

**Brief Summary of Actions taken by the CA Traffic Control Devices Committee (CTCDC)
during the May 14, 2014 Meeting**

14-10 Amendments to various Sections/Figures of Part 7 School Zones of the CA MUTCD 2012 based on Public Comments

Action: The Committee recommended adoption of the amended Section 7A.03 School Crossing Control Criteria as shown strikethrough of “2 the” below:

Section 7A.03 School Crossing Control Criteria

Support:

01 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.

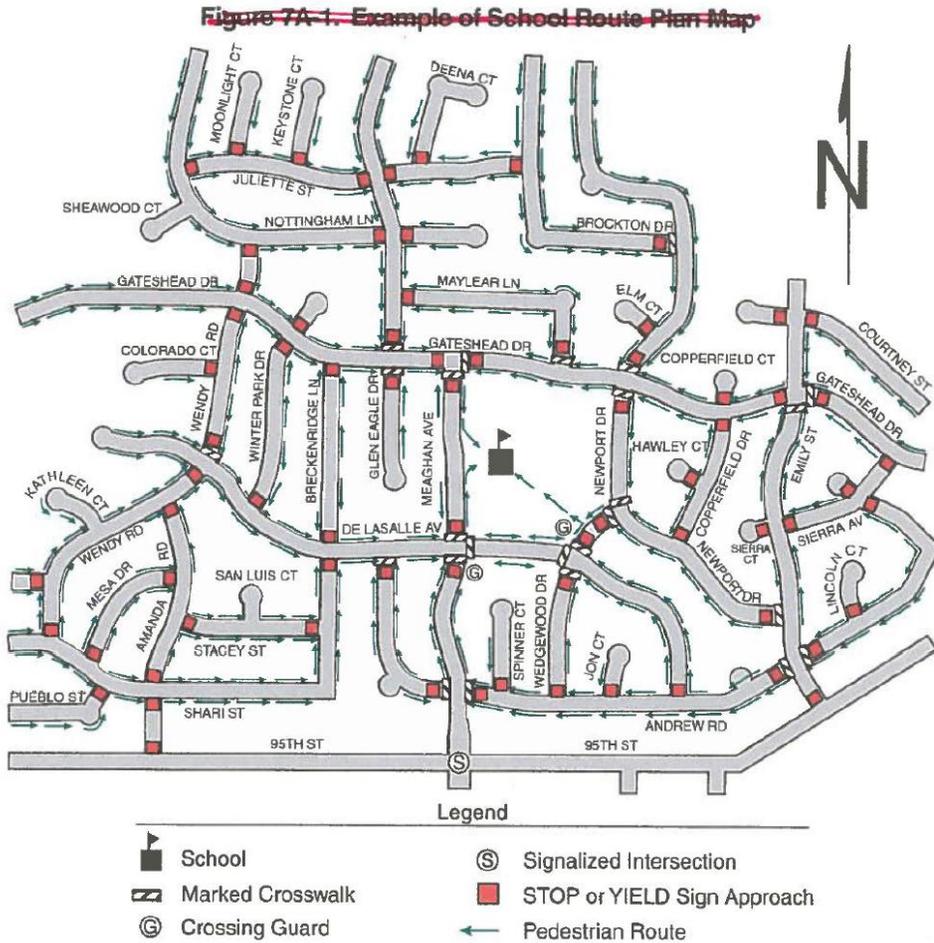
02 A recommended method for determining the frequency and adequacy of gaps in the traffic stream is given in the “Traffic Control Devices Handbook” (see Section 1A.11).

03 Properly conducted engineering and traffic studies will determine the appropriate measures to be developed at school crossings. The devices and treatments described herein are for ~~the~~ use in school zones and do not preclude ~~the~~ use of other devices and treatments described elsewhere in this document. Types of school pedestrian measures that can be considered can include:

- A. Warning signs and markings.
- B. School speed limits.
- C. Intersection stop signs.
- D. Flashing yellow beacons.
- E. Traffic signals.
- F. Pedestrian Hybrid Beacons.
- G. Remove visibility obstructions.
- H. School Safety Patrol.
- I. Adult Crossing Guard.
- J. Pedestrian separation structures.
- K. Pedestrian walkways along the roadway.
- L. Pedestrian walkways separated from the roadway.
- M. Parking controls and curb-use zones.
- N. Bus transportation.

Action: The Federal Highway Administration opposed the recommended change to Table 7A-1, John Ciccarelli, CTCDC member supported the change. The Committee recommended NOT adopting of the amended Table as shown below:

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



Action: The Committee recommended adoption of the amended Section 7B.03 Position of Signs as shown below:

Section 7B.03 Position of Signs

Support:

01 Sections 2A.16 and 2A.17 contain provisions regarding the placements and locations of signs.

02 Section 2A.19 contains provisions regarding the lateral offsets of signs.

02a Examples of location of school area signs and California School Assemblies for typical installations are shown in Figures 7B-1(CA), 7B-4, 7B-5 and 7B-5(CA).

Action: The Committee recommended NOT adopting the amended Section 7B.08 as shown below:

Section 7B.08 School Advance Warning Assembly (S1-1 with Supplemental Plaque)

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.

Action: The Committee recommended adoption of the amended Section 7B.12 as shown below:

Section 7B.12 School Crossing Assembly

Standard:

⁰⁷ **If an In-Street Pedestrian Crossing sign, an In-Street Schoolchildren 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 In-Street Pedestrian Crossing (R1-6 ~~or R1-6a~~) signs (see Section 2B.12).**

⁰⁸ **The In-Street Pedestrian Crossing sign, the In-Street Schoolchildren Crossing sign, the Overhead Pedestrian Crossing sign, and the reduced size in-street School (S1-1) sign shall not be used at **signalized controlled** locations.**

Action: The Committee recommended adoption of the amended Section 7B.15 as shown below:

Section 7B.15 School Speed Limit Assembly (S4-1P, S4-2P, S4-3P, S4-4P, S4-6P, S5-1) and END SCHOOL SPEED LIMIT Sign (S5-3)

⁰⁴ ~~Except as provided in Paragraph 5, the~~ **The downstream end of an authorized and posted reduced school speed limit zone shall be identified with an END SCHOOL SPEED LIMIT (S5-3) or Speed Limit (R2-1) sign (see Figures 7B-1, 7B-1(CA) and 7B-5).**

Option:

⁰⁵ ~~If a reduced school speed limit zone ends at the same point as a higher fines 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.~~

⁰⁶ ~~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 or the Speed Limit (R2-1) sign may be posted by itself (see Figure 7B-5(CA) and 7B-102(CA)).~~

EXTENDED 25 MPH AND/OR REDUCED SPEEDS IN SCHOOL ZONES

Option:

²⁵ A local authority may declare a 20 or 15 mph prima facie speed limit within 500 feet of a school building or school grounds and an extended 25 mph prima facie speed limit within 500 to 1000 feet from a school or school grounds.

Support:

²⁶ The extended 25 mph school speed zone can provide a progressive speed reduction.

Standard:

²⁷ If the local authority declares by ordinance or resolution the above prima facie speed limits, all of the following criteria shall be met:

- A. Street (or highway) is in a residential district.
- B. Street (or highway) outside of a school zone has a posted speed limit no greater than 30 mph.
- C. Street (or highway) has no more than a total of two through traffic lanes (one in each direction or two in one direction).
- D. The reduced school zone speed limit of 20 or 15 mph is within 500 feet of school grounds.
- E. The extended school zone speed limit of 25 mph is within 500 to 1000 feet of school grounds.

²⁸ When used, a local ordinance or resolution adopted to establish a 20 or 15 mph reduced school zone speed limit and/or an extended 25 mph school zone speed limit shall not be effective until School Speed Limit Assembly C (CA) giving notice of the speed limit(s) is erected upon the highway.

²⁹ On a State highway, the ordinance or resolution shall not be effective until the ordinance or resolution has been approved by the Department of Transportation and appropriate school zone speed signs are erected upon the State highway.

³⁰ For purposes of a 20 or 15 mph reduced prima facie speed limit, School Speed Limit Assembly C (CA) indicating a speed limit of 20 or 15 mph shall be placed at a distance up to 500 feet away from school grounds. For purposes of an extended 25 mph prima facie speed limit, School Speed Limit Assembly C (CA) indicating a speed limit of 25 mph shall be placed at any distance between 500 to 1,000 feet away from school grounds. Refer to Figure 7B-103(CA).

³¹ The established school speed limits shall be effective when children are going to or leaving the school, either during school hours or during the noon recess hour. The school speed limits shall also apply when the school grounds are not separated from the highway by a fence, gate, or other physical barrier while the grounds are in use by children (this condition can apply at any time of day or any day of the week).

