TECHNICAL COMMITTEE: Regulatory & Warning Signs

TOPIC: Part 7 – FHWA NPA 01/02/2008

STATUS/DATE OF ACTION Task Force Approved 06/02/2008

TECH COMM DRAFTS: 01/10/2008, 04/22/2008, 06/02/2008

TECH COMM APPROVAL: 01/10/2008, 06/19/2008

TRANSMITTED TO SPONSORS:

COUNCIL APPROVAL: Of Text: 01/11/2008 and 06/21/2008
Of Table & Figures: 06/21/2008

ORIGIN OF REQUEST: National Committee review of NPA

MUTCD SECTIONS: Part 7, Figures 7A-1, 7B-1 thru 7B-5
and Table 7B-1 (Table and Figures in separate file)

SUMMARY: The FHWA published a Notice of Rulemaking in the Federal Register on January 2, 2008, covering the MUTCD Revisions for the 2009 Manual. The RWSTC reviewed the proposed Part 7 of the NPA, exclusive of Chapter 7C Markings and Figure 7C-1 and recommended the changes noted herein. The National Committee Council approved text changes on January 11, 2008 and on June 21, 2008 it approved several additional text changes recommended by the School Area Task Force and by the Bicycles Technical Committee. On June 21, 2008, the National Committee also approved the Part 7 table and figures as approved by the RWSTC.

NPA showing FHWA’s proposed revisions to the 2003 MUTCD

Deletions: Red double strikethrough
Insertions: Blue underline
Comments: Green highlight

Proposed National Committee changes and comments

Approved by Council on 01/11/2008: Red Highlighted in Turquoise
Approved by Council on 06/21/2008: Red Highlighted in Yellow
Deletions: Single Strikethrough Insertions: Underlined
Rationale and Comments: Bold Black Highlighted in Yellow
Chapter 7A GENERAL

Section 7A.01 Need for Standards

Support:

It is important to stress that Regardless of the school location, the best way to achieve reasonably safe and effective traffic control in a manner that is intended to minimize the occurrences of crashes is through the uniform application of realistic policies, practices, and standards developed through engineering judgment or studies.

Reason: Unnecessary wording. Minimizing crashes is not necessarily the intent of all decisions regarding the use of traffic controls.

Pedestrian safety depends upon public understanding of accepted methods for efficient traffic control. This principle is especially important in the control of pedestrians, bicycles, and other vehicles in the vicinity of schools. Neither pedestrians on their way to or from school nor other road users can be expected to move safely in school areas unless they understand both the need for traffic controls and how these controls function for their benefit.

Procedures and devices that are not uniform might cause confusion among pedestrians and other road users, prompt wrong decisions, and contribute to crashes. To achieve uniformity of traffic control in school areas, comparable traffic situations need to be treated in a consistent manner. Each traffic control device and control method described in Part 7 fulfills a specific function related to specific traffic conditions.

A uniform approach to school area traffic controls assures the use of similar controls for similar situations, which promotes appropriate and uniform behavior on the part of motorists, pedestrians, and bicyclists.

A school traffic control plan permits the orderly review of school area traffic control needs, and the coordination of school/pedestrian safety education and engineering solutions measures. Engineering measures solutions alone might not result in will often not prompt the intended change in student and road user behavior.

Reason: Improved language – actions might not always be solutions to a problem, but could be prompts for a behavior change.

Guidance:

A school route plan for each school serving elementary to high school students should be prepared in order to develop uniformity in the use of school area traffic controls and to serve as the basis for a school traffic control plan for each school.

The school route plan, developed in a systematic manner by the school, law enforcement, and traffic officials responsible for school pedestrian safety, should consist of a map (see Figure 7A-1) showing streets, the school, existing traffic controls, established school walk routes, and established school crossings.

The type(s) of school area traffic control devices used, either warning or regulatory, should be related to the volume and speed of vehicular traffic, street width, and the number and age of the students using the crossing.

School area traffic control devices should be included in a school traffic control plan.

Support:

Reduced speed limit signs for school areas and crossings are included in this Manual solely for the purpose of standardizing signing for these zones and not as an endorsement of mandatory reduced speed zones.

Section 7A.02 School Routes and Established School Crossings

Support:
To establish a safer route to and from school for schoolchildren, the application of the planning criterion for school walk routes might make it necessary for children to walk an indirect route to an established school crossing located where there is existing traffic control and to avoid the use of a direct crossing where there is no existing traffic control.

