

Publications Transmittal

Transmittal Number	Date
PT 11-029	April 2011
Publication Title / Publication Number Traffic Manual M 51-02.05	
Originating Organization	
Traffic Operations	

Remarks and Instructions

The complete manual, revision packages, and individual chapters can be accessed at www.wsdot.wa.gov/publications/manuals/m51-02.htm.

Please contact Cathy Cooper at 360-705-7411 or cooperc@wsdot.wa.gov with comments, questions, or suggestions for improvement to the manual.

For updating printed manuals, page numbers indicating portions of the manual that are to be removed and replaced are shown below.

Chapter	Remove Pages	Insert Pages
Title Page	i – ii	i – ii
Contents	vii – x	vii – x
Chapter 2 Signs	2-1 – 2-76	2-1 – 2-74
Chapter 2 Appendices	2-77 – 2-98	2-75 – 2-102
Chapter 6 Traffic Regulations	6-3 – 6-4 6-11 – 6-22	6-3 – 6-4 6-11 – 6-22
Chapter 7 Specialized Highway Uses	7-11 – 7-22	7-11 – 7-22

To get the latest information, please sign up for e-mail updates for individual manuals at www.wsdot.wa.gov/publications/manuals/.

Washington State Department of Transportation
Publications Services
Phone: 360-705-7430
E-mail: engrpubs@wsdot.wa.gov

PO Box 47304

Olympia, WA 98504-7304

John Nisbet	/s/	
Approved By	Signature	



Traffic Manual

M 51-02.05

April 2011

Americans with Disabilities Act (ADA) Information

Materials can be provided in alternative formats: large print, Braille, cassette tape, or on computer disk for people with disabilities by calling the Office of Equal Opportunity (OEO) at 360-705-7097. Persons who are deaf or hard of hearing may contact OEO through the Washington Relay Service at 7-1-1.

Title VI Notice to Public

It is the Washington State Department of Transportation's (WSDOT) policy to assure that no person shall, on the grounds of race, color, national origin or sex, as provided by Title VI of the Civil Rights Act of 1964, be excluded from participation in, be denied the benefits of, or be otherwise discriminated against under any of its federally funded programs and activities. Any person who believes his/her Title VI protection has been violated, may file a complaint with WSDOT's Office of Equal Opportunity (OEO). For Title VI complaint forms and advice, please contact OEO's Title VI Coordinator at 360-705-7098 or 509-324-6018.

To get the latest information on WSDOT publications, sign up for individual e-mail updates at: www.wsdot.wa.gov/publications/manuals

Washington State Department of Transportation Traffic Operations PO Box 47344 Olympia, WA 98504-7344 360-705-7411 www.wsdot.wa.gov/operations/traffic

Contents

Foreword			Page iii
Comment F	orm		v
Chapter 1	Gen	eral Information	1-1
-	1.1	Overview	1-1
	1.2	Subject Matter	1-1
	1.3	WSDOT Traffic Functions	1-2
	1.4	Key Reference Material	1-4
	1.5	Abbreviations	1-7
Chapter 2	Sign	is .	2-1
	2.1	General	2-1
	2.2	Sign Design	2-2
	2.3	Sign Location, Installation, and Storage	2-7
	2.4	Sign Installation and Maintenance Jurisdiction	2-8
	2.5	Traffic Sign Management System (TSMS)	2-9
	2.6	State Traffic Laws and Regulations Requiring a Sign for Enforcement	2-10
	2.7	Regulatory Signs	2-11
	2.8	Warning Signs	2-18
	2.9	School Areas	2-30
	2.10	Guide Signs	2-33
	2.11	Route Signs	2-35
	2.13	Distance Signs	2-39
	2.14	Supplemental Guide Signs	2-40
	2.15	Destination Selection Requirements and Installation Details for	
		Specific Types of Traffic Generators	2-44
	2.16	Unwarranted Traffic Generators/Destinations	2-54
	2.17	Follow-Through Signing	2-55
	2.18	General Motorist Service Signs (MSS)	2-56
		Other Essential Guide Signs	2-61
		Miscellaneous Signing	2-65
	2.21	<u> </u>	2-73
	2.22	Highway Advisory Radio (HAR) and Traveler Information	
		Station (TIS) Signing	2-74

				Page
		Appendix 2-1	Speed Zone Signing	2-75
		Appendix 2-2	Intersection U-Turn Signing	2-76
		Appendix 2-3	Auxiliary Climbing Lane Signing	2-77
		Appendix 2-4	Auxiliary Passing Lane Signing	2-78
		Appendix 2-5	Wrong Way Signing for At-Grade Intersections	2-79
		Appendix 2-6	Wrong Way Signing for Interchange Ramps	2-80
		Appendix 2-7	Wrong Way Signing for Roundabouts	2-81
		Appendix 2-8	Shoulder Driving Signing	2-82
		Appendix 2-9	Slow Moving Vehicle Turn-Out Signing	2-83
		Appendix 2-10	Low Clearance Signing	2-84
		Appendix 2-11	Lateral Clearance Markers – Objects Within	
			Outside Shoulder	2-85
		Appendix 2-11A	Lateral Clearance Markers – Objects Within	
			Inside Shoulder	2-86
		Appendix 2-12	Reduced School Speed Zone Signing	2-87
		Appendix 2-13	Route Intersection Guide Signing	2-88
		Appendix 2-14	Crossroad Interchange Approach Guide Signs	2-89
		Appendix 2-15	Expressway Intersection Approach Guide Signs	2-90
		Appendix 2-16	Expressway Interchange Approach Guide Signs	2-91
		Appendix 2-17	Freeway Interchange Approach Signing	2-92
		Appendix 2-18	Freeway Exit Ramp Guide Signs	2-93
		Appendix 2-19	Freeway Post Interchange Signs	2-94
		Appendix 2-20	Auxiliary Freeway Lane Less than 1/4 Mile Long	
		Appendix 2-21	Auxiliary Frewway Lane 1/4 Mile or More in Len	_
		Appendix 2-22	Supplemental Guide Sign Criteria	2-97
		Appendix 2-23	Signing to Amtrak	2-98
		Appendix 2-24	Application for Historic/Cultural Sign	2-99
		Appendix 2-25	Adopt-a-Highway Signs for Volunteer Groups	2-100
		Appendix 2-26	Adopt-a-Highway Signs for Business	
			Spnsored Groups	2-101
Chapter 3	Delir	neation		3-1
•	3.1	General		3-1
	3.2	Pavement Markin	ngs	3-1
	3.3	Guideposts	-	3-2
	3.4	Barrier Delineati	on	3-3
	3.5	Chevron Alignme	ent Signs	3-3
	3.6	Raised Pavement	<u> </u>	3-3
	3.7	Impact Attenuato	or Marking	3-4

			Page
Chapter 4	Sigr	nals and Illumination	4-1
•	4.1	MUTCD	4-1
	4.2	Design Manual	4-1
	4.3	Flashing Operation	4-1
	4.4	Intersection Control Beacons	4-1
	4.5	Audio-Tone Signal Application	4-2
	4.6	Illumination	4-2
Chapter 5	Wor	k Zone Traffic Control	5-1
	5.1	General	5-1
	5.2	Principles	5-1
	5.3	Strategy Planning	5-9
	5.4	Plan Preparation	5-10
	5.5	Work Zone Operations	5-14
		Appendix 5.A Work Zone Traffic Control	5.A-1
		Appendix 5.B Speed Limit Reductions in Work Zones	5.B-1
Chapter 6		fic Regulations	6-1
	6.1	General	6-1
	6.2	Documentation	6-2
	6.3	Regional Traffic Regulations	6-3
	6.4	Headquarters Traffic Regulations	6-11
	6.5	Other Traffic Restrictions	6-20
	6.6	Rescinding Existing Traffic Regulations	6-20
Chapter 7	•	cialized Highway Uses	7-1
	7.1	Introduction	7-1
	7.2	Bicycling, Running, Walking, Parade, and Festival Special Events	
	7.3	Commercial Filming on State Highways	7-6
	7.4	Other Special Events	7-7
	7.5	Traffic Control for Special Events	7-7
	7.6	Special Event Signing Guidelines	7-9
	7.7	Banners Special Event Povement Moderners	7-11
	7.8	Special Event Pavement Markings Transit Vahiela Stan Zanes	7-14 7-14
	7.9 7.10	Transit Vehicle Stop Zones School Pus Stops on Limited Access Highways	7-14 7-16
	7.10	School Bus Stops on Limited Access Highways Interpretive Signs/Markers	7-10
	7.11	•	7-17
	7.12		7-17
	7.13		7-18
	/ . 1 ¬ T	Appendix 7-1 Memorandum of Understanding	7-25
		Appendix 7-2 Transit Vehicle Stop Zone Guidelines	7-40
		Appendix 7-3 Interpretive Signs/Markers Agreement	7-68

				Page	
Chapter 8	High	hway Advertisin	g Control	8-1	
	8.1	8.1 General			
	8.2	Highway Advert	ising Signs	8-1	
	8.3	Advertising at Rest Areas and on Washington State Ferries			
		Appendix 8-1	Unzoned Commercial/Industrial Area	8-35	
		Appendix 8-2	Sign Visibility Checklist on Unregulated Roadways	8-36	
		Appendix 8-3	Type 3(b) Business Complex On-Premise Sign	8-37	
		Appendix 8-4	Off Premise Sign Spacing – Interstate	8-38	
		Appendix 8-5a	Off Premise Sign Spacing – NHS Non-Interstate		
		11	Controlled Access	8-39	
		Appendix 8-5b	Off Premise Sign Spacing – NHS Non-Interstate		
		11	Non-Controlled Access	8-40	
		Appendix 8-6	Sign Permit Application	8-41	
		Appendix 8-7	Permit Application Transmittal	8-42	
		Appendix 8-8a	Interstate Sign Permit Review Checklist	8-43	
		Appendix 8-8b	NHS Non-Interstate or Scenic System Sign		
		11	Permit Review Checklist	8-44	
		Appendix 8-9	Agricultural Sign Permit Application	8-45	
			Sample Voluntary Compliance Letter –		
		11	Property Owner	8-47	
		Appendix 8-10b	Sample Voluntary Compliance Letter – Sign Owner	8-48	
		Appendix 8-11	Request for AG Assistance to Remove Illegal Signs	8-49	
		Appendix 8-12	Highway Advertising Control Field Review	8-50	
		Appendix 8-13	Illegal Sign Inventory	8-51	
		Appendix 8-14	Letter to City for Illegal Sign Removal	8-52	
Chapter 9	Safe	ety Managemen	t System	9-1	
	9.1	General		9-1	
	9.2	SMS Collaborati	on Responsibilities Within WSDOT	9-2	
	9.3	SMS Needs Iden	tification Within WSDOT	9-3	
	9.4	SMS Solution ar	nd Resource Development Within WSDOT	9-3	
	9.5	SMS Investment	Prioritization/Implementation Within WSDOT	9-4	
	9.6	SMS Investment	Tracking Within WSDOT	9-4	
	9.7	SMS Investment	Evaluation Within WSDOT	9-5	
	9.8	WSDOT Program	nming for Safety Preservation and Improvements	9-6	
	9.9	References		9-6	

2.1 General

Effective signing is the primary method to provide regulatory, warning, and guidance information to transportation system users. Signing that is clear, concise, and accurate supports safe, legal, and orderly travel on public roadways and transportation facilities. Sign use must be limited and conservative since signs can lose their effectiveness when used to excess. Signs are not typically used to confirm Rules of the Road.