³² The determination to reduce a prima facie speed limit to 20 or 15 mph and/or extend a 25 mph school zone speed limit, as described above, shall be documented in writing, in an engineering study. The engineering study shall identify the provisions of Section 627 of the Vehicle Code that support the reduced and/or extended school zone speed limit(s).

Guidance:

³³ When preparing an engineering study pursuant to the Standard above, the local authority should cite all elements of an Engineering and Traffic Survey, as discussed in Section 627 of the Vehicle Code, that support the need for a reduced speed limit of 20 or 15 mph and/or an extended 25 mph school zone speed limit.

Support:

³⁴ The documentation of prevailing speeds found in CVC Section 627 can be used to establish an existing speed profile for the school zone, but the 85th percentile speed is not used to set the reduced or extended school speed limit.

Standard:

³⁵ The local authority shall reimburse the Department of Transportation for all costs incurred by the Department under this section.

Action: The Committee recommended adoption of the amended Section 7B.16 as shown below:

Section 7B.16 Reduced School Speed Limit Ahead Sign (S4-5, S4-5a)

Guidance:

⁰¹ A Reduced School Speed Limit Ahead (S4-5, S4-5a) sign (see Figure 7B-1 or 7B-1(CA)) 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 for the School Advance Warning Assembly D(CA).

Standard:

02 If used, the Reduced School Speed Limit Ahead sign shall be followed by a School Speed Limit sign or a School Speed Limit assembly **Assembly C(CA)**.

03 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 **Assembly C(CA)**.

EXTENDED 25 MPH AND/OR REDUCED SPEEDS IN SCHOOL ZONES

Option:-Guidance

04 For school area traffic control with a reduced school zone speed limit of 15 mph and/or an extended school zone speed limit of 25 mph in a residential district, the Reduced Speed School Zone Ahead (S4-5, S4-5a) sign **may** **should** be used to give advance notice of a reduced 15 mph school zone speed limit and/or an extended school zone speed limit of 25 mph.

Option:

05 For school area traffic control with a reduced school zone speed limit of 20 mph and/or an extended school zone speed limit of 25 mph in a residential district, the Reduced Speed School Zone Ahead (S4-5, S4-5a) sign **may** be used to give advance notice of a reduced 20 mph school zone speed limit and/or an extended school zone speed limit of 25 mph.

Figure 7B-5. Example of Signing for a School Zone with a School Speed Limit and a School Crossing

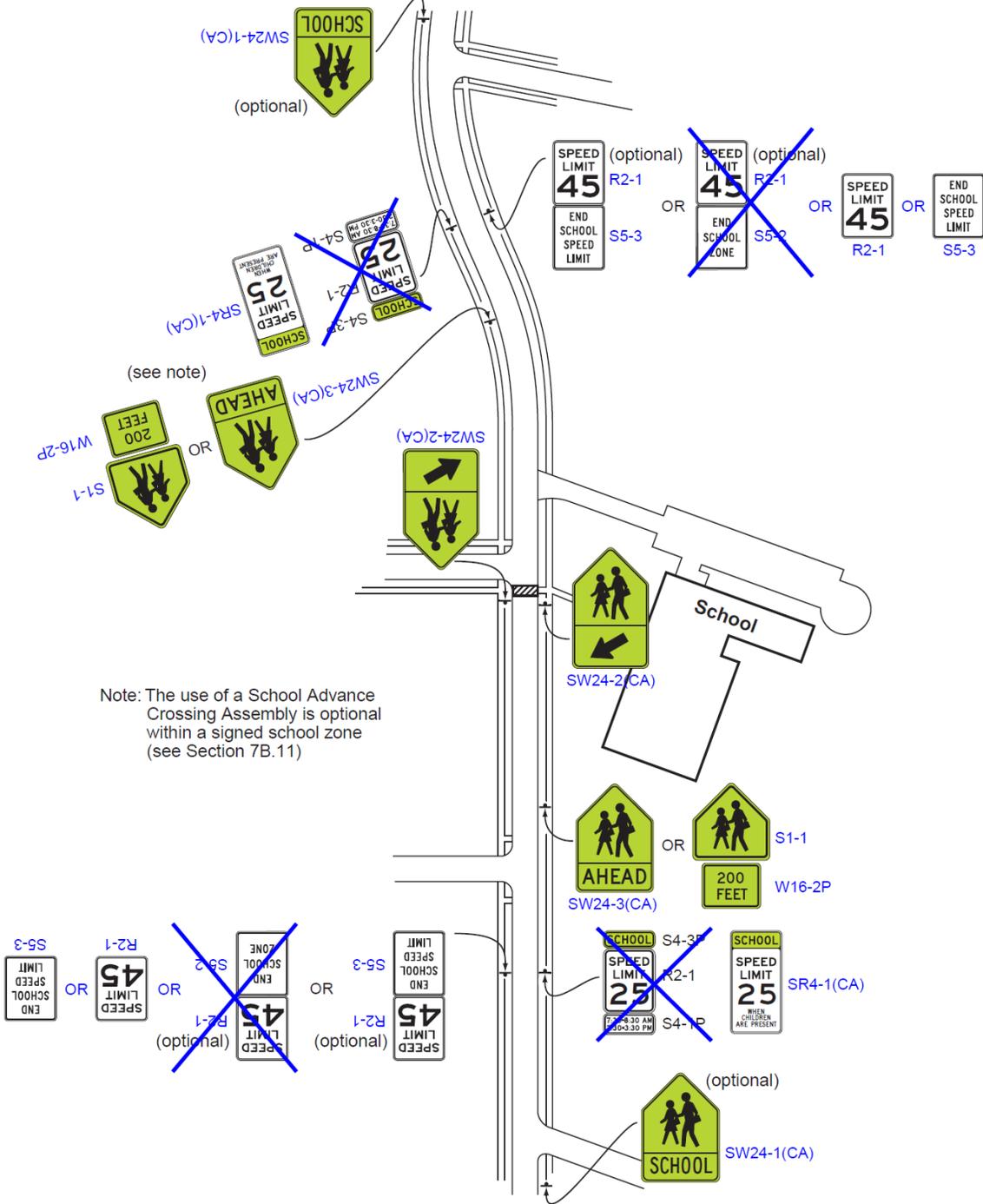


Figure 7B-5(CA). Example of Signing for a School Zone with a School Speed Limit and a School Crossing