Guidance:

School walk routes should be planned to take advantage of existing traffic controls.

The following factors should be considered when determining the feasibility of requiring children to walk a longer distance to a crossing with existing traffic control:

A. The availability of adequate sidewalks or off-roadway sidewalk areas other pedestrian walkways to and from the location with existing control,

**Reason:** Replacing ambiguous term with one that is more commonly used.

B. The number of students using the crossing,

C. The age levels of the students using the crossing, and

D. The total extra walking distance.

**Section 7A.03 School Crossing Control Criteria**

Support:

Alternate The frequency of gaps and blockades are inherent in the traffic stream that are sufficient for student crossing and are is different at each crossing location. For safety, students need to wait for a gap in traffic that is of sufficient duration to permit reasonably safe crossing. When the delay between the occurrences of adequate gaps becomes excessive, students might become impatient and endanger themselves by attempting to cross the street during an inadequate gap. In these instances, the creation of sufficient gaps needs to be considered to accommodate the crossing demand.

A recommended method for determining the frequency and adequacy of gaps in the traffic stream is given in the Institute of Transportation Engineers’ publication, “School Trip Safety Program Guidelines” “Traffic Control Devices Handbook” (see Section 1A.11).

**Section 7A.04 Scope**

Standard:

Part 7 sets forth basic principles and prescribes standards that shall be followed in the design, application, installation, and maintenance of all traffic control devices (including signs, signals, and markings) and other controls (including adult crossing guards, student patrols, and grade-separated crossings) required for the special pedestrian conditions in school areas.

Option:

In roadway signs for school traffic control areas may be used consistent with the requirements of Sections 2B.12, 7B.08, and 7B.09. Relocated to Section 7B.03

Support:

The introduction to this Manual contains information regarding the meaning of the headings Standard, Guidance, Option, and Support, and the use of the words “shall,” “should,” and “may.” relocated from Section 7A.10.

**Reason:** Deleting unneeded material that is not specific to this part.

Sections 1A.01 and 1A.08 contain information regarding unauthorized devices and messages.

Sections 1A.02 and 1A.07 contain information regarding the application of standards. Section 1A.05 contains information regarding the maintenance of traffic control devices. Section 1A.08 contains information regarding placement authority for traffic control devices. Section 1A.09 contains information regarding engineering studies. Relocated from Sections 7A.05 through 7A.09

**Requirements Provisions** Edited to improve consistency discussed in Chapter 2A and Section 2B.06 are applicable in school areas.
Part 3 contains provisions regarding pavement markings that are applicable in school areas. 

Part 4 contains provisions regarding highway traffic signals that are applicable in school areas. The School Crossing signal warrant is described in Section 4C.06.

Reason: Added missing verb.

Section 7A.05—Application of Standards
Support:
Sections 1A.02 and 1A.07 contain information regarding the application of standards.

Section 7A.06—Engineering Study Required
Support:
Section 1A.09 contains information regarding engineering studies.

Section 7A.07—Maintenance of Traffic Control Devices
Support:
Section 1A.05 contains information regarding the maintenance of traffic control devices.

Section 7A.08—Placement Authority
Support:
Section 1A.08 contains information regarding placement authority for traffic control devices.

Section 7A.09—Unauthorized Devices and Messages
Support:
Sections 1A.01 and 1A.08 contain information regarding unauthorized devices and messages.

Section 7A.10—Meaning of Standard, Guidance, Option, and Support
Support:
The introduction to this Manual contains information regarding the meaning of the headings Standard, Guidance, Option, and Support, and the use of the words shall, should, and may. Sections 7A.05 through 7A.10 relocated to Section 7A.04.

Section 7A.05—Grade-Separated School Crossings this Section was added to take the place of Chapter 7F.
Support:
Grade-separated crossings (overpasses over the highway or underpasses under the highway) are sometimes used to physically separate the crossing of school pedestrian traffic and vehicular flow. Experience has shown that overpasses are more satisfactory than underpasses for school pedestrian crossings, as overpasses are easier to maintain and supervise.

If using the grade-separated crossing will be less convenient to school pedestrians than making an at-grade crossing, barriers or supervision are sometimes provided to assure a satisfactory level of use of the grade-separated crossing.

The published policies of the American Association of State Highway and Transportation Officials, such as “A Policy on Geometric Design of Highways and Streets” (see Section 1A.11), contain guidelines for the design of grade-separated crossings.

