Manual on Uniform Traffic Control Devices

for Streets and Highways

Oregon Supplement to the 2009 Edition

Adopted December 2011

By Oregon Administrative Rule 734-020-0005

INTRODUCTION

Traffic control devices installed on highways within the State of Oregon are required to conform to the Manual on Uniform Traffic Control Devices (MUTCD), published by the Federal Highway Administration (FHWA). The list of highways that are required to conform to the MUTCD includes all state highways and public roadways under the jurisdiction of cities and counties within the State of Oregon. This requirement is established by Oregon Revised Statute (ORS) (see ORS 810.200) and Oregon Administrative Rule (OAR) (see OAR 734-020-0005). To promote uniformity and understandability of traffic control devices, private property owners are also encouraged to conform to the MUTCD when installing devices on private property.

Devices installed or replaced after the publication date of this document shall conform to the MUTCD upon installation. Unless noted otherwise, existing devices that do not conform to the current MUTCD shall be replaced at the end of their useful life.

The intent of the MUTCD is to enhance road safety and operation by requiring uniform, understandable, and effective traffic control devices on Oregon highways.

Purpose of the Oregon Supplement to the MUTCD

Deviations to the MUTCD are published in the Oregon Supplement to the MUTCD and made for justifiable reasons such as instances where Oregon law deviates from the MUTCD. These deviations are adopted through the OAR process and by permission of the FHWA.

How to Use the Oregon Supplement to the MUTCD

This document supplements the 2009 Edition of the MUTCD, dated December 2009. Both the Oregon Supplement and the MUTCD need to be consulted when researching traffic control issues.

The Oregon Supplement conforms to the organization and section numbering of the MUTCD. Instructions on whether text is deleted or inserted as part of the Oregon Supplement are noted by the bracketed text. The MUTCD language that is to be deleted is marked with strikethrough font while inserted or replacement text is underlined. Users of the Oregon Supplement should familiarize themselves with how the MUTCD is organized and referenced by reading the Introduction of the 2009 Edition of the MUTCD.

Obtaining the MUTCD

The MUTCD is available online in electronic format (http://mutcd.fhwa.dot.gov/). Printed copies of the MUTCD 2009 Edition and cost information are available from the American Association of State Highway and Transportation Officials (AASHTO), the Institute of Transportation Engineers (ITE), and the American Traffic Safety Services Association (ATSSA).

Other Related Documents

Design details for signs and traffic signals are not included in the MUTCD. They are in the Oregon Department of Transportation (ODOT) Sign Policy and Guidelines, the ODOT Traffic Signal Policy and Guidelines, and the FHWA Standard Highway Signs manual. The ODOT Traffic Manual contains additional information on traffic engineering policies and practices for state highways. Local agencies such as cities and counties may also have their own traffic engineering policies and practices that apply to city streets and county roads respectively.

Obtaining the Oregon Supplement and Other ODOT Documents

The Oregon Supplement to the MUTCD and other ODOT traffic control device documents are available online in electronic format (http://www.oregon.gov/ODOT/HWY/TRAFFIC-ROADWAY/MUTCD.shtml). The Web site also provides information on the latest updates to the ODOT Sign Policy and Guidelines.

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PART 1. GENERAL

CHAPTER 1A. GENERAL

Section 1A.13 Definitions of Headings, Words, and Phrases in this Manual

[Delete the last sentence of Section 1A.13, P1, Item A:]

A. Standard—a statement of required, mandatory, or specifically prohibitive practice regarding a traffic control device. All Standard statements are labeled, and the text appears in bold type. The verb "shall" is typically used. The verbs "should" and "may" are not used in Standard statements. Standard statements are sometimes modified by Options. ~~**Standard statements shall not be modified or compromised based on engineering judgment or engineering study.**~~

[Insert the following Support statement after Section 1A.13, P1:]

Support:

The decision to use a particular device at a particular location is typically made on the basis of an engineering study of the location. Thus, while this Manual provides standards for design and application of traffic control devices, the Manual is not a substitute for engineering judgment. It is the intent that the provisions of this Manual be standards for traffic control devices installation, but not a legal requirement for installation.

[Insert the following definitions after the last numbered item in Section 1A.13, P3:]

Crossing Order—written authorization issued by the State of Oregon through the Rail Division of its Department of Transportation granting or denying applications from public road authorities or railroads seeking to alter, construct, change protective devices, or eliminate highway-rail or highway-LRT grade crossings (in semi-exclusive alignments). Crossing Orders prescribe the time and manner of such alteration, change, installation or alteration, and the terms and conditions thereof.

Diagnostic Team—a group of knowledgeable representatives of the parties of interest (including the railroad, road authority, and ODOT Rail Division) in a highway-rail or highway-LRT grade crossing, a group of grade crossings or pathway grade crossing(s), who, using crossing safety management principles, evaluate safety conditions at a grade crossing(s) to make determinations or recommendations for the responsible public authority concerning safety needs of the affected crossing(s) [reference 23 CFR Part 646.204 and 49 CFR Part 222.9].

Pedestrian Clear Out Interval (PCOI)—the interval prior to the start of the railroad preemption sequence at a traffic control signal when active pedestrian "WALK" intervals are terminated and pedestrian clearance intervals are provided. The PCOI is initiated by the "advance preemption" provided by the railroad or LRT operator.

Vehicle Clear Out Interval (VCOI)—the traffic control signal interval when motor vehicles are permitted to advance through a highway intersection and away from the highway-rail or highway-LRT grade crossing. The controllers for both the highway intersection and the highway-rail or highway-LRT grade crossing are electrically interconnected. Generally, the VCOI follows a pedestrian clear out interval (PCOI). The VCOI is initiated by the "simultaneous preemption" provided by the railroad or LRT operator.

PART 2. SIGNS

CHAPTER 2B. REGULATORY SIGNS

Section 2B.11 Yield Here To Pedestrians Signs and Stop Here For Pedestrians Signs (R1-5 Series)

[Delete the strikeout text from Section 2B.11, P1 and fix editing error by separating last sentence as a new Option paragraph:]

~~Yield Here To (~~Stop Here For~~)~~ Pedestrians (~~R1-5, R1-5a,~~ R1-5b~~,~~ or R1-5c) signs (see Figure 2B-2) shall be used if ~~yield (~~stop~~)~~ lines are used in advance of a marked crosswalk that crosses an uncontrolled ~~multi-lane~~ approach.~~ The Stop Here for Pedestrians signs shall only be used where the law specifically requires that a driver must stop for a pedestrian in a crosswalk. The legend STATE LAW may be displayed at the top of the R1-5, R1-5a, R1-5b, and R1-5c signs, if applicable.~~

[Insert new Option and Support paragraphs following previously revised Section 2B.11, P1:]

Option:

The legend STATE LAW may be displayed at the top of the R1-5b and R1-5c signs, if applicable.

Support:

Oregon law (ORS 811.028) requires that drivers stop for pedestrians crossing a roadway within a marked or unmarked crosswalk.

[Delete Section 2B.11, P4:]

~~Option:~~

~~Yield Here To (Stop Here For) Pedestrians signs may be used in advance of a crosswalk that crosses an uncontrolled multi-lane approach to indicate to road users where to yield (stop) even if yield (stop) lines are not used.~~

[Insert the following Support statement after the previously deleted Section 2B.11, P4:]

Support:

Providing a stop line with a Stop Here for Pedestrians (R1-5b or R1-5c) sign improves driver compliance and reduces driver confusion.

Section 2B.12 In-Street and Overhead Pedestrian Crossing Signs (R1-6, R1-6a, R1-9, and R1-9a)

[Delete the strikeout text from Section 2B.12, P1, and establish new Support statement:]

Option:

The In-Street Pedestrian Crossing (~~R1-6 or~~ R1-6a) sign (see Figure 2B-2) or the Overhead Pedestrian Crossing ~~(R1-9 or~~ R1-9a) sign (see Figure 2B-2) may be used to remind road users of laws regarding right-of-way at an unsignalized pedestrian crosswalk. The legend STATE LAW may be displayed at the top of the ~~R1-6,~~ R1-6a~~, R1-9,~~ and R1-9a signs, if applicable. On the ~~R1-6 and~~ R1-6a sign~~s~~, the legend~~s~~ STOP ~~or YIELD~~ may be used instead of the appropriate STOP sign ~~or YIELD sign~~ symbol.

[Insert new Support paragraph following previously revised Section 2B.12, P1:]

Support:

Oregon law (ORS 811.028) requires that drivers stop for pedestrians crossing a roadway within a marked or unmarked crosswalk.

Section 2B.13 Speed Limit Sign (R2-1)

[Delete the strikeout text from Section 2B.13, P5, and insert revised text as shown below:]

Standard:

Speed Limit signs indicating the statutory speed ~~limits~~or designated speed for the highway shall be installed at entrances to the State and, where appropriate, at jurisdictional boundaries in urban areas.

[Insert new Support and Standard paragraphs following previously revised Section 2B.13, P5:]

Support:

The standard has been modified for clarity to show the intent of installing a speed sign for the location only, and not installing a sign showing all designated or statutory speeds throughout the state.

Standard:

The word LIMIT shall be omitted on all Speed Limit (R2-1) signs on highways outside of City limits that are not interstate highways or school zones.

Support:

Statutory speeds, designated speeds, speed limits and the basic speed rule are as defined in ORS 810.180, ORS 811.105 and ORS 811.111.

Section 2B.17 Higher Fines Signs and Plaque (R2-6P, R2-10, and R2-11)

[Insert new Option and Support paragraphs following Section 2B.17, P1 and P2, as shown below:]

Standard:

If increased fines are imposed for traffic violations within a designated zone of a roadway, a BEGIN HIGHER FINES ZONE (R2-10) sign (see Figure 2B-3) or a FINES HIGHER (R2-6P) plaque (see Figure 2B-3) shall be used to provide notice to road users. If used, the FINES HIGHER plaque shall be mounted below an applicable regulatory or warning sign in a temporary traffic control zone, a school zone, or other applicable designated zone.

If an R2-10 sign or an R2-6P plaque is posted to provide notice of increased fines for traffic violations, an END HIGHER FINES ZONE (R2-11) sign (see Figure 2B-3) shall be installed at the downstream end of the zone to provide notice to road users of the termination of the increased fines zone.

Option:

If the termination of an increased fine zone is clearly indicated by standard termination signing for roadwork, safety corridors, or school zones, the END HIGHER FINES ZONE (R2-11) sign may be omitted.

Support:

When existing signing indicates the termination point of a zone where increased fines are enforced an END HIGHER FINES ZONE (R2-11) sign is unnecessary and leads to excessive sign proliferation.

Section 2B.54 No Turn on Red Signs (R10-11 Series, R10-17a, and R10-30)

[Delete the strikeout text from Section 2B.54, P7, and insert revised text as shown below:]

~~Guidance~~Option:

Where turns on red are permitted and the signal indication is a steady RED ARROW, the RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign (see Figure 2B-27) ~~should~~ may be installed adjacent to the RED ARROW signal indication.

[Insert new Support paragraph following previously revised Section 2B.54, P7:]

Support:

ORS 811.360 permits vehicular traffic facing a Steady Red Arrow signal indication to make certain turns after stopping, making a RIGHT (LEFT) ON RED ARROW AFTER STOP (R10-17a) sign unnecessary.

Section 2B.55 Photo Enforced Signs and Plaques (R10-18, R10-19P, R10-19aP)

[Delete the strikeout text from Section 2B.55, P1, and insert revised text as shown below:]

~~Option~~Standard:

In jurisdictions where photographic equipment is being used to enforce traffic regulations, a ~~A~~ TRAFFIC LAWS PHOTO ENFORCED (R10-18) sign (see Figure 2B-3) ~~may~~ shall be installed at a

jurisdictional boundary on all major routes to advise road users that some of the traffic regulations within that jurisdiction are being enforced by photographic equipment.

If photo radar is used, a TRAFFIC LAWS PHOTO ENFORCED (R10-18) sign shall be posted 100 to 400 yards in advance of the photo radar unit.