This chapter contains information about signing on the state roadway system and is intended for persons involved in traffic operation or design. Specific policies and guidelines are included that clarify the *Manual of Uniform Traffic Control Devices* (MUTCD) information. Situations not addressed in this chapter or the MUTCD may need to be determined on a case-by-case basis using engineering judgment.

Where a change to the current sign installation is indicated by information in this chapter, replace as the current sign's service life is reached. MUTCD compliance dates for some replacements are noted where applicable.

State law requires the department to adopt uniform standards for traffic control devices, including signs, along public roadways. WAC 468-95 adopts the MUTCD and Washington State Modifications to the MUTCD M 24-01 as these standards. The MUTCD and WSDOT modifications provide guidance on the intended use and placement of regulatory, warning, guide, and motorist information signs, as well as specific information on sizes and installation. This chapter supplements the MUTCD and WSDOT modifications with specific interpretations and unique applications for signs on the state highway system.

Guidelines for the use of traffic control signs are discussed in the following MUTCD chapters:

MUTCD Location	Sign Type	
Chapter 2B	Regulatory Signs, Barricades, and Gates	
Chapter 2C	Warning Signs and Object Markers	
Chapter 2D	Guide Signs – Conventional Roads	
Chapter 2E	Guide Signs – Freeways and Expressways	
Chapter 2F	Toll Road Signs	
Chapter 2G	Preferential and Managed Lane Signs	
Chapter 2H	General Information Signs	
Chapter 2I	General Service Signs	
Chapter 2J	Specific Service Signs	

Chapter 2L	Changeable Message Signs
Chapter 2M	Recreational and Cultural Interest Signs
Chapter 2N	Emergency Management Signs
Part 6	Work Zone Signs
Part 7	School Area Signs
Part 8	Railroad and Light Rail Signs
Part 9	Bicycle Facility Signs

2.2 Sign Design

The WSDOT *Sign Fabrication Manual* M 55-05 contains geometric layout details for most signs used by the department.

The sign number codes indicated in the *Sign Fabrication Manual* and other departmental publications are exclusive to WSDOT and may not correspond to MUTCD number codes for similar signs.

Any modification to a symbol regulatory or warning sign requires FHWA experimentation approval.

(1) Designing a Sign Message

This section contains information about layout and fabrication of signs that are not addressed in the *Sign Fabrication Manual*.

- (a) **Message Content** A sign message must convey the necessary information in a simple, direct manner using clear and concise wording. English language is used on signs on the state transportation system. Historical names (including non-English) may be used for place names such as for a town or natural or cultural feature.
- (b) Letter Sizing Letter sizes for primary and supplemental guide signs are determined by roadway type and operating speed. A sign message must be large enough to give the viewer adequate time to read and comprehend the information, and to respond with a driving task or other action as required. MUTCD Tables 2E-2 through 2E-5 show the appropriate standard letter sizes to be used. Signs on non-roadway portions of the transportation system (i.e., bicycle or pedestrian paths, transit stations) are sized to reflect the specific conditions of use.

Studies indicate the average driver comprehends three words per second, after a message perception time of up to two seconds. Unique messages require more perception time than messages that are commonly used. Determine the needed letter height for a particular sign by using the following formula that combines the comprehension rate and the perception time with the operational speed of the roadway.

LETTER HEIGHT = (N/3 + 2) f

Where: N = Number of words in the message.

f = Legibility factor (see Table 2-1).

(Found by dividing vehicle speed in feet per second (fps) by 30, the legibility distance per inch of letter height.)

*MPH	(fps)	f
25	37	1.2
30	44	1.5
35	51	1.7
40	59	2.0
45	66	2.2
50	73	2.4
55	81	2.7
60	88	2.9
65	95	3.2
70	103	3.4

^{*}Speed (legal speed limit or 85th percentile speed).

'f' Values by Speed Table 2-1

The following example applies the formula and calculates desirable letter height:

Example message: "SNOQUALMIE PASS RADIO TRAFFIC INFO 1 MILE"

Roadway Speed = 65 mph

$$N = 7$$

 $f = 3.2$
Height = $(7/3 + 2) 3.2 = 14$ inches
LETTER HEIGHT = Use 14-inch letters

- (c) **Message Layout and Spacing** Sign message layout and spacing requirements are specified in the *Sign Fabrication Manual*.
- (d) **Abbreviations** Abbreviations must be immediately recognizable by the viewer and are only used to avoid excessively long sign messages. Do not use abbreviations if the controlling (longest) message line is long enough to allow use of the complete word. Do not abbreviate place names except for those approved in the list below.

To maintain statewide uniformity, the Headquarters Traffic Office must approve abbreviations other than those listed below. Periods are not used in sign abbreviations, except for British Columbia (B.C.) and United States (U.S. Customs).

The following are the only pre-approved abbreviations:

AFB Air Force Base
Alt Alternate
Ave Avenue

B.C. British Columbia

Beach Bch Blvd Boulevard Coll College Comm Community Co County Cr Creek Court Ct Ctr Center

DNR Department of Natural Resources (campground, etc.)

Dr Drive
E East
Elev Elevation
FS Forest Service

Ft Fort
Fwy Freeway
Fy Ferry

Hist Historic (as in "Nat'l Hist District")

HOV High Occupancy Vehicle

Hts Heights

Hwy Highway and State Route

Info Information International Int'l Junction Jct km Kilometers Lab Laboratory Lk Lake Lane Ln Loop Lp Lt Left M Meters Max Maximum Med Medical

Mi Mile(s)
Min Minimum
MPH Miles Per Hour
Mt Mount (Rainier)
Mtn Mountain

Mtn Mountain
N North
NE North East
NW North West
NAS Naval Air Station

Nat'l National Ore Oregon

ORV Off Road Vehicle

Ped Pedestrian
Pkwy Parkway
Pl Place
Pop Population
Pt Port or Point

Rd Road

Rec Area Recreational Area
Res Reservation
RR Railroad
Rt Right

RV Recreational Vehicle

S South
SE South East
SW South West

Sea-Tac Airport Seattle-Tacoma Airport

St Street
Temp Temporary
Thru Through
Univ University

U.S. (Customs, etc.)
USA United States of America
USFS U.S. Forest Service

W West Wy Way

WSDOT Washington State Department of Transportation

State Patrol Washington State Patrol

Xing Crossing

(2) Reflective Sign Sheeting Material Requirements

Traffic control signs are fabricated using various types of reflective sheeting material. Each sheeting type has different retroreflective properties and different practical applications. The sign type and its location determine the specific sheeting to be used. The following sheeting types are designated in ASTM Specification D 4956:

- **Type I** Medium-intensity retroreflective sheeting, referred to as "Engineer Grade." Warranty life of 7 years.
- **Type II** Medium-high-intensity retroreflective sheeting referred to as "Super Engineer Grade." Warranty life of 10 to 12 years.
- **Type III** High-intensity retroreflective sheeting referred to as "High Intensity." Warranty life of 10 years.
- **Type IV** High-intensity prismatic retroreflective sheeting, referred to as "High Performance." Warranty life of 10 years.
- **Type VIII** Super high-intensity prismatic retroreflective sheeting, referred to as "Super High Performance." Warranty life of 10 years.

• **Type IX** – Very high-intensity prismatic retroreflective sheeting, referred to as "VIP Diamond Grade" or "Omni-View." Warranty life of 12 years.

• **Type X** – Super-high-intensity prismatic retroreflective sheeting, referred to as "Fluorescent Orange Prismatic." Warranty life of 3 years.

The following table shows the specific sheeting type to use, based on the sign type, location, and lighting environment. When ordering a sign from the WSDOT Yakima sign shop, specify the sheeting type.

Sign Type	Roadway Illumination	Sheeting Type (Background)	Sheeting Type (Legend, Symbols, Border)
Regulatory			
Ground Mounted	N/A	III or IV	N/A ¹
Overhead	N/A	IV	N/A
Warning			
Ground Mounted	N/A	III or IV	N/A
Overhead	N/A	VIII or IX	N/A
Guide Signs			
Ground Mounted	N/A	II	III or IV
Overhead Exit Only	Continuous ²	III or IV ³	VIII or IX
Overhead Exit Only	Non-Continuous – Sign Light Required	II	III or IV
Overhead Left Side Exits	Sign Light Required	II	III or IV
Other Overhead Guide	N/A	III or IV	VIII or IX
Overhead Street Name	N/A	III or IV	IV
Route Markers (M-Series Signs)	N/A	II	III or IV
General Information (I-Series Signs)	N/A	II	III or IV
School (S-Series Signs) ⁴ (S1-1, S4-3, "School" portion of S5-1, and S5-101)	N/A	VIII or IX	N/A
Milepost Markers	N/A	II	III or IV
Blue and Brown Background Signs	N/A	II	III or IV
Fluorescent Orange (Work Zone Signs)	N/A	Х	N/A

¹Red is Type III or IV, black is non-reflective.

Table 2-2

²Continuous Illumination. There is continuous roadway illumination between interchanges.

³For Yellow Background sheeting, use Type VIII or IX Fluorescent sheeting.

⁴Fluorescent Yellow Green (FYG) sheeting.

2.3 Sign Location, Installation, and Storage

(1) Sign Location

Signs shall be located and positioned according to standards outlined in the MUTCD Section 2A.16–2A.21, *Design Manual* M 22-01 Chapter 1020, and *Standard Plan* G-20.10-00. These standards address sign mounting height and lateral and longitudinal placement.

- Signs must be placed to provide a clear view for the roadway user and to not obstruct other signs.
- Signs must be sufficiently spaced to allow the roadway user time for making required decisions and to safely execute any necessary maneuver.
- Overloading roadway users with too much information may cause confusion.
- Signs should be located as far from the traveled way as possible, while remaining visually effective. They should be placed on the backslope of a ditch, rather than the inslope or bottom.

(2) Sign Installation

Signs shall be installed according to standards contained in *Design Manual* Chapter 1020, *Standard Plans* Section G, and MUTCD Section 2A.16–2A.21. Refer to these documents for installation standards for:

- Ground mounted signs on steel, wood, and box beam posts.
- Overhead sign installations, including service walkways.
- Height of sign (vertical clearance or "v" dimension).
- Horizontal location of sign ("w" dimension).
- Sign post break-away safety features.
- Windload information is shown at www.wsdot.wa.gov/design/traffic/signing/.

(3) Temporary and Permanent Attention Devices

Attention getting devices, such as flags, may be used temporarily with newly installed warning or regulatory signs. They can draw attention to a traffic revision such as a speed limit change or the addition of a traffic signal. Temporary attention devices are fluorescent yellow in color. They are generally displayed for a minimum of two weeks and a maximum of one month. Devices may be displayed up to two months when greater impact is needed.

Attention devices may be permanently placed only when a high impact continues to be needed to improve compliance with a specific traffic regulation or other traffic control. Permanent attention devices have been used on Interstate or other major roadways where there is a speed limit reduction of 10 mph or greater. Permanent attention devices shall be fluorescent yellow prismatic sheeting and must be approved by the region traffic engineer following an engineering investigation, which includes a review of crash and speed data. The unnecessary

use of attention devices erodes their effectiveness and must be avoided. Therefore, permanent attention devices must be re-evaluated every six to 12 months for continued effectiveness and re-approved by the region traffic engineer.

(4) Controlling Vegetation Around Signs

The department's maintenance crews are responsible for maintaining visibility to signs by clearing vegetation that obscures the full view of a sign face. Thoughtful sign placement can reduce the need for vegetation control.

The following guidance will generally provide sign visibility. Greater clearing may be necessary in some situations to achieve full visibility to the sign.