Reason: Material not appropriate for the MUTCD because it does not address traffic control devices.
CHAPTER 7B. SIGNS

Section 7B.01 Size of School Signs

Standard:

Except as noted in Section 2A.11, the sizes of signs and plaques to be used on conventional roadways in school areas shall be as shown in Table 7B-1.

The sizes in the Conventional Road sign size column shall be used on public roads, streets, and highways unless engineering judgment determines that a minimum or oversized sign size would be more appropriate.

The sizes in the Minimum sign size column, which is applicable only to the School (S1-1), SCHOOL BUS STOP AHEAD (S3-1), SCHOOL BUS TURN AHEAD (S3-2), and Reduced Speed School Zone Ahead (S4-5, S4-5a) signs, may be used only on local residential streets, in urban areas, and where there are low traffic volumes and low vehicle speeds. The 85th percentile speed or posted speed limit is less than 60 km/h (35 mph), as determined by engineering judgment.

Reason: The use of minimum size signs wherever traffic volumes and speed are low should be based on engineering judgment. “Conventional Road” is capitalized to be consistent with the column headings in Table 7B-1.

The sizes in the Oversized sign size column shall be used on expressways.

Option:

The sizes in the Oversized sign size column may be used for applications that require increased emphasis, improved recognition, or increased legibility.

Reason: “Oversized” is capitalized to be consistent with the column headings in Table 7B-1.

Signs and plaques larger than those shown in Table 7B-1 may be used (see Section 2A.11).

Section 7B.02 Illumination and Reflectorization

Standard:

The signs used for school area traffic control shall be retroreflectorized or illuminated.

Section 7B.03 Position of Signs

Guidance:

Signs should be placed in positions where they will convey their messages most effectively without restricting lateral clearance offset or sight distances. Placement therefore should consider highway design, alignment, vehicle speed, and roadside development, pedestrians, and other non-motorized road users.

Signs should have a maximum practical reasonable clearance lateral offset from the edge of the traveled way for the safety of vehicles that might leave the roadway and strike the sign supports. Except as noted in the Option below, signs should not be closer than 1.8 m (6 ft) from the edge of a paved shoulder, or if none, 3.7 m (12 ft) from the edge of the traveled way.

Option:

In urban areas, a lesser clearance lateral offset of not less than 0.6 m (2 ft) from the face of the curb may be used. In urban areas, where sidewalk width is limited or existing poles are close to the curb, a clearance lateral offset of 0.3 m (1 ft) from the curb face may be used.

In roadway signs for school traffic control areas may be used consistent with the requirements of Sections 2B.12, 7B.08, and 7B.11, relocated from Section 7A.04.

Reason: Remove unnecessary references.

Section 7B.04 Height of Signs

Support:
Section 2A.18 contains information regarding the mounting height of signs.

Section 7B.05 Installation of Signs
Support:
Section 2A.16 contains information regarding the installation of signs.

Section 7B.06 Lettering
Support:
The Federal Highway Administration's "Standard Highway Signs and Markings" book (see Section 1A.11) contains information regarding sign lettering.

Section 7B.07 Sign Color for School Warning Signs
Standard:
Except as noted in the Option, School warning signs, including the “SCHOOL” portion of the School Speed Limit (S5-1) sign, and any supplemental plaques used in association with these signs shall have a fluorescent yellow-green background with a black legend and border unless otherwise stated in this Manual for a specific sign.
Option:
All school warning signs in addition to the following signs may have a fluorescent yellow-green background with a black legend and border:
A. School Advance Warning sign (S1-1),
B. SCHOOL BUS STOP AHEAD sign (S3-1),
C. SCHOOL plaque (S4-3),
D. The “SCHOOL” portion of the School Speed Limit sign (S5-1),
E. XXX FEET plaque (W16-2-series),
F. AHEAD plaque (W16-9p),
G. Diagonal Arrow plaque (W16-7p), and
H. Reduced Speed School Zone Ahead sign (S4-5, S4-5a).
Guidance:
When the fluorescent yellow-green background color is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green backgrounds within a zone or area should be avoided.