If photo radar is used in a school zone not otherwise marked by a flashing beacon used as a traffic control device, a SCHOOL IN SESSION (OS4-9) sign shall be posted in conjunction with the TRAFFIC LAWS PHOTO ENFORCED (R10-18) sign.

OS4-9

[Delete the strikeout text from Section 2B.55, P2, and insert revised text and Support statement as shown below:]

~~Option~~Standard:

Except where photo radar is being used, a ~~A~~ Photo Enforced (R10-19P) plaque or a PHOTO ENFORCED (R10-19aP) word message plaque (see Figure 2B-3) ~~may~~ shall be mounted below a regulatory sign to advise road users that the regulation is being enforced by photographic equipment.

Support:

Oregon law (ORS 810.434 through 810.439) allows photo enforcement of speed and traffic control device violations in certain jurisdictions. The law requires that signs be posted on major routes entering the jurisdiction where such photo enforcement is in use, as well as in advance of the photo radar units or cameras. When the applicable sign is a regulatory sign such as for photo radar speed enforcement, refer to the Oregon Supplement for Section 2B.55. When the applicable sign is a warning sign such as the Signal Ahead (W3-3) sign in advance of red light camera installations, refer to the Oregon Supplement for Section 2C.61.

CHAPTER 2C. WARNING SIGNS

Section 2C.61 Photo Enforced Plaque (W16-10P)

[Delete the strikeout text from Section 2C.61, P1, and insert revised text and Support statement as shown below:]

~~Option~~Standard:

Where photographic equipment is being used to enforce traffic regulations, a ~~A~~ Photo Enforced (W16-10P) plaque or a PHOTO ENFORCED (W16-10aP) word message plaque (see Figure 2C-12) ~~may~~ shall be mounted below a warning sign to advise road users that the regulations associated with the condition being warned about (such as a traffic control signal or a toll plaza) are being enforced by photographic equipment.

Support:

Oregon law (ORS 810.434 through 810.439) allows photo enforcement of speed and traffic control device violations in certain jurisdictions. The law requires that signs be posted on major routes entering the jurisdiction where such photo enforcement is in use, as well as in advance of the photo radar units or cameras. When the applicable sign is a regulatory sign such as for photo radar speed enforcement, refer to the Oregon Supplement for Section 2B.55. When the applicable sign is a warning sign such as the Signal Ahead (W3-3) sign in advance of red light camera installations, refer to the Oregon Supplement for Section 2C.61.

CHAPTER 2D. GUIDE SIGNS—CONVENTIONAL ROADS

Section 2D.43 Street Name Signs (D3-1 or D3-1a)

[Insert new Option and Support paragraphs following Section 2D.43, P7, as shown below:]

Guidance:

If overhead Street Name signs are used, the lettering should be composed of initial upper-case letters at least 12 inches in height and lower-case letters at least 9 inches in height.

Option:

Where engineering judgment determines that structural limitations such as the load capacity of the mast arm or lateral spacing of signal heads prevent the prescribed dimensions for overhead Street Name signs from being met, the lettering on overhead Street Name signs may be reduced to initial upper-case letters at least 8 inches in height and lower-case letters at least 6 inches in height.

Support:

Overhead Street Name signs are more visible to drivers and are preferred over post-mounted Street Name signs at signalized intersections. Some road authorities have overhead structures with limited load capacity. Allowing reduced letter sizes results in smaller overhead Street Name signs that can be accommodated on these smaller structures, however larger letter sizes are preferred.

CHAPTER 2E. GUIDE SIGNS—FREEWAYS AND EXPRESSWAYS

Section 2E.20 Signing for Option Lanes at Splits and Multi-Lane Exits

[Insert revised text in Section 2E.20, P1 through P4, and new Guidance and Support paragraphs as shown below:]

Support:

Some freeway and expressway splits or multi-lane exit interchanges contain an interior option lane serving both movements in which traffic can either leave the route or remain on the route, or choose either destination at a split, from the same lane.

Standard:

On freeways and expressways, either the Overhead Arrow-per-Lane or Diagrammatic guide sign designs as provided in Sections 2E.21 and 2E.22 shall be used for all multi-lane exits at major category (a) interchanges (see Section 2E.32) that have an optional exit lane that also carries the through route (see Figures 2E-4, 2E-5, 2E-8, and 2E-9) and for all splits that include an option lane (see Figures 2E-6 and 2E-10). Overhead Arrow-per-Lane or Diagrammatic guide signs shall not be used on freeways and expressways for any other types of exits or splits, including single-lane exits and splits that do not have an option lane.

Guidance:

The Overhead Arrow-per-Lane guide sign design (see Section 2E.21) should also be considered for multi-lane exits with an option lane at major category (b) and intermediate interchanges (see Section 2E.32) based on such factors as the extent of the need to optimize the mainline operation by maximizing the usage of the option lane, the extent of the period(s) of the day during which the exiting volumes warrant the multi-lane exit arrangement, and the nature of the traffic that primarily uses the option lane during the high-volume periods.

Signing for multi-lane exits at minor interchanges (see Section 2E.32) that have an optional exit lane or at intermediate interchanges that have an optional exit lane at which it has been determined that the Overhead Arrow-per-Lane guide sign design is not warranted should use a combination of conventional guide signing and regulatory lane-use signing, in accordance with the provisions of Section 2E.23.

Signing for major category (b) interchanges that have an optional exit lane at which it has been determined that the Overhead Arrow-per-Lane guide sign design is not warranted should use a combination of conventional guide signing and regulatory lane-use signing, in accordance with the provisions of Section 2E.23.

Support:

Interchange configurations in Oregon are defined according to AASHTO “A Policy on Geometric Design of Highways and Streets” as either "system interchanges" (interchanges connecting two or more freeways) or "service interchanges" (interchanges connecting a freeway to a lesser facility). As a result, major category (b) interchanges (or "service interchanges") often have more configuration and user variability than major category (a) interchanges (or "system interchanges"). Differentiating major category (a) interchange Standards from major category (b) interchange Guidance allows flexibility in choosing appropriate and practical signing designs for each major interchange.

CHAPTER 2H. GENERAL INFORMATION SIGNS

Section 2H.06 Enhanced Reference Location Signs (D10-4, D10-5)

[Insert new Option and Support paragraphs following Section 2H.06, P4 through P5, as shown below:]

Standard:

If enhanced reference location signs are used, they shall be vertical signs having blue or green backgrounds with white numerals, letters, and borders, except for the route shield, which shall be the standard color and shape. The top line shall consist of the cardinal direction for the roadway. The second line shall consist of the applicable route shield for the roadway. The third line shall identify the mile reference for the location and the bottom line of the Intermediate Enhanced Reference Location sign shall give the tenth of a mile reference for the location. The bottom line of the Intermediate Enhanced Reference Location sign shall contain a decimal point. The height of the legend on enhanced reference location signs shall be a minimum of 6 inches. The height of the route shield on enhanced reference location signs shall be a minimum of 12 inches.

The background color shall be the same for all enhanced reference location signs within a jurisdiction.

Option:

If materials for standard reference locations signs (see Figure 2H-2) are being used to produce enhanced reference location signs, the height of the route shield on enhanced reference location signs may be a minimum of 8 inches, the mile reference may be vertical and the cardinal direction may be omitted.

Support:

Reduced size allows use of standard reference location sign materials to be used while enhancing the information presented.

Section 2H.07 Auto Tour Route Signs

[Insert new Option paragraph following Section 2H.07, P4, as shown below:]

Option:

Auto Tour Route signs may be installed on a highway if they have been approved by the appropriate transportation agency.

Auto Tour Route signs may be installed with other Route signs or confirmation assemblies or on guide signs if approved by the appropriate transportation agency.

CHAPTER 2I. GENERAL SERVICE SIGNS

Section 2I.02 General Service Signs for Conventional Roads

[Delete the strikeout text from Section 2I.02, P10, and insert Support statement as shown below:]

Standard:

Symbols and word message General Service legends shall not be intermixed on the same sign. ~~**The Pharmacy (D9-20) sign shall only be used to indicate the availability of a pharmacy that is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week, and that is located within 3 miles of an interchange on the Federal-aid system. The D9-20 sign shall have a 24 HR (D9-20aP) plaque mounted below it.**~~

Support:

The 2003 MUTCD introduced the use of 24-hour pharmacy signs on General Service signs. Pharmacies are prevalent in every major community in Oregon and after-hours medication emergencies can be adequately handled by 24-hour hospitals or other emergency medical treatment centers making the Pharmacy (D9-20) sign unnecessary.

Section 2I.03 General Service Signs for Freeways and Expressways

[Delete the strikeout text from Section 2I.03, P6, as shown below:]

Only services that fulfill the needs of the road user should be displayed on General Service signs. If State or local agencies elect to provide General Service signing, there should be a statewide policy for such signing and criteria for the availability of the various types of services. The criteria should consider the following:

A. *Gas, Diesel, LP Gas, EV Charging, and/or other alternative fuels if all of the following are available:*
   1. *Vehicle services such as gas, oil, and water;*
   2. *Modern sanitary facilities and drinking water;*
   3. *Continuous operations at least 16 hours per day, 7 days per week; and*
   4. *Public telephone.*
B. *Food if all of the following are available:*
   1. *Licensing or approval, where required;*
   2. *Continuous operation to serve at least two meals per day, at least 6 days per week;*
   3. *Public telephone; and*
   4. *Modern sanitary facilities.*
C. *Lodging if all of the following are available:*
   1. *Licensing or approval, where required;*
   2. *Adequate sleeping accommodations;*
   3. *Public telephone; and*
   4. *Modern sanitary facilities.*
D. *Public Telephone if continuous operation, 7 days per week is available.*
E. *Hospital if continuous emergency care capability, with a physician on duty 24 hours per day, 7 days per week is available. A physician on duty would include the following criteria and should be signed in accordance with the priority as follows:*
   1. *Physician on duty within the emergency department;*
   2. *Registered nurse on duty within the emergency department, with a physician in the hospital on call; or*
   3. *Registered nurse on duty within the emergency department, with a physician on call from office or home.*
F. ~~*24-Hour Pharmacy if a pharmacy is open, with a State-licensed pharmacist present and on duty, 24 hours per day, 7 days per week and is located within 3 miles of an interchange on the Federal-aid system.*~~

G. Camping if all of the following are available:

1. Licensing or approval, where required;

2. Adequate parking accommodations; and

3. Modern sanitary facilities and drinking water.

[Delete the strikeout text from Section 2I.03, P11, as shown below:]

Standard:

Signs for services shall comply with the format for General Service signs (see Section 2I.02) and as provided in this Manual. No more than six general road user services shall be displayed on one sign, which includes any appended supplemental signs or plaques. General Service signs shall carry the legends for one or more of the following services: Food, Gas, Lodging, Camping, Phone, Hospital, ~~24-Hour Pharmacy,~~ or Tourist Information.

[Delete the strikeout text from Section 2I.03, P17, as shown below:]

Option:

Substitutions of other services for any of the services described in Paragraph 16 may be made by placing the substitution in the lower right (four or six services) or extreme right (three services) portion of the sign. An action message or an interchange number may be used for symbol signs in the same manner as they are used for word message signs. The Diesel Fuel (D9-11) symbol or the LP-Gas (D9-15) symbol may be substituted for the symbol representing fuel or appended to such assemblies. The Tourist Information (D9-10) symbol ~~or the 24-Hour Pharmacy (D9-20 and D9-20aP) symbol~~ may be substituted on any of the configurations provided in Paragraph 16.

CHAPTER 2J. SPECIFIC SERVICE SIGNS

Section 2J.02 Application

[Insert the following Support statement prior to Section 2J.02, P1, as shown below:]

Support:

OAR 733-030-0016 is the administrative rule establishing regulations for the location and order of Specific Service signs.

[Delete the strikeout text from Section 2J.02, P1 through P2, and change the last sentence of P1 to a Guidance statement as shown below:]

Standard:

The number of Specific Service signs along an approach to an interchange or intersection, regardless of the number of service types displayed, shall be limited to a maximum of four.

Guidance:

In the direction of traffic, successive Specific Service signs ~~shall~~ should be for ~~24-hour pharmacy,~~ attraction, camping, lodging, food, and gas services, in that order.

