

PART 7

TRAFFIC CONTROL FOR SCHOOL AREAS

CHAPTER 7A. GENERAL

Section 7A.01 Introduction

Support:

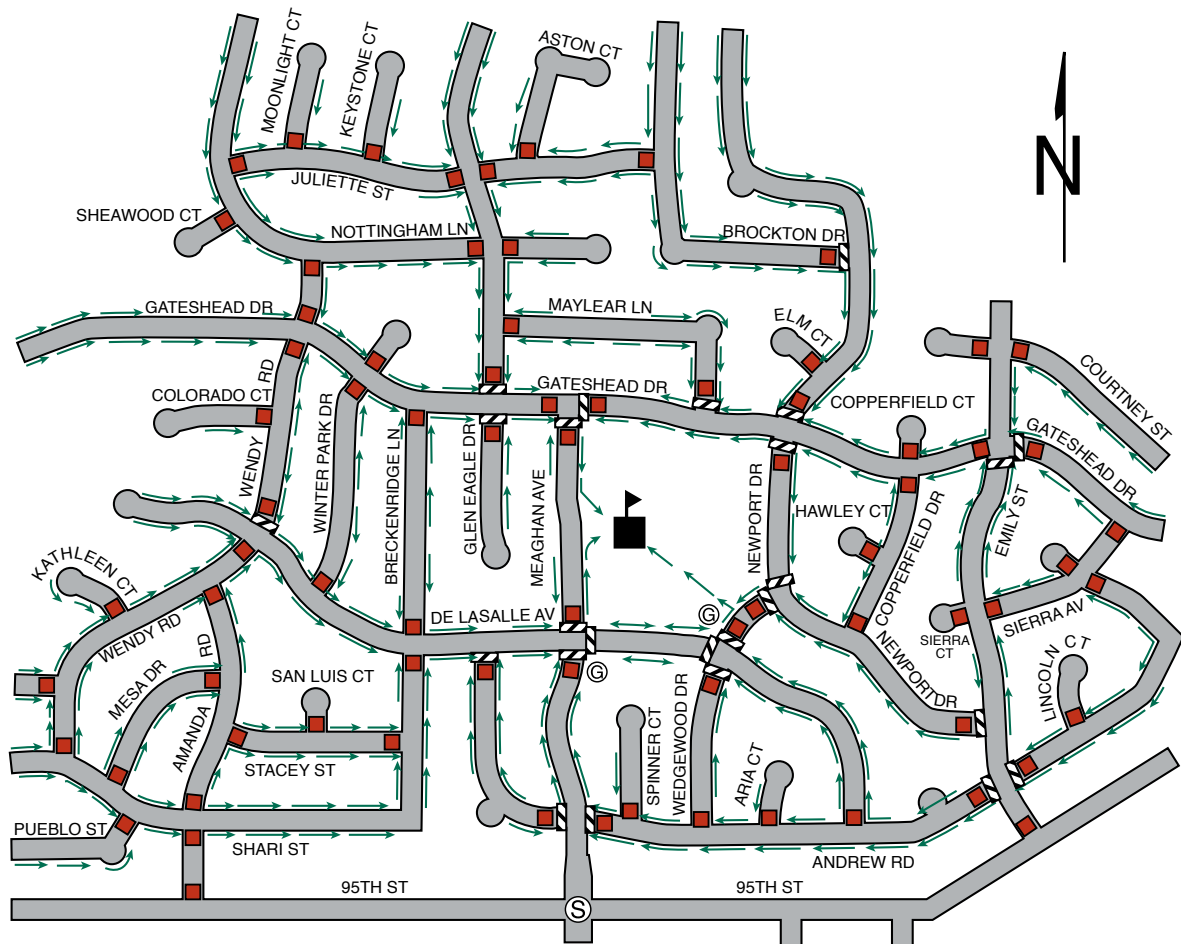
- 01 Part 7 sets forth basic principles and prescribes standards for the design, application, installation, and maintenance of all traffic control devices (including signs, signals, and markings) and other controls (including adult crossing guards) for the special pedestrian conditions in school areas.

Section 7A.02 School Route Plans and School Crossings

Guidance:

- 01 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.
- 02 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.

Figure 7A-1. Example of School Route Plan Map



Legend

- | | |
|---|---|
| <ul style="list-style-type: none"> School Marked crosswalk Crossing guard | <ul style="list-style-type: none"> Signalized intersection STOP or YIELD sign approach Pedestrian route |
|---|---|

- 03 *Bicycle use as a mode of transportation, as applicable, should also be considered if students biking to and from school are not allowed to use the sidewalks along the pedestrian route.*
- 04 *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.*
- 05 *School area traffic control devices should be included in a school traffic control plan.*

Support:

- 06 To establish a safer route to and from school for schoolchildren, the application of 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.
- 07 The frequency of gaps in the traffic stream that are sufficient for student crossing is different at each crossing location. 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.

Guidance:

- 08 *School walk routes should be planned to take advantage of existing traffic controls.*
- 09 *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 other pedestrian walkways to and from the location with existing control,*
 - 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.*

Support:

- 10 A School Crossing signal warrant is provided in Section 4C.06.

CHAPTER 7B. SIGNS

Section 7B.01 Design of School Signs

Standard:

01 **Except as provided in Section 2A.07, the sizes of signs and plaques to be used on conventional roadways in school areas shall be as shown in Table 7B-1.**

02 **The sizes in the Oversized column in Table 7B-1 shall be used on expressways in school areas.**

Guidance:

03 *The sizes in the Oversized column should be used on roadways that have four or more lanes with posted speed limits of 40 mph or higher.*

