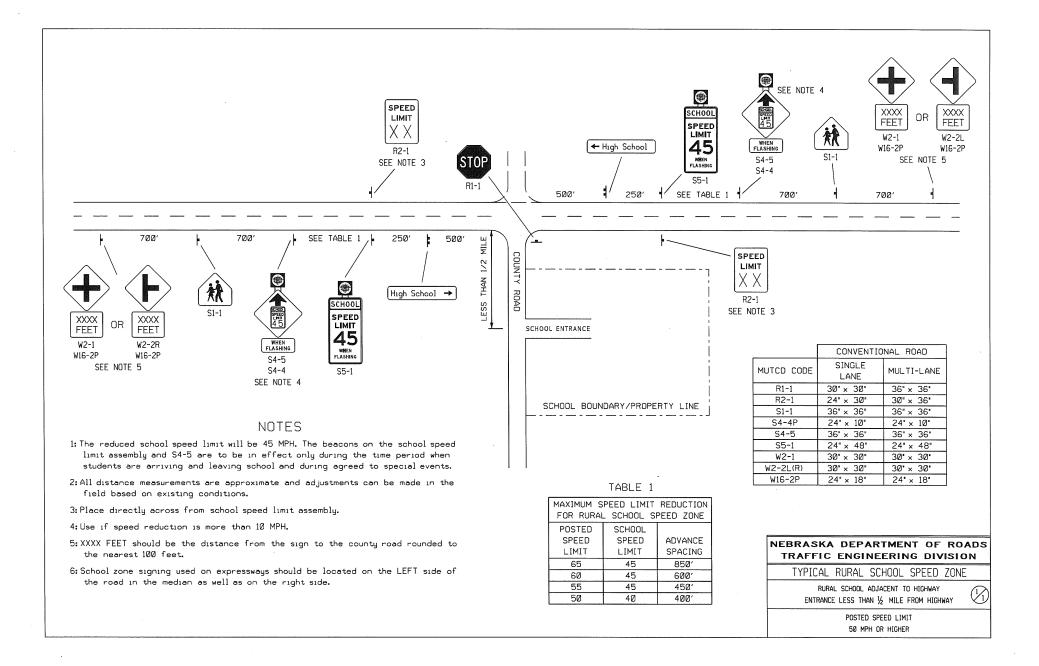
Policy 724.0

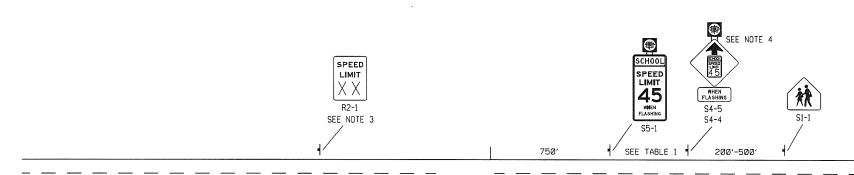
7) The application of rural school zones will only be reviewed upon official request by the school or local governmental agency.

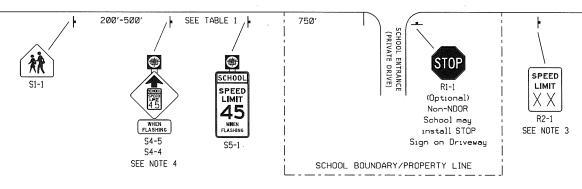
The **specific** guiding criteria for this policy cover two specific rural school zone scenarios. These scenarios are described by their access if the speed limit is 50 mph or greater. They are listed as follows:

- 1. Direct Access School entrance connects to the highway
- 2. Indirect Access School entrance is located <u>less than ½ mile away</u> from the highway

Recommended: Description Straffic Engineer	Date: 6-5-12
Approved: Randul & Pott	Date: <u>6/5/12</u>
Approved: May W. Director	Date: 6/7/12







	CONVENTIONAL ROAD		
MUTCD CODE	SINGLE LANE	MULTI-LANE	
R1-1	30" × 30"	36' x 36'	
R2-1	24" × 30"	30" × 36"	
S1-1	36" × 36"	36" × 36"	
S4-4P	24" × 10"	24" × 10"	
S4-5	36" × 36"	36" × 36"	
S5-1	24" × 48"	24" × 48"	

NOTES

- 1: The reduced school speed limit will be per Table 1. The beacons on the school speed limit assembly and S4-5 are to be in effect only during the time period when students are arriving and leaving school and during agreed to special events.
- 2: All distance measurements are approximate and adjustments can be made in the field based on existing conditions.
- 3: Place directly across from school speed limit assembly.
- 4: Use if speed reduction is more than 10 MPH.
- 5: School zone signing used on expressways should be located on the LEFT side of the road in the median as well as on the right side.

TABLE 1

MAXIMUM SPEED LIMIT REDUCTION FOR RURAL SCHOOL SPEED ZONE					
POSTED SPEED	SCHOOL SPEED	ADVANCE			
LIMIT	LIMIT	SPACING			
65	45	850′			
60	45	600'			
55	45	450'			
50	40	400'			

NEBRASKA DEPARTMENT OF ROADS TRAFFIC ENGINEERING DIVISION

TYPICAL RURAL SCHOOL SPEED ZONE

RURAL SCHOOL ADJACENT TO HIGHWAY ENTRANCE CONNECTS WITH HIGHWAY



POSTED SPEED LIMIT 50 MPH OR HIGHER