Standard:

A Specific Service sign shall display the word message GAS, FOOD, LODGING, CAMPING, or ATTRACTION, ~~or 24 HOUR PHARMACY,~~ an appropriate directional legend such as the word message EXIT XX, NEXT RIGHT, SECOND RIGHT, or directional arrows, and the related logo sign panels.

Section 2J.03 Logos and Logo Sign Panels

[Insert the following text to the Support statement in Section 2J.03, P3, as shown below:]

Support:

Section 2J.05 contains information regarding the minimum letter heights for logo sign panels. In accordance with OAR 733-030-0011, a word message logo is considered a graphic logo for the purposes of this Section.

[Insert new Option and Support paragraphs following Section 2J.03, P16, as shown below:]

Option:

If a single business location provides more than one Specific Service, a logo sign panel may display the symbol/trademark or name of two Specific Services on a single logo sign panel.

Support:

Some businesses in Oregon offer multiple trademarked Specific Services from a single business location that can be accommodated on a single logo sign panel in accordance with OAR 733-030-0021.

Section 2J.04 Number and Size of Signs and Logo Sign Panels

[Insert new Support paragraph following Section 2J.04, P6, as shown below:]

Support:

OAR 733-030-0045 establishes regulations for logo sign panel sizes for conventional highways.

Section 2J.09 Specific Service Trailblazer Signs

[Delete the strikeout text and add the following text to the Support statement in Section 2J.09, P1, as shown below:]

Support:

Specific Service trailblazer signs (see Figure 2J-5) are guide signs ~~with one to four logo sign panels~~ that display business identification and directional information for services and for eligible attractions. Specific Service trailblazer signs are installed along crossroads for facilities that have logo sign panels displayed along the main roadway and ramp, and that require additional vehicle maneuvers. OAR 733-030-0011 and 733-030-0055 establish regulations for the use of Specific Service Trailblazer Signs in Oregon.

Section 2J.10 Signs at Intersections

[Insert new Support paragraph prior to Section 2J.10, P1, as shown below:]

Support:

OAR 733-030-0115 establishes general provisions for tourist-oriented directional signs in Oregon.

Section 2J.11 Signing Policy

[Insert new Support paragraph following Section 2J.11, P1, as shown below:]

Support:

The Travel Information Council establishes the Specific Service sign policy in Oregon in accordance with ORS 377.805.

CHAPTER 2K. TOURIST-ORIENTED DIRECTIONAL SIGNS

Section 2K.01 Purpose and Application

[Add the following text to the Support statement in Section 2K.01, P1, as shown below:]

Support:

Tourist-oriented directional signs are guide signs with one or more sign panels that display the business identification of and directional information for eligible business, service, and activity facilities. OAR 733-030-0115 establishes general provisions for tourist-oriented directional signs in Oregon.

Section 2K.07 State Policy

[Insert new Support paragraph following Section 2K.07, P1, as shown below:]

Support:

The Travel Information Council establishes the tourist-oriented directional sign policy in Oregon in accordance with ORS 377.805.

CHAPTER 2N. EMERGENCY MANAGEMENT SIGNING

Section 2N.03 Evacuation Route Signs (EM-1 and EM-1a)

[Insert new Option paragraph following Section 2N.03, P1 through P2, as shown below:]

Standard:

The Evacuation Route (EM-1 and EM-1a) signs shall display a blue circular symbol on a white square sign without a border as shown in Figure 2N-1. The EM-1 sign shall include a white directional arrow (except as provided in Paragraph 3) and a white legend EVACUATION ROUTE within the blue circular symbol. The EM-1a sign shall include a white EVACUATION ROUTE legend and the tsunami symbol within the blue circular symbol. The EM-1 and EM-1a signs shall be retroreflective.

An Advance Turn Arrow (M5 series) or Directional Arrow (M6 series) auxiliary sign as shown in Figure 2D-5, but with a white arrow on a blue background instead of a black arrow on a white background, shall be installed below the EM-1a sign.

Option:

Tsunami Hazard Zone signs (OD-462), Evacuation Site signs (OD-464), Entering Tsunami Hazard Zone signs (OD-465) and Leaving Tsunami Zone signs (OD-466) may be installed to meet the National Oceanic and Atmospheric Administration and Tsunami Ready Program and Oregon's Emergency Management guidance.

OD-462

OD-464

OD-465

OD-466

PART 3. MARKINGS

CHAPTER 3B. PAVEMENT AND CURB MARKINGS

Section 3B.16 Stop and Yield Lines

[Delete the strikeout text from Section 3B.16, P1 through P14, and insert revised text, Option, and Support paragraphs as shown below:]

~~Guidance~~Standard:

Stop lines or a marked crosswalk ~~should~~ shall be used to indicate the point behind which vehicles are required to stop in compliance with a traffic control signal.

Option:

At a controlled intersection with a marked crosswalk, a separate stop line may be installed if engineering judgment determines a need, such as accommodating truck turning radii, or at highly skewed approaches.

Support:

Lack of stop lines or crosswalks used at traffic control signals has been shown to negatively affect the safety, operation, and efficiency of the intersection. However, separate stop lines used in conjunction with a marked crosswalk at a controlled intersection are unnecessary, as the location of the near-side transverse crosswalk line adequately performs the same function as a stop line without vehicular encroachment into the crosswalk (when a typical 10 foot wide crosswalk is used) and without being confusing to the motorist.

Option:

Stop lines may be used to indicate the point behind which vehicles are required to stop in compliance with a STOP (R1-1) sign, a Stop Here For Pedestrians (R1-5b or R1-5c) sign, or some other traffic control device that requires vehicles to stop, except YIELD signs that are not associated with passive grade crossings.

Yield lines may be used to indicate the point behind which vehicles are required to yield in compliance with a YIELD (R1-2) sign ~~or a Yield Here To Pedestrians (R1-5 or R1-5a) sign~~.

Standard:

Except as provided in Section 8B.28, stop lines shall not be used at locations where drivers are required to yield in compliance with a YIELD (R1-2) sign ~~or a Yield Here To Pedestrians (R1-5 or R1-5a) sign or at locations on uncontrolled approaches where drivers are required by State law to yield to pedestrians~~.

Yield lines shall not be used at locations where drivers are required to stop in compliance with a STOP (R1-1) sign, a Stop Here For Pedestrians (R1-5b or R1-5c) sign, a traffic control signal, or some other traffic control device.

Stop lines shall consist of solid white lines extending across approach lanes to indicate the point at which the stop is intended or required to be made.

Yield lines (see Figure 3B-16) shall consist of a row of solid white isosceles triangles pointing toward approaching vehicles extending across approach lanes to indicate the point at which the yield is intended or required to be made.

Guidance:

Stop lines should be 12 to 24 inches wide.

The individual triangles comprising the yield line should have a base of 12 to 24 inches wide and a height equal to 1.5 times the base. The space between the triangles should be 3 to 12 inches.

If used, stop and yield lines should be placed a minimum of 4 feet in advance of the nearest crosswalk line at controlled intersections, except for yield lines at roundabouts as provided for in Section 3C.04 and at midblock crosswalks. In the absence of a marked crosswalk, the stop line or yield line should be placed at the desired stopping or yielding point, but should not be placed more than 30 feet or less than 4 feet from the nearest edge of the intersecting traveled way.

Stop lines at midblock signalized locations should be placed at least 40 feet in advance of the nearest signal indication (see Section 4D.14).

If ~~yield or~~ stop lines are used at a crosswalk that crosses an uncontrolled multi-lane approach, the ~~yield lines or~~ stop lines should be placed 20 to 50 feet in advance of the nearest crosswalk line, and parking should be prohibited in the area between the ~~yield or~~ stop line and the crosswalk (see Figure 3B-17).

Standard:

If ~~yield (~~stop~~)~~ lines are used at a crosswalk that crosses an uncontrolled multi-lane approach, ~~Yield Here To (~~Stop Here For~~)~~ Pedestrians (R1-5 series) signs (see Section 2B.11) shall be used.

Guidance:

~~Yield (stop)~~Stop lines and ~~Yield Here To (~~Stop Here For~~)~~ Pedestrians signs should not be used in advance of crosswalks that cross an approach to or departure from a roundabout.

Support:

Oregon law (ORS 811.028) requires that drivers stop for pedestrians crossing a roadway within a marked or unmarked crosswalk.

Section 3B.18 Crosswalk Markings

[Delete the strikeout text from Section 3B.18, P9, and insert revised text and Support statement as shown below:]

New marked crosswalks alone, without other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should not be installed across uncontrolled roadways where ~~the speed limit exceeds 40 mph and either~~:

A. The speed limit exceeds 40 mph; or

~~A~~B. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater; or

~~B~~C. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater.

Support:

Language in the Oregon Supplement for Section 3B.18, P9, is consistent with guidance found in FHWA Publication: FHWA-HRT-04-100 and NCHRP Report 562.

PART 4. HIGHWAY TRAFFIC SIGNALS

CHAPTER 4D. TRAFFIC CONTROL SIGNAL FEATURES

Section 4D.03 Provisions for Pedestrians

[Delete the strikeout text from Section 4D.03, P6, and divide the paragraph into separate Standard and Guidance statements with an additional Support statement as shown below:]

~~Guidance~~Standard:

If it is necessary or desirable to prohibit certain pedestrian movements at a traffic control signal location, No Pedestrian Crossing (R9-3) signs (see Section 2B.51) ~~should~~ shall be used.

Guidance:

~~if it is not practical to provide a~~A barrier or other physical feature to physically prevent the pedestrian movements should be provided when a crosswalk is closed at a traffic control signal location.

Support:

ORS 810.080 details the requirements for regulating pedestrian traffic on highways in Oregon.

Section 4D.04 Meaning of Vehicular Signal Indications

[Insert the following Support statement at the beginning of Section 4D.04:]

Support:

The appropriate driver response to traffic control devices in Oregon and the conditions when a vehicle turn is permitted at a traffic control signal are governed by ORS 811.260 and 811.360 respectively.

[Delete the strikeout text from Section 4D.04, P3, Item C, and insert revised text as shown below:]

C. Steady red signal indications shall have the following meanings:

1. **Vehicular traffic facing a steady CIRCULAR RED signal indication, unless entering the intersection to make another movement permitted by another signal indication, shall stop at a clearly marked stop line; but if there is no stop line, traffic shall stop before entering the crosswalk on the near side of the intersection; or if there is no crosswalk, then before entering the intersection; and shall remain stopped until a signal indication to proceed is displayed, or as provided below.**
   Except when a traffic control device is in place prohibiting a turn on red ~~or a steady RED ARROW signal indication is displayed~~, vehicular traffic facing a steady CIRCULAR RED signal indication is permitted to enter the intersection to turn right, or to turn left ~~from a one-way street~~ into a one-way street, after stopping. The right to proceed with the turn shall be subject to the rules applicable after making a stop at a STOP sign.
2. **Vehicular traffic facing a steady RED ARROW signal indication shall not enter the intersection to make the movement indicated by the arrow and, unless entering the intersection to make another movement permitted by another signal indication, shall stop at a clearly marked stop line; but if there is no stop line, before entering the crosswalk on the near side of the intersection; or if there is no crosswalk, then before entering the intersection; and shall remain stopped until a signal indication or other traffic control device permitting the movement indicated by such RED ARROW is displayed, or as provided below.**
   Except ~~When~~ when a traffic control device is in place ~~permitting~~ prohibiting a turn on ~~a steady RED ARROW signal indication~~red, vehicular traffic facing a steady RED ARROW signal indication is permitted to enter the intersection to make the movement indicated by the arrow signal indication, after stopping. The right to proceed with the turn shall be limited to the direction indicated by the arrow and shall be subject to the rules applicable after making a stop at a STOP sign.
3. **Unless otherwise directed by a pedestrian signal indication or other traffic control device, pedestrians facing a steady CIRCULAR RED or steady RED ARROW signal indication shall not enter the roadway.**

Section 4D.07 Size of Vehicular Signal Indications

[Revise Item D and F to Section 4D.07, P3, as shown below:]

Eight-inch circular signal indications may be used in new signal faces only for:

A. The green or flashing yellow signal indications in an emergency-vehicle traffic control signal (see Section 4G.02);

B. The circular indications in signal faces controlling the approach to the downstream location where two adjacent signalized locations are close to each other and it is not practical because of factors such as high approach speeds, horizontal or vertical curves, or other geometric factors to install visibility-limited signal faces for the downstream approach;

C. The circular indications in a signal face that is located less than 120 feet from the stop line on a roadway with a posted or statutory speed limit of 30 mph or less;

D. The circular indications in a supplemental near-side signal face or two-section ramp control signal face;

E. The circular indications in a supplemental signal face installed for the sole purpose of controlling pedestrian movements (see Section 4D.03) rather than vehicular movements; ~~and~~

F. The circular indications in a signal face installed for the sole purpose of controlling a bikeway or a bicycle movement.