Table 7B-1. School Area Sign and Plaque Sizes

| Sign | Sign Designation | Section | Conventional Road | Minimum | Oversized |
|---------------------------------------|---------------------------|---------|-------------------|---------|-----------|
| School | S1-1 | 7B.02 | 36 x 36 | 30 x 30 | 48 x 48 |
| School Bus Stop Ahead | S3-1 | 7B.04 | 36 x 36 | 30 x 30 | 48 x 48 |
| School Bus Turn Ahead | S3-2 | 7B.04 | 36 x 36 | 30 x 30 | 48 x 48 |
| Reduced School Speed Limit Ahead | S4-5, S4-5a | 7B.05 | 36 x 36 | 30 x 30 | 48 x 48 |
| School Speed Limit XX When Flashing | S5-1 | 7B.05 | 24 x 48 | — | 36 x 72 |
| End School Zone | S5-2 | 7B.02 | 24 x 30 | — | 36 x 48 |
| End School Speed Limit | S5-3 | 7B.05 | 24 x 30 | — | 36 x 48 |
| Yield (Stop) Here for School Crossing | R1-5a, R1-5c | 7B.03 | 36 x 36 | — | — |
| In-Street Ped or School Crossing | R1-6, R1-6a, R1-6b, R1-6c | 7B.03 | 12 x 36 | — | — |
| Overhead School Crossing | R1-9b, R1-9c | 7B.03 | 90 x 24 | — | — |
| Speed Limit (School Use) | R2-1 | 7B.05 | 24 x 30 | — | 36 x 48 |
| Begin Higher Fines Zone | R2-10 | 7B.06 | 24 x 30 | — | 36 x 48 |
| End Higher Fines Zone | R2-11 | 7B.06 | 24 x 30 | — | 36 x 48 |

| Plaque | Sign Designation | Section | Conventional Road | Minimum | Oversized |
|---|------------------|--------------|-------------------|---------|-----------|
| Time of Day X:XX to X:XX AM X:XX to X:XX PM | S4-1P | 7B.06 | 24 x 12 | — | 36 x 18 |
| When Children Are Present | S4-2P | 7B.06 | 24 x 12 | — | 36 x 18 |
| School | S4-3P | 7B.02, 7B.05 | 24 x 9 | — | 36 x 12 |
| When Flashing | S4-4P | 7B.05, 7B.06 | 24 x 12 | — | 36 x 18 |
| Days of Week Mon-Fri | S4-6P | 7B.05 | 24 x 12 | — | 36 x 18 |
| All Year | S4-7P | 7B.02 | 24 x 12 | — | 30 x 18 |
| Fines Higher | R2-6P | 7B.06 | 24 x 18 | — | 36 x 24 |
| Fines Double | R2-6aP | 7B.06 | 24 x 18 | — | 36 x 24 |
| \$XX Fine | R2-6bP | 7B.06 | 24 x 18 | — | 36 x 24 |
| XX Feet (2-line) | W16-2P | 7B.02, 7B.03 | 24 x 18 | — | 30 x 24 |
| XX Ft (1-line) | W16-2aP | 7B.02, 7B.03 | 24 x 12 | — | 30 x 18 |
| Directional Arrow | W16-5P | 7B.02, 7B.03 | 21 x 15 | — | 30 x 21 |
| Advance Turn Arrow | W16-6P | 7B.02, 7B.03 | 21 x 15 | — | 30 x 21 |
| Downward Diagonal Arrow | W16-7P | 7B.02, 7B.03 | 21 x 15 | — | 30 x 21 |
| Ahead | W16-9P | 7B.02, 7B.03 | 24 x 12 | — | 30 x 18 |

- Notes: 1. Larger sizes may be used when appropriate
 2. Dimensions are shown in inches and are shown as width x height
 3. Minimum sign sizes for multi-lane conventional roads shall be as shown in the Conventional Road column

Option:

- 04 Signs and plaques larger than those shown in Table 7B-1 may be used (see Section 2A.07).

Standard:

- 05 **School warning signs, including the “SCHOOL” portion of the School Speed Limit (S5-1) sign and including any supplemental plaques used in association with these warning signs, shall have a fluorescent yellow-green background with a black legend and border unless otherwise provided in this Manual for a specific sign.**
- 06 **The signs used for school area traffic control shall be retroreflective or illuminated.**

Support:

- 07 Sections 2A.13 and 2A.14 contain provisions regarding the installation, placement, and location of signs.
- 08 Section 2A.15 contains provisions regarding the mounting heights of signs.
- 09 Section 2A.16 contains provisions regarding the lateral offsets of signs.
- 10 The “Standard Highway Signs” publication (see Section 1A.05) contains information regarding sign lettering.

Option:

- 11 In-roadway signs for school traffic control areas may be used consistent with the requirements of Sections 2B.20 and 7B.03.

Section 7B.02 School Area Signs and Plaques

Support:

- 01 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.
- 02 The School (S1-1) sign (see Figure 7B-1) has the following four applications:
- A. School Area – the S1-1 sign can be used to warn road users that they are approaching a school area that might include school buildings or grounds, a school crossing, or school related activity adjacent to the highway.
 - B. School Zone – the S1-1 sign can be used to identify the location of the beginning of a designated school zone.
 - C. School Advance Crossing – if combined with an AHEAD (W16-9P) plaque or an XX FEET (W16-2P or W16-2aP) plaque to comprise the School Advance Crossing assembly (see Figure 7B-1), the S1-1 sign can be used to warn road users that they are approaching a crossing where schoolchildren cross the roadway (see Section 7B.03).
 - D. School Crossing – if combined with a diagonal downward-pointing arrow (W16-7P) plaque to comprise the School Crossing assembly (see Figure 7B-1), the S1-1 sign can be used to warn approaching road users of the location of a crossing where schoolchildren cross the roadway (see Section 7B.03).

Option:

- 03 If a school area or school zone is located on a cross street in close proximity to the intersection, 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 the street or highway to warn road users making a turn onto the cross street that they will encounter a school area soon after making the turn.

Standard:

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

Option:

- 05 A School Zone (S1-1) sign may be supplemented with a SCHOOL (S4-3P) plaque (see Figure 7B-1).
- 06 A School Zone (S1-1) sign may be supplemented with an ALL YEAR (S4-7P) plaque (see Figure 7B-1) if the school operates on a 12-month schedule.
- 07 The downstream end of a designated school zone may be identified with an END SCHOOL ZONE (S5-2) sign (see Figures 7B-1 and 7B-2).