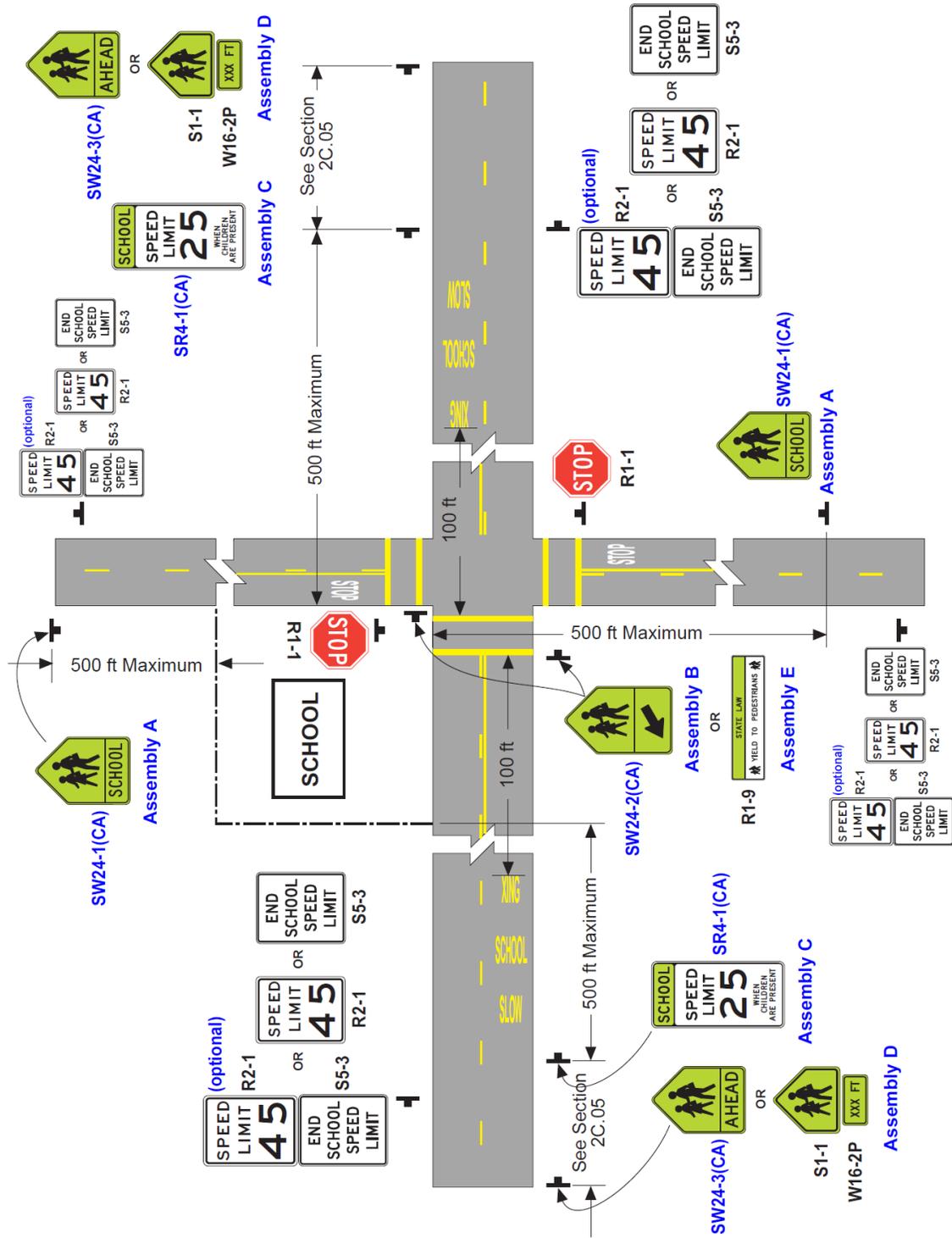


Figure 7B-102 (CA). Example of Signing for Traffic Control in School Areas with Flashing Yellow Beacons

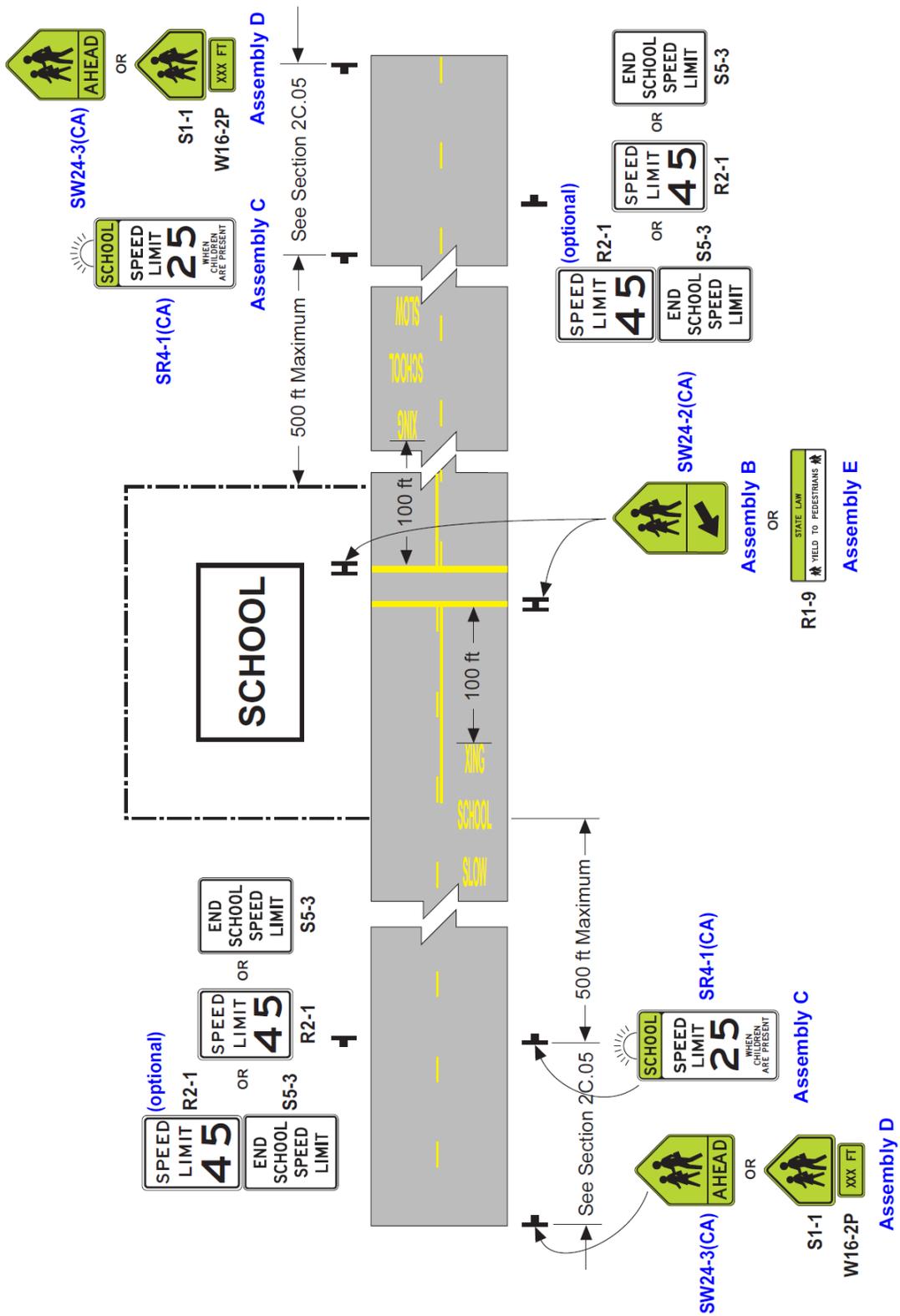
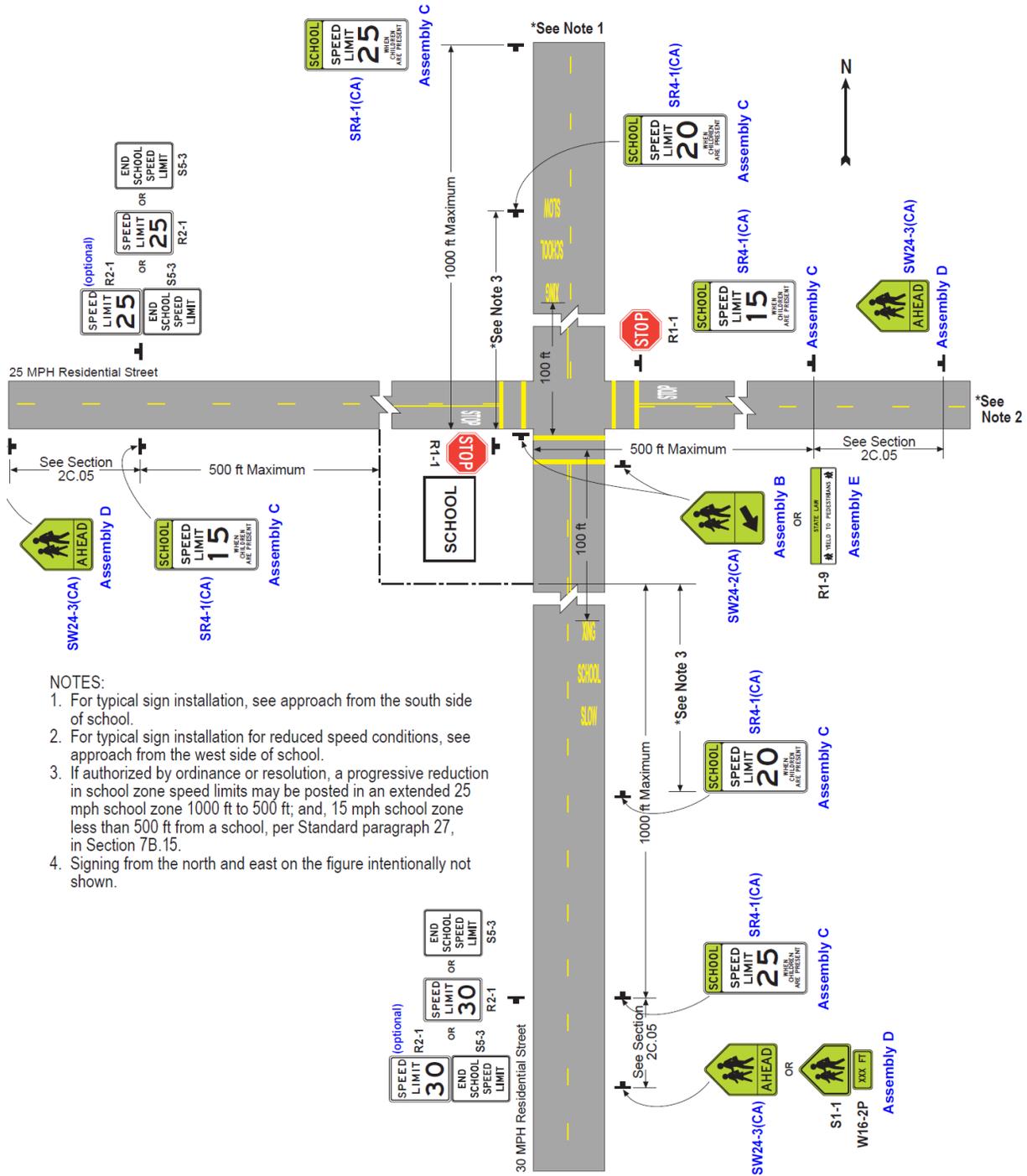