Area Description	Distance*	Width**
Low Speed Urban	200 feet	Varies
Rural	500 feet	Varies
Freeways and All Guide Signs	800 feet	Varies

^{*}Distance is measured in the direction that the sign faces, along the edge of the traveled way.

Table 2-3

(5) Sign Storage

Signs must be stored properly to prevent damage to the sign face. Sign sheeting is damaged by exposure to dirt and water during storage, which can reduce its retroreflectivity. Never store signs laying flat. Moisture accumulation between signs will cause sheeting failure.

Store all packaged signs on edge and indoors. If packaged signs become wet, unpack them immediately and separate the signs to dry (clothespins work well). Provide ample space between signs to allow free air circulation and moisture evaporation from each sign face.

If outdoor storage is required for short periods, remove all packing materials so nothing is against the sign face. Store signs on edge, separated with clothespins, and set above the ground in a clean area.

2.4 Sign Installation and Maintenance Jurisdiction

Jurisdictional responsibility for traffic control signs (and other traffic control devices) on public highways is assigned through several state statutes.

 The department is responsible for erecting and maintaining traffic control signs upon every state highway (RCW 47.36.050). Local jurisdictions are assigned the responsibility to erect and maintain traffic control signs on roadways within their jurisdiction (RCW 47.36.060).

^{**}Width varies. Clear vegetation from edge of pavement to 5 feet beyond the sign edge that is farthest from the roadway, or to the edge of the right of way.

These responsibilities are further defined:

 On limited access roadways, including any interchange cross-streets, the department is responsible for signing (RCW 47.52.020 and RCW 47.24.020(2)). This can be superseded by an agreement with a local agency that designates other responsibility arrangements (RCW 47.52.090).

Responsibility for signing along city streets that are part of the state highway system is assigned based on the population of the city (RCW 47.24.020(12) and (13)) and is shown in Table 2-4. Population is determined by the Washington State Office of Fiscal Management and can be found at www.ofm.wa.gov/pop/april1/finalpop.pdf.

It is important to work with each city to ensure that city signs are not installed on department sign posts and that adequate sign spacing is maintained.

	Responsibility Based on City Population				
Sign Type	Over 25,000	Under 25,000			
Regulatory	City	State			
Parking	City	City			
Warning	City	State			
Route Markers	State	State			
Primary Guide Signs	State	State			
Street Name	City	City			
School	City	State			
MIS Logo	City	City*			
Informational	City	City			
DUI Victim Memorial	City	City			

^{*}The department may install these signs, if authorized through a specific agreement with a city or town.

Sign Installation and Maintenance Responsibility Non-Limited Access Highways Table 2-4

2.5 Traffic Sign Management System (TSMS)

TSMS is a statewide sign inventory computer program that provides both a complete inventory and a history of maintenance actions for each sign on the state highway system.

The Headquarters and region Traffic Offices use TSMS to provide accurate records regarding:

- Sign location.
- Original installation and replacement dates.

- · Sign message.
- Sign size.
- Letter height.
- Direction of sign face.
- Sheeting type and color.
- Maintenance history.

The region Traffic Offices are responsible for keeping the TSMS up to date including:

- Entering new sign data.
- Collecting the Sign Activity Reports (SAR) from region maintenance personnel and inputting that data to keep the TSMS current and factual.
- Conducting periodic field inventories.
- Inventorying all signs installed by contract.
- Updating inventory after construction projects are completed.
- Night reflectivity review.

The region maintenance personnel are responsible for filling out a Sign Activity Report (SAR) that details each activity performed. This provides important history and identifies needed maintenance actions. The SAR is sent to the region Traffic Office for input into the TSMS. In some regions, maintenance personnel input SAR data in cooperation with the region Traffic Office

Regions also provide TSMS reports to Traffic, Maintenance, or other offices as requested.

The Headquarters Traffic Operations Office is responsible for maintaining and updating the TSMS program to meet the department's business needs, including data storage and selective retrieval of sign inventory and maintenance activity data.

2.6 State Traffic Laws and Regulations Requiring a Sign for Enforcement

Some Rules of the Road (RCW 46.61) are not enforceable unless appropriate signs are posted. The following signs must be installed to enforce a regulation (RCW). Place these signs at the point of regulation or where the prohibition begins and ends.

Sign Message	Sign Number	RCW	
STOP & YIELD	R1-1 & R1-2	47.36.110	
SPEED LIMIT	R2-1	46.61.405	
SPEED LIMIT, TRUCKS	R2-2	46.61.410	
MINIMUM SPEED LIMIT	R2-4	46.61.425	
HOV FACILITIES	R3-10, 11, 12, 13	46.61.165	
BICYCLES MUST EXIT	R5-601	46.61.160	
NO MOTORIZED FOOT SCOOTERS	R5-1003 & R5-1004	46.61.710	
PARKING RESTRICTIONS	R7 SERIES	46.61.575	
RESERVED PARKING FOR	R7-801	46.61.581	
DISABLED PERSONS			
NO STOPPING RESTRICTIONS	R8 SERIES	46.61.570	
NO HITCHHIKING	R9-4 & R9-4A	46.61.255	
PEDESTRIAN PROHIBITION	R5 SERIES	WAC 468-58-030	
WEIGHT RESTRICTIONS, etc.	R12 SERIES	46.61.450	
SCHOOL SPEED LIMIT	S5-1	46.61.440	
RANGE AREA	12-401 & 12-501	16.24.060	
LIMITED ACCESS	12-601 & 12-701	47.52.110	
HITCHHIKING PERMITTED	17-901	46.61.255	
SLOW VEHICLES MAY USE SHLDER	I8-501	46.61.428	

Signs Needed for Enforcement Table 2-5

2.7 Regulatory Signs

Regulatory signs alert transportation system users to applicable traffic laws or regulations, and provide information and instructions required for compliance. Regulatory signs, whose installation is required for enforcement of a law, are listed in Section 2.6.

(1) Stop Signs

The department shall install and maintain all STOP (R1-1) signs at the intersections of county roads with state highways (RCW 47.36.100). The department shall install and maintain all STOP signs at the intersections of city streets with state highways within the corporate limits of cities having populations less than 25,000 (RCW 47.24.020(13)).

STOP signs shall be a minimum 36 x 36 inches on all roadways. A 48 x 48 inch sign may be used on divided highways with at-grade intersections or where otherwise indicated by a traffic and engineering study. On low-volume roads (under 400 ADT), a 30-inch STOP sign may be used.

(2) Yield Signs

YIELD (R1-2) signs are installed to assign right of way to traffic on certain approaches to an intersection. In addition to guidance in the MUTCD, YIELD signs are installed as follows:

- They shall be installed to assign right of way at the entrance to a roundabout intersection per the MUTCD.
- They should be installed along freeway or expressway on-ramps where acceleration ramp geometry and/or sight distance do not meet *Design Manual* minimum standards. Install the Yield sign so that it is primarily visible only to ramp traffic.
- They may be installed at entrances to ramp and standard intersection right turn islands.

Use the tables in *Design Manual* Chapter 1360 to determine the appropriate minimum length for the acceleration lane portion of an on-ramp.

(3) Speed Limit Signs

SPEED LIMIT (R2-1) signs are installed to display the maximum allowable vehicle speed as established by law or regulation. Install a TRUCKS XX (R2-2) sign below the standard speed limit sign where a special speed limit is mandated for trucks over 10,000 pounds gross weight, or vehicles in combination, or where the maximum speed limit for cars and trucks is different.

Speed limit signs are prominently located for maximum awareness at the following locations:

- At the point of change from one speed limit to another.
- On the far side of major interchanges or intersections, including between state highways.
- At entrances to Washington State and at boundaries of cities and towns.
- In rural areas, at 10- to 20-mile intervals.

On **conventional roadways**, locate a sign for each direction of travel, opposite one another at the speed zone boundary. If existing features prohibit opposite installation, the signs may be offset up to 150 feet in either direction from the speed zone boundary and located a maximum of 300 feet apart. If the signs cannot be installed within these parameters, the speed zone boundary may be changed by the State Traffic Engineer to accommodate sign installation.

On **multilane divided highways**, install signs on both the right and left sides of the roadway at speed zone boundaries. Confirmation speed limit signs may be installed on the right side only.

On **freeways**, install signs a minimum of 1,500 feet beyond on-ramp acceleration lanes (MUTCD Section 2E-38). Where interchange ramps are closely spaced, conduct a traffic engineering analysis to determine the most effective intervals for posting speed limit signs.

Do not place a speed limit sign between a CURVE or TURN warning sign and the roadway curve or turn itself. Adjust the speed limit boundary location if necessary, to avoid this placement.

See Appendix 2-1 for typical Speed Limit sign layout. See Section 2.08(4) for use of the SPEED REDUCTION (W3-5) warning sign.

See Chapter 6 for information on setting permanent speed limits and Chapter 5 for guidelines on temporary construction zone speed limits.

(4) U-Turns

U-Turns are allowed at some roadway intersections, both inside and outside of cities and towns. Signing may be installed to designate where U-turns are allowed and that the side street must yield to the U-turn movement. Appendix 2-2 shows typical U-turn signing associated with left turn lanes at signalized intersections.

(5) U-Turn Prohibition

The MUTCD states that TURN PROHIBITION signs (R3-1 through R3-4, R3-18) shall be installed where U-turns are prohibited. U-turns are allowed where the maneuver can be made safely, without interfering with other traffic, and at least 500 feet from a horizontal or vertical curve (RCW 46.61.295).

On limited access roadways, with median sections, restricted U-turn locations are installed for use by law enforcement, maintenance, and emergency vehicles only (RCW 47.52.120). Sign these median locations with a NO U-TURN (R3-4) sign.

(6) Two-Way Left Turn Lane

TWO-WAY LEFT TURN ONLY signs may be installed where a lane in the center of a highway is reserved for the use of left-turning vehicles (in either direction) and is not used for passing or overtaking. The post-mounted (R3-9a or R3-9b) or the overhead mounted (R3-9) sign may be used to supplement two-way left turn lane pavement markings. A plaque indicating BEGIN or END may be mounted above either sign to identify the limits of the two-way left turn area.

Additional WSDOT criteria apply to the use of two-way left turn lane signs:

- Install the initial sign near the beginning of the two-way left turn lane and repeat installation as necessary, based on an analysis of operating conditions.
- BEGIN or END plaques are not installed where a two-way left turn lane is interrupted by left turn channelization on either one or both intersection approaches.

(7) Auxiliary Climbing and Passing Lanes

For sections of state highway that include auxiliary climbing lanes:

• Install a TRUCK LANE XXX FEET (R4-6) sign in advance of the climbing lane.

• Install a SLOWER TRAFFIC KEEP RIGHT (R4-3) sign near the beginning of the climbing lane.

- Install a RIGHT LANE ENDS (W9-1R) in advance of the climbing lane terminus, where spacing allows.
- Install a LANE ENDS (W4-2L) sign in advance of the climbing lane terminus. A distance plaque may be installed as a supplement to this sign.

See Appendix 2-3 for signing layout.

For sections of state highway that include auxiliary passing lanes:

- Install a PASSING LANE XXX MILES (R4-601) sign ½ to ½ mile in advance of the passing lane. Show the approximate distance to the passing lane, measured to the nearest ¼ mile.
- Install a KEEP RIGHT EXCEPT TO PASS (R4-301) sign at the beginning of the passing lane.
- Install a RIGHT LANE ENDS (W9-1R) sign in advance of the passing lane terminus, where spacing allows.
- Install a LANE ENDS (W4-2L) sign in advance of the passing lane terminus. A distance plaque may be installed as a supplement to this sign.
- An optional NEXT PASSING LANE XXX MILES (R4-602) sign may be installed up to 500 feet beyond the passing lane terminus to show the approximate distance to the next passing lane.