[Delete strikeout text from Section 4D.07, P4, and insert revised text as shown below:]

Existing 8-inch circular signal indications that are not included in Items A through F in Paragraph 3 may be retained for the remainder of their useful service life or the service life of the existing signal structural members.

Section 4D.18 Signal Indications for Permissive Only Mode Left-Turn Movements.

[Delete strikeout text from Section 4D.18, P4 through P6, Figure 4D-8, and insert Support statement as shown below:]

~~Option:~~

~~A separate left-turn signal face with a flashing left-turn RED ARROW signal indication during the permissive left-turn movement may be used for unusual geometric conditions, such as wide medians with offset left-turn lanes, but only when an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive left turn.~~

~~**Standard:**~~

~~**If a separate left-turn signal face is being operated in a permissive only left-turn mode and a flashing left-turn RED ARROW signal indication is provided, it shall meet the following requirements (see Figure 4D-8):**~~

~~**A.It shall be capable of displaying the following signal indications: steady or flashing left-turn RED ARROW, steady left-turn YELLOW ARROW, and left-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time. The GREEN ARROW indication is required in order to provide a three-section signal face, but shall not be displayed during the permissive only mode.**~~

~~**B.During the permissive left-turn movement, a flashing left-turn RED ARROW signal indication shall be displayed, thus indicating that each and every vehicle must successively come to a full stop before making a permissive left turn.**~~

~~**C.A steady left-turn YELLOW ARROW signal indication shall be displayed following the flashing left-turn RED ARROW signal indication.**~~

~~**D.It shall be permitted to display a flashing left-turn RED ARROW signal indication for a permissive left-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement.**~~

~~**E.A supplementary sign shall not be required. If used, it shall be a LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Figure 2B-27).**~~

~~Option:~~

~~The requirements of Item A in Paragraph 5 may be met by a vertically-arranged signal face with a horizontal cluster of two left-turn RED ARROW signal indications, the left-most of which displays a steady indication and the right-most of which displays a flashing indication (see Figure 4D-8).~~

Support:

The Oregon Traffic Control Devices Committee (OTCDC) has approved the flashing left-turn YELLOW ARROW signal indication as the only permissible indication for separate left-turn signal faces being operated in a permissive only left-turn mode in Oregon.

Section 4D.20 Signal Indications for Protected/Permissive Mode Left-Turn Movements

[Delete strikeout text from Section 4D.20, P3, Item H, and insert revised text and Support statement as shown below:]

H. The display shall be a four-section signal face except that a three-section signal face containing a dual-arrow signal section shall be permitted ~~where signal head height limitations (or lateral positioning limitations for a horizontally-mounted signal face) will not permit the use of~~if physical conditions make it impractical to use a four-section signal face. The dual-arrow signal section, where used, shall display a GREEN ARROW for the protected left-turn movement and a flashing YELLOW ARROW for the permissive left-turn movement.

Support:

As an early adopter of the flashing YELLOW ARROW for permissive left turns, Oregon followed the language of the Interim Approval for Optional Use of Flashing Yellow Arrow for Permissive Left Turns issued by the Federal Highway Administration on May 20, 2006. The changes to Item H above reflect language used in the interim approval.

[Delete strikeout text from Section 4D.20, P4 through P6, Figure 4D-8, and insert Support statement as shown below:]

~~Option:~~

~~A separate left-turn signal face with a flashing left-turn RED ARROW signal indication during the permissive left-turn movement may be used for unusual geometric conditions, such as wide medians with offset left-turn lanes, but only when an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive left turn.~~

~~**Standard:**~~

~~**If a separate left-turn signal face is being operated in a protected/permissive left-turn mode and a flashing left-turn RED arrow signal indication is provided, it shall meet the following requirements (see Figure 4D-8):**~~

~~**A. It shall be capable of displaying the following signal indications: steady or flashing left-turn RED ARROW, steady left-turn YELLOW ARROW, and left-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time.**~~

~~**B. During the protected left-turn movement, a left-turn GREEN ARROW signal indication shall be displayed.**~~

~~**C. A steady left-turn YELLOW ARROW signal indication shall be displayed following the left-turn GREEN ARROW signal indication.**~~

~~**D. During the permissive left-turn movement, a flashing left-turn RED ARROW signal indication shall be displayed.**~~

~~**E. A steady left-turn YELLOW ARROW signal indication shall be displayed following the flashing left-turn RED ARROW signal indication if the permissive left-turn movement is being terminated and the separate left-turn signal face will subsequently display a steady left-turn RED ARROW indication.**~~

~~**F. When a permissive left-turn movement is changing to a protected left-turn movement, a left-turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing left-turn RED ARROW signal indication. A steady left-turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing left-turn RED ARROW signal indication and the display of the steady left-turn GREEN ARROW signal indication.**~~

~~**G.It shall be permitted to display a flashing left-turn RED ARROW signal indication for a permissive left-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement.**~~

~~**H.A supplementary sign shall not be required. If used, it shall be a LEFT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Figure 2B-27).**~~

~~Option:~~

~~The requirements of Item A in Paragraph 5 may be met by a vertically-arranged signal face with a horizontal cluster of two left-turn RED ARROW signal indications, the left-most of which displays a steady indication and the right-most of which displays a flashing indication (see Figure 4D-8).~~

Support:

The Oregon Traffic Control Devices Committee (OTCDC) has approved the flashing left-turn YELLOW ARROW signal indication as the only permissible indication for separate left-turn signal faces being operated in a protective/permissive left-turn mode in Oregon.

Section 4D.22 Signal Indications for Permissive Only Mode Right-Turn Movements

[Delete strikeout text from Section 4D.22, P3 through P6, Figure 4D-15, and insert Support statement as shown below:]

If a separate right-turn signal face is being operated in a permissive only right-turn mode and a flashing right-turn yellow arrow signal indication is provided, it shall meet the following requirements (see Figure 4D-14):

A. It shall be capable of displaying one of the following sets of signal indications:

1. Steady right-turn RED ARROW, steady right-turn YELLOW ARROW, and flashing right-turn YELLOW ARROW. Only one of the three indications shall be displayed at any given time.

2. Steady CIRCULAR RED, steady right-turn YELLOW ARROW, and flashing right-turn YELLOW ARROW. Only one of the three indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Figure 2B-27) shall be used unless the CIRCULAR RED signal indication in the separate right-turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).

B. During the permissive right-turn movement, a flashing right-turn YELLOW ARROW signal indication shall be displayed.

C. A steady right-turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn YELLOW ARROW signal indication.

D. ~~**When the separate right-turn signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.**~~

E. It shall be permitted to display a flashing right-turn YELLOW ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications.

F. During steady mode (stop-and-go) operation, the signal section that displays the steady right-turn YELLOW ARROW signal indication during change intervals shall not be used to display the flashing right-turn YELLOW ARROW signal indication for permissive right turns.

G. During flashing mode operation (see Section 4D.30), the display of a flashing right-turn YELLOW ARROW signal indication shall be only from the signal section that displays a steady right-turn YELLOW ARROW signal indication during steady mode (stop-and-go) operation.

H. If the permissive only mode is not the only right-turn mode used for the approach, the signal face shall be the same separate right-turn signal face with a flashing YELLOW ARROW signal indication

that is used for the protected/permissive mode (see Section 4D.24) except that the right-turn GREEN ARROW signal indication shall not be displayed when operating in the permissive only mode.

~~Option:~~

~~When an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive right turn, a separate right-turn signal face with a flashing right-turn RED ARROW signal indication during the permissive right-turn movement may be used.~~

~~**Standard:**~~

~~**If a separate right-turn signal face is being operated in a permissive only right-turn mode and a flashing right-turn RED arrow signal indication is provided, it shall meet the following requirements (see Figure 4D-15):**~~

~~**A.It shall be capable of displaying one of the following sets of signal indications:**~~

~~**1.Steady or flashing right-turn RED ARROW, steady right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time. The GREEN ARROW indication is required in order to provide a three-section signal face, but shall not be displayed during permissive only mode.**~~

~~**2.Steady CIRCULAR RED on the left and steady right-turn RED ARROW on the right of the top position, steady right-turn YELLOW ARROW in the middle position, and right-turn GREEN ARROW in the bottom position. Only one of the four indications shall be displayed at any given time. The GREEN ARROW indication is required in order to provide three vertical positions, but shall not be displayed during permissive only mode. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Figure 2B-27) shall be used unless the CIRCULAR RED signal indication in the separate right-turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).**~~

~~**B.During the permissive right-turn movement, a flashing right-turn RED ARROW signal indication shall be displayed, thus indicating that each and every vehicle must successively come to a full stop before making a permissive right turn.**~~

~~**C.A steady right-turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn RED ARROW signal indication.**~~

~~**D.When the separate right-turn signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.**~~

~~**E.The display of a flashing right-turn RED ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement shall be permitted.**~~

~~**F.A supplementary sign shall not be required. If used, it shall be a RIGHT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Figure 2B-27).**~~

~~Option:~~

~~The requirements of Item A.1 in Paragraph 5 may be met by a vertically-arranged signal face with a horizontal cluster of two right-turn RED ARROW signal indications, the left-most of which displays a steady indication and the right-most of which displays a flashing indication (see Figure 4D-15).~~

Support:

The Oregon Traffic Control Devices Committee (OTCDC) has approved the flashing right-turn YELLOW ARROW signal indication as the only permissible indication for separate right-turn signal faces being operated in a permissive only right-turn mode in Oregon.

Section 4D.23 Signal Indications for Protected Only Right-Turn Movements

[Delete strikeout text from Section 4D.23, P3, as shown below:]

Standard:

If a separate right-turn signal face is provided for a protected only mode right turn, it shall meet the following requirements (see Figure 4D-17):

A. It shall be capable of displaying one of the following sets of signal indications:

1. Steady right-turn RED ARROW, steady right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time. A signal instruction sign shall not be required with this set of signal indications. If used, it shall be a RIGHT ON GREEN ARROW ONLY (R10-5a) sign (see Figure 2B-27).

2. Steady CIRCULAR RED, steady right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of three indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Figure 2B-27) shall be used unless the CIRCULAR RED signal indication is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).

B. During the protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed.

C. A steady right-turn YELLOW ARROW signal indication shall be displayed following the right-turn GREEN ARROW signal indication.

D. ~~When the separate signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.~~

E. If the protected only mode is not the only right-turn mode used for the approach, the signal face shall be the same separate right-turn signal face that is used for the protected/permissive mode (see Section 4D.24 and Figure 4D-19) except that a flashing right-turn YELLOW ARROW ~~or flashing right-turn RED ARROW~~ signal indication shall not be displayed when operating in the protected only mode.

Section 4D.24 Signal Indications for Protected/Permissive Only Mode Right-Turn Movements

[Delete strikeout text from Section 4D.24, P3 through P6, Figure 4D-15, and insert Support statement as shown below:]

If a separate right-turn signal face is being operated in a protected/permissive right-turn mode and a flashing right-turn yellow arrow signal indication is provided, it shall meet the following requirements (see Figure 4D-19):

A. It shall be capable of displaying one of the following sets of signal indications:

1. Steady right-turn RED ARROW, steady right-turn YELLOW ARROW, flashing right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the four indications shall be displayed at any given time.