Figure 7B-103(CA). Example of Signing for School Area Traffic Control with Extended and/or Reduced School Zone Speed Limits



NOTES:

1. For typical sign installation, see approach from the south side of school.
2. For typical sign installation for reduced speed conditions, see approach from the west side of school.
3. If authorized by ordinance or resolution, a progressive reduction in school zone speed limits may be posted in an extended 25 mph school zone 1000 ft to 500 ft; and, 15 mph school zone less than 500 ft from a school, per Standard paragraph 27, in Section 7B.15.
4. Signing from the north and east on the figure intentionally not shown.

14-05 Adopt Interim Approval issued by the FHWA for Optional Use of a Bicycle Signal Face (1A-16) – Submitted by Caltrans

Action: CTCDC member John Ciccarelli requested the Committee to defer this item for a future meeting. Caltrans District 4 Bicycle Advisory Committee and John is working on a policy which will be a mixer of FHWA language and California language.

14-11 Amendments to various Sections/Figures of Part 9 Bicycle Facilities of the CA MUTCD 2012 based on Public Comments

Action: The Committee recommended adoption of the amended Section 9B.19 and Table 9B-1as shown below:

Section 9B.19 Other Bicycle Warning Signs

Option:

⁰¹ Other bicycle warning signs (see Figure 9B-3) such as PATH NARROWS (W5-4a) and Hill (W7-5) may be installed on shared-use paths to warn bicyclists of conditions not readily apparent.

⁰² In situations where there is a need to warn motorists to watch for bicyclists traveling along the highway, the SHARE THE ROAD (W16-1P) plaque (see Figure 9B-3) may be used in conjunction with the W11-1 sign.

^{02a} In situations where there is a need to warn motorists to watch for bicyclists traveling along the freeway, the NEXT XX MILES (W7-3aP) plaque (see Figures 2C-4 and 2C-12) may be used in conjunction with the W11-1 sign.

Table 9B-1. Bicycle Facility Sign and Plaque Minimum Sizes (Sheet 1 of 2)

Sign or Plaque	Sign Designation	Section	Shared-Use Path	Roadway
Stop	R1-1	2B.05, 9B.03	18 x 18	30 x 30
Yield	R1-2	2B.08, 9B.03	18 x 18 x 18	30 x 30 x 30
Bike Lane	R3-17	9B.04	--	24 x 18
Bike Lane (plaque)	R3-17aP, R3-17bP	9B.04	--	24 x 18
Movement Restriction	R4-1,2,3,7,16	2B.28,29,30,32; 9B.14	12 x 18	18 x 24
Begin Right Turn Lane Yield to Bikes	R4-4	9B.05	--	36 x 30
Bicycles May Use Full Lane	R4-11	9B.06	--	30 x 30
Bicycle Wrong Way	R5-1b	9B.07	12 x 18	12 x 18
No Motor Vehicles	R5-3	9B.08	24 x 24	24 x 24
No Bicycles	R5-6	9B.09	18 x 18	24 x 24
No Parking Bike Lane	R7-9,9a	9B.10	--	12 x 18
No Pedestrians	R9-3	9B.09	18 x 18	18 x 18
Ride With Traffic (plaque)	R9-3cP	9B.07	12 x 12	12 x 12
Bicycle Regulatory	R9-5,6	9B.11	12 x 18	12 x 18
Shared-Use Path Restriction	R9-7	9B.12	12 x 18	--
No Skaters	R9-13	9B.09	18 x 18	18 x 18
No Equestrians	R9-14	9B.09	18 x 18	18 x 18
Push Button for Green Light	R10-4	9B.11	9 x 12	9 x 12
To Request Green Wait on Symbol	R10-22	9B.13	12 x 18	12 x 18
Bike Push Button for Green Light	R10-24	9B.11	9 x 15	9 x 15
Push Button to Turn On Warning Lights	R10-25	9B.11	9 x 12	9 x 12
Bike Push Button for Green Light (arrow)	R10-26	9B.11	9 x 15	9 x 15
Grade Crossing (Crossbuck)	R15-1	8B.03, 9B.14	24 x 4.5	48 x 9
Number of Tracks (plaque)	R15-2P	8B.03, 9B.14	13.5 x 9	27 x 18
Look	R15-8	8B.17, 9B.14	18 x 9	36 x 18
Turn and Curve Warning	W1-1,2,3,4,5	2C.04, 9B.15	18 x 18	24 x 24
Arrow Warning	W1-6,7	2C.12, 2C47, 9B.15	24 x 12	36 x 18
Intersection Warning	W2-1,2,3,4,5	2C.46, 9B.16	18 x 18	24 x 24
Stop, Yield, Signal Ahead	W3-1,2,3	2C.36, 9B.19	18 x 18	30 x 30
Narrow Bridge	W5-2	2C.20, 9B.19	18 x 18	30 x 30
Path Narrows	W5-4a	9B.19	18 x 18	--
Next XX Miles (plaque)	W7-3aP	2C.55, 9B.19	18 x 12	24 x 18
Hill	W7-5	9B.19	18 x 18	30 x 30
Bump or Dip	W8-4,2	2C.28, 9B.17	18 x 18	24 x 24
Pavement Ends	W8-3	2C.30, 9B.17	18 x 18	30 x 30
Bicycle Surface Condition	W8-10	9B.17	18 x 18	30 x 30
Slippery When Wet (plaque)	W8-10P	9B.17	12 x 9	12 x 9
Grade Crossing Advance Warning	W10-1	8B.06, 9B.19	24 Dia.	36 Dia.
No Train Horn (plaque)	W10-9P	8B.21, 9B.19	18 x 12	30 x 24
Skewed Crossing	W10-12	8B.25, 9B.19	18 x 18	36 x 36
Bicycle Warning	W11-1	9B.18	18 x 18	24 x 24
Pedestrian Crossing	W11-2	2C.50, 9B.19	18 x 18	24 x 24
Combination Bike and Ped Crossing	W11-15	9B.18	18 x 18	30 x 30
Trail Crossing (plaque)	W11-15P	9B.18	18 x 12	24 x 18
Low Clearance	W12-2	2C.27, 9B.19	18 x 18	30 x 30
Playground	W15-1	2C.51, 9B.19	18 x 18	24 x 24

Action: The Committee recommended adoption of the amended heading for the Section 9B.23 as shown below:

Section 9B.23 Bicycle Parking Area Signs (D4-3) and G93C(CA)

Option:

⁰¹ The Bicycle Parking Area (D4-3) sign (see Figure 9B-4) or Bicycle Parking (G93C(CA)) sign (see Figure 9B-4(CA)) may be installed where it is desirable to show the direction to a designated bicycle parking area. The arrow may be reversed as appropriate.

^{01a} The Advance Turn Arrow or Directional Arrow auxiliary signs (see Section 2D.26 and 2D.28) may be used in combination with and below the G93C(CA) sign to show direction to a designated bicycle parking area.