Section 7B.08 School Advance Warning Assembly Sign (S1-1 with Supplemental Plaque)
Guidance:
The School Advance Warning assembly (see Figure 7B-1) should be installed in advance of locations where school buildings or grounds are adjacent to the highway, except where a physical barrier such as fencing separates schoolchildren from the highway.
Standards:
The School Advance Warning assembly shall be used in advance of any installation of the School Crosswalk Warning assembly (see Figure 7B-2), or in advance of the first installation of the School Speed Limit assembly (see Figure 7B-3).
If used, the School Advance Warning assembly shall be installed not less than 45 m (150 ft) or more than 210 m (700 ft) in advance of the school grounds or school crossings.
If used, the School Advance Warning assembly shall consist of a School Advance Warning (S1-1) sign supplemented with a plaque with the legend AHEAD (W16-9p) or XXX METERS (XXX FEET) (W16-2 or W16-2a) to provide advance notice to road users of crossing activity.
Support:
Many state and local jurisdictions find it beneficial to advise road users that they are approaching a school that is adjacent to a highway, where additional care is needed, even though no school crossing is involved and the speed limit remains unchanged. Additionally, some jurisdictions designate school zones that have a unique legal standing in that fines for speeding or other traffic violations within designated school zones are increased or special enforcement techniques such as photo radar systems are used. It is important and sometimes legally necessary to mark the beginning and end points of these designated school zones so that the road user is given proper notice.

The School (S1-1) sign (see Figure 7B-1) has the following three applications:

A. School Area or Zone – if used alone, the S1-1 sign warns road users that they are approaching school buildings or grounds, a school crossing, or school related activity adjacent to the highway, and it marks the beginning of a designated school zone (see Figure 7B-2).

B. School Advance Crossing – if combined with an AHEAD (W16-9P) plaque or an XX METERS (FEET) (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly, the S1-1 sign warns road users that they are approaching a crossing where schoolchildren cross the roadway (see Figure 7B-3).

C. School Crossing – if combined with a downward diagonal pointing arrow (W16-7P) plaque to comprise the School Crossing assembly, the S1-1 sign warns approaching road users of the location of a crossing where schoolchildren cross the roadway (see Figures 7B-3 and 7B-4).

Section 7B.09 School Area or School Zone Sign

Option:
The School (S1-1) sign may be installed in advance of locations where school buildings or grounds are adjacent to the highway to warn road users that they are approaching a school area.

Standard:
If a school zone has been designated under State or local statute, a School (S1-1) sign shall be installed to mark the beginning point(s) of the designated school zone (see Figure 7B-2).

If a reduced speed zone for a school area has been established, a School (S1-1) sign shall be installed in advance (see Table 2C-4 for advance placement guidelines) of the first School Speed Limit sign assembly or S5-1 sign that is encountered in each direction as traffic approaches the reduced speed zone (see Figure 7B-4).

Option:
A School (S1-1) sign that is installed to warn road users of a school area or a school zone (see Figure 7B-2) may be supplemented with a SCHOOL (S4-3P) plaque or an appropriate enforcement sign or plaque, such as a FINES HIGHER, FINES DOUBLE, or $XX FINE plaque (see Section 2B.17).

If a school area or school zone is located on a cross street in close proximity to an intersection, less than 38 m (125 ft) from edge of a street or highway, a School (S1-1) sign with a supplemental arrow (W16-5P or W16-6P) plaque (see Figure 7B-1) may be installed on each approach of to the cross street intersection or highway to warn road users making a turn onto the cross street that they will encounter a school area or school zone soon after making the turn.

Reason: Improve the clarity of the provision and reference the appropriate figure in which the sign and plaques are shown.

Section 7B.10 School Advance Crossing Assembly

Standard:
The School Advance Crossing assembly (see Figure 7B-1) shall consist of a School (S1-1) sign supplemented with an AHEAD (W16-9P) plaque or an XX METERS (FEET) (W16-2P or W16-2aP) plaque.

Except as noted in the Option below, a School Advance Crossing assembly shall be used in advance (see Table 2C-4 for advance placement guidelines) of the first School Crossing assembly.
(see Section 7B.11) that is encountered in each direction as traffic approaches a school crosswalk (see Figure 7B-3).

Option:

The School Advance Crossing assembly may be omitted (see Figure 7B-4) where a School (S1-1) sign (see Section 7B.09) is installed in advance of the School Crossing assembly.

If a school crosswalk is located on a cross street in close proximity to an intersection, less than 38 m (125 ft) from edge of a street or highway, a School Advance Crossing assembly with a supplemental arrow (W16-5P or W16-6P) plaque (see Figure 7B-1) may be installed on each approach of the cross street intersection or highway to warn road users making a turn onto the cross street that they will encounter a school area or school zone soon after making the turn.