Figure 7B-1. Signs in School Areas and at School Crossings (Sheet 1 of 2)

A – School area signs

| | | | | |
|--|---|---|--|--|
| <p>School Advance Crossing Assembly</p> <p>S1-1</p> <p>W16-9P</p> <p>OR</p> <p>W16-2aP</p> <p>OR</p> <p>W16-2P</p> <p>OR</p> <p>W16-5P (optional)</p> <p>OR</p> <p>W16-6P (optional)</p> | <p>School Crossing Assembly</p> <p>S1-1</p> <p>W16-7P</p> | <p>School Zone Sign</p> <p>S1-1</p> <p>S4-7P (optional)</p> <p>S4-3P (optional)</p> <p>OR</p> <p>W16-5P (optional)</p> <p>OR</p> <p>W16-6P (optional)</p> | <p>School Speed Limit Assembly</p> <p>S4-3P</p> <p>OR</p> <p>R2-1</p> <p>S4-1P</p> <p>OR</p> <p>S4-2P</p> <p>OR</p> <p>S4-4P</p> <p>OR</p> <p>S4-1P</p> <p>S4-6P</p> | <p>School Speed Limit When Flashing Sign</p> <p>S5-1</p> <p>R2-6P (optional)</p> <p>OR</p> <p>R2-6aP (optional)</p> <p>OR</p> <p>R2-6bP (optional)</p> |
|--|---|---|--|--|

* If used, the assembly or sign with WHEN FLASHING legend shall be accompanied by a flashing yellow Speed Limit Sign Beacon (see Section 4S.04).

| | | | |
|-------------|-------------|--------------|--------------|
| <p>S3-1</p> | <p>S3-2</p> | <p>S4-5</p> | <p>S4-5a</p> |
| <p>S5-2</p> | <p>S5-3</p> | <p>R2-10</p> | <p>R2-11</p> |

Figure 7B-1. Signs in School Areas and at School Crossings (Sheet 2 of 2)

B – Signs in advance of the school crossing



R1-5a



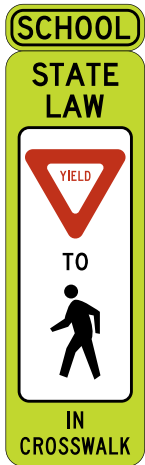
R1-5c

In-Street Use



W16-9P*

C – In-street signs at the school crossing



R1-6

S4-3P*



R1-6a

S4-3P*

OR

OR



R1-6b

OR



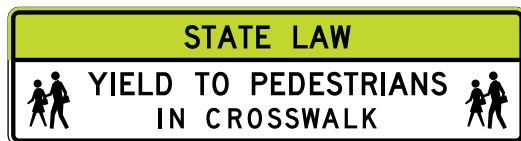
R1-6c

OR



W16-7P*

D – Overhead signs at the school crossing



R1-9b (shown reduced 50% proportional to other signs on page)



R1-9c (shown reduced 50% proportional to other signs on page)

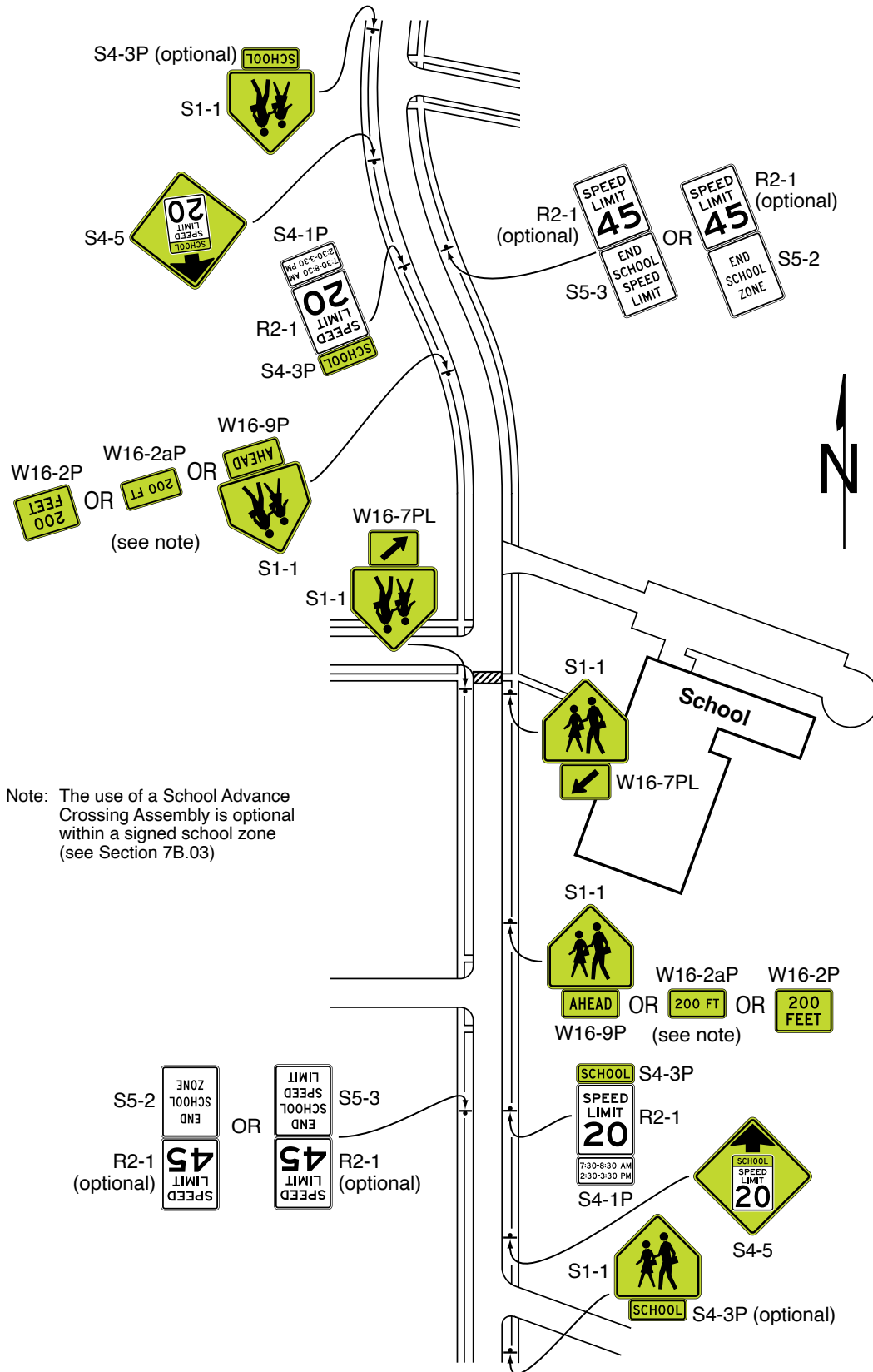
Notes:

1. The use of the STATE LAW legend is optional on the R1-6 series and R1-9 series signs (see Section 7B.03).
2. The use of the SCHOOL plaque above the R1-6 and R1-6a signs is optional.
3. Signs are shown in proportion to their designated sizes unless otherwise noted.