Standard:

⁰² **The legend and border of the Bicycle Parking Area sign shall be green on a retroreflectORIZED white background.**

Action: The Committee recommended adoption of the amended Section 9C.04as shown below:

Section 9C.04 Markings For Bicycle Lanes

Bicycle Lane Markings on Class II Bikeways (Bike Lane) (CA MUTCD Page 1379)

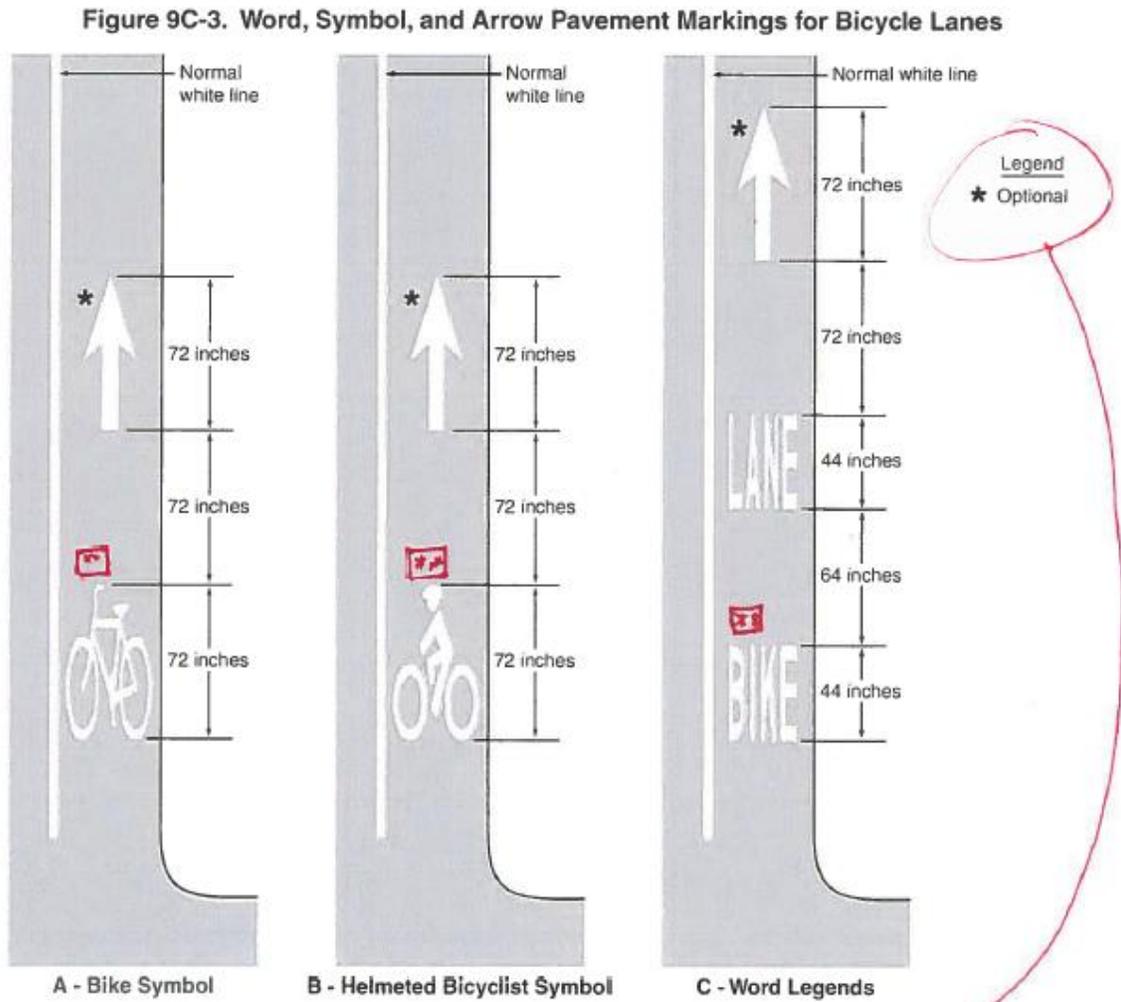
Guidance:

¹⁷ *Bicycle lane markings on Class II Bikeways (Bike Lane) should be placed a constant distance from the marked lane line or centerline, as appropriate. Bike lanes with parking permitted ~~(11 to 13 feet between the bike lane line and the curb)~~ should not be directed toward the curb at intersections or localized areas where parking is prohibited. Such a practice prevents bicyclists from following a straight course. Where transitions from one type of bike lane to another are necessary, smooth tapers should be provided.*

Standard: (CA MUTCD Page 1380)

³⁵ **The shoulder width shall not be reduced through the interchange area. The minimum shoulder width shall match the approach roadway shoulder width, but not less than 4 feet, or 5 with not less than 3 feet of pavement if a gutter exists. If the shoulder width is not available, the designated bike lane shall end at the previous local road intersection.**

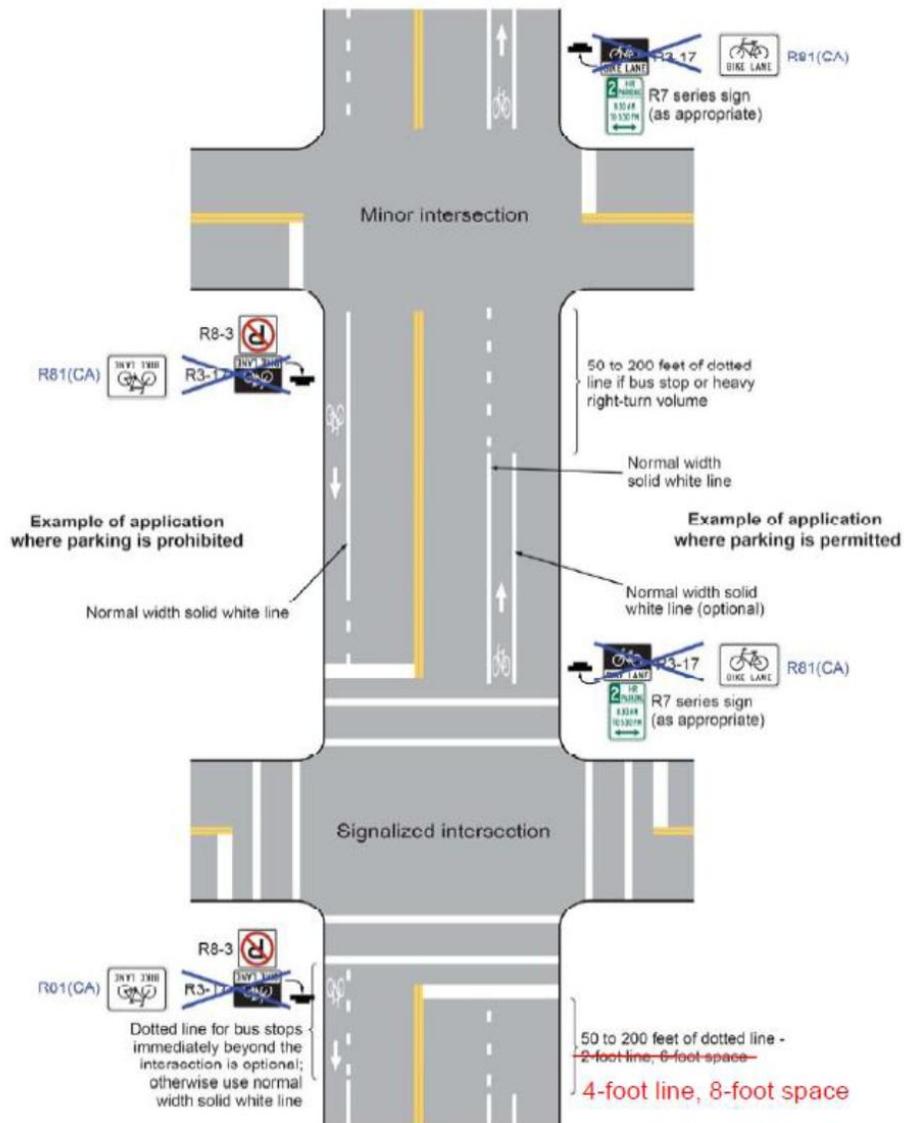
Action: The Committee recommended adoption of the amended Figure 9C-3 as shown below:



** Required at far side of intersection, other use is optional elsewhere

Action: The Committee recommended adoption of the amended Figure 9C-6 as shown below:

Figure 9C-6. Example of Pavement Markings for Bicycle Lanes on a Two-Way Street



14-12 Proposal to amend Section 9C.07 of the CA MUTCD 2012, Shared Lane Marking based on Public Comments

Action: The Committee recommended adoption of the amended Section 9C.07 as shown below:

Section 9C.07 Shared Lane Marking

Guidance:

02 Except as provided in Paragraph 02a, The Shared Lane Marking should not be placed on roadways that have a speed limit above 35 mph.

Option:

02a The Shared Lane Marking may be placed on roadways that have a speed limit above 35 mph, where there is bicycle travel and there is no marked bicycle lane ~~or shared-use path~~ and the right-hand traffic lane is too narrow to allow ~~automobiles~~ motor vehicles to safely pass bicyclists.