Reason: Improve the clarity of the provision and reference the appropriate figure in which the assembly and plaques are shown.

A 300 mm (12 in) reduced size in-street School Advance Warning (S1-1) sign (see Figure 7B-5), installed in compliance with the mounting height and breakaway requirements for In-Street Pedestrian Crossing (R1-6 or R1-6a) signs (see Section 2B.12), may be used in advance of a school crossing to supplement the ground-mounted school warning signs. A 300 x 150 mm (12 x 6 in) reduced size AHEAD (W16-9P) plaque may be mounted below the reduced size in-street School Advance Warning (S1-1) sign. This paragraph was in Section 7B.08 of the 2003 MUTCD.

Section 7B.09 7B.11 School Crosswalk Warning Crossing Assembly (S1-1 with Diagonal Arrow)

Standard:

If used, the School Crosswalk Warning Crossing assembly (see Figure 7B-1) shall be installed at the marked crosswalk school crossing (see Figures 7B-3 and 7B-4), or as close to it as possible, and shall consist of a School Advance Warning (S1-1) sign supplemented with a diagonal downward pointing arrow (W16-7P) plaque to show the location of the crossing.

The School Crosswalk Warning Crossing assembly shall not be used at marked crosswalk crossings other than those adjacent to schools and those on established school pedestrian routes.

The School Crosswalk Warning Crossing assembly shall not be installed on approaches controlled by a STOP sign.

Guidance:

The School Crosswalk Warning assembly should be installed at marked crosswalk(s), including those at signalized locations, used by students going to and from school (see Figure 7B-2) as determined by an engineering study.

Option:

The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.12 and Figure 7B-5) or the In-Street Schoolchildren Crossing (R1-6b or R1-6c) sign (see Figure 7B-5) may be used at unsignalized school crossings. When used at a school crossing, a 300 x 100 mm (12 x 4 in) SCHOOL (S4-3P) plaque (see Figure 7B-5) may be mounted above the sign.

The Overhead Pedestrian Crossing (R1-9 or R1-9a) sign (see Section 2B.12 and Figure 2B-2) may be used at unsignalized school crossings.

A 300 mm (12 in) reduced size in-street added to increase accuracy School Advance Warning (S1-1) sign (see Figure 7B-5) may be used at an unsignalized school crossing instead of the In-Street Pedestrian Crossing (R1-6 or R1-6a) or the In-Street Schoolchildren Crossing (R1-6b or R1-6c) sign. A 300 x 150 mm (12 x 6 in) reduced size diagonal downward pointing edited to increase consistency arrow (W16-7P) plaque may be mounted below the reduced size in-street School Advance Warning (S1-1) sign.

Standard:
If an In-Street Pedestrian Crossing sign, an In-Street Schoolchildren Crossing sign, or a reduced size in-street School Advance Warning (S1-1) sign is placed in the roadway, the sign support shall comply with the mounting height and breakaway requirements for In-Street Pedestrian Crossing (R1-6 or R1-6a) signs (see Section 2B.12).

The In-Street Pedestrian Crossing sign, the In-Street Schoolchildren Crossing sign, the Overhead Pedestrian Crossing sign, and the reduced size in-street School Advance Warning (S1-1) sign shall not be used at signalized locations.

Section 7B.10 7B.12 SCHOOL BUS STOP AHEAD School Bus Stop Ahead Sign (S3-1)

Guidance:

The SCHOOL BUS STOP AHEAD School Bus Stop Ahead (S3-1, S3-1) sign (see Figure 7B-1) should be installed in advance of locations where a school bus, when stopped to pick up or discharge passengers, is not visible to road users for a distance of 150 m (500 ft) in advance as determined by the “0” column under Condition B of Table 2C-4, an adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance 150 m (500 ft) of visibility. The distance specified in Table 2C-4.

Reason: It is unnecessary to refer to Table 2C-4 regarding the location of specific warning signs.

Section 7B.13 SCHOOL BUS TURN AHEAD Sign (S3-2)

Option:

The SCHOOL BUS TURN AHEAD (S3-2) sign (see Figure 7B-1) may be installed in advance of locations where a school bus turns around on a roadway at a location not visible to approaching road users for a distance as determined by the “0” column under Condition B of Table 2C-4, an adequate distance and where there is no opportunity to relocate the school bus turn around to provide adequate sight distance the distance specified in Table 2C-4.