*Reduced size signs for in-street use (see Section 7B.03):

| | |
|--------|----------------|
| S1-1 | 12 x 12 inches |
| S4-3P | 12 x 4 inches |
| W16-7P | 12 x 6 inches |
| W16-9P | 12 x 6 inches |

Figure 7B-2. Example of Signing for a School Zone with a School Speed Limit and a School Crossing



Section 7B.03 School Crossing Signs

Standard:

- 01 **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 FEET (W16-2P or W16-2aP) plaque.**
- 02 **Except as provided in Paragraph 3 of this Section, a School Advance Crossing assembly shall be used in advance (see Table 2C-3 for advance placement guidelines) of the first School Crossing assembly that is encountered in each direction as traffic approaches a school crosswalk (see Figure 7B-3).**

Option:

- 03 The School Advance Crossing assembly may be omitted (see Figure 7B-2) where a School Zone (S1-1) sign (see Section 7B.02) is installed to identify the beginning of a school zone in advance of the School Crossing assembly.
- 04 If a school crosswalk is located on a cross street in close proximity to an intersection, a School Advance Crossing assembly with a supplemental arrow (W16-5P or W16-6P) plaque may be installed on each approach of the street or highway to warn road users making a turn onto the cross street that they will encounter a school crosswalk soon after making the turn (see Figure 7B-3).
- 05 A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-1), installed in compliance with the mounting height and special mounting support requirements for an In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.20), may be used in advance of a school crossing to supplement the post-mounted school warning signs. A 12 x 6-inch reduced size AHEAD (W16-9P) plaque (see Figure 7B-1) may be mounted below the reduced size in-street School (S1-1) sign.

Standard:

- 06 **If used, the School Crossing assembly (see Figure 7B-1) shall be installed at the school crossing (see Figures 7B-2 and 7B-3), or as close to it as possible, and shall consist of a School (S1-1) sign supplemented with a diagonal downward-pointing arrow (W16-7P) plaque (see Section 2C.63) to show the location of the crossing.**
- 07 **The School Crossing assembly shall not be used at crossings other than those adjacent to schools and those on established school pedestrian routes.**
- 08 **The School Crossing assembly shall not be installed on an approach controlled by a STOP or a YIELD sign except as provided in Paragraphs 9 and 10 of this Section.**

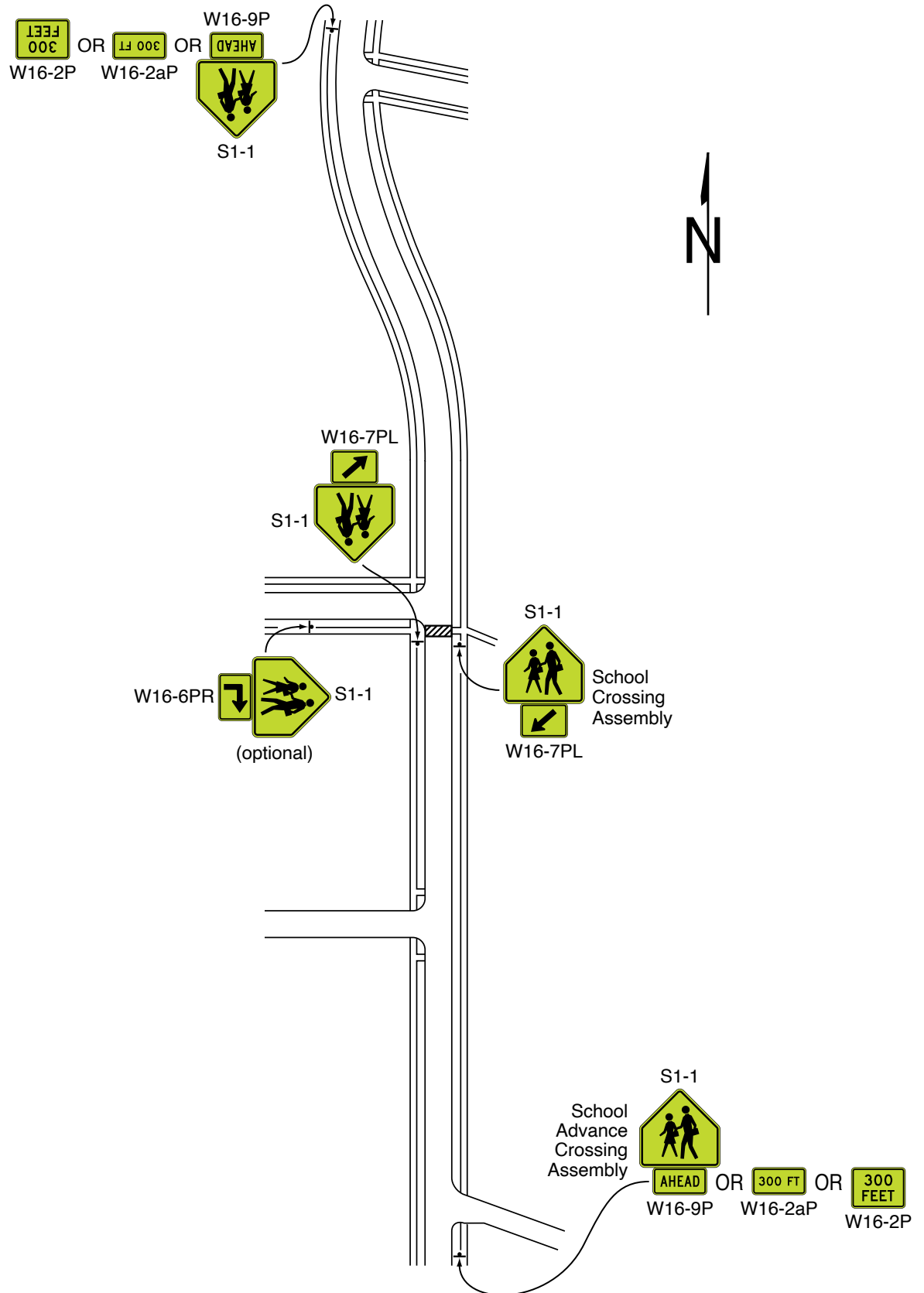
Option:

- 09 The School Crossing assembly may be installed on an approach to a circular intersection controlled by a YIELD sign where the crosswalk is at least 20 feet in advance of the yield point at the entrance to a circulatory roadway.
- 10 At a signalized or stop-controlled intersection the School Crossing assembly may be installed on an approach to a channelized right turn lane controlled by a YIELD sign where the crosswalk is at least 20 feet in advance of the yield point.
- 11 A Yield Here To (Stop Here For) School Crossing (R1-5a or R1-5c) sign (see Figure 7B-4) may be used, in accordance with the provisions of Section 2B.19, in advance of a marked crosswalk that crosses an uncontrolled multi-lane approach within school zones.
- 12 The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.20 and Figure 7B-1) or the In-Street School Crossing (R1-6b or R1-6c) sign (see Figure 7B-1) may be used at school crossings on approaches that are not controlled by a traffic control signal, a pedestrian hybrid beacon, or emergency-vehicle hybrid beacon. If used at a school crossing, a 12 x 4-inch SCHOOL (S4-3P) plaque (see Figure 7B-1) may be mounted above the sign. The STATE LAW legend on the R1-6 series signs may be omitted.
- 13 The In-Street Pedestrian Crossing (R1-6 or R1-6a) sign or In-Street School Crossing (R1-6b or R1-6c) sign may be used at intersections or midblock crossings with flashing beacons.
- 14 The Overhead School Crossing (R1-9b or R1-9c) sign (see Figure 7B-1) may be used at school crossings on approaches that are not controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon. The STATE LAW legend on the R1-9 series signs may be omitted.