2. Steady CIRCULAR RED, steady right-turn YELLOW ARROW, flashing right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the four indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Figure 2B-27) shall be used unless the CIRCULAR RED signal indication in the separate right-turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).

B. During the protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed.

C. A steady right-turn YELLOW ARROW signal indication shall be displayed following the right-turn GREEN ARROW signal indication.

D. During the permissive right-turn movement, a flashing right-turn YELLOW ARROW signal indication shall be displayed.

E. A steady right-turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn YELLOW ARROW signal indication if the permissive right-turn movement is being terminated and the separate right-turn signal face will subsequently display a steady red indication.

F. When a permissive right-turn movement is changing to a protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing right-turn YELLOW ARROW signal indication. A steady right-turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing right-turn YELLOW ARROW signal indication and the display of the steady right-turn GREEN ARROW signal indication.

G. ~~When the separate right-turn signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.~~

H. It shall be permitted to display a flashing right-turn YELLOW ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications.

I. A signal face containing a dual-arrow signal section in place of separate flashing right-turn YELLOW ARROW and right-turn GREEN ARROW signal sections shall be permitted where signal head height limitations (or lateral positioning limitations for a horizontally-mounted signal face) are a concern. The dual-arrow signal section, where used, shall display a GREEN ARROW for the protected right-turn movement and a flashing YELLOW ARROW for the permissive right-turn movement.

J. During steady mode (stop-and-go) operation, the signal section that displays the steady right-turn YELLOW ARROW signal indication during change intervals shall not be used to display the flashing right-turn YELLOW ARROW signal indication for permissive right turns.

K. During flashing mode operation (see Section 4D.30), the display of a flashing right-turn YELLOW ARROW signal indication shall be only from the signal section that displays a steady right-turn YELLOW ARROW signal indication during steady mode (stop-and-go) operation.

~~Option:~~

~~When an engineering study determines that each and every vehicle must successively come to a full stop before making a permissive right turn, a separate signal face that has a flashing right-turn RED ARROW signal indication during the permissive right-turn movement may be used.~~

~~Standard:~~

~~If a separate right-turn signal face is being operated in a protected/permissive right-turn mode and a flashing right-turn RED arrow signal indication is provided, it shall meet the following requirements (see Figure 4D-15):~~

~~A.It shall be capable of displaying one of the following sets of signal indications:~~

~~1.Steady or flashing right-turn RED ARROW, steady right-turn YELLOW ARROW, and right-turn GREEN ARROW. Only one of the three indications shall be displayed at any given time.~~

~~2.Steady CIRCULAR RED on the left and steady or flashing right-turn RED ARROW on the right of the top position, steady right-turn YELLOW ARROW in the middle position, and right-turn GREEN ARROW in the bottom position. Only one of the four indications shall be displayed at any given time. If the CIRCULAR RED signal indication is sometimes displayed when the signal faces for the adjacent through lane(s) are not displaying a CIRCULAR RED signal indication, a RIGHT TURN SIGNAL (R10-10R) sign (see Figure 2B-27) shall be used unless the CIRCULAR RED signal indication in the separate right-turn signal face is shielded, hooded, louvered, positioned, or designed such that it is not readily visible to drivers in the through lane(s).~~

~~B.During the protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed.~~

~~C.A steady right-turn YELLOW ARROW signal indication shall be displayed following the right-turn GREEN ARROW signal indication.~~

~~**D.During the permissive right-turn movement, the separate right-turn signal face shall display a flashing right-turn RED ARROW signal indication.**~~

~~**E.A steady right-turn YELLOW ARROW signal indication shall be displayed following the flashing right-turn RED ARROW signal indication if the permissive right-turn movement is being terminated and the separate right-turn signal face will subsequently display a steady red indication.**~~

~~**F.When a permissive right-turn movement is changing to a protected right-turn movement, a right-turn GREEN ARROW signal indication shall be displayed immediately upon the termination of the flashing right-turn RED ARROW signal indication. A steady right-turn YELLOW ARROW signal indication shall not be displayed between the display of the flashing right-turn RED ARROW signal indication and the display of the steady right-turn GREEN ARROW signal indication.**~~

~~**G.When the separate right-turn signal face is providing a message to stop and remain stopped, a steady right-turn RED ARROW signal indication shall be displayed if it is intended that right turns on red not be permitted (except when a traffic control device is in place permitting a turn on a steady RED ARROW signal indication) or a steady CIRCULAR RED signal indication shall be displayed if it is intended that right turns on red be permitted.**~~

~~**H.It shall be permitted to display a flashing right-turn RED ARROW signal indication for a permissive right-turn movement while the signal faces for the adjacent through movement display steady CIRCULAR RED signal indications and the opposing left-turn signal faces display left-turn GREEN ARROW signal indications for a protected left-turn movement.**~~

~~**I.A supplementary sign shall not be required. If used, it shall be a RIGHT TURN YIELD ON FLASHING RED ARROW AFTER STOP (R10-27) sign (see Figure 2B-27).**~~

~~Option:~~

~~The requirements of Item A.1 in Paragraph 5 may be met by a vertically-arranged signal face with a horizontal cluster of two right-turn RED ARROW signal indications, the left-most of which displays a steady indication and the right-most of which displays a flashing indication (see Figure 4D-15).~~

Support:

The Oregon Traffic Control Devices Committee (OTCDC) has approved the flashing right-turn YELLOW ARROW signal indication as the only permissible indication for separate right-turn signal faces being operated in a protected/permissive right-turn mode in Oregon.

Section 4D.27 Preemption and Priority Control of Traffic Control Signals

[Delete the strikeout text from Section 4D.27, P8, Item B and insert revised text as shown below:]

Standard:

During the transition into preemption control:

A. The yellow change interval, and any red clearance interval that follows, shall not be shortened or omitted.

B. The shortening or omission of any ~~pedestrian walk interval and/or~~ pedestrian change interval shall be ~~permitted~~prohibited unless the shortening or omission results from a railroad preemption or drawbridge preemption as documented in a highway-rail or highway-LRT grade Crossing Order or drawbridge preemption.

C. The return to the previous green signal indication shall be permitted following a steady yellow signal indication in the same signal face, omitting the red clearance interval, if any.

Support:

OAR 734-020-0320(5)(e) prohibits the termination of an active pedestrian or vehicular clearance interval by emergency preemption or bus priority.

CHAPTER 4I. TRAFFIC CONTROL SIGNALS FOR FREEWAY ENTRANCE RAMPS

Section 4I.02 Design of Freeway Entrance Ramp Control Signals

[Delete strikeout text from Section 4I.02, P1 through P4, as shown below:]

Standard:

Ramp control signals shall meet all of the standard design specifications for traffic control signals, except as otherwise provided in this Section.

The signal face for freeway entrance ramp control signals shall be either a two-section signal face containing red and green signal indications or a three-section signal face containing red, yellow, and green signal indications.

If only one lane is present on an entrance ramp or if more than one lane is present on an entrance ramp and the ramp control signals are operated such that green signal indications are always displayed simultaneously to all of the lanes on the ramp, then a minimum of two signal faces per ramp shall face entering traffic.

If more than ~~one~~ two lanes ~~is~~ are present on an entrance ramp and the ramp control signals are operated such that green signal indications are not always displayed simultaneously to all of the lanes on the ramp, then one signal face shall be provided over the approximate center of each separately-controlled lane.

CHAPTER 4L. FLASHING BEACONS

Section 4L.03 Warning Beacon

[Delete the strikeout text from Section 4L.03, P2 through P5, and insert revised text and Support statements as shown below:]

Standard:

A Warning Beacon shall consist of one or more signal sections of a standard traffic signal face with a flashing CIRCULAR YELLOW signal indication in each signal section.

A Warning Beacon shall be used only to supplement an appropriate warning or regulatory sign or marker.

Warning Beacons, if used at intersections, shall not face conflicting vehicular approaches.

If a Warning Beacon is suspended over the roadway, the clearance above the pavement shall be ~~a~~ minimum of 15 feet and a maximum of ~~19~~ 25.6 feet.

Support:

Interpretation Letter 4(09)-11 (I) issued by FHWA on June 29, 2011 identified an error in Section 4L.03 for the maximum height of Warning Beacons suspended over the roadway. Some Warning Beacons in Oregon are used as supplements to signs suspended over the roadway where the bottom of the sign can be more than 19 feet above the pavement and the Warning Beacons can be more than 20 feet above the pavement. Thus, the maximum height has been changed to match the height specified in Interpretation Letter 4(09)-11 (I).

PART 5. TRAFFIC CONTROL DEVICES FOR LOW-VOLUME ROADS

CHAPTER 5B. REGULATORY SIGNS

Section 5B.03 Speed Limit Signs (R2 Series)

[Insert the following after Section 5B.03, P3:]

Standard:

If Speed Limit (R2 series) signs are used, the word LIMIT shall be omitted on all Speed Limit (R2-1) signs on highways outside of City limits that are not interstate highways or school zones.

Support:

Statutory speeds, designated speeds, speed limits and the basic speed rule are as defined in ORS 810.180, ORS 811.105 and ORS 811.111.

PART 6. TEMPORARY TRAFFIC CONTROL

OREGON TEMPORARY TRAFFIC CONTROL HANDBOOK

The Oregon Temporary Traffic Control Handbook (OTTCH) is a separate publication from the Oregon Supplement to the 2009 MUTCD and covers applications of Part 6 for work zones of 72 hours or less. ODOT and local agencies are free to adopt more restrictive requirements for Part 6 applications in work zones greater than 72 hours as part of their agency's traffic control policy manual and/or specifications.

PART 7. TRAFFIC CONTROL FOR SCHOOL AREAS

CHAPTER 7B. SIGNS

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

[Insert the following Support statement after Section 7B.15, P7:]

Support:

The "Guide to School Area Safety" published by ODOT provides information on the establishment of reduced school speed limit zones in Oregon.

[Insert the following Option and Support statements after Section 7B.15, P9:]

Option:

The SCHOOL DAYS bottom plaque may be used in combination with the S4-1P bottom plaque indicating specific periods of the day that the special school speed limit is in effect in accordance with Oregon law.

The ALL YEAR plaque (S4-7P) may be added to the School Speed Limit Assembly as a top plaque with the SCHOOL (S4-3P) plaque if the school operates on a 12-month schedule.

Support:

ORS 811.111 defines the different conditions for reduced school speed limit zones in Oregon.

[Delete the strikeout text from Section 7B.15, P16, and insert revised text and Support statement as shown below:]

Standard:

If the WHEN FLASHING bottom plaque (S4-4) is used, the ~~A~~ Speed Limit Sign Beacon (see Section 4L.04) shall also ~~may~~ be used to indicate when children are scheduled to arrive at or leave the school.~~, with a WHEN FLASHING legend, to identify the periods that the school speed limit is in effect.~~

Support:

ORS 811.106 defines the conditions for operating flashing beacons in school zones in Oregon.

CHAPTER 7D. CROSSING SUPERVISION

Section 7D.01 Types of Crossing Supervision

[Delete the last sentence of the Support paragraph and insert revised text following Section 7D.01, P2:]

Support:

There are three types of school crossing supervision:

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

~~Information regarding the organization, administration, and operation of a school safety patrol program is contained in the "AAA School Safety Patrol Operations Manual" (see Section 1A.11).~~

The "Oregon Traffic Patrol Manual for Schools" published by the Oregon Department of Education provides information regarding the organization, administration, and operation of school traffic patrol programs in Oregon.

Section 7D.05 Operating Procedures for Adult Crossing Guards

[Delete the strikeout text from Section 7D.05, P2, and insert revised text and Support statement as shown below:]

Adult crossing guards shall use either SCHOOL flags or a STOP paddle approved by the Oregon Department of Education. ~~**The STOP paddle shall be the primary hand-signaling device.**~~

Traffic control devices, systems, and practices approved by the Oregon Department of Education shall be consistent with the design and application of Standards contained in this Manual.

Support:

The Oregon Department of Education regulates traffic patrol programs for schools and monitors requirements for flagging devices including SCHOOL flags and safety vests in accordance with ORS 339.650 through 339.665.