14-15 Proposal to amend Section 6F.87 of the CA MUTCD Rumble Strips in TTC Zones

Action: The Committee recommended adoption of the amended Section 6F.87 Rumble Strips as was proposed by Caltrans and shown in agenda. Committee recommended that the sign RUMBLR STRIPS need to be a “shall” requirement if rumble strips are used and also suggested that the statement proposed under support be moved under Option as shown below:

Section 6F.87 Rumble Strips

Support:

01 Transverse rumble strips consist of intermittent, narrow, transverse areas of rough-textured or slightly raised or depressed road surface that extend across the travel lanes to alert drivers to unusual vehicular traffic conditions. Through noise and vibration they attract the driver’s attention to such features as unexpected changes in alignment and to conditions requiring a stop.

~~Portable transverse rumble strips can be used for flagging operations, as they are easy to set out, remove and/or relocate.~~

02 Longitudinal rumble strips consist of a series of rough-textured or slightly raised or depressed road surfaces located along the shoulder to alert road users that they are leaving the travel lanes.

Option:

01 Portable transverse rumble strips may be used for flagging operations, as they are easy to set out, remove and/or relocate.

Standard:

03 If it is desirable to use a color other than the color of the pavement for a longitudinal rumble strip, the color of the rumble strip shall be the same color as the longitudinal line the rumble strip supplements.

04 If the color of a transverse rumble strip used within a travel lane is not the color of the pavement, the color of the rumble strip shall be white, black, or orange.

The color of a portable transverse rumble strip used within a travel lane shall be black or orange.

The height of the portable transverse rumble strip shall be from 5/8 to 3/4 inch, including the height of adhesives, if used.

The width of each portable transverse rumble strip shall not be less than 12 inches, nor more than 13 inches.

Each portable transverse rumble strip shall be at least 10 feet long and shall have a minimum weight of 105 lbs.

Option:

05 Intervals between transverse rumble strips may be reduced as the distance to the approached conditions is diminished in order to convey an impression that a closure speed is too fast and/or that an action is imminent. A **RUMBLE STRIPS (WXX(CA))** sign warning drivers of the onset of rumble strips may be placed in advance of any transverse rumble strip installation.

Guidance:

06 *Transverse rumble strips should be placed transverse to vehicular traffic movement. They should not adversely affect overall pavement skid resistance under wet or dry conditions.*

07 *In urban areas, even though a closer spacing might be warranted, transverse rumble strips should be designed in a manner that does not promote unnecessary braking or erratic steering maneuvers by road users.*

08 *Transverse rumble strips should not be placed on sharp horizontal or vertical curves.*

09 *Rumble strips should not be placed through pedestrian crossings or on bicycle routes.*

10 *Transverse rumble strips should not be placed on roadways used by bicyclists unless a minimum clear path of 4 feet is provided at each edge of the roadway or on each paved shoulder as described in AASHTO's "Guide to the Development of Bicycle Facilities" (see Section 1A.11).*

11 *Longitudinal rumble strips should not be placed on the shoulder of a roadway that is used by bicyclists unless a minimum clear path of 4 feet is also provided on the shoulder.*

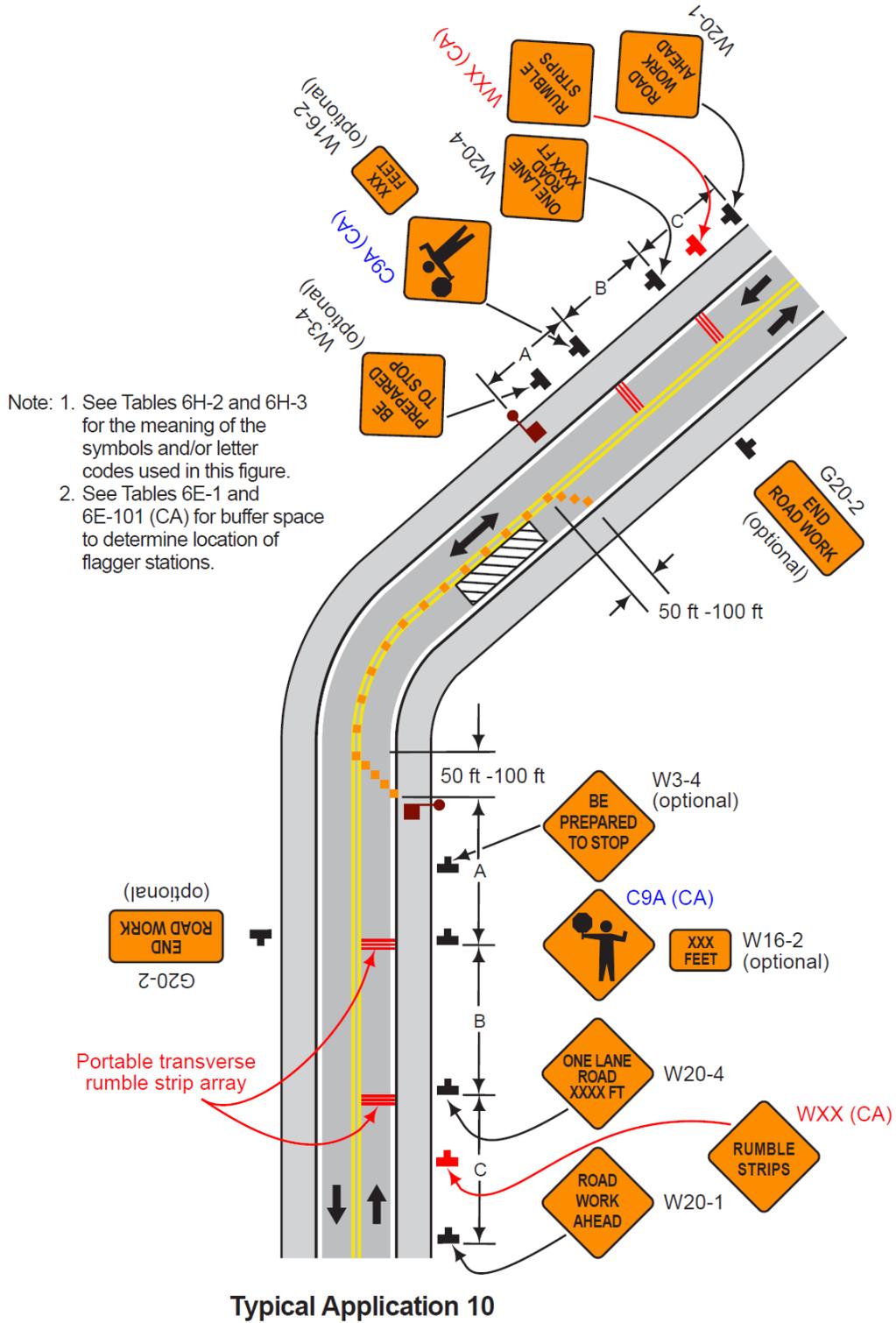
If used for flagging operation, 2 arrays (1 array is a single group or set) of portable transverse rumble strips should be placed transverse to the vehicular traffic movement in advance of and approach to each flagger station. Each array should consist of 3 rumble strips spaced no less 6 feet and no more than 10 feet apart. The 1st array should be placed adjacent to the ONE LANE ROAD AHEAD (W20-4) sign and the 2nd array should be placed adjacent to the California Flagger symbol (C9A(CA)) sign.

The RUMBLE STRIPS (WXX(CA)) sign ~~should~~ shall be placed half way between the ROAD WORK AHEAD (W20-1) sign and the ONE LANE ROAD AHEAD (W20-4).

Standard:

If the portable transverse rumble strips become out of alignment (skewed) by more than 6 inches, measured from one end to the other, they shall be readjusted to bring the placement back to the original location.

**Figure 6H-10A (CA). Lane Closure on Two-Lane Road Using Flaggers (TA-10A)
Using Portable Transverse Rumble Strips**



14-16 Amendments to various Section/Figures of Part 2 Signs of the CA MUTCD 2012 based on Public Comments

Action: The Committee recommended adoption of the amended various Sections of Part 2 of the CA MUTCD with minor changes as shown below:

^{06a} Light Emitting Diode (LED) units may be used in the border of a ~~STOP~~ regulatory or warning signs, except for Changeable Message Signs, to improve the conspicuity of signs.

Section 2A.07 Retroreflectivity and Illumination

Standard:

⁰⁷ Except as provided in Paragraphs 11 and 12, neither individual LEDs nor groups of LEDs shall be placed within the background area of a sign.

⁰⁸ If used, the LEDs shall have a maximum diameter of 1/4 inch and shall be the following colors based on the type of sign:

A. ~~White or~~ **White or red**, if used with STOP, **DONOT ENTER** and **WRONG WAY** signs ~~or YIELD or YIELD~~ signs.