Reason: It is unnecessary to refer to Table 2C-4 regarding the location of specific warning signs.

Section 7B.14 School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1P)

Standard:

A School Speed Limit assembly (see Figure 7B-1) or a School Speed Limit (S5-1) sign (see Figure 7B-1) shall be used to indicate the speed limit where a reduced speed zone for a school area has been established (in accordance with law based upon an engineering study) or where a speed limit is specified for such areas by statute. The School Speed Limit assembly or School Speed Limit sign shall be placed at or as near as practical to the point where the reduced speed zone begins (see Figure 7B-4).

Guidance:

The reduced speed zone should begin either at a point 60 m (200 ft) from the crosswalk, or at a point 30 m (100 ft) from the school property line, based on whichever is encountered first as traffic approaches the school.

Standard:

The School Speed Limit assembly shall be either a fixed-message sign assembly or a changeable message sign.

The fixed-message School Speed Limit assembly shall consist of a top plaque (S4-3P) with the legend SCHOOL, a Speed Limit (R2-1) sign, and a bottom plaque (S4-1P, S4-2P, S4-4P, or S4-6P) indicating the specific periods of the day and/or days of the week that the special school speed limit is in effect (see Figure 7B-1).

Option:
Changeable message signs (see Sections 2A.07, Chapter 2M and Section 6F.57) may be used to inform drivers of the special school speed limit. If the sign is internally illuminated, it may have a white legend on a black background. Changeable message signs with flashing beacons may be used for the more critical situations, where greater emphasis of the special school speed limit is needed.

Guidance:

Even though it might not always be practical because of special features to make changeable message signs conform in all respects to the accepted standards in this Manual for fixed-message signs, during the periods that the school speed limit is in effect, their basic shape, message, legend layout, and colors should conform to comply with the standards for fixed-message signs.

A confirmation beacon light or device to indicate that the speed limit message is in operation should be considered for inclusion on the back of the changeable message sign.

**Option Standard:**

Fluorescent yellow-green pixels may shall be used when the school-related “SCHOOL” message is shown displayed edited to increase consistency on a changeable message sign for a school speed limit.

**Option:**

Changeable message signs may use blank-out messages or other methods in order to display the school speed limit only during the periods it applies.

Changeable message signs that display the speed of approaching drivers (see Section 2B.13) may be used in a school speed limit zone.

A Speed Limit Sign Beacon (see Section 4L.04) also may be used, with a WHEN FLASHING legend, to identify the periods that the school speed limit is in effect. The signal lenses indications of the Speed Limit Sign Beacon may be positioned within the face of the School Speed Limit (S5-1) sign (see Figure 7B-1).

**Reason:** It is well known that under certain light and weather conditions, the flashing beacon causes halation that obscures the sign message. Therefore, it is inappropriate to permit a sign design where the sign legend would not be legible. A flashing beacon is not permitted within the border of any other sign. Other flashing beacons used with signs must have at least a 12 inch separation from the sign face. The internal Flasher-School Speed Limit sign was/has been manufactured for many years, recognized by some state codes, and used by some school districts. It apparently has been retained in the MUTCD so that those schools do not have to replace existing signs. Many of those older signs are becoming obsolete and inoperable although some still are in use. Note, Similar change needed to Sections 4L.01 and 4L.04.

A FINES HIGHER (R2-6), FINES DOUBLE, or $XX FINE sign plaque (see Section 2B.17) may be used to advise road users when increased fines are imposed for traffic violations in school zones.

Section 7B.12 7B.15 **Reduced Speed School Zone Speed Limit Ahead Sign (S4-5, S4-5a)**

**Option:**

The Reduced Speed School Zone Speed Limit Ahead (S4-5, S4-5a) sign (see Figure 7B-1) may be used to inform road users of a reduced speed zone when engineering judgment indicates that advance notice would be appropriate.

**Standard:**
If used, the Reduced School Zone Speed Limit Ahead sign shall be followed by a School Speed Limit sign or a School Speed Limit assembly.

The speed limit displayed on the Reduced School Zone Speed Limit Ahead sign shall be identical to the speed limit displayed on the subsequent School Speed Limit sign or School Speed Limit assembly.