[Insert the following Standard and Support statements after Section 7D.05, P3:]

Standard:

Adult crossing guards shall not use a STOP paddle at a crosswalk controlled by a traffic control signal.

Support:

ORS 811.260 outlines appropriate driver response to a traffic control signal. The previous paragraph ensures that adult crossing guards do not conflict with Oregon law.

PART 8. TRAFFIC CONTROL FOR RAILROAD AND LIGHT RAIL TRANSIT GRADE CROSSINGS

CHAPTER 8A. GENERAL

Section 8A.01 Introduction

[Insert the following Support and Standard paragraphs prior to Section 8A.01, P1, as shown below:]

Support:

Authority to control and regulate the construction, alteration, and protection of highway-rail and highway-LRT grade crossings (in semi-exclusive alignments) is vested exclusively in the State through the Rail Division of the Department of Transportation in accordance with ORS 824.200 through ORS 824.256.

Standard:

Authority to alter, construct, or eliminate a highway-rail or highway-LRT grade crossing, including those traffic control devices in approach to and at the crossing that affect the safety of the crossing, shall be obtained from the State through issuance of a Crossing Order by the Rail Division of the Department of Transportation.

Section 8A.02 Use of Standard Devices, Systems, and Practices at Highway-Rail Grade Crossings

[Delete the strikeout text from Section 8A.02, P1 through P6, and insert revised text as shown below:]

Support:

Because of the large number of significant variables to be considered, no single standard system of traffic control devices is universally applicable for all highway-rail grade crossings.

Guidance:

The appropriate traffic control system to be used at a highway-rail grade crossing should be determined by an engineering study or a diagnostic team involving ~~both~~ the highway agency, ~~and~~ the railroad company, and the Rail Division of the Department of Transportation. The diagnostic team uses engineering judgment to determine the appropriate traffic control system to be used at a grade crossing.

Option:

The engineering study may include the Highway-Rail Intersection (HRI) components of the National Intelligent Transportation Systems (ITS) architecture, which is a USDOT accepted method for linking the highway, vehicles, and traffic management systems with rail operations and wayside equipment.

Support:

More detail on Highway-Rail Intersection components is available from the USDOT's Federal Railroad Administration, 1200 New Jersey Avenue, SE, Washington, DC 20590, or www.fra.dot.gov.

Standard:

Traffic control devices, systems, and practices, including those prescribed in Crossing Orders issued by the Rail Division of the Department of Transportation, shall be consistent with the design and application of the Standards contained in this Manual.

Before any new highway-rail grade crossing traffic control system is installed or before modifications are made to an existing system, approval shall be obtained from the ~~highway agency with the jurisdictional and/or statutory authority, and from the railroad company~~Rail Division of the Department of Transportation.

Section 8A.03 Use of Standard Devices, Systems, and Practices at Highway-LRT Grade Crossings

[Delete the strikeout text from Section 8A.03, P5 through P11, and insert revised text as shown below:]

Guidance:

The appropriate traffic control system to be used at a highway-LRT grade crossing in a semi-exclusive alignment should be determined by ~~an engineering study conducted by~~the Rail Division of the Department of

Transportation through an engineering study and in consultation with the LRT operator and the affected ~~or~~ highway agency in cooperation with other appropriate State and local organizations.

Standard:

Traffic control devices, systems, and practices shall be consistent with the design and application of the Standards contained in this Manual.

The traffic control devices, systems, and practices described in this Manual shall be used at all highway-LRT grade crossings.

Approval shall be obtained from the Rail Division of the Department of Transportation~~Before~~ before any new ~~highway-LRT grade crossing~~ traffic control system is installed or before modifications are made to an existing system, ~~approval shall be obtained from the highway agency with the jurisdictional and/or statutory authority, and from the LRT agency~~at a highway-LRT grade crossing in a semi-exclusive alignment.

Guidance:

To stimulate effective responses from road users, these devices, systems, and practices should use the five basic considerations employed generally for traffic control devices and described fully in Section 1A.02: design, placement, operation, maintenance, and uniformity.

Support:

Many other details of highway-LRT grade crossing traffic control systems that are not set forth in Part 8 are contained in the publications listed in Section 1A.11.

Standard:

Highway-LRT grade crossings in semi-exclusive alignments shall be equipped with a combination of automatic gates and flashing-light signals, or flashing-light signals only, or traffic control signals, unless an engineering study indicates that the use of Crossbuck Assemblies, STOP signs, or YIELD signs alone would be adequate in accordance with a Crossing Order issued by the Rail Division of the Oregon Department of Transportation.

Option:

Highway-LRT grade crossings in mixed-use alignments may be equipped with traffic control signals unless an engineering study indicates that the use of Crossbuck Assemblies, STOP signs, or YIELD signs alone would be adequate.

Support:

Sections 8B.03 and 8B.04 contain provisions regarding the use and placement of Crossbuck signs and Crossbuck Assemblies. Section 8B.05 describes the appropriate conditions for the use of STOP or YIELD signs alone at a highway-LRT grade crossing. Sections 8C.10 and 8C.11 contain provisions regarding the use of traffic control signals at highway-LRT grade crossings.

Section 8A.05 Grade Crossing Elimination

[Delete the strikeout text from Section 8A.05, P2 through P3, and insert revised text as shown below:]

Standard:

When a grade crossing is authorized to be eliminated by the Rail Division of the Department of Transportation, the traffic control devices for the crossing shall be removed by the affected railroad company and public authority in interest.

If the existing traffic control devices at a multiple-track grade crossing become improperly placed or inaccurate because of the removal of some of the tracks, the existing devices shall be relocated and/or modified as authorized by a Crossing Order issued by the Rail Division of the Department of Transportation.

CHAPTER 8B. SIGNS AND MARKINGS

Section 8B.01 Purpose

[Delete the strikeout text from Section 8B.01, P3, and insert revised text as shown below:]

Standard:

The design and location of signs shall comply with the provisions of Part 2. Railroad advance warning signs shall be located in accordance with Figure 8B-06(OR) based upon the safe stopping distance found in Table 1 of OAR 741-100-0020. The design and location of pavement markings shall comply with the provisions of Part 3. Stop lines and railroad advance warning pavement markings shall be located according to Figure 8B-06(OR) in accordance with the Crossing Order issued by the Rail Division of the Department of Transportation.

Section 8B.03 Grade Crossing (Crossbuck) Sign (R15-1) and Number of Tracks Plaque (R15-2P) at Active and Passive Grade Crossings

[Delete the strikeout text from Section 8B.03, P5, and insert revised text as shown below:]

Standard:

If ~~automatic gates are not present and if~~ there are two or more tracks at a grade crossing, the number of tracks shall be indicated on a supplemental Number of Tracks (R15-2P) plaque (see Figure 8B-1) of inverted T shape mounted below the Crossbuck sign in the manner shown in Figure 8B-2.

Section 8B.04 Crossbuck Assemblies with YIELD or STOP Signs at Passive Grade Crossings

[Delete the strikeout text from Note 1 in Figure 8B-2, and insert revised text as shown below:]

Notes:

1. YIELD or STOP signs are used only at passive crossings. A STOP sign is used only if an engineering study or a diagnostic team determines that it is appropriate for that particular approach and the Rail Division of the Department of Transportation has issued an Order authorizing installation of a STOP sign.

[Delete the strikeout text from Section 8B.04, P5, and insert revised text as shown below:]

Standard:

A YIELD sign shall be the default traffic control device for Crossbuck Assemblies on all highway approaches to passive grade crossings unless an engineering study or a diagnostic team ~~performed by the regulatory agency or highway authority having jurisdiction over the roadway approach~~ determines that a STOP sign is appropriate and the Rail Division of the Department of Transportation has issued an Order authorizing installation of a STOP sign.

[Delete the strikeout text from Section 8B.04, P19, and insert revised text as shown below:]

Standard:

At all grade crossings where YIELD or STOP signs are installed, Yield Ahead (W3-2) or Stop Ahead (W3-1) signs shall also be installed if a diagnostic team determines that Yield Ahead (W3-2) or Stop Ahead (W3-1) signs are appropriate and the Rail Division of the Department of Transportation has issued an Order authorizing installation of the appropriate signs~~the criteria for their installation in Section 2C.36 is met~~.

Section 8B.06 Grade Crossing Advance Warning Signs (W10 Series)

[Delete the strikeout text from Section 8B.06, P1 through P3, and insert revised text as shown below:]

Standard:

A Highway-Rail Grade Crossing Advance Warning (W10-1) sign (see Figure 8B-4) shall be used on each highway in advance of every highway-rail grade crossing, and every highway-LRT grade crossing in semi-exclusive alignments, except in the following circumstances:

A. On an approach to a grade crossing from a T-intersection with a parallel highway if the distance from the edge of the track to the edge of the parallel roadway is less than 100 feet and W10-3 signs are used on both approaches of the parallel highway; or

~~B.On low-volume, low-speed highways crossing minor spurs or other tracks that are infrequently used and road users are directed by an authorized person on the ground to not enter the crossing at all times that approaching rail traffic is about to occupy the crossing;~~

~~C.In business or commercial areas where active grade crossing traffic control devices are in use; or~~

~~D.Where physical conditions do not permit even a partially effective display of the sign.~~

E. A Crossing Order issued by the Rail Division of the Department of Transportation authorizes the absence of the Highway-Rail Grade Crossing Advance Warning (W10-1) sign.

The placement of the Highway-Rail Grade Crossing Advance Warning (W10-1) sign shall be in accordance with Figure 8B-6 (OR) and Table 1 of OAR 741-100-0020~~Section 2C.05 and Table 2C-4~~.

A Yield Ahead (W3-2) or Stop Ahead (W3-1) Advance Warning sign (see Figure 2C-6) shall also be installed if a diagnostic team determines that a Yield Ahead (W3-2) or Stop Ahead (W3-1) sign is appropriate and the Rail Division of the Department of Transportation has issued an Order authorizing installation of the appropriate signs~~the criteria for their installation given in Section 2C.36 is met~~. If a Yield Ahead or Stop Ahead sign is installed on the approach to the crossing, the W10-1 sign shall be installed ~~upstream~~ downstream from the Yield Ahead or Stop Ahead sign. The Yield Ahead or Stop Ahead sign shall be located in accordance with ~~Table 2C-4~~Figure 8B-6(OR). The minimum distance between the signs shall be in accordance with Section 2C.05 and Table 2C-4.

Section 8B.09 DO NOT STOP ON TRACKS Sign (R8-8)

[Delete the strikeout text from Section 8B.09, P1, and insert revised text as shown below:]

Guidance:

A DO NOT STOP ON TRACKS (R8-8) sign (see Figure 8B-1) should be installed whenever an engineering study determines that the potential for highway vehicles stopping on the tracks at a grade crossing is significant and the Rail Division of the Department of Transportation has issued an Order authorizing its use and location adjacent to the highway-rail or highway-LRT grade crossing. Placement of the R8-8 sign should be determined as part of the engineering study. The sign, if used, should be located on the right-hand side of the highway on either the near or far side of the grade crossing, depending upon which position provides better visibility to approaching drivers.

Section 8B.27 Pavement Markings

[Delete the strikeout text from Section 8B.27, P1 through P4, and insert revised text as shown below:]

Standard:

All grade crossing pavement markings shall be retroreflectorized white. All other markings shall be in accordance with Part 3.

On paved roadways, pavement markings in advance of a grade crossing shall consist of an X, the letters RR, a no-passing zone marking (on two-lane, two-way highways with center line markings in compliance with Section 3B.01), and certain transverse lines as shown in Figures 8B-6(OR) and 8B-7.

Identical markings shall be placed in each approach lane on all paved approaches to grade crossings where signals or automatic gates are located, and at all other grade crossings where the posted or statutory highway speed is 40 mph or greater.

Pavement markings shall ~~not~~ be required at all paved highway-rail grade crossings and all paved highway-LRT grade crossings in semi-exclusive alignments, unless their absence is authorized in a Crossing Order issued by the Rail Division of the Department of Transportation~~where the posted or statutory highway speed is less than 40 mph if an engineering study indicates that other installed devices provide suitable warning and control. Pavement markings shall not be required at grade crossings in urban areas if an engineering study indicates that other installed devices provide suitable warning and control~~.