~~B. White, if used with regulatory signs other than STOP or YIELD signs.~~

B. White, if used with regulatory signs including other than STOP or YIELD signs.

C. ~~White or~~ yellow, if used with warning signs.

~~D. White, if used with guide signs.~~

E. ~~White,~~ yellow, or orange, if used with temporary traffic control signs **of warning type.**

~~F. White or yellow, if used with school-area signs.~~ **F. White or yellow, if used with school-area signs**

⁰⁹ If flashed, all LED units shall flash simultaneously at a rate of more than 50 and less than 60 times per minute.

¹⁰ The uniformity of the sign design shall be maintained without any decrease in visibility, legibility, or driver comprehension during either daytime or nighttime conditions.

Option:

¹¹ For STOP ~~and YIELD~~ and **YIELD** signs, LEDs may be placed within the border or within one border width within the background of the sign.

¹² For STOP/SLOW paddles (see Section 6E.03) used by flaggers and the STOP paddles (see Section 7D.05) used by adult crossing guards, individual LEDs or groups of LEDs may be used.

Support:

¹³ Other methods of enhancing the conspicuity of standard signs are described in Section 2A.15.

¹⁴ Information regarding the use of retroreflective material on the sign support is contained in Section 2A.21.

Table 2A-1. Illumination of Sign Elements

Means of Illumination	Sign Element to be Illuminated
Light behind the sign face	<ul style="list-style-type: none"> • Symbol or word message • Background • Symbol, word message, and background (through a translucent material)
Attached or independently mounted light source designed to direct essentially uniform illumination onto the sign face	<ul style="list-style-type: none"> • Entire sign face <p style="text-align: center;">regulatory</p>
Light emitting diodes (LEDs)	<ul style="list-style-type: none"> • Border of STOP or warning signs • Symbol or word message • Portions of the sign border
Other devices, or treatments that highlight the sign shape, color, or message: Luminous tubing Fiber optics Incandescent light bulbs Luminescent panels	<ul style="list-style-type: none"> • Symbol or word message • Entire sign face

Change added bullet to read:

* Border of regulatory or warning signs

Action: The Committee recommended reinstating deleted National MUTCD 2009 language under the Standards paragraph 1 thru 3 of the Section 2B.37, and recommended to keep option deleted because it covers CA Standards paragraph7, as shown below:

Section 2B.37 DO NOT ENTER Sign (R5-1)

Standard:

~~01 The DO NOT ENTER (R5-1) sign (see Figure 2B-11) shall be used where traffic is prohibited from entering a restricted roadway.~~

Guidance:

~~02 The DO NOT ENTER sign, if used, should be placed directly in view of a road user at the point where a road user could wrongly enter a divided highway, one-way roadway, or ramp (see Figure 2B-12). The sign should be mounted on the right hand side of the roadway, facing traffic that might enter the roadway or ramp in the wrong direction.~~

~~03 If the DO NOT ENTER sign would be visible to traffic to which it does not apply, the sign should be turned away from, or shielded from, the view of that traffic.~~

Option:

~~04 The DO NOT ENTER sign may be installed where it is necessary to emphasize the one-way traffic movement on a ramp or turning lane.~~

~~05 A second DO NOT ENTER sign on the left hand side of the roadway may be used, particularly where traffic approaches from an intersecting roadway (see Figure 2B-12).~~

Standard:

01 The DO NOT ENTER (R5-1) sign (see Figure 2B-11) shall be used where traffic is prohibited from entering a restricted roadway.

Guidance:

02 The DO NOT ENTER sign, if used, should be placed directly in view of a road user at the point where a road user could wrongly enter a divided highway, one-way roadway, or ramp (see Figure 2B-12(CA)). The sign should be mounted on the right-hand side of the roadway, facing traffic that might enter the roadway or ramp in the wrong direction.

03 If the DO NOT ENTER sign would be visible to traffic to which it does not apply, the sign should be turned away from, or shielded from, the view of that traffic.

Option:

~~04 The DO NOT ENTER sign may be installed where it is necessary to emphasize the one way traffic movement on a ramp or turning lane.~~

~~05 A second DO NOT ENTER sign on the left hand side of the roadway may be used, particularly where traffic approaches from an intersecting roadway (see Figure 2B-12).~~

Action: The Committee recommended reinstating deleted National MUTCD 2009 language under the Standards of Section 2J.07, paragraph 01 as shown below:

Section 2J.07 Single-Exit Interchanges

Standard:

~~01 At numbered single exit interchanges, the name of the service type followed by the exit number shall be displayed on one line above the logo sign panels. At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT) shall be used.~~

01 At numbered single-exit interchanges, the name of the service type followed by the exit number shall be displayed on one line above the logo sign panels. At unnumbered interchanges, the directional legend NEXT RIGHT (LEFT) shall be used.

Section 2E.31 Interchange Exit Numbering (Paragraphs need to be renumbered because some paragraphs are deleted completely)

Standard:

~~18 The Department of Transportation shall utilize mileage based interchange exit numbering to identify the location of each interchange exit on the California Freeway System. The following web site shall provide the statewide listing of freeway exit numbers indexed by route and direction:~~

~~<http://www.dot.ca.gov/hq/traffops/signtech/calnexus/index.htm>~~

~~19 The placement and location of interchange exit numbering on State highways shall conform to the database maintained by Department of Transportation's Division of Traffic Operations for reference posts. This database is different from the TASAS Highway database.~~

~~20 Interchange numbering shall be used in signing each freeway interchange exit. Each freeway interchange exit shall include a minimum of two numbered exit signs:~~

~~1. One Advance Guide (G83(CA) Series) sign with exit number.~~

~~2. One Exit Gore (E5-1 or G84-2(CA) or G84-3(CA)) sign with exit number and arrow or, if not available, an exit number shall be installed on an adjacent Exit Direction (~~G85-10(CA)~~ or G85-11(CA)) sign at the gore.~~

~~21 To the extent practical, interchange exit numbers shall be displayed with each Advance Guide sign, Exit Direction sign, and Gore sign on freeways.~~

~~22 Exit numbers shall not include the cardinal initials corresponding to the directions of the cross route.~~

~~Guidance:~~

~~23 The exit number signs should take advantage of existing roadside and overhead signs. Where possible, add-on plaques or panels should be used. In areas where maximum wind loads or existing legends do not permit placement of an add-on plaque or panel, a new sign should be installed.~~

~~Support:~~

~~24 For new sign installations or if the existing sign is due for replacement, consider ordering a new sign with the exit number included as part of the sign.~~

Standard:

~~25 Rest areas, vista points, weigh stations, HOV facility exits or HOV to HOV system connector ramps are not considered interchange exits and shall not be signed with exit numbers.~~

³⁵ The EXIT panels (G70-2(CA), G70-3(CA), G70-4(CA) and G70-5(CA)) should be located toward the top left edge of the sign for a left exit and toward the top right edge for right exits.

Option:

~~³⁶ The Exit Numbered Advance Guide (G83-4(CA)) sign with separate borders may be used for new sign installations or as an alternate to retrofitting an existing Advance Guide sign when the existing Advance Guide sign cannot accommodate an add-on plaque or panel.~~

³⁷ The Exit Numbered Advance Guide (G83-5(CA)) sign with a single border may be used as an alternate to the G83-4(CA) when the sign message requires additional space on the sign.

Standard:

³⁸ If used, ~~the G83-4(CA) and~~ G83-5(CA) signs shall be placed on freeways to give motorists advance notice of the exit point to the principal destination served by the next interchange that has been assigned an exit number/suffix, and the distance to that interchange.

³⁹ The Exit Gore (E5-1) sign shall be used at exit ramp gores from expressways, from freeway to freeway connectors, and from collector distributors to identify the exiting point.

⁴⁰ The EXIT XX with Arrow Gore (G84-2(CA)) sign shall be used at exit ramp gores on freeways to identify the exiting point at an interchange that has been assigned a one or two digit exit number/suffix.

⁴¹ **The EXIT XXXX with Arrow Gore (G84-3(CA)) sign shall be used at exit ramp gores on freeways to identify the exiting point at an interchange that has been assigned a three or four digit exit number/suffix.**

Standard:

⁴³ **The Exit Gore (E5-1 and G84-2(CA) and G84-3(CA)) signs shall be placed in the area between the main roadway and the exit ramp.**

Option:

~~⁴⁴ The Exit Numbered Exit Direction (G85-10(CA)) sign with separate borders may be used for new sign installations or as an alternate to retrofitting an existing Exit Direction sign when the existing Exit Direction sign cannot accommodate an add-on plaque or panel.~~

⁴⁵ The Exit Numbered Exit Direction (G85-11(CA)) sign with a single border may be used as an alternate to the G85-10(CA) sign when the sign message requires additional space on the sign.