See Appendix 2-4 for signing layout.

(8) Keep Right Except to Pass

The KEEP RIGHT EXCEPT TO PASS sign (R4-301) may be used on multi-lane roadways to remind motorists of state law RCW 46.61.100 which requires vehicles to stay in the right lane of multilane roadways, except to pass. The sign has also been installed at the request of law enforcement agencies to aid their enforcement efforts at specific locations.

Use the following criteria when determining sign locations:

- The preferred sign location is in the median.
- Signs are not to be placed within ½ mile in advance of an interchange.
- Signs are not to be placed through an interchange area.
- Signs are not to be placed within 5 miles of each other in the same direction of travel.

(9) Vehicles Over 10,000 lbs. Prohibited in Left Lane

VEHICLES OVER 10,000 LBS. PROHIBITED IN LEFT LANE (R4-302) signs shall be installed on multilane roadways with three or more lanes in one travel direction to remind large vehicles that they are prohibited from travel in the left lane per RCW 46.61.100(3) and WAC 468-510-020.

(10) Do Not Enter and Wrong Way Signing

DO NOT ENTER (R5-1) signs shall be installed at every location where traffic is prohibited from entering a restricted roadway. ONE WAY (R6-1) signs are to be installed above DO NOT ENTER signs. Install WRONG WAY (R5-1a) signs as a supplement to the DO NOT ENTER signs at each location. WRONG WAY signs are placed further from the crossroad than the DO NOT ENTER sign.

Complete WRONG WAY signing for freeway at-grade intersections, interchange ramps, and roundabouts shall be installed as shown in Appendices 2-5, 2-6 and 2-7.

(11) Bicycle and Motorized Foot Scooters Prohibition

As part of vehicular traffic, bicycles are permitted on all state highways except where restricted by regulation (RCW 46.61.160 and WAC 468-58-050). Additionally, "motorized foot scooters may have access to highways of the state to the same extent as bicycles" (RCW 46.61.710(5)); thus, they are also restricted in the same areas as bicycles. Restrictions are located primarily on limited access freeways, but may be determined for other locations based on an engineering investigation. They are noted at www.wsdot.wa.gov/bike/closed.htm.

Install advance signing to inform bicyclists and motorized foot scooter riders of the upcoming restricted section, and to give alternate route directions.

- On the mainline, install a BICYCLES AND MOTORIZED FOOT SCOOTERS MUST EXIT 1/4 MILE (R5-602) sign in advance of the prohibited area.
- Install a BICYCLE AND MOTORIZED FOOT SCOOTERS MUST EXIT (R5-601 with arrow) sign at the closest off-ramp or intersection in advance of the restricted segment.
- Install a BICYCLES AND MOTORIZED FOOT SCOOTERS PROHIBITED (R5-1003) sign at a prohibition point such as an on-ramp to a prohibited freeway segment.
- Install PEDESTRIANS, HITCHHIKERS, BICYCLES, AND MOTORIZED FOOT SCOOTERS PROHIBITED (R5-1004) sign at on-ramp entrances to prohibited areas.

(12) No Pedestrian Crossing

NO PEDESTRIAN CROSSING signing (R9-3 or R9-3A) may be installed at a signalized intersection or other locations, based on engineering judgment, where pedestrian crossing is prohibited. Locate the sign so that it is visible to all pedestrians who may consider crossing, normally on the opposite side of the roadway in line with the travel path of the pedestrian. The supplemental sign USE CROSSWALK (R9-3B R or L) may be installed below.

(13) Pedestrian Prohibition

Install a PEDESTRIANS PROHIBITED sign (R5-10 series) at access points to limited access highways where pedestrians are prohibited by a department regulation (WAC 468-58-050).

(14) Shoulder Driving

Shoulder driving is permitted on selected portions of two-lane highways (RCW 46.61.428). Chapter 7, Section 7.14, of this manual defines the roadway characteristics required to designate a shoulder driving area. Identify designated shoulder driving areas by installing signs to inform vehicular traffic of the permitted action.

- Install a SLOW VEHICLES MAY USE SHOULDER (I8-501) sign at the beginning of the shoulder driving zone.
- Supplement with a NEXT XXX MILES (I7-702) advisory distance plaque and a DAYLIGHT HOURS ONLY (I8-701) sign.
- Repeat this signing as appropriate at a maximum interval of 5 miles.
- Install an END SHOULDER DRIVING (I8-601) sign at the end of the designated shoulder driving zone.

See Appendix 2-8.

(15) Slow Vehicle Turnouts

Slow vehicle turnouts provide passing opportunities along state roadways and are identified by specific signing to inform motorists of the turnout location:

- Install a SLOW VEHICLES USE TURNOUTS NEXT XXX MILES (I8-101) sign where turn-outs occur at several consecutive locations. Place in advance of the initial turnout.
- Install the DELAY OF 5 VEHICLES ILLEGAL (I8-201) sign in advance of each turnout.
- Install the SLOW VEHICLE TURNOUT XXX FT/MILE (I8-401) sign in advance of each turnout.
- Install a SLOW VEHICLE TURNOUT "arrow" (I8-301) sign at the beginning of each turnout.
- NO PARKING (R8-3) or NO PARKING SYMBOL (R8-3A) signs may be installed within the turnout area.

See Appendix 2-9.

(16) Range Area

A RANGE AREA sign (I2-401) shall be installed wherever a state highway enters an open range area, as determined by the local county government (RCW 16.24.060). Repeat signing at points designated by the governing county

commissioners and install signs at county boundaries if the range area spans adjoining counties. Some county websites list the designated range areas within their county.

Install the LEAVING RANGE AREA (I2-501) sign where a state highway leaves an open range area.

(17) Unmuffled Compression Brakes

It is against the law to use **unmuffled** compression brakes (RCW 46.37.395). The department installs signs (R4-605) at border crossings, just inside state boundaries and along the ramps to or from weigh stations to inform drivers of this regulation.

Use these guidelines to determine spacing between this and other roadway signing:

- On freeway installations, use a minimum spacing of 500 feet.
- On multilane high speed roadways with at grade intersections, use a minimum spacing of 400 feet.
- On two-lane, high-speed roadways, use a minimum spacing of 300 feet.
- On multilane and two-lane, low speed facilities within incorporated areas, use a minimum spacing of 150 feet.

The department will not install these signs on non-access controlled highways within incorporated areas. The local agency may install and maintain such signing.

(18) Compression Brake Prohibition

Signs prohibiting compression brake use may be installed only where a local agency ordinance prohibiting their use has been adopted (RCW 70.107.060(3)) and where sign spacing is available. The local agency must agree to pay the fabrication, installation, and subsequent maintenance costs.

Install signs (R4-604) before the restricted area as follows:

- On limited access routes, install sign beyond major interchanges. Locate between the route marker assembly and the speed limit signs. Where sign space is limited, install below the city entrance marker.
- Along non-access controlled routes outside corporate limits, install signs upon leaving corporate limits, and beyond the junction of major intersections, not to exceed one sign every 5 miles.
- Along non-access controlled city streets that are also state highways, the local agency may work with the department to install signs about the prohibition.

Note: Compression brake regulations are noise regulations rather than traffic regulations. The department does not regulate compression brake use.

2.8 Warning Signs

Warning signs are installed to alert roadway users to unexpected conditions on or adjacent to the roadway that require special attention and that may require a reduction in speed or other action to maintain safe vehicle operation.

Determine the appropriate placement of warning signs based on the MUTCD Guidelines for Advanced Placement of Warning Signs, Table 2C-4, and on an engineering and traffic investigation. The guidelines provide minimum advance placement distances, based on vehicle speeds and location specific conditions.

Warning signs are installed on both sides of the road on multilane divided roadways that have two or more lanes in one direction. Speed limit signs should never be located between any warning sign and the condition warned for, when the warning sign indicates a need to reduce speed.

Yellow is the standard background color for warning signs. Fluorescent yellow/green (FYG) may be used for bicycle, pedestrian, or playground signs where there are an unusual number of conflicts or where strong attention must be drawn to the sign because of distracting surroundings.

Minimum Warning Sign Sizes					
Roadway Type	Minimum Sign Size				
Freeways and Expressways	48" x 48"				
Multilane and Conventional Roadways	36" x 36"				

(1) Turn and Curve (Horizontal Alignment) Signs and Advisory Speed Plaques

TURN and CURVE signs are installed to alert motorists to horizontal curvature in the roadway alignment. Advisory speed plaques supplement the signs as determined by a traffic and engineering study (generally using a ball banking instrument to provide readings as the study vehicle traverses each curve). WSDOT has adopted the following application when determining curve and advisory speed signing installations:

Advisory Speed (mph)	Maximum Ball Bank Reading
20 mph or less	14
25 and 30 mph	12
35 mph and greater	10

The TURN (W1-1) sign is used where the engineering and traffic investigation indicates the advisory speed for a horizontal turn to be 30 mph or less.

The CURVE (W1-2) sign is used where the engineering and traffic investigation indicates the advisory speed for a horizontal curve to be from 35 mph to 65 mph.

Install the appropriate TURN or CURVE sign where the recommended curve speed is at the posted speed limit.

Install a supplemental ADVISORY SPEED PLAQUE (W13-1) below the TURN or CURVE sign if the advisory speed is 5 mph or more below the posted speed limit, or if an engineering and traffic investigation indicates the need for the sign.

If a supplemental DISTANCE PLAQUE is used, such as beneath a WINDING ROAD (W1-5L/R) sign, show the distance as a fraction of a mile rather than a decimal (½ mile rather than .5 mile). The fraction is more quickly read and easily understood by the motorists.

(2) Hairpin Curve

Install a HAIRPIN CURVE sign (W1-901L/R) where the change in the roadway horizontal alignment is 135 degrees or more, and:

- A traffic engineering analysis of roadway, geometric, and operating conditions shows the recommended curve speed to be 30 mph or less.
- The recommended curve speed is equal to or less than the posted speed limit.

Install a supplemental advisory speed plaque (W13-1) below the HAIRPIN CURVE sign if an engineering and traffic investigation indicates the need for the sign. A large arrow sign (W1-6) or chevron alignment signs (W1-8) should be used in conjunction with the hairpin curve sign.

(3) Chevron Alignment

CHEVRON ALIGNMENT (W1-8) signs are used to provide emphasis and guidance for a change in horizontal road alignment. When the curve advisory speed is 15 mph or more below the speed limit, CHEVRONS shall be installed. Refer to MUTCD Table 2C-5 for additional guidance.

If used, CHEVRONS shall be installed on the outside of a turn or curve, in line with and at approximately a right angle to approaching traffic. Install a minimum of three signs in a series, with at least two signs visible to the motorist at all times throughout the curve.

They should be installed on circular interchange ramps, or on other curving alignments where run off the road crashes have demonstrated an operational deficiency.

(4) Speed Limit Reduction Ahead

The SPEED LIMIT REDUCTION AHEAD (W3-5) warning sign has replaced the black on white "SPEED LIMIT AHEAD XX" regulatory sign. The SPEED LIMIT REDUCTION AHEAD sign is installed at locations where the speed limit reduces by 10mph or greater. On multilane divided roadways, install a SPEED LIMIT REDUCTION AHEAD sign on both the left and right sides. Locate the sign to allow sufficient distance to safely slow the vehicle to the reduced speed as shown in Table 2-6.