Section 8B.28 Stop and Yield Lines

Standard:

On paved roadways~~ at grade crossings that are equipped with active control devices such as flashing light signals, gates, or traffic control signals~~, ~~a~~ stop line~~s~~ ~~(see Section 3B.16)~~ shall be installed at all highway-rail grade crossings and at all highway-LRT grade crossings in semi-exclusive alignments as shown in Figure 8B-6(OR) to indicate the point ~~behind which~~where highway vehicles are ~~or might be~~ required to stop, unless their absence is authorized in a Crossing Order issued by the Rail Division of the Department of Transportation.

Guidance:

On paved roadway approaches to passive grade crossings where a STOP sign is installed in conjunction with the Crossbuck sign, a stop line should be installed to indicate the point ~~behind which~~where highway vehicles are required to stop or as near to that point as practical.

If a stop line is used, it should be a transverse line at a right angle to the traveled way and should be placed ~~approximately 8 feet~~1 foot in advance of the gate (if present), but no closer than ~~15~~ 12 feet in advance of the nearest rail.

Option:

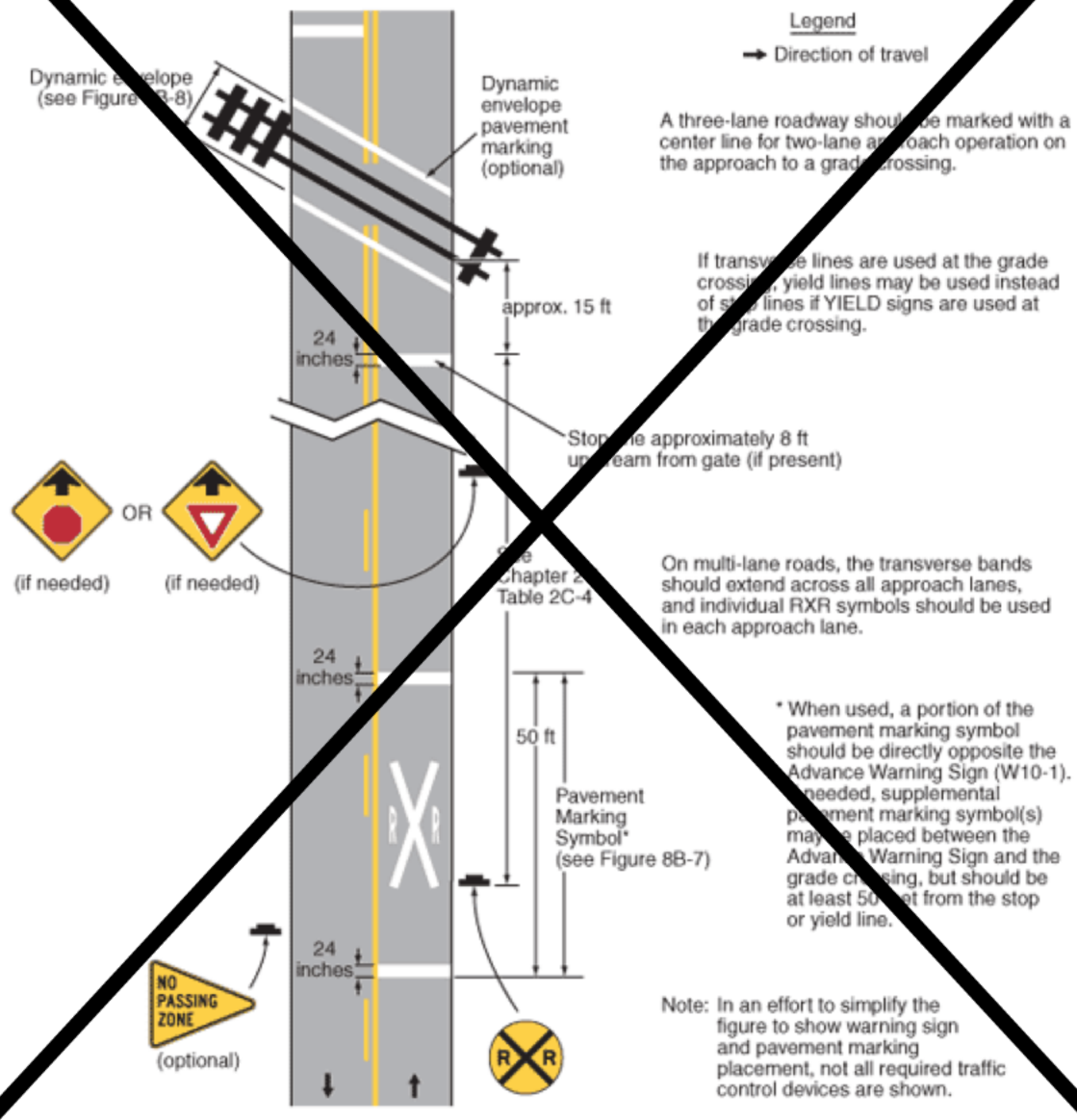
On paved roadway approaches to passive grade crossings where a YIELD sign is installed in conjunction with the Crossbuck sign, a yield line (see Section 3B.16) or a stop line may be installed to indicate the point behind which highway vehicles are required to yield or stop or as near to that point as practical.

Guidance:

If a yield line is used, it should be a transverse line (see Figure 3B-16) at a right angle to the traveled way and should be placed no closer than ~~15~~ 12 feet in advance of the nearest rail (see Figure 8B-7).

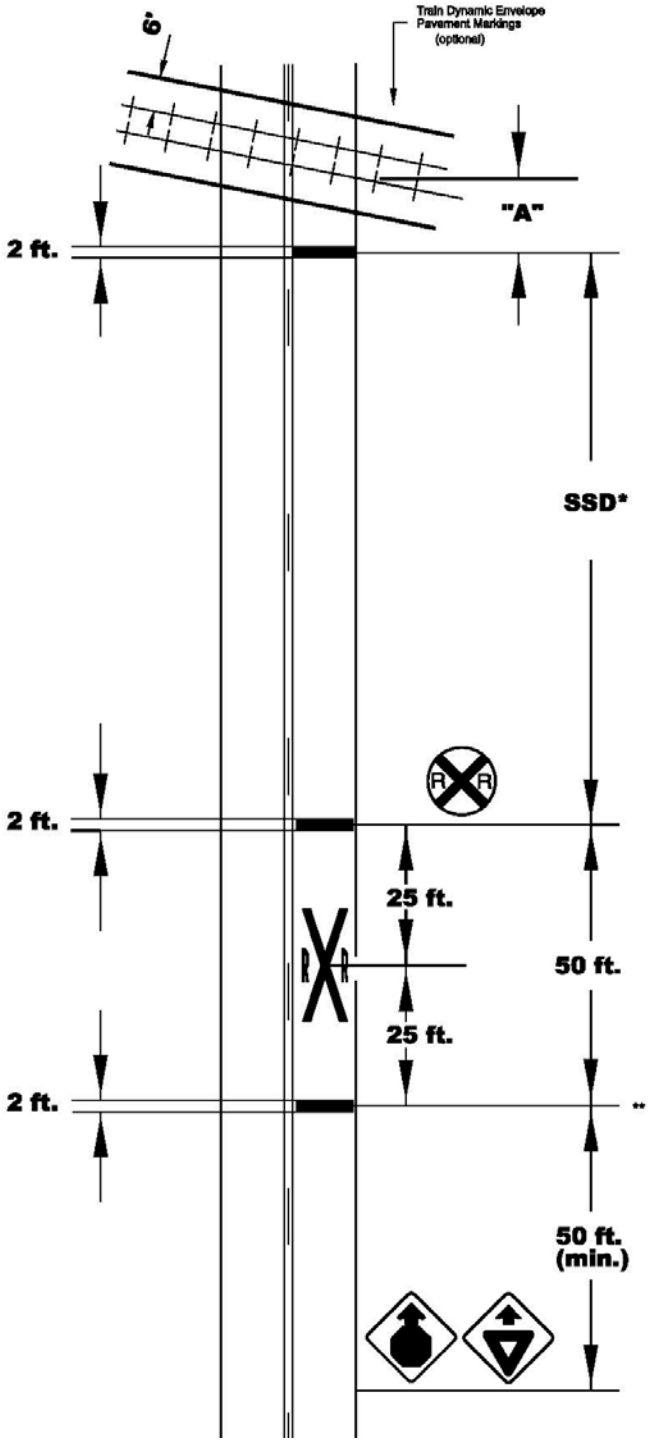
[Delete Figure 8B-6:]

Figure 8B-6. Example of Placement of Warning Signs and Pavement Markings at Grade Crossings



[Insert Figure 8B-6(OR):]

Figure 8B-6(OR). Example of Placement of Warning Signs and Pavement Markings at Grade Crossings



A three-lane roadway should be marked with a Centerline for two-lane approach operation on the approach to a crossing.

On multi-lane roads, the transverse bands should extend across all approach lanes, and individual RXR symbols should be used in each approach lane.

****When used the toe of the pavement marking should be directly opposite the Advance Warning Sign (W10-1)**

***Safe stopping distances (SSD) based on vehicle speed approaching grade crossings: OAR 741-100-0020 (Table 1)**

"A" Stop clearance line location is 12ft minimum from the nearest rail or 1ft in advance of the lowered automatic gate, if used.

"SSD"

SPEED MPH	SSD FEET
15	80
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

Note:
In an effort to simplify the figure to warning sign and pavement marking placement, not all required traffic control devices are shown

CHAPTER 8C. FLASHING-LIGHT SIGNALS, GATES, AND TRAFFIC CONTROL SIGNALS

Section 8C.11 Use of Traffic Control Signals for Control of LRT Vehicles at Grade Crossings

[Insert Option and Support paragraphs following Section 8C.11, P1 through P2, as shown below:]

Guidance:

LRT movements in semi-exclusive alignments at non-gated grade crossings that are equipped with traffic control signals should be controlled by special LRT signal indications.

LRT traffic control signals that are used to control LRT movements only should display the signal indications illustrated in Figure 8C-3.

Option:

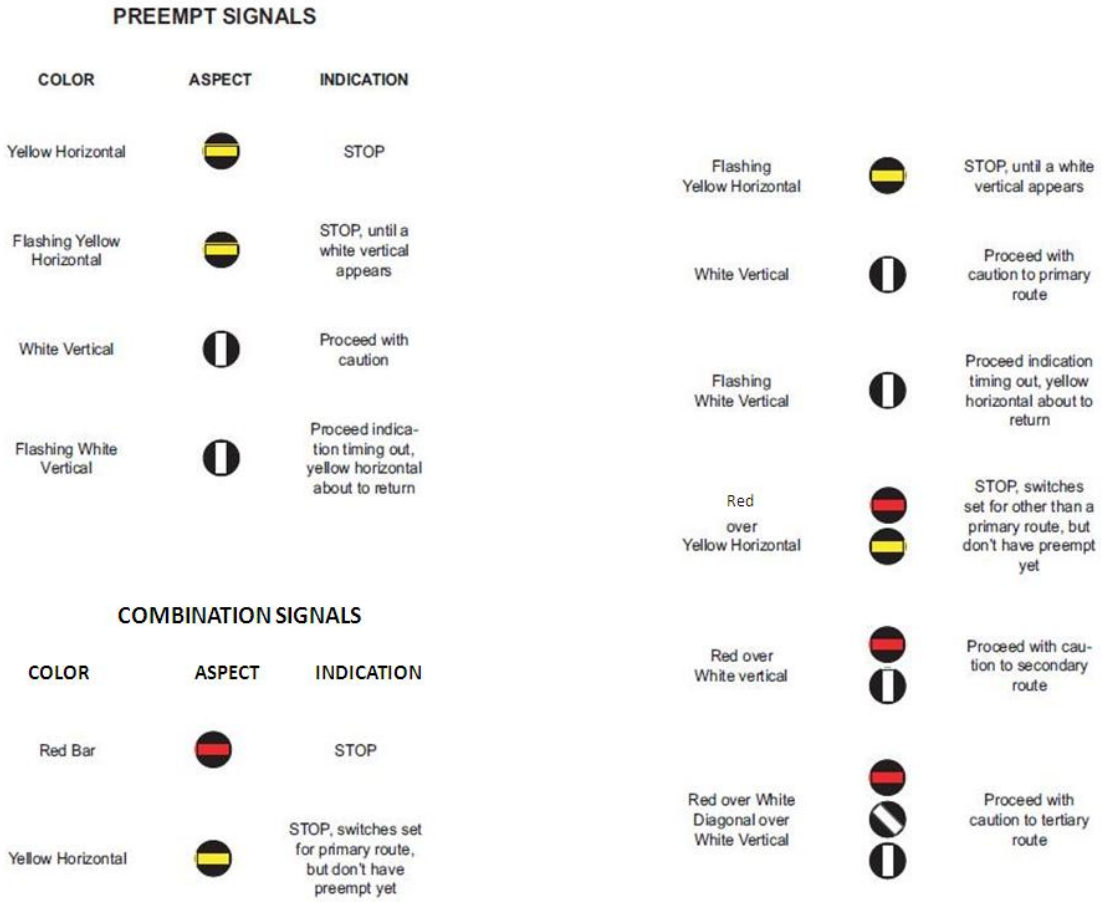
LRT traffic control signals may display the signal indications illustrated in Figure 8C-3(OR).