Standard:

⁴⁶ If used, ~~the G85-10(CA) and~~ G85-11(CA) signs shall be placed on freeways to direct motorists to the exit ramp of an interchange that has been assigned an exit number/suffix.

Guidance:

⁴⁷ ~~The G85-10(CA) and~~ G85-11(CA) signs should be placed in the area at the beginning of the deceleration lane of the exit ramp.

Figure 2E-22 (CA). Examples of Interchange Advance Guide Signs, Exit Number Plaques, and LEFT Plaque



Figure 2E-23. Next Exit Plaques



Figure 2E-26 (CA). Examples of Interchange Exit Direction Signs



Figure 2E-27. Interchange Exit Direction Sign with an Advisory Speed Panel



Table 2E-1(CA). California Freeway or Expressway Guide Sign and Plaque Sizes

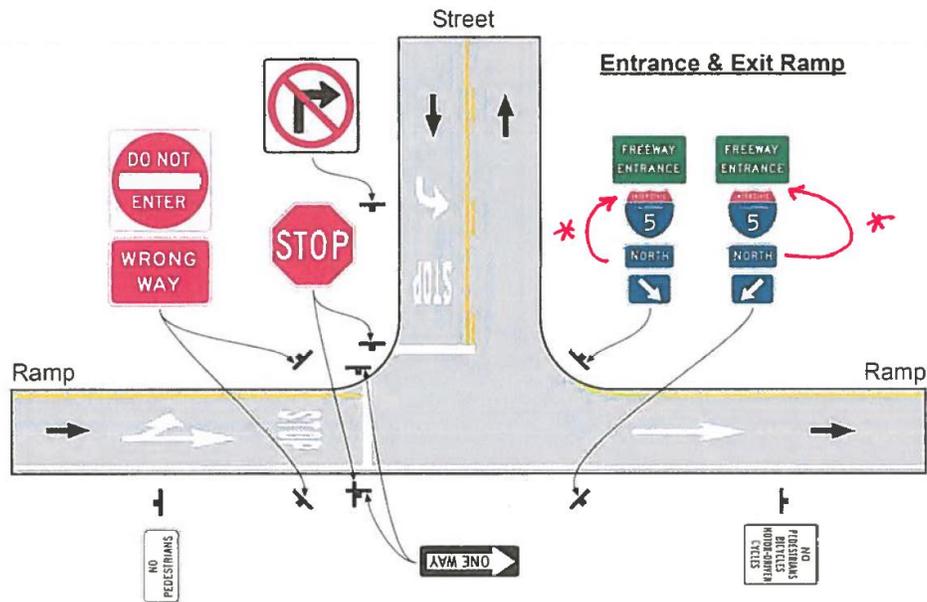
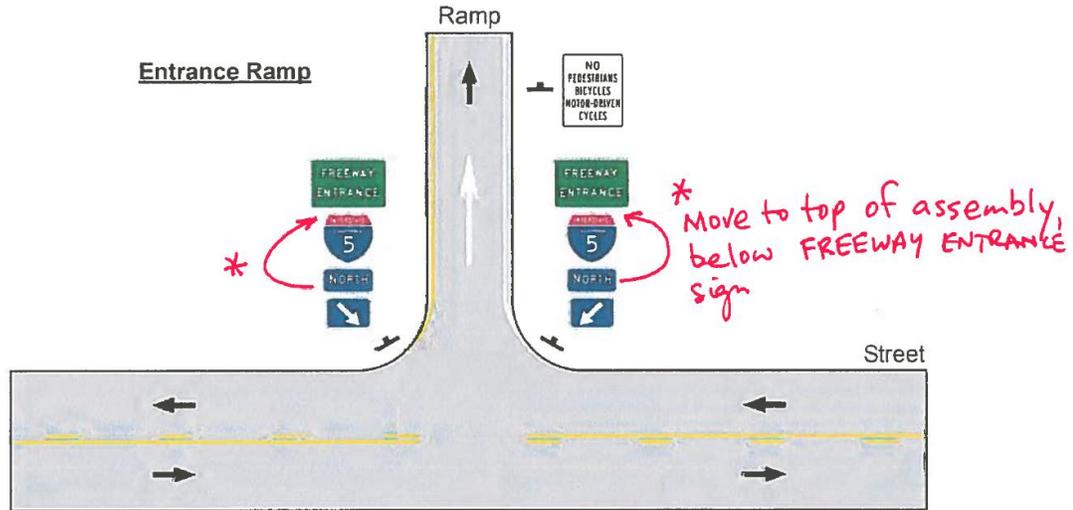
Sign or Plaque	Sign Designation	Section	Minimum
Advance Lane Assignment	G20-1(CA)	2D.31	VAR x 30
Advance Lane Assignment	G20-3(CA)	2D.31	VAR x 42
Advance Lane Assignment	G20-5(CA)	2D.31	VAR x 54
Advance Lane Assignment	G20-7(CA)	2D.31	VAR x 60
Interchange Sequence	G23-1(CA)	2E.35, 2E.40	VAR x 90
Interchange Sequence	G23-2(CA)	2E.35, 2E.40	VAR x 100
Interchange Sequence	G23-3(CA)	2E.35, 2E.40	VAR x 100
Interchange Sequence	G23-4(CA)	2E.35, 2E.40	VAR x 100
Interchange Sequence	G23-5(CA)	2E.35, 2E.40	VAR x 120
Interchange Sequence	G23-6(CA)	2E.35, 2E.40	VAR x 90
Pull-Through	G24-1(CA)	2D.03, 2E.12	VAR x 80
Pull-Through	G24-3(CA)	2D.03, 2E.12	VAR x 110
Pull-Through	G24-4(CA)	2D.03, 2E.12	VAR x 120
Pull-Through	G24-5(CA)	2D.03, 2E.12	VAR x 110
Pull-Through	G24-6(CA)	2D.03, 2E.12	VAR x 110
Single Line EXIT XX	G70-2(CA)	2E.31	36 x 12
Single Line EXIT XXXX	G70-3(CA)	2E.31	48 x 12
Two Line EXIT XX	G70-4(CA)	2E.31	24 x 24
Two Line EXIT XXXX	G70-5(CA)	2E.31	36 x 24
Advance Guide	G83-1(CA)	2E.33	VAR x 78
Advance Guide	G83-2(CA)	2E.33	VAR x 110
Exit Numbered Advance Guide	G83-4(CA)	2E.31, 2E.33	VAR x 84
Exit Numbered Advance Guide	G83-5(CA)	2E.31, 2E.33	VAR x 78
EXIT (XX) with Arrow	G84-2(CA)	2E.31, 2E.33	54 x 48
EXIT (XXX) with Arrow	G84-3(CA)	2E.31, 2E.33	48 x 60
Exit Direction	G85-1(CA)	2D.03, 2E.36	VAR x 78
Exit Direction	G85-2(CA)	2D.03, 2E.36	VAR x 48
Exit Direction	G85-3(CA)	2D.03, 2E.36	VAR x 114
Exit Direction	G85-4(CA)	2D.03, 2E.36	VAR x 138
Exit Direction	G85-5(CA)	2D.03, 2E.36	VAR x 80
Exit Direction	G85-6(CA)	2D.03, 2E.36	VAR x 80
Exit Numbered Exit Direction	G85-10(CA)	2D.03, 2E31	VAR x 84
Exit Numbered Exit Direction	G85-11(CA)	2D.03, 2E31	VAR x 84
NEXT XX EXITS	G87(CA)	2E.42	VAR x 54
Exit Only	W61A(CA)	2E.24	44 x 20
Exit Only	W61B(CA)	2E.24	44 x 20
Exit Only	W61C(CA)	2E.24	84 x 20
Exit Only	W61D(CA)	2E.24	126 x 20
Exit Only	W61E(CA)	2E.24	174 x 20
Only	W61F(CA)	2E.24	84 x 20
Only	W61G(CA)	2E.24	174 x 20
Exit Only	W61H(CA)	2E.24	44 x 20

Figures 2B18(CA) Page 225, 2B-18(CA) page 226 and 2B-18(CA) page 227 will be revised as shown below:

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Figure 2B-18 (CA). Example of Application of Regulatory Signing and Pavement Markings at an Exit Ramp Termination to Deter Wrong-Way Entry (Sheet 2 of 5)



10 Next Meeting will be held on September 25, 2014 in Fremont, CA.