	_	70	65	60	55	50	45	40	35	30
	65	430								
	60	720	390							
Speed Limit (mph)	55	1000	660	350						
nit (50	1250	910	600	310					
d Li	45	1470	1140	820	540	270				
bee	40	1670	1340	1030	740	470	230			
	35	1850	1520	1200	920	650	410	200		
Reduced	30	2000	1670	1360	1070	810	570	350	160	
Re	25	2140	1800	1490	1200	940	700	480	290	120

Approach Speed Limit (mph)

Speed Reduction Signs Advance Location Table 2-6

1040

800

590

390

230

1310

(5) Truck Tipping

20

2240

1910

1600

The TRUCK ROLLOVER (W1-13) sign may be installed in advance of a horizontal curve where there is a history of truck tipping crashes, a Ball Bank indication of 12 degrees or more, or a side friction factor of f=>0.21*. Display the recommended speed on an ADVISORY SPEED PLAQUE (W13-1) below the TRUCK ROLLOVER sign. Install the TRUCK ROLLOVER sign in addition to standard CURVE, TURN, LARGE ARROW, and/or CHEVRON warning signs.

*Use the following formula for a third method to determine the truck speed of a curve:

$$V^2 = 15 R (e + f)$$

Where:

V =Speed in miles per hour

R = Radius curve in feet

e = Rate of super-elevation in feet per foot

f = > 0.21 (Safe coefficient of side friction)

(6) Low Clearance

LOW CLEARANCE (W12-301) warning signs shall be installed where there is 15'3" or less of vertical clearance between the roadway surface and an overhead obstruction such as an overpass.

The maximum legal vehicle height permitted on state highways is 14 feet (RCW 46.44.020). At the direction of the MUTCD, and through operational experience, a 15-inch buffer (which includes 3 inches for frost heave) has been added to the 14-foot maximum legal height, setting the minimum LOW CLEARANCE signing threshold at 15'3". Appendix 2-10 shows signing details.

Install LOW CLEARANCE signing in the following situations:

- (a) At locations where the clearance is **14 feet or greater but less than 15'3"**, install the following:
 - The LOW CLEARANCE (W12-301) or the LOW CLEARANCE w/ARROW (W12-302) at the low point on the structure.
 - The advance LOW CLEARANCE (W12-2) sign on the right shoulder.
 - Display the clearance height to the nearest inch, but not exceeding the actual clearance.
- (b) At locations where the clearance on any portion of the structure is **less than**14 feet:
 - Install the LOW CLEARANCE (W12-301) or LOW CLEARANCE w/ARROW (W12-302) sign at the low point on the structure. Where the clearance varies, such as at arched structures or tunnels, additional signs may be used to provide effective clearance information.
 - Install the LOW CLEARANCE (W12-2) sign in advance of the closest intersecting road that provides a detour around the low clearance obstruction. Supplement with an ADVISORY DISTANCE (W13-501) plaque, showing the distance to the obstruction.
 - Install an additional advance LOW CLEARANCE (W12-2) sign before the obstruction, in accordance with MUTCD Table 2C-4 (Advanced Placement of Warning Signs).
 - Display the clearance height to the nearest inch, but not exceeding the actual clearance.

Roadway reconstruction or surface overlays can reduce the overhead clearance. When a project is completed, region personnel must measure the revised clearance and change the sign message accordingly.

Vertical clearance for all overhead signs shall be in accordance with *Design Manual* Chapter 1020.

(7) Stop Ahead/Signal Ahead

Install a STOP AHEAD (W3-1A) sign if the stop sign is not visible for at least the minimum distance indicated in MUTCD Table 2C-4 (Advanced Placement of Warning Signs). Install a SIGNAL AHEAD (W3-3) sign if the traffic signal is not visible for at least the minimum distance indicated in MUTCD Table 4D-2 (Minimum Sight Distance for Signal Visibility). On county or city road approaches to state highways, the county or city is responsible for installation and maintenance of these signs.

(8) Signal Ahead Sign With Flashing Beacons

Install a SIGNALIZED INTERSECTION WARNING (SIW) sign assembly to warn motorists of the signal installation when:

- The operating speed is 55 mph or above; and
- The intersection is more than 2 miles away from the adjacent signalized intersection; or
- The visibility requirements to the signal in Table 4D-2 of the MUTCD cannot be met.

The recommended SIW sign assembly consists of:

- A modified 48" x 48" W3-3 sign on an optional black back plate for added target value.
- Two 8-inch LED yellow beacons.
- A flasher circuit activated continuously by a separate circuit from the service.
- · A lighting circuit.

Locate the sign per the MUTCD Table 2C-4.

The use of a PREPARE TO STOP WHEN FLASHING (PTSWF) system may also be considered. If used, region Traffic Offices shall follow the *Prepare to Stop When Flashing (PTSWF) Systems Pilot Project Interim Guidelines* white paper dated August 10, 2006. The white paper is available from Headquarters Traffic Operations or at www.wsdot.wa.gov/design/traffic.

(9) Merge

Install the MERGE (W4-1) sign to warn mainline motorists of upcoming merging movements, where sight distance to the merge point is less than MUTCD Table 2C-4 (Advanced Placement of Warning Signs) Condition A. Locate the sign on the major alignment in advance of the point where two roads converge. An additional MERGE sign may be placed on the entering roadway, particularly where acceleration ramp geometry and/or sight distance do not meet *Design Manual* minimum standards. Do not use this sign where roads converge with added lanes and no merging movement is required.

(10) Added Lane

An ADDED LANE (W4-3) sign is used in advance of a point where two roadways converge, but merging movements are not required. The sign should be used at all added lane conditions to eliminate unnecessary mainline lane changes. Install the sign so it is visible from both roadways, if possible. Otherwise, install an ADDED LANE sign on each roadway.

(11) Lane Ends

Install a LANE ENDS (W4-2) sign:

• To warn of a reduction in the number of same direction traffic lanes on a multilane highway.

- To emphasize that a parallel on-connection is ending, as shown in *Standard Plan* M-1.80-02.
- In advance of the downstream end of an extra lane provided for slower vehicles.

The LANE ENDS sign shall not be used in drop-lane situations.

(12) Exit Advisory Speed

Install the EXIT ADVISORY SPEED (W13-2) sign at freeway/expressway exit ramps to inform motorists of the recommended exit speed. Locate the sign along the right shoulder of the deceleration lane prior to the exit gore, at a point that allows time for the motorist to make a safe slowing and exiting maneuver. Exit speed is determined by an engineering and traffic study.

In some locations, a CURVE sign is warranted beyond the exit gore. Install standard curve advisory signs in accordance with MUTCD Table 2C-4 as space allows. Otherwise, consider the advisory speeds for the entire ramp when determining the speed to put on the exit speed sign.

(13) Ramp Advisory Speed

Install a RAMP ADVISORY SPEED (W13-3) sign to inform motorists of the recommended speed for traversing a ramp alignment with curvature or other unexpected conditions. Use this sign where needed on freeway/expressway entrance ramps, and freeway/expressway to freeway/expressway connection ramps. Locate signs in accordance with MUTCD Table 2C-4. Ramp speed is determined by an engineering and traffic study.

In addition, if an advisory speed condition is located well beyond the gore or ramp entrance from surface streets, install a standard TURN or CURVE sign with an advisory speed plaque (W13-1) in accordance with MUTCD Table 2C-4 as space allows. Otherwise, consider the advisory speeds for the entire ramp when determining the speed to put on the ramp advisory sign.

(14) Intersection Warning

The INTERSECTION WARNING (W2 Series) sign indicates the presence of an intersection and the possibility of turning or entering traffic. Consider installing this sign where the side road approach is not continuously visible to mainline traffic for a minimum distance as shown in MUTCD Table 2C-4 and where any of the following conditions exist:

- The intersection is not channelized.
- Left-turning vehicles may queue in the traveled lane.
- Approach to the intersection does not provide adequate stopping sight distance.

Do not use INTERSECTION WARNING signs on approaches controlled by STOP or YIELD signs, signals, or at channelized intersections.

INTERSECTION WARNING signs may be modified to show offset intersection geometrics or approach curves. The relative importance of the roadways may be shown by varying the line widths used.

As guidance to motorists, the INTERSECTION WARNING sign shall be supplemented with the black on yellow ROAD NAME (D3-201) sign. The road name should be upper/lower case letters. Refer to the MUTCD Section 8B.06, for installation criteria for railroad/intersection signs, W10-2, W10-3, and W10-4.

(15) Roundabout Ahead

ROUNDABOUT AHEAD (W2-6) signs shall be installed in advance of any roundabout established on a state highway and be supplemented with the ROUNDABOUT plaque (W2-6P) and SPEED ADVISORY (W13-1) plaque.

(16) Tunnel Ahead

A TUNNEL AHEAD (W14-501) sign should be installed in advance of any tunnel that has an obscured entrance, is not illuminated, or does not have full shoulder width. A TUNNELS AHEAD sign may be used to address a series of tunnels.

(17) Vehicular Traffic Signs

Vehicular traffic signs may be used to alert roadway users to locations where entering traffic would be unexpected or where sight distance to traffic ahead is restricted.

- (a) **Bicycle** A BICYCLE SYMBOL (W11-1) may be used to alert road users to locations where there is restricted sight distance or where unexpected entries into the roadway by bicyclists may occur, such as at bicycle path crossings. It may also be considered where there are bicycle/car conflicts. Use Fluorescent yellow green sheeting as the background color in areas where extra attention must be drawn to the crossing, such as urban areas with many distractions.
- (b) **Bikes on Road** The BICYCLE SYMBOL sign (W11-1) may be used with the BIKES ON ROAD plaque (W11-101) to alert motorists to narrow shouldered roadway sections where bicyclists may be in the lanes. Use a mileage plaque to inform motorists of the distance they can expect to encounter bicyclists in the traveled lane. Do not install these signs on highways that have designated bicycle lanes.

Consider using these signs on sections of state highway where the paved shoulder width is less than 4 feet and one or more of the following conditions are met:

• Average Daily Traffic volume is greater than 1,700 vehicles, based on the most current WSDOT Annual Traffic Report.

• The state highway is part of a recreational or commuter bicycle route that is officially recognized by the department, or a county or regional transportation organization, such as an Regional Transportation Planning Organization or Municipal Planning Organization.

Install the BICYCLE sign with BIKES ON ROAD plaque within the first 300 feet of the narrow shoulder area. If the narrow shoulder distance is between 3 and 8 miles, a reminder sign should be placed at mid-point. If the mileage distance exceeds eight miles, reminder signs should be placed at 5-mile spacing.

These signs can be modified to say "BIKES ON BRIDGE" and installed at bridge locations where there is inadequate shoulder (less than 4 feet) for bicyclists.

- (c) Share the Road WSDOT does not use the supplemental SHARE THE ROAD (W16-1) plaque. Instead, use BIKES ON ROAD or a warning sign that indicates the specific roadway condition, such as NO SHOULDERS or NARROW SHOULDERS.
- (d) Fire Station/Emergency Vehicle FIRE STATION/EMERGENCY VEHICLE (W11-8) signs with the EMERGENCY SIGNAL AHEAD (W11-12P) supplemental plaque shall be placed in advance of all emergency vehicle traffic control signals. The signs may also be installed at locations where there is limited sight distance to the fire station road approach or where the approach is in an area where a motorist would not normally expect to see a fire truck or emergency vehicle enter the roadway. Fire station/emergency vehicle warning signs are not generally used at intersections, unless an emergency vehicle traffic control signal is present.
- (e) **Snowmobile** A snowmobile crossing which is located at least 100 feet from any public roadway intersection (RCW 46.10.100) may be signed with SNOWMOBILE (W11-6) signs. This sign is seasonal and should be removed, folded, or covered when the condition does not exist.
- (f) Farm Machinery FARM MACHINERY signs (W11-5, W11-5A) may be installed at locations where farm machinery or equipment enters, crosses, or travels along a roadway and where there is limited sight distance or an operational concern. If the farm machinery will be on the roadway for more than ¼ mile, a supplemental DISTANCE PLAQUE (W13-401) may be added.