Standard:

- 15 **When used at an uncontrolled crossing, the In-Street or Overhead Pedestrian Crossing sign shall be used only as a supplement to a School Crossing assembly with a diagonal downward-pointing arrow (W16-7P) plaque at the crosswalk location.**

Figure 7B-3. Example of Signing for a School Crossing Outside of a School Zone



Option:

- 16 A 12-inch reduced size in-street School (S1-1) sign (see Figure 7B-1) may be used instead of the In-Street Pedestrian Crossing (R1-6 or R1-6a) or the In-Street School Crossing (R1-6b or R1-6c) sign at a school crossing on approaches that are not controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon. A 12 x 6-inch reduced size diagonal downward-pointing arrow (W16-7P) plaque (see Figure 7B-1) may be mounted below the reduced size in-street School (S1-1) sign.

Standard:

- 17 **If an In-Street Pedestrian Crossing sign, an In-Street School Crossing sign, or a reduced size in-street School (S1-1) sign is placed in the roadway, the sign support shall comply with the mounting height and special mounting support requirements for an In-Street Pedestrian Crossing (R1-6 or R1-6a) sign (see Section 2B.20).**
- 18 **The In-Street Pedestrian Crossing sign, the In-Street School Crossing sign, the Overhead Pedestrian Crossing sign, and the reduced size in-street School (S1-1) sign shall not be used on approaches that are controlled by a traffic control signal, pedestrian hybrid beacon, or an emergency-vehicle hybrid beacon.**

Section 7B.04 School Bus Stop Signs*Guidance:*

- 01 *The School Bus Stop Ahead (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 an adequate distance and where there is no opportunity to relocate the school bus stop to provide adequate sight distance.*

Option:

- 02 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-3, and where there is no opportunity to relocate the school bus turn around to provide the distance provided in Table 2C-3.

Section 7B.05 School Speed Limit Signs and Plaques**Standard:**

- 01 **A School Speed Limit assembly (see Figure 7B-1) or a School Speed Limit When Flashing (S5-1) sign (see Figure 7B-1) shall be used to indicate the speed limit where a reduced school speed limit zone has been established based upon an engineering study or where a reduced school speed limit is specified for such areas by statute. The School Speed Limit assembly or School Speed Limit When Flashing sign shall be placed at or as near as practicable to the point where the reduced school speed limit zone begins (see Figures 7B-2 and 7B-4).**
- 02 **If a reduced school speed limit zone has been established, a School (S1-1) sign shall be installed in advance (see Table 2C-3 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 school speed limit zone (see Figures 7B-2 and 7B-4).**
- 03 **Except as provided in Paragraph 4 of this Section, the downstream end of an authorized and posted reduced school speed limit zone shall be identified with an END SCHOOL SPEED LIMIT (S5-3) sign (see Figures 7B-1, 7B-2, and 7B-4).**

Option:

- 04 If a reduced school speed limit zone ends at the same point as a designated school zone (see Section 7B.02), an END SCHOOL ZONE (S5-2) sign may be used instead of an END SCHOOL SPEED LIMIT (S5-3) sign. A standard Speed Limit sign showing the speed limit for the section of highway that is downstream from the authorized and posted reduced school speed limit zone may be mounted on the same post above the END SCHOOL SPEED LIMIT (S5-3) sign or the END SCHOOL ZONE (S5-2) sign.

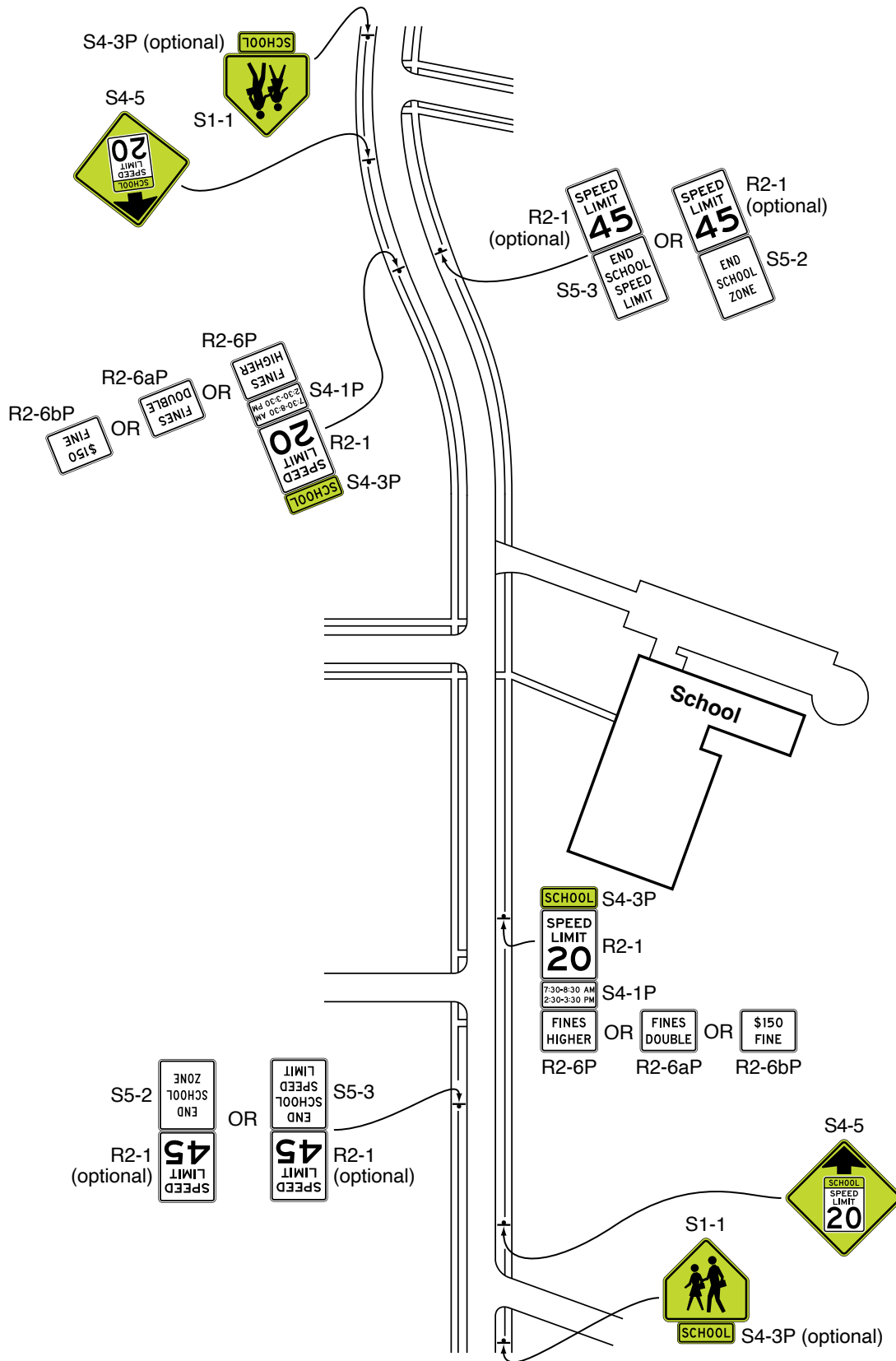
Guidance:

- 05 *The beginning point of a reduced school speed limit zone should be at least 200 feet in advance of the school grounds or a school crossing; however, this 200-foot distance should be increased if the reduced school speed limit is 30 mph or higher. The maximum beginning point of a reduced school speed limit zone should not be greater than 500 feet in advance of the school grounds or a school crossing.*

Standard:

- 06 **The School Speed Limit assembly shall be either a static sign assembly, a blank-out sign, or a changeable message sign (see Chapter 2L).**

Figure 7B-4. Example of Signing for a School Zone with a School Speed Limit and Higher Fines Only for Speeding



07 **The static 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).**

08 **When a School Speed Limit When Flashing (S5-1) sign or a Speed Limit (R2-1) sign with a supplemental WHEN FLASHING (S4-4P) plaque is used, a Speed Limit Sign Beacon (see Section 4S.04) shall be used to identify the periods that the school speed limit is in effect.**

09 **Fluorescent yellow-green pixels shall be used when the “SCHOOL” message is displayed on a changeable message sign for a school speed limit.**

Option:

10 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.

11 A Vehicle Speed Feedback (W13-20aP) plaque that displays the speed of approaching drivers (see Sections 2B.21 and 2C.13), that is part of a School Speed Limit assembly or a School Speed Limit When Flashing (S5-1) sign, may be used in a school speed limit zone.

Guidance:

12 *If used, the Vehicle Speed Feedback (W13-20aP) plaque should only be used during the time period when the school speed limit is in effect.*

13 *A Reduced School Speed Limit Ahead (S4-5or S4-5a) sign (see Figure 7B-1) should be used to inform road users of a reduced speed zone where the speed limit is being reduced by more than 10 mph, or where engineering judgment indicates that advance notice would be appropriate.*

Standard:

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

15 **The speed limit displayed on the Reduced School 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.06 Higher Fines Zone Signs and Plaques in School Areas

Support:

01 The signs and plaques used to inform road users of higher fines zones and their locations depend on whether the fines apply to all traffic violations or only to speeding violations. Their locations also depend on whether the higher fines zone begins and/or ends at the same point as the school zone or school speed limit zone. Figures 7B-4 and 7B-5 show examples of higher fines zones signing.

Standard:

02 **Where increased fines are imposed for traffic violations within a designated school zone:**

A. **A BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 7B-1) or a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque (see Figure 7B-1) shall be installed as a supplement to the School Zone (S1-1) sign to identify the beginning point of the higher fines zone (see Figures 7B-4 and 7B-5); and**

B. **An END HIGHER FINES ZONE (R2-11) sign (see Figure 7B-1) or an END SCHOOL ZONE (S5-2) sign (see Figure 7B-1) shall be installed at the downstream end of the zone to notify road users of the termination of the increased fines zone (see Figure 7B-5).**

03 **If exceeding the speed limit is the only traffic violation that is subject to higher fines, a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque shall be posted with the School Speed Limit (S5-1) sign and shall not be posted beneath the School Zone (S1-1) sign (see Section 7B.05).**

04 **If the portion of the roadway that is subject to higher fines does not begin at the location of the School Zone (S1-1) sign, a BEGIN HIGHER FINES ZONE (R2-10) sign shall be placed at the point where the higher fines begin (see Sheet 2 of Figure 7B-5).**

Option:

05 If a BEGIN HIGHER FINES ZONE (R2-10) sign is used downstream of the School Zone (S1-1) sign, a FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque may also be placed beneath the School Zone (S1-1) sign.

06 Where appropriate, one of the following plaques may be mounted below the sign that identifies the beginning point of the higher fines zone:

A. A S4-1P plaque (see Figure 7B-1) specifying the times that the higher fines are in effect,

B. A WHEN CHILDREN ARE PRESENT (S4-2P) plaque (see Figure 7B-1), or

C. A WHEN FLASHING (S4-4P) plaque (see Figure 7B-1) if used in conjunction with a yellow flashing beacon.

Figure 7B-5. Example of Signing for a School Zone with Higher Fines for All Traffic Violations (Sheet 1 of 2)