Support:

Figure 8C-3(OR) illustrates TriMet standards for LRT traffic control signals that were developed prior to their inclusion in the MUTCD, follow national LRT standards, and are found throughout the Portland metropolitan area.

[Insert Figure 8C-3(OR):]

Figure 8C-3(OR). Light Rail Transit Signals



PART 9. TRAFFIC CONTROLS FOR BICYCLE FACILITIES

CHAPTER 9A. GENERAL

Section 9A.01 Requirements for Bicyclist Traffic Control Devices

[Insert new Support paragraphs following Section 9A.01, P1, as shown below:]

Support:

General information and definitions concerning traffic control devices are found in Part 1.

General guidance and design considerations relating to bikeways can be found in the "Oregon Bicycle and Pedestrian Plan," which is available from the ODOT Pedestrian & Bicycle Program website.

Signs referenced in this supplement and in the “Oregon Bicycle and Pedestrian Plan” can be found in the "ODOT Sign Policy & Guidelines,” which is available from the ODOT Traffic Section website.

CHAPTER 9B. SIGNS

Section 9B.01 Application and Placement of Signs

[Insert additional Support paragraph following Section 9B.01, P5, as shown below:]

Support:

Uniformity in design of bicycle signs and plaques includes shape, color, symbols, arrows, wording, lettering, and illumination or retroreflectorization.

Temporary bicycle event signs for short-term and daylight use are considered temporary traffic control (TTC) zone signs and follow the general characteristics of such signs (see Section 6F.02).

Section 9B.03 STOP and YIELD Signs (R1-1, R1-2)

[Revise the Guidance paragraph following Section 9B.03, P1 through P4, as shown below:]

Standard:

STOP (R1-1) signs (see Figure 9B-2) shall be installed on shared-use paths at points where bicyclists are required to stop.

YIELD (R1-2) signs (see Figure 9B-2) shall be installed on shared-use paths at points where bicyclists have an adequate view of conflicting traffic as they approach the sign, and where bicyclists are required to yield the right-of-way to that conflicting traffic.

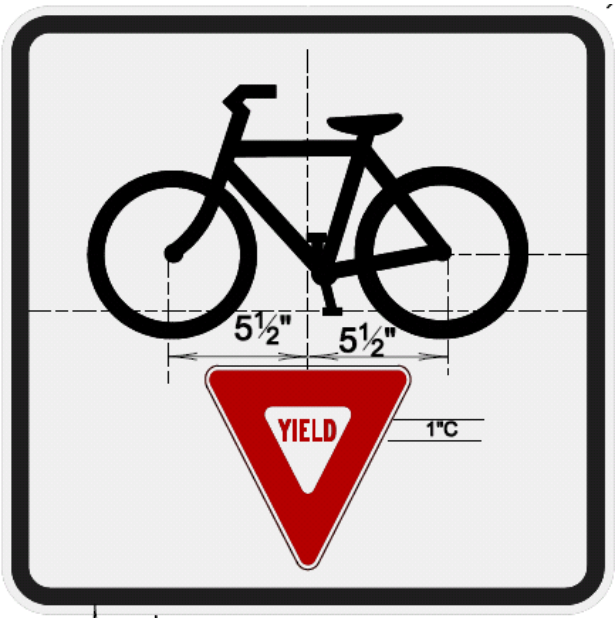
Option:

A 30 x 30-inch STOP sign or a 36 x 36 x 36-inch YIELD sign may be used on shared-use paths for added emphasis.

Guidance:

Where conditions require path users, but not roadway users, to stop or yield, the STOP or YIELD sign should be placed or shielded so that it is not readily visible to road users or BICYCLE STOP (OBR1-1) or BICYCLE YIELD (OBR1-2) signs should be used.

OBR1-1



OBR1-2

Section 9B.20 Bicycle Guide Signs (D1-1b, D1-1c, D1-2b, D1-2c, D1-3b, D1-3c, D11-1, D11-1c)

[Revise text from Section 9B.20, P1, and insert new Support paragraph as shown below:]

Option:

~~Bike Route~~Bicycle Guide signs~~(D11-1) signs~~ (see Figure 9B-4 and Figure 9B-4(OR)) may be provided along designated bicycle routes to inform bicyclists of bicycle route direction changes and to confirm route direction, distance, and destination.

Standard:

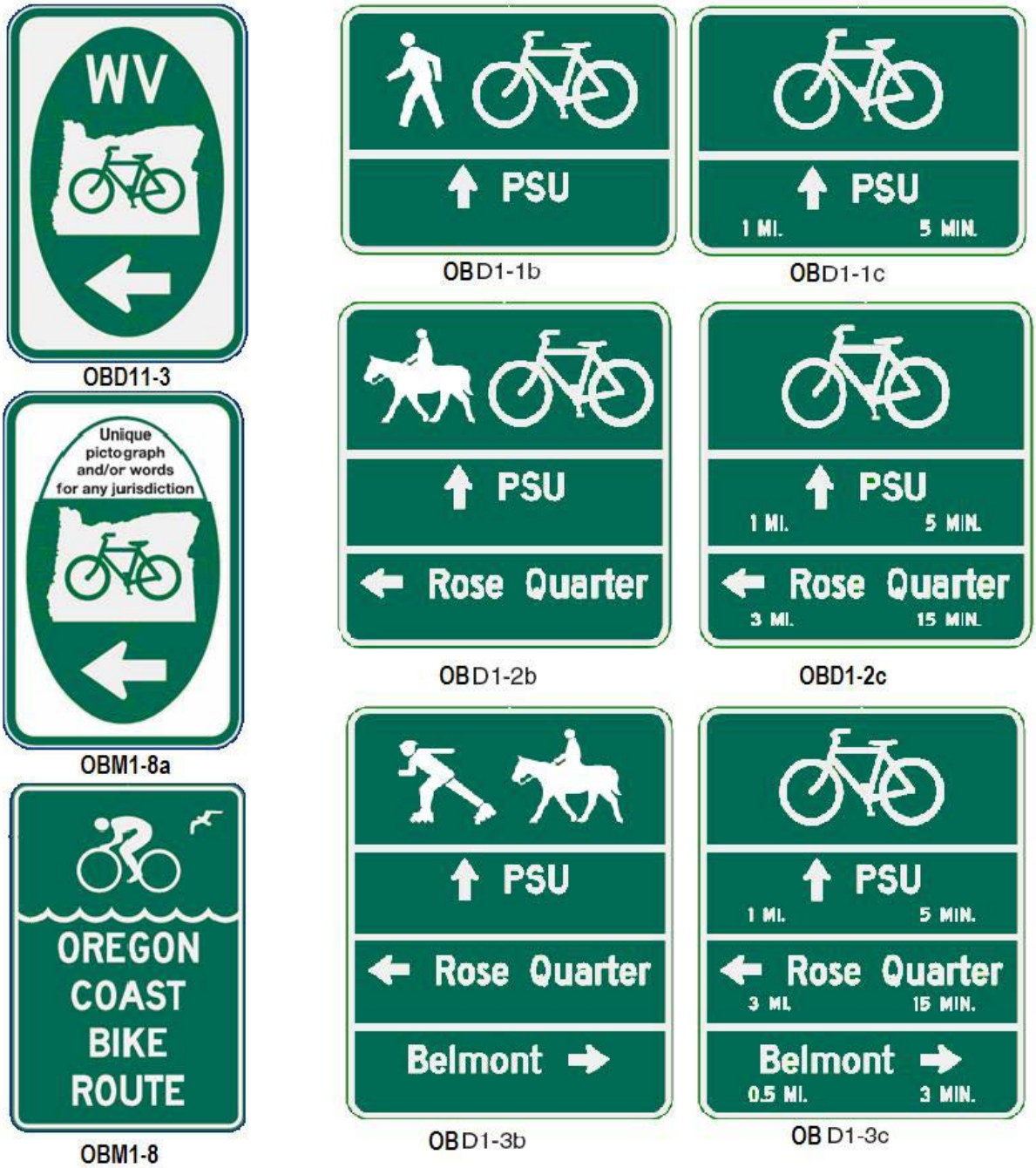
Bicycle Guide signs (see Figure 9B-4 and Figure 9B-4(OR)) shall be consistent with the design, shape, legend, and color contained in this Manual.

Support:

State and local agencies in Oregon developed design details for Bicycle Guide signs prior to their introduction in the MUTCD. Examples of these signs are shown in Figure 9B-4(OR) but are not exclusive of such examples.

[Insert Figure 9B-4(OR):]

Figure 9B-4(OR). Guide Signs and Plaques for Bicycle Facilities



Section 9B.21 Bicycle Route Signs (M1-8, M1-8a, M1-9)

[Revise text from Section 9B.21, P1, and insert new Support paragraph as shown below:]

Option:

To establish a unique identification (route designation) for a State or local bicycle route, ~~the~~ Bicycle Route ~~(M1-8, M1-8a)~~ signs (see Figure 9B-4 and Figure 9B-4(OR)) may be used.

Standard:

Bicycle Route signs (see Figure 9B-4 and Figure 9B-4(OR)) shall be consistent with the design, shape, legend, and color contained in this Manual.

Support:

State and local agencies in Oregon developed design details for Bicycle Route signs prior to their introduction in the MUTCD. Examples of these signs are shown in Figure 9B-4(OR) but are not exclusive of such examples.

CHAPTER 9C. MARKINGS

Section 9C.04 Markings For Bicycle Lanes

[Revise text from Section 9C.04, P1 through P6, as shown below:]

Support:

Pavement markings designate that portion of the roadway for preferential use by bicyclists. Markings inform all road users of the restricted nature of the bicycle lane.

Standard:

Longitudinal pavement markings shall be used in conjunction with bicycle lane symbol markings or Bike Lane signs (see Section 9B.04) to define bicycle lanes. An 8 inch wide longitudinal white line shall be used to separate motor vehicle lanes from bicycle lanes traveling in the same direction. Double yellow longitudinal lines shall be used to separate motor vehicle lanes from bicycle lanes traveling in the opposite direction.

Guidance:

If used, bicycle lane ~~word~~, symbol, and~~/or~~ arrow markings (see Figure 9C-3) should be placed at the beginning of a bicycle lane and at periodic intervals along the bicycle lane based on engineering judgment.

Standard:

If the bicycle lane symbol marking is used in conjunction with word or arrow messages, it shall precede them.

Option:

If the word, symbol, and/or arrow pavement markings shown in Figure 9C-3 are used, Bike Lane signs (see Section 9B.04) may also be used, but to avoid overuse of the signs not necessarily adjacent to every set of pavement markings.

Standard:

A through bicycle lane shall not be positioned to the right of a right turn only lane or to the left of a left turn only lane unless conflicting movements are controlled by a traffic control signal.