Consider sign installation where:

- There is limited sight distance to the farm machinery crossing or entrance onto the roadway.
- The road user would not normally expect to see a farm vehicle, such as
 where a farm is operating in an area that has or is being developed for
 residential or commercial use.
- There is inadequate stopping sight distance to a slow moving vehicle along the roadway.

• There is a history of police, farmer, or public complaints, or operational conflicts.

To reduce operational conflicts, work with the farmer to restrict highway driving to daylight hours and non-peak periods, to drive on the shoulder if possible, and to use alternate routes if available.

Farm equipment used on the roadway must be equipped with a reflective hazard triangle sign and a flashing beacon (RCW 46.37.160).

(18) Nonvehicular Traffic Signs

NONVEHICULAR TRAFFIC signs may be used to alert road users to general locations where unexpected entries into the roadway or shared use of the roadway may occur.

- (a) **Pedestrian** A PEDESTRIAN CROSSING sign (W11-2) may be installed where attention needs to be drawn to the pedestrian presence, as evidenced by a traffic engineering analysis. Fluorescent yellow green may be used as a background sign color where extra attention needs to be drawn to a crossing, such as in urban areas with many distractions. When used at a specific crossing, the sign shall be supplemented with a diagonal downward pointing arrow plaque (W16-7P) showing the crossing location.
- (b) **Deer Crossing** Install DEER CROSSING (W11-3) signs to alert motorists when approaching an area where deer or elk may unexpectedly enter the roadway.

Gather information from the following sources when considering sign installation:

- Region Maintenance personnel.
- WSDOT Headquarters Environmental Services Office, Fish and Wildlife program. They compile a Wildlife Carcass Removal data base which notes deer and other wildlife killed on state highways.
- Records of crashes with wildlife, maintained by the WSDOT Travel and Collision Data Office.
- The Department of Fish and Wildlife's regional biologists have additional information on concentrations and migratory routes of deer.

Consider the following criteria before installing DEER CROSSING (W11-3) signs:

- Minimum of five documented deer/vehicle collisions per mile per year for at least two of the past 10 years.
- Minimum of 10 carcass counts per mile per year for at least three of the past 10 years.
- Concurrence from region maintenance personnel

Existing DEER CROSSING sign locations should be reviewed every five years.

(c) Cattle Crossing (Livestock) – The CATTLE CROSSING (W11-4) or HORSE CROSSING (W11-7) sign may be used where there are frequent cattle, horse, or other livestock crossings at a specific site. Consider each request based on roadway type, traffic volumes, and number of crossings. A crossing site used once a day would warrant a sign, whereas one used once a month would not.

Cattle signs are not used for the movement of livestock along a highway such as a sheep or cattle drive. Requests for temporary traffic control to accommodate livestock movement are handled by the region on a case by case basis.

(19) Congested Area

CONGESTED AREA (W14-2202) signs may be installed at locations where traffic congestion occasionally occurs. Examples include rural areas where businesses or other community development periodically generate traffic volumes greater than normally would be expected at that location.

(20) Congestion Ahead

The CONGESTION AHEAD (W14-2203) sign is only used where sight distance to the congested area is restricted.

(21) Grated Bridge Deck

The GRATED BRIDGE DECK sign (W8-2101) shall be installed in advance of all bridges with grated decks on any portion of the roadway. Because deck grates may affect the handling characteristics of some vehicles, particularly motorcycles and bicycles, it is important to alert these road users to the road condition.

(22) Pavement Ruts

The PAVEMENT RUTS sign (W8-2201) may be installed on roadway sections where there are longitudinal wheel track ruts. Such ruts may cause vehicle vibration or other unexpected movements when a vehicle crosses them to change lanes or exit the roadway. The region Traffic Office should determine appropriate placement of these signs, based on an engineering and traffic investigation. On multilane divided roadways, post signs on both sides of the roadway.

(23) Rocks

The ROCKS sign (W8-1701) may be installed to alert roadway users to roadway sections that are known to have or are subject to frequent rockfall occurrences. Maintenance crews or the Washington State Patrol often supply this information. The department Material Lab developed a numerical rating system for unstable slopes at wwwi.wsdot.wa.gov/systems/slope/inventory/slope search.cfm.

When a potential rockfall location has a numerical rating of 200 points or greater, a ROCK sign should be installed. A separate sign is not required at each location if adjacent locations can be combined using a FOR NEXT XX MILES sign.

Category	3 Points	9 Points	27 Points	81 Points	
Problem Type: Soil	Cut or Fill Slope Erosion	Settlement or Piping	Slow Moving Landslides	Rapid Landslides or Debris Flow	
Problem Type: Rock	Minor Rockfall Good Catchment	Moderate Rockfall Fair Catchment	Major Rockfall Limited Catchment	Major Rockfall No Catchment	
Average Daily Traffic	< 5,000	5,000 to 20,000	20,000 to 40,000	> 40,000	
Decision Sight Distance	Adequate	te Moderate Limited		Very Limited	
Impact of Failure on Roadway	< 50 Feet	50 to 200 Feet	200 to 500 Feet	> 500 Feet	
Roadway Impedance	Shoulder Only	½ of Roadway	¾ of Roadway	Full Roadway	
Average Vehicle Risk	< 25% of the Time	25% to 50% of the Time	50% to 75% of the Time	> 75% of the Time	
Pavement Damage	Minor – Not Noticeable	Moderate – Driver Must Slow	Severe – Driver Must Stop	Extreme – Not Traversable	
Failure Frequency	No Failures in Last 5 Years	One Failure in Last 5 Years	One Failure Each Year	More Than One Failure per Year	
Annual Maintenance Costs	< \$5,000 per Year	\$5,000 to \$10,000 per Year	\$10,000 to \$50,000 per Year	> \$50,000 per Year	
Economic Factor	No Detours Required	Short Detours < 3 Miles	Long Detours > 3 Miles	Sole Access No Detours	
Accidents in Last 10 Years	0 or 1	2 or 3	4 or 5	> 5	

Rating Criteria Table 2-7

(24) Transit Stop Ahead

Install the TRANSIT STOP AHEAD (W14-1101) symbol sign in advance of a region Traffic office approved transit stop in the travel lane of a state highway when:

- The transit stop is located in an unincorporated area; and
- There is less than 500 feet of sight distance to the transit stop.

Install the sign in accordance with MUTCD Table 2C-4 (Advance Placement of Warning Signs). Refer to WAC 468-46 and Chapter 7, Section 7.9, of this manual, for further information about the transit stop approval process.

(25) Left Turns Ahead

The LEFT TURNS AHEAD (W2-601) sign may be used in advance of intersections to alert to possible left turning movement conflicts, as determined by an engineering and traffic investigation. Consider installing this sign at locations where any of the following conditions exist:

- The intersection is not channelized.
- Left-turning vehicles may queue in the traveled lane.
- Approach to the intersection does not provide adequate stopping sight distance.

(26) Lateral Clearance Markers (Object Markers)

The department installs Type 3 OBJECT/LATERAL CLEARANCE MARKERS (W12-401 L/R) to identify objects or conditions within or adjacent to the roadway such as:

- narrow bridges with reduced width shoulders
- drop-offs
- · small traffic islands
- underpass piers
- · bridge abutments
- barriers
- · handrails
- · culvert headwalls

IMPACT ATTENUATOR MARKERS (W12-501 and W12-502) are used to identify the nose section of an impact attenuator. Install a W12-501 when traffic approaching an attenuator passes only one side of the attenuator. Install a W12-502 when approaching traffic passes on both sides of the attenuator.

MUTCD Section 2C.64 and 2C.65 addresses appropriate use and installation requirements of lateral clearance markers. See Appendix 2-11 and 2-11A.

(27) Water Over Roadway

The WATER OVER ROADWAY (W8-501) sign may be installed where water periodically and consistently accumulates. Hinge the sign to allow crews to open and close it as needed.

(28) Severe Side Winds Ahead

The SEVERE SIDE WINDS AHEAD (W14-801) sign may be installed where geologic or geographic features or other unique situations create unexpected and severe windy conditions that can impact the handling of a vehicle.

(29) Watch for Ice

The department no longer routinely uses WATCH FOR ICE (W8-1601) signs. They may be considered in unique conditions such as where a natural or manmade feature causes consistent roadway wetness and where ice is likely to form during cold temperatures. Examples may include, but are not limited to locations where:

- A waterfall causes roadway moisture.
- An industrial facility consistently causes spray on the roadway.
- There is wetness from short or long-term drainage problems.
- Pavement sensors connected to the WATCH FOR ICE sign discern the outside temperature and flash an alert to motorists about the potential of ice on the roadway.
- Moisture vapor forms on the highway.

Any decision to post a WATCH FOR ICE sign must be based on a traffic engineering analysis and approved by the State Traffic Engineer, in consultation with the appropriate region traffic engineer.

(30) Grooved Pavement

Install the GROOVED PAVEMENT sign (W8-2001) where the roadway surface features closely spaced longitudinal grooves. Do not use this sign in areas of rutted pavement. RCW 47.36.200 notes that where a GROOVED PAVEMENT sign is used, a MOTORCYCLES USE EXTREME CAUTION (W21-1701) sign must also be used.

2.9 School Areas

School related signing is installed to alert motorists to an upcoming school bus stop or school crossing, and the possible presence of children standing near, walking along, or crossing the roadway. Fluorescent yellow-green (FYG) is the standard background color for school signs.

The department is responsible for school bus stop and crossing related signing. Additional signs (such as an overhead School Crossing sign) are generally the responsibility of the school district requesting them.

(1) School Bus Stops

Install a SCHOOL BUS STOP AHEAD (S3-1) sign where there is less than 500 feet of sight distance to the bus stop, or when other operational factors indicate the need for a warning sign. Where there is not at least a minimum of 500 feet sight distance to the bus stop, it should be relocated if possible to provide ample visibility.

All school bus stops requiring an advance school bus stop sign must be reviewed and approved by the region Traffic Operations staff. Because of the frequent changes to bus stop locations, they should be periodically reviewed for possible sign removal or relocation.

The region traffic engineer must approve any school bus stops on limited access facilities (WAC 468-58-030) and provide this information to the State Traffic Engineer who maintains an inventory of the locations.

(2) School Bus Turnaround

The SCHOOL BUS TURNAROUND sign (S3-201) may be installed to alert motorists to an upcoming school bus turnaround location, where minimum sight distance to the turnaround is less than that shown in MUTCD Table 2C-4, or when other operational factors indicate the need for a warning sign. Department policy is to not use the SCHOOL BUS TURN AHEAD sign as shown in the MUTCD.

(3) Signing for Reduced School Zone Speed Limit

Reduced speed limits in school zones are established in compliance with RCW 46.61.440(1) which establishes a 20 mph speed zone at a marked school or playground crosswalk when the crosswalk is posted with standard school or playground speed limit signing. See Section 6.4 for additional information on reduced school speed zones.

Standard reduced school zone speed limit signing at a marked school or playground crosswalk is shown in Appendix 2-12 and includes:

- The SCHOOL (S1-1) sign with AHEAD plaque (W16-9P).
- The SCHOOL SPEED LIMIT (S5-101) sign assembly.
- The SCHOOL (S1-1) sign with ARROW plaque (W16-7P).
- The END SCHOOL ZONE (S5-2) sign with the subsequent SPEED LIMIT (R2-1) sign below.