A – Higher fines zone begins at the beginning of the school zone

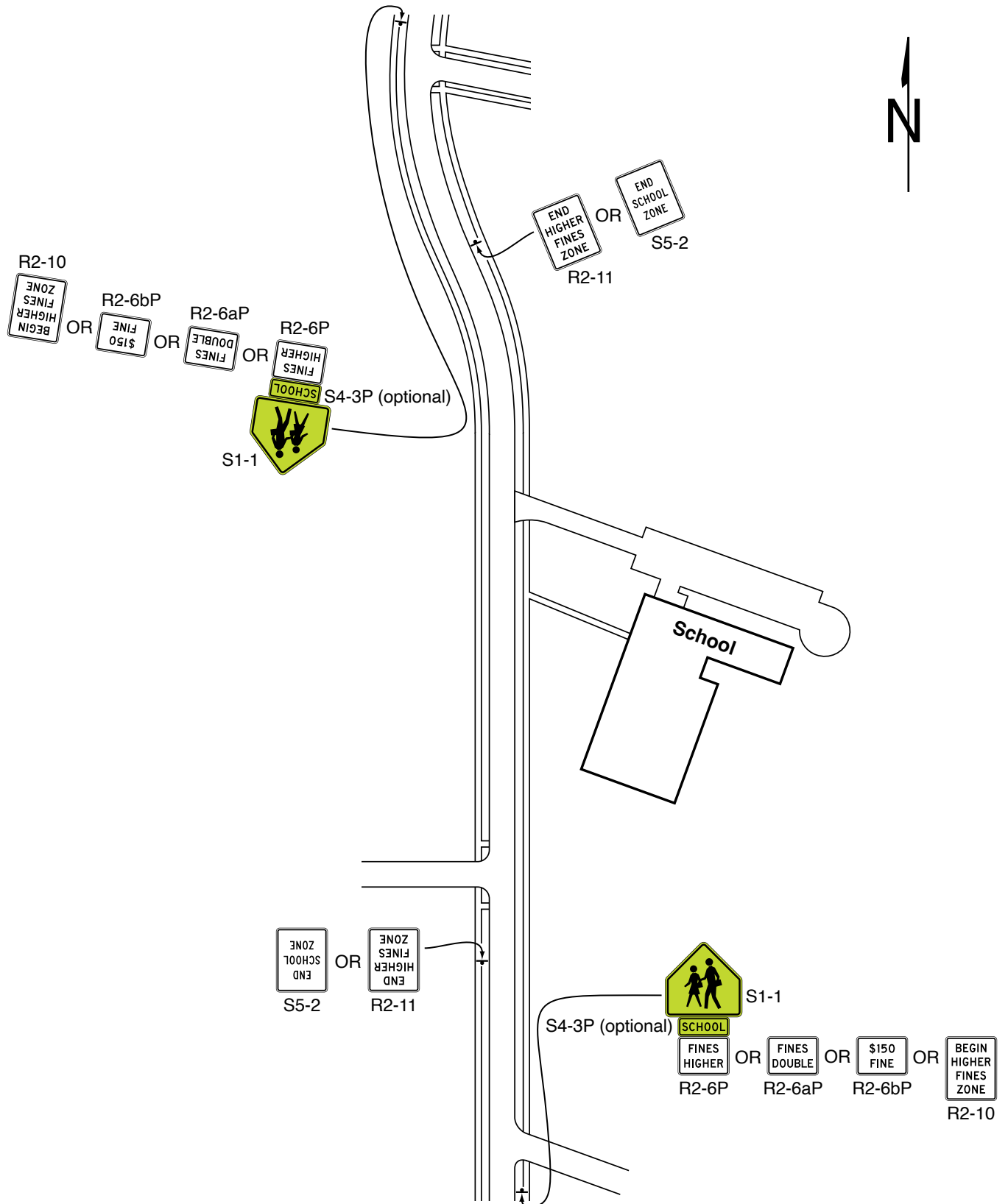
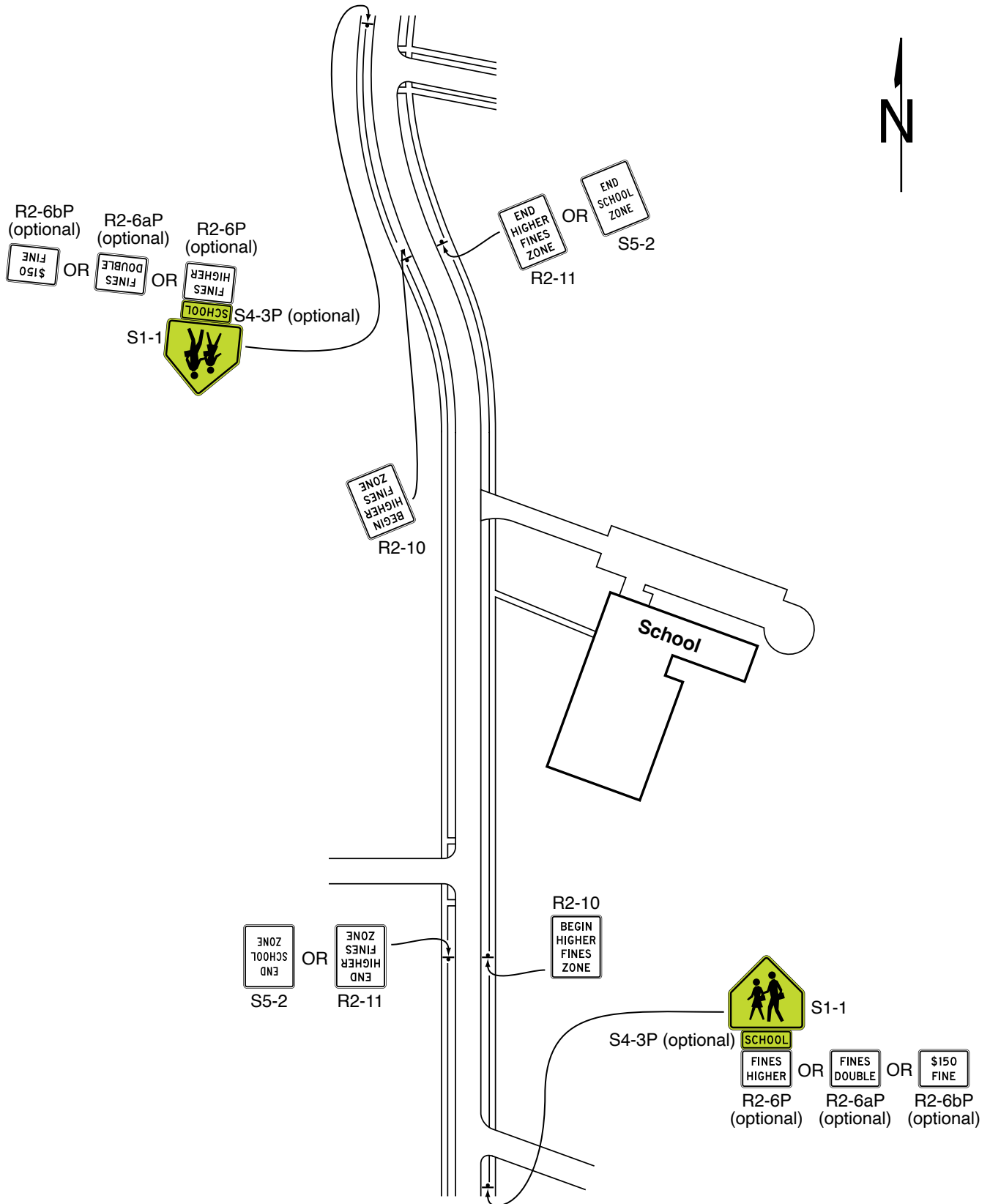