Section 7B.13 7B.16 END SCHOOL ZONE Sign (S5-2)

Standard:

The downstream end of a designated school area or school zone (see Section 7B.09) shall be marked with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-2).

The downstream end of an authorized and posted school speed zone shall be marked with a standard Speed Limit sign showing the speed limit for the section of highway that follows or with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-4).  A standard Speed Limit sign showing the speed limit for the section of highway that is downstream from the authorized and posted school speed zone.  Where the school speed zone and the designated school zone or school area terminate at the same location, the Speed Limit sign shall be mounted on the same post as the END SCHOOL ZONE (S5-2) sign (See Figure 7B-4).

Reason:  It should not be necessary to mark the end of a school (reduced) speed zone with an END SCHOOL ZONE when it ends at a location different from where the school zone/school area ends.  In that case, the NPA would require the posting of the END SCHOOL ZONE at two separate locations.  The suggested change eliminates that duplication.

Section 7B.14 7B.17 Parking and Stopping Signs (R7 and R8 Series)

Option:

Parking and stopping regulatory signs may be used to prevent parked or waiting vehicles from blocking pedestrians’ views, and drivers’ views of pedestrians, and to control vehicles as a part of the school traffic plan.

Support:

Parking signs and other signs governing the stopping and standing of vehicles in school areas cover a wide variety of regulations.  Typical examples of regulations are as follows:

A.  No Parking X:XX AM to X:XX PM School Days Only,
B.  No Stopping X:XX AM to X:XX PM School Days Only,
C.  XX Min Loading X:XX AM to X:XX PM School Days Only, and

Sections 2B.53, 2B.54, and 2B.55 contain information regarding the signing of parking regulations in school zone areas.
CHAPTER 7D. SIGNALS

Cross references to Part 4 were added in Section 7A.04

Section 7D.01 General

Support:

Part 4 contains information regarding highway traffic signals in school areas. The School Crossing signal warrant is described in Section 4C.06.
CHAPTER 7E, 7D. CROSSING SUPERVISION

Section 7E.01 7D.01 Types of Crossing Supervision

Support:

There are two three types of school crossing supervision:

A. Adult control of pedestrians and vehicles by adult crossing guards or uniformed law enforcement officers, and
B. Adult control of pedestrians and vehicles by uniformed law enforcement officers, and
C. Student control of only pedestrians with student patrols.

Information for the organization, operation, and administration of an adult crossing guard program are given in “Civilian Guards for School Crossings” (available from the Center for Public Safety of Northwestern University, 405 Church Street, Evanston, IL 60201) and “Adult School Crossing Guards” (available from the American Automobile Association, 1000 AAA Drive, Heathrow, FL 32746). Because neither of these publications are still available

Information regarding the organization, administration, and operation of a student school safety patrol program is contained in the “Policies and Practices for AAA School Safety Patrols Operations Manual” (available from the American Automobile Association, 1000 AAA Drive, Heathrow, FL 32746 see Section 1A.11).

Section 7E.02 7D.02 Adult Crossing Guards

Option:

Adult crossing guards may be used to provide gaps in traffic at school crossings where an engineering study has shown that adequate gaps need to be created (see Section 7A.03), and where authorized by law.

Section 7E.03 7D.03 Qualifications of Adult Crossing Guards

Support:

High standards for selection of adult crossing guards are essential because they are responsible for schoolchildren within and in the immediate vicinity of school crosswalks.

Guidance:

Adult crossing guards should possess the following minimum qualifications:

A. Average intelligence;
B. Good physical condition, including sight, hearing, and mobility ability to move and maneuver quickly in order to avoid danger from errant vehicles;
C. Ability to control a STOP paddle effectively to provide approaching road users with a clear, fully direct view of the paddle’s STOP message during the entire crossing movement;
D. Ability to communicate specific instructions clearly, firmly, and courteously;
E. Ability to recognize potentially dangerous traffic situations and warn and manage students in sufficient time to avoid injury.
F. Mental alertness;
G. Neat appearance;
H. Good character;
I. Dependability; and
J. An overall sense of responsibility for the safety of students.

Section 7E.04 7D.04 Uniform of Adult Crossing Guards and Student Patrols

Guidance:

Adult crossing guards should be uniformed so that road users and pedestrians can recognize them and respond to their signals. The uniforms should be distinctively different from those worn by regular law enforcement officers.

Standard:
Law enforcement officers performing school crossing supervision and adult crossing guards shall wear high-visibility retroreflective safety apparel labeled as ANSI 107-1999, 2004, 2006 standard performance for Class 2 as described in Section 6E.02.