The SCHOOL SPEED LIMIT (S5-501) sign assembly consists of three sections:

- 1. SCHOOL legend (S4-3) with black letters on a fluorescent yellow green background.
- 2. 20 MPH SPEED LIMIT sign (R1-1).
- 3. WINDOW OF ENFORCEMENT legend.

The enforcement legend is determined by the school district and can be any of the following:

- WHEN FLASHING (S5-1) used in conjunction with a flashing beacon above the sign, as described in MUTCD Section 4L.04.
- WHEN CHILDREN ARE PRESENT (S5-101) used in conjunction with definitions provided in WAC 392-151-035 and WAC 468-95-350.
- WHEN FLAGGED (S5-102) used in conjunction with warning flags that are installed on the sign during the window of enforcement. The school is responsible for installation and removal of the flags.
- X:00 A.M. TO X:00 A.M./P.M. (S4-5) used to display the specific hours of the school speed limit.

(4) Flashing Beacons or Flags

The SCHOOL SPEED ZONE sign assembly may be supplemented with flashing beacons or flags to draw attention and increase compliance with the reduced speed zone. A Washington State Traffic Safety Commission study noted that WHEN FLASHING school zone signs were more effective in slowing vehicles than either WHEN CHILDREN ARE PRESENT or WHEN FLAGGED signs. The study notes that where the approach speed to a school speed zone is 35 mph or above, schools with WHEN FLASHING signs had significantly fewer vehicles travelling in excess of 35 mph (only 3 percent) than WHEN CHILDREN ARE PRESENT signs (30 percent) and WHEN FLAGGED signs (23 percent).

On highways where the approach speed to a school speed zone is 35 mph or more, or where a wide roadway increases children's exposure, consider the use of flashing beacons above the SCHOOL SPEED ZONE assembly. Beacons are generally paid for by the school district requesting the speed zone.

(5) School Crossings

School crossings may be established either adjacent to the school or as part of a school pedestrian route. Install the SCHOOL sign (S1-1) with a Diagonal Arrow plaque (W16-PL) at or near the crossing, and a SCHOOL sign (S1-1) with an AHEAD plaque (W16-9P) in accordance with MUTCD Table 2C-4.

- The SCHOOL (S1-1) sign may be installed at a crossing controlled by a traffic signal.
- Do not install a SCHOOL (S1-1) sign at an intersection crossing controlled by a STOP or YIELD sign.

(6) Overhead School Crosswalk Sign

The OVERHEAD CROSSWALK (W11A-301) sign is used only at marked school crosswalks where a traffic engineering analysis has determined that conventional traffic control measures are not adequate. It is installed in addition to the standard school crosswalk signing. The OVERHEAD CROSSWALK sign must include pedestrian or school activated flashing lights. The MUTCD allows the option to use the STOP FOR PEDESTRIANS overhead sign (R1-9a) instead. Consider these factors when determining installation of this sign:

- Approach speed of traffic.
- Width of crossing.
- Number of lanes.

Costs associated with installing and maintaining this traffic control device generally are the responsibility of the requesting school district.

2.10 Guide Signs

Guide signs direct roadway users along roads and highways by providing information about:

- Route designation.
- Directional and distance information.
- Geographical, recreational, or cultural points of interest.
- Motorists services.

The department receives frequent requests for guide signs. The quantity and spacing of guide signs is controlled so that the roadway user has adequate time to read, understand, and respond to the sign messages.

The *Design Manual* notes that guide sign plans are needed for Interstate highways and require Headquarters Traffic approval. Where a highway passes through a national forest or national park, there may be agreements in place that designate which agency is responsible for each sign type, as well as design requirements for signs. Sign design must consider these requirements.

Review sign requests by considering both the MUTCD sign purpose and the sign spacing criteria. Work with local groups to review conflicting requests, and to determine the most essential and effective signing. It may be necessary to remove or relocate existing signs to accommodate the addition of a more important sign, while avoiding sign proliferation.

Guide signs shall not include advertising.

(1) Types of Guide Signs

Guide signs are grouped by their purpose. Their use is determined according to standards and guidance in the MUTCD.

- Route Markers display the official highway number and direction of travel.
- **Primary Guide Signs** include advance directional signs, exit directional signs, diagrammatic signs and pull-through signs. They direct roadway users to exit points for principal destinations served by intersections or interchanges, and to cities located on intersecting state routes.
- **Distance Signs** display distances to destinations and junctions along state routes.
- **Supplemental Guide Signs** provide direction to major traffic generators or other points of interest, or to destinations preempted from the primary guide sign.
- **Follow-Through Signs** provide continued direction, beginning at the point of exit from the state highway, and following through to the destination displayed on the guide sign.

• General Motorist Service Signs (MSS) provide information for the unfamiliar traveler about services available at or accessed from upcoming intersections and interchanges.

• **Motorist Information Signs (MIS)** provide information about specific businesses that meet certain service criteria. The MIS program is regulated by RCW 47.36.310, RCW 47.36.320, and WAC 468-70.

Where sign space is available, guide signs on expressways or freeways generally include:

- One or two advance directional signs where interchange spacing allows.
- An exit directional sign.
- One supplemental guide sign, installed approximately halfway between the advance directional and exit directional sign. It is only installed if spacing requirements can be met.

MUTCD minimum spacing requirements between directional guide signs are:

- 800 feet for freeway and expressways.
- 500 feet for two-lane, high-speed roadways.
- 300 feet for high speed multilane with at-grade intersections
- 200 feet for two-lane and multilane low speed highways within incorporated areas.

(2) Guide Sign Color

Guide signs are generally white letters on a green background. However, some types of signs use other background colors to distinguish the type of destination to which they are signing.

Following are standard guide sign background colors:

- **Brown** Heritage Markers, State Parks, National parks, U.S. Forest Service facilities, Department of Natural Resources campgrounds, Recreation Activity signs with symbols, Watchable Wildlife, State Public fishing areas.
- **Blue** Motorist Service signs (MSS), Motorist Information signs (MIS), Washington State Patrol, fire district boundary, fish related signs.
- **Green** All other guide signs.

(3) Guide Signs On Conventional Roads

Install guide signs in accordance with guidelines in MUTCD Chapter 2D. Guide sign installation for route intersections is shown in Appendix 2-13 for:

- Junctions of state highways.
- Junctions of county roads or city streets that lead to significant destinations.

(4) Guide Signs On Expressways and Freeways

Install guide signs in accordance with guidelines in MUTCD Chapter 2E. Guide sign installation illustrations are shown in Appendices 2-14 through 2-21 for:

- Crossroad Interchange Approach (Appendix 2-14)
- Expressway Intersection Approach (Appendix 2-15)
- Expressway Interchange Approach (Appendix 2-16)
- Freeway Interchange Approach (Appendix 2-17)
- Freeway Exit Ramp (Appendix 2-18)
- Freeway Post Interchange (Appendix 2-19)
- Auxiliary Freeway Lane Less than ½ mile long (Appendix 2-20)
- Auxiliary Freeway Lane More than ¼ mile long (Appendix 2-21)

2.11 Route Signs

A route sign assembly consists of a route sign and auxiliary signs that further identify the route and indicate direction of travel. For conventional roadways, MUTCD Section 2D.29 through 2D.32 provide guidance for the various types of route sign assemblies.

For expressways and freeways, route sign assemblies are typically used for route confirmation and trailblazing purposes. In addition to the guidance provided in MUTCD Section 2E.25, install route confirmation sign assemblies at these locations:

- Entrances to Washington State.
- · Beyond interchanges.
- On the far side of intersections with other numbered routes or major local roads.
- Beyond city limits.

In urban and residential areas, install route confirmation sign assemblies at intervals that will keep an unfamiliar motorist informed of the route. Note that where interchanges and intersections are closely spaced and available sign space is limited, speed limit signs are a higher priority than route confirmation sign assemblies.

2.12 Primary Guide Signs

(1) General

Advance directional, exit directional, diagrammatic, and pull-through signs are all considered primary guide signs that provide guidance to the motorist about destinations served by upcoming exits or intersections. The MUTCD defines the required and allowable numbers of guide signs for the various roadway types and interchange classifications. Information is also provided about installation, location, and letter/legend criteria for these signs.

On Conventional roads, a maximum of three lines of destinations may be displayed on a primary guide sign (MUTCD Section 2D.07). On Freeways/ Expressways, a maximum of two destinations may be displayed on a primary guide sign (MUTCD Section 2E.10). A sign support having two or more signs may display a maximum of three destinations. Display the same message on all advance and exit directional signs installed in a series. This provides consistent and effective information to the roadway user, especially the unfamiliar traveler.

Department guidelines require that any freeway exit that is a left-hand rather than right-hand exit must be signed with a yellow LEFT EXIT plaque on both the advance directional and the exit directional sign.

(2) Destination Selection

Display the primary destination(s) served by the upcoming exit or intersection and a second destination using the prioritized list below.

Consider:

- The control city along the intersecting route.
- A junction with another numbered highway.
- The name of a city or town.
- A tribal reservation.
- A street or roadway name.
- Other major destination such as mountain passes, National Parks, or major airports.

Apply the same destination selection criteria for signs on all conventional roads, expressways, and freeways. As development occurs, it may be necessary to replace existing destinations with ones that have become more essential.

Ventures operated by private entities for profit, and to other ventures not of general interest to the traveling public are not signed on guide signs on state highways. These entities may instead qualify for Motorist Service Signs (MIS), Tourist Activity signs, or Recreation signing. Current ventures must be signed under the new criteria when the current sign service life is over. Shopping malls that qualify for signing under RCW 47.36.270 are an exception and may be signed on primary or supplemental guide signs.

(3) Control City on Destination Signing

A control city is used on guide signs at junctions with other highways (MUTCD Chapter 2D). The designated control city for selected state routes is shown as follows:

US 2				
EB from Everett	Monatabaa			
EB from Wenatchee	Wenatchee			
	Spokane			
EB from Spokane	Newport			
WB from Idaho State Line	Spokane			
WB from Spokane	Davenport			
WB from Davenport WB from Wenatchee	Wenatchee Everett			
VVB ITOTTI VVEHALCHEE	Everett			
I-5				
NB from Vancouver, WA	Seattle			
NB from Seattle	Vancouver, B.C.			
SB from Vancouver, B.C.	Seattle			
SB from Seattle	Portland			
US 12				
EB from Aberdeen	Olympia			
EB from Elma	Centralia			
EB from I-5	Yakima			
EB from Yakima	Richland			
EB from Pasco	Walla Walla			
EB from Walla Walla	Lewiston			
WB from Idaho State Line	Walla Walla			
WB from Walla Walla	Pasco			
WB from Richland	Yakima			
WB from Yakima	Interstate 5			
WB from I-5	Aberdeen			
SR 14				
	L 92/Kappowiak			
EB from Vancouver WB from I-82	I-82/Kennewick			
WB IIOIII I-62	Vancouver			
SR 20				
EB from Keystone	Anacortes			
EB from Anacortes	Burlington			
EB from Burlington	Okanogan			
EB from Okanogan	Colville			
EB from Colville	Newport			
WB from Idaho State Line	Colville			
WB from Colville	Okanogan			
WB from Okanogan	Burlington			
WB from Burlington	Anacortes			
WB from Anacortes	Coupeville			

I-82				
EB from Ellensburg Yakima				
EB from Yakima	Richland			
EB from Richland	Pendleton			
WB from Oregon State Line	Kennewick			
WB from Kennewick	Yakima			
WB from Yakima	Ellensburg			
1-90				
EB from Seattle	Ellensburg			
EB from Ellensburg	Spokane			
EB from Spokane	Coeur d'Alene			
WB from Idaho State Line	Spokane			
WB from Spokane	Ellensburg			
WB from Ellensburg	Seattle			
US 97				
NB from Oregon State Line	Yakima			
NB from Ellensburg	Wenatchee			
NB from Wenatchee	Okanogan			
NB from Okanogan	Penticton, B.C.			
SB from Canadian Border	Wenatchee			
SB from Wenatchee	Ellensburg			
SB from Yakima	Goldendale			
CD Helli Takima	Coldonadio			
US 101				
NB from Oregon State Line	Aberdeen			
NB from Aberdeen	Port Angeles			
NB from Olympia	Port Angeles			
SB from Port Angeles (East Leg)	Olympia			
SB from Port Angeles (West Leg)	Aberdeen			
SB from Aberdeen	Astoria			
I-182				
EB from I-82	Richland			
EB from Richland	Pasco			
WB from Pasco	Richland			
WB from Richland	I-82/Yakima			
TO NOM PROMISM	1 JZ/ Takillia			
US 195				
NB from Idaho State Line	Spokane			
SB from Spokane	Lewiston			

I-205			
NB from Oregon State Line	Seattle		
SB from Jct. I-5	Salem		
US 395			
NB from Oregon State Line	Kennewick		
NB from Pasco	Spokane		
NB from Spokane	Colville		
NB from Colville	Grand Forks, B.C.		
SB from Canadian Border	Spokane		
SB from Ritzville	Pasco		
I-405			
NB from Jct. I-5 (Southcenter)	Renton		
NB from Renton	Bellevue		
NB from Bellevue	Everett		
SB from Jct. I-5 (Lynwood)	Bellevue		
SB from Bellevue	Renton		

2.13 Distance Signs

(1) General

A distance sign can display up to three destinations (MUTCD Chapter 2D). Apply the same destination selection criteria for signs on all conventional roads, expressways, and freeways.

- On the first line, identify the next city with services available, or the next intersected numbered route.
- On the second line, if used, identify communities of general interest along the route. Vary the named community on successive distance signs to provide maximum information to the traveler.
- On the third or bottom line, display the next control city along the route or terminal destination.

Install distance signs at the following locations:

- Beyond intersections and interchanges of numbered state highway routes.
- Beyond city limits or urban boundaries.
- In rural areas at 10- to 15-mile intervals.
- At entrances to Washington State.

Where two or more of these locations occur within 10 miles, sign the most effective location.

(2) Determining Mileage Displayed on Distance Signs

(a) Freeways and Expressways – Display the distance (in miles) from the sign to either the first interchange/intersection within the destination city limits, or to the city center. Regions must work with city administration to determine the preferred city center reference location.

(b) **Conventional Highways** – Display the distance in miles from the sign to the destination city limits. For destinations such as Mt. Rainier National Park, display the distance to the park boundary.

2.14 Supplemental Guide Signs

(1) General

Supplemental guide signs direct unfamiliar motorists to additional destinations or points of interest that are not displayed on the primary guide signs. The MUTCD allows only one supplemental guide sign to be installed for each interchange approach and it shall display a maximum of two destinations. Supplemental guide signs shall be installed only when MUTCD minimum spacing requirements can be met.

Supplemental guide signs should not be installed for a traffic generator that would require a motorist to travel on the interchanging road beyond a second state highway (i.e., I-5 to SR 18 to SR 164).

In general, destinations that generate the greatest traffic volume or have the widest scope of recognition are given highest priority. Nationally recognized traffic generators receive priority over those that have state, regional, or local recognition. Evaluate the given interchange and select the destinations that provide the most benefit to the highway user.

As development occurs, it may be necessary to replace existing destinations with ones that have become more essential.

(2) Destination Selection Factors for Supplemental Guide Signs

Apply the destination selection criteria equally, whether the signs are on conventional roads, freeways, or expressways. Consider the following factors when evaluating a supplemental sign request:

- On an expressway or freeway, determine if the destination meets criteria contained in the American Association of State Highway and Transportation Officials (AASHTO) publication *Guidelines for the Selection of Supplemental Guide Signs for Traffic Generators Adjacent to Freeways*, which has been incorporated in the MUTCD (www.normas.com/aashto/pages/gsglc-4.html).
- State law mandates destination signing for State Parks and regional shopping centers when distance criteria are met.

Consider how the proposed signing will affect local roadway traffic
operations. Work with the local agency to determine the route to a destination
and the sign locations. In general, sign to the supplemental destination from
the interchange or intersecting road that provides the most direct route to
the destination.

- Determine if follow-through signing is needed and work with the local agency to determine sign locations. Local agencies assume responsibility for sign installation and maintenance and must concur with any proposed signs.
- Avoid signing to destinations that require complex navigation on multiple highways, unless the activity is of national significance.

(3) Destination Selection Priorities

(a) Over-Flow Messages From Primary Guide Signs – Occasionally, essential messages cannot be included on primary guide signs due to space limitations. Instead, place these essential messages on supplemental guide signs, giving them priority over any other supplemental sign messages.

(b) Destinations Mandated by Statute

1. **State Parks** – State law (RCW 47.36.290) directs the department to install guide signing on interstate highways to State Parks located within 15 miles of the highway. These destinations have first priority on supplemental guide signs on interstate highways. Additionally, WSDOT policy is to install guide signs to a State Park within 15 miles of *any* state highway.

The department installs and maintains these signs and provides follow through signing on any state route that connects the state highway to the park. All State Park signs shall have white letters, symbols, and border on a brown background.

The State Parks and Recreation Commission is responsible for any State Park signing not located on a state highway.

a. Freeway and Expressway Interchanges

Mainline – Install signs displaying the name of the STATE PARK and a directional message, such as NEXT EXIT, in advance of the interchange, located to meet guide sign spacing requirements. If the park has restricted hours or days of operation, add a supplemental plaque displaying the operating schedule (i.e., CLOSED TUESDAYS) below the STATE PARK sign. No other supplemental plaques are used on the freeway mainline sign. Do not install mainline signing until all follow through signing is in place.

Ramp – Install signs displaying the message STATE PARK and a directional message, with a maximum of four recreational symbol plaques. Display the mileage to the park from the ramp terminal, using ½ mile increments if the distance is less than 1 mile.

b. **Conventional Roadway Intersections** – Install signs displaying the name of the STATE PARK and a directional message (NEXT RIGHT/NEXT LEFT) in advance of the intersection leading most directly to the park. Install a maximum of four recreational symbol plaques below.

Install a white on brown sign with the message STATE PARK (D1-101) and a directional arrow at the intersection of a state route and roadway leading to a state park. Display the mileage to the park from the intersection. Use ½-mile increments if the distance is less than 1 mile

- c. **Recreational Symbol Plaques** A maximum of four recreational symbol plaques may be displayed under a state park directional sign, on both conventional roads and on freeway off-ramps.
 - Plaques are 24 inch x 24 inch with white message on a brown background.
 - If the park does not have camping facilities, display the text message NO CAMPING as one of the recreational plaques.
 - If a park has restricted hours or days of operation, display the operating schedule (i.e., CLOSED TUESDAYS) as one of the plaques.
 - The park manager for each individual park will determine the additional supplemental symbols to be displayed.
 - If a BEACH message is to be shown, use a text message plaque instead of a symbol.
 - Before replacing any state park sign, contact the park manager, to determine if any plaque changes are needed.
 - If the symbols are seasonal, a written agreement is developed between the state park manager, the local maintenance superintendent, and region Traffic Operations. The agreement outlines who will be responsible for changing the symbols, at what specific time periods, as well as any cost reimbursement that may be involved.
 - Headquarters Traffic Office maintains an inventory of the recreational symbols used at each state park. Inform Headquarters Traffic when symbol plaques are changed, added, or removed.
- d. **Additional Signs** CAMPGROUND FULL signs may be used at off-ramps and on conventional highways in conjunction with a State Park directional sign. It can be either a post mounted stand-alone sign or a changeable message plaque under the ramp or conventional highway sign. CAMPGROUND FULL signs may not be displayed on a freeway mainline.

A written agreement is developed between the state park manager, the local maintenance superintendent, and region Traffic Operations. The agreement outlines who will be responsible for changing the CAMPGROUND FULL sign, and for the sign fabrication, installation, maintenance, and removal. State Parks will be responsible for all associated costs, administered through a J account.

During seasonal closures, STATE PARK CLOSED plaques are installed on all state parks guide signs, including those on the freeway mainline. This is done rather than removing or turning them. Mount the plaque diagonally from lower left corner to upper right corner on the sign face. Use a panel size that is large enough to effectively cover the legend and a letter size at least as large as the upper case letters in the STATE PARK message. See Figure 2-1.



State Park Closed Figure 2-1

- 2. **Regional Shopping Centers** State law (RCW 47.36.270) and WAC 468-95-140 requires that regional shopping centers be signed from state highways, if spacing requirements can be met and the shopping center:
 - Has at least 500,000 square feet of leasable retail space.
 - Contains at least three major department stores owned by a national or regional retail chain.
 - Is located within 1 highway mile of a state highway.
 - Generates a minimum of 9,000 daily one-way vehicle trips.

All costs associated with fabricating, installing, and maintaining signs shall be the responsibility of the shopping center.

If the shopping center is not clearly visible from the state highway point of exit, follow-through signing must be in place on city or county roads prior to mainline sign installation.

Signing on the state highway to a county road or city street that bears the name of the regional shopping center fulfills the statutory requirements for signing to those centers.

(c) Other Supplemental Guide Sign Destinations – The following non-prioritized list includes examples of destinations (traffic generators) that may warrant supplemental guide signing. It is intended to aid in determining appropriate destinations.

Airports

Amtrak/Other Railroad

Business Routes

Colleges/Universities

Event Venues, Fairgrounds

Ferries

Historic District (may be signed as a Tourist Activity under MIS program if guide signs are full)

Industrial Parks

Military Installations

National Parks

Natural/Cultural/Historic Attractions

Park and Ride Lots

Ports/Port Districts

Recreational Areas

Scenic Byways

Stadiums (Sports Facilities)

Tribal Reservations

USFS (Headquarters Facilities/Campground)

2.15 Destination Selection Requirements and Installation Details for Specific Types of Traffic Generators

Specific traffic generators (destinations) must meet the criteria listed below to warrant a message on a supplemental guide sign. Appendix 2-22 contains the criteria for freeway installations in a table format. Supplemental guide signing shall be installed in accordance with the specific details shown below.

(1) Airports

Airports are eligible for signing if they are included in the National Plan of Integrated Airport Systems and meet these criteria:

- Associated with an area population of 10,000 or more.
- Located within 5 miles of interchange or intersection.
- Airport runway shall be paved, lighted and 2,500 feet or more in length.

 Municipally or privately owned, and used for commercial enterprise with the following minimum number of regularly scheduled commercial flights per day:

- 35 flights per day in major metropolitan area (greater than 50,000).
- 20 flights per day in an urban area (5,000-49,999).
- 15 flights per day in rural areas.

Contact the WSDOT Aviation Division to determine if a specific airport meets these criteria.

Airports that have scheduled flights can be signed with the airport name. All other airports are signed with the airport symbol or word message.

Airports at remote locations serving a smaller population may be signed when their location is not obvious from the state highway, even if there are no commercial flights.

Existing signs to airports that do not meet these criteria may remain in place until a higher priority destination warrants a supplemental sign.

(2) Amtrak/Other Passenger Rail Stations

Install Amtrak