Figure 7B-5. Example of Signing for a School Zone with Higher Fines for All Traffic Violations (Sheet 2 of 2)

B – Higher fines zone begins after the beginning of the school zone



Guidance:

- 07 *If other traffic violations in addition to exceeding the speed limit are subject to higher fines, then the duplicate FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), or \$XX FINE (R2-6bP) plaque should be omitted from the School Speed Limit When Flashing (S5-1) sign (see Section 7B.05).*

Option:

- 08 If a higher fines zone ends at the same point as a reduced school speed limit zone, an END SCHOOL ZONE (S5-2) sign may be used instead of a combination of an END HIGHER FINES ZONE (R2-11) sign and an END SCHOOL SPEED LIMIT (S5-3) sign (see Figure 7B-5).
- 09 Where the higher fines zone is established by statute, the BEGIN HIGHER FINES ZONE (R2-10) sign, FINES HIGHER (R2-6P), FINES DOUBLE (R2-6aP), and \$XX FINE (R2-6bP) plaques may be omitted.

Section 7B.07 Parking and Stopping (R7 and R8 Series) Signs

Option:

- 01 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:

- 02 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
 - D. NO STANDING X:XX AM to X:XX PM SCHOOL DAYS ONLY.
- 03 Sections 2B.53 through 2B.55 contain information regarding the signing of parking regulations in school zone areas.

CHAPTER 7C. MARKINGS

Section 7C.01 Crosswalk Markings

Guidance:

- 01 *Crosswalks should be marked at all intersections on established routes to a school where there is substantial conflict between motorists, bicyclists, and student movements; where students are encouraged to cross between intersections; where students would not otherwise recognize the proper place to cross; or where motorists or bicyclists might not expect students to cross (see Figure 7A-1).*
- 02 *An engineering study considering the factors described in Section 3C.02 should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign.*
- 03 *Because non-intersection school crossings are generally unexpected by the road user, warning signs (see Section 7B.03) should be installed for all marked school crosswalks at non-intersection locations. Adequate visibility of students by approaching motorists and of approaching motorists by students should be provided by parking prohibitions or other appropriate measures.*

Support:

- 04 Section 3C.03 contains provisions regarding the placement and design of crosswalks, and Section 3B.19 contains provisions regarding the placement and design of the stop lines and yield lines that are associated with them. Provisions regarding the curb markings that can be used to establish parking regulations on the approaches to crosswalks are contained in Section 3B.18.

Section 7C.02 Pavement Word, Symbol, and Arrow Markings

Option:

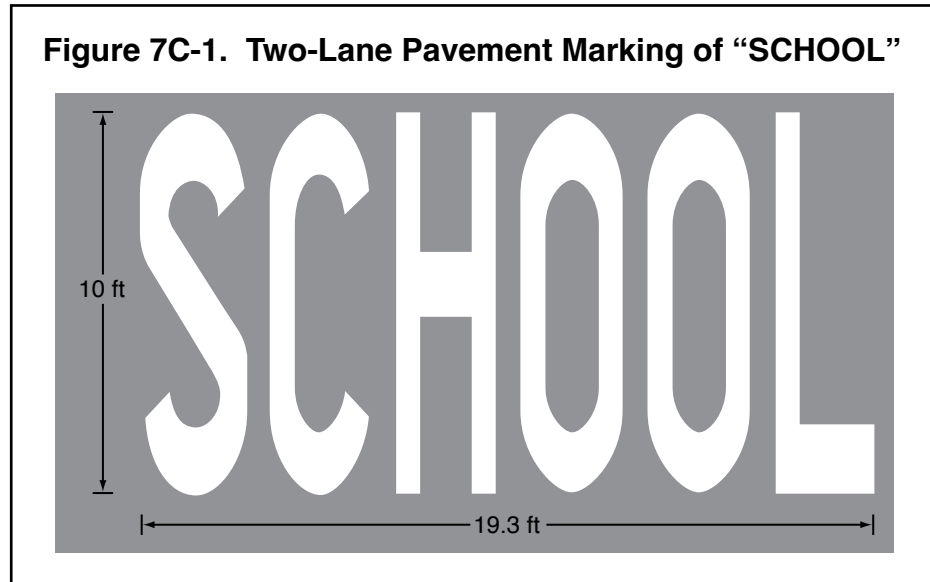
- 01 If used, the SCHOOL word marking may extend to the width of two approach lanes (see Figure 7C-1).

Guidance:

- 02 *If the two-lane SCHOOL word marking is used, the letters should be 10 feet or more in height.*

Support:

- 03 Section 3B.20 contains provisions regarding other word, symbol, and arrow pavement markings that can be used to guide, warn, or regulate traffic.



CHAPTER 7D. CROSSING SUPERVISION

Section 7D.01 Adult Crossing Guards

Option:

- 01 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, and where authorized by law.

Support:

- 02 Adult crossing guards can also add conspicuity at the crossing where children, who are typically smaller in stature, might not be as visible.
- 03 High standards for selection of adult crossing guards are essential because they are responsible for the safety of and the efficient crossing of the street by schoolchildren within and in the immediate vicinity of school crosswalks.

Guidance:

- 04 *Jurisdictions should have policies and procedures for the qualifications, selection, and training of adult crossing guards.*

Section 7D.02 Operating Procedures for Adult Crossing Guards

Standard:

- 01 **Law enforcement officers performing school crossing supervision and adult crossing guards shall wear high-visibility retroreflective safety apparel labeled as ANSI 107-2020 standard performance for Class 2, Type R, as described in Section 6C.05.**
- 02 **Adult crossing guards shall not direct traffic in the usual law enforcement regulatory sense. In the control of traffic, they shall pick opportune times to create a sufficient gap in the traffic flow. At these times, they shall stand in the roadway to indicate that pedestrians are about to use or are using the crosswalk, and that all vehicular traffic must stop.**
- 03 **Adult crossing guards shall use a STOP paddle. The STOP paddle shall be the primary hand-signaling device.**
- 04 **The STOP paddle shall comply with the provisions for a STOP/SLOW paddle (see Section 6D.02) except both sides shall be a STOP face.**
- 05 **The paddle shall be retroreflective or illuminated when used during hours of darkness.**

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