Reason: Reference the current ANSI standard.

Student patrols shall wear high-visibility retroreflective safety apparel labeled as ANSI 107-1999 standard performance for Class 1 as described in Section 6E.02.

Guidance:

Law enforcement officers should wear high-visibility retroreflective material over their uniforms when directing nighttime operations.

Section 7E.05 7D.05 Operating Procedures for Adult Crossing Guards

Guidance Standard:

Adult crossing guards should not direct traffic in the usual law enforcement regulatory sense. In the control of traffic, they should pick opportune times to create a reasonably safe sufficient gap in the traffic flow. At these times, they should stand in the roadway to indicate that pedestrians are about to use or are using the crosswalk, and that all vehicular traffic must stop.

Adult crossing guards should use a STOP paddle. The STOP paddle should be the primary hand-signaling device.

Standard:

The STOP (R1-1) paddle shall be an octagonal shape. The background of the STOP face shall be red with at least 150 mm (6 in) series capital upper-case white letters and border. The paddle shall be at least 450 mm (18 in) in size and have the word message STOP on both sides. The paddle shall be retroreflectorized or illuminated when used during hours of darkness.

Option:

The STOP paddle may be modified to improve conspicuity by incorporating red or white or red flashing lights on both sides of the paddle. The red or white flashing lights may be arranged in any of the following patterns:

A. Two red or white or red lights centered vertically above and below the STOP legend,
B. Two red or white or red lights centered horizontally on each side of the STOP legend,
C. One red or white or red light centered below the STOP legend,
D. A series of eight or more small red or white or red lights no larger than 6 mm (0.25 in) in diameter along the outer edge of the paddle, arranged in an octagonal pattern at the eight corners of the STOP paddle (more than eight lights may be used only if the arrangement of the lights is such that it clearly conveys the octagonal shape of the STOP paddle), or
E. A series of white lights forming the shapes of the letters in the legend.

Standard:

If flashing lights are used on the STOP paddle, the flash rate shall be at least 50, but not more than 60, flash periods per minute.

Section 7E.06 Uniformed Law Enforcement Officers

Option:

Uniformed law enforcement officers may be used for school crossing supervision.

Section 7E.07 Student Patrols

Option:

Student patrols may be used to direct and control pedestrians at crossings near schools where adequate gaps in traffic occur frequently enough so that gaps do not need to be created.
Student patrols may be used to direct and control pedestrians at signalized intersections where turning movements are not a significant problem, and may be used to assist adult crossing guards in the control of pedestrians at crossing locations used by large numbers of pedestrians.

**Guidance:**

Student patrols should not be responsible for directing vehicular traffic. They should not function as uniformed law enforcement officers or adult crossing guards.

**Section 7E.08—Choice of Student Patrols**

**Guidance:**

Student patrols should be carefully selected. They should be students from the fifth grade or higher. Leadership and reliability should be determining qualities for patrol membership. Parental approval should be obtained in writing before a student is used as a member of a student patrol.

**Section 7E.09—Operating Procedures for Student Patrols**

**Guidance:**

Student patrols should use a flagging device to stop pedestrians behind the curb or edge of the roadway, and should allow them to cross only when there is an adequate gap in traffic.

**Standards:**

Flagging devices used during periods of twilight or darkness shall be retroreflective or illuminated.

Because they are not authorized to direct vehicular traffic, student patrols shall not use a STOP paddle.
CHAPTER 7F. GRADE SEPARATED CROSSINGS

Section 7F.01  Function
Option:
Grade-separated crossings may be used to physically separate the crossing of school pedestrian traffic and vehicular flow.

Section 7F.02  Types of Grade-Separated Crossings
Option:
Grade-separated crossings may be either overpasses over the highway or underpasses under the highway.

Guidance:
The design should follow the guidelines given in the published policies of the American Association of State Highway and Transportation Officials, such as “A Policy on Geometric Design of Highways and Streets” (see Section 1A.11).

Support:
Experience has shown that overpasses are more satisfactory than underpasses for pedestrian crossings, as overpasses are easier to maintain and supervise.

Section 7F.03  Criteria for Use of Grade-Separated Crossings
Guidance:
If use of the grade separation will be less convenient to pedestrians than an at-grade crossing, barriers or supervision should be considered to assure a satisfactory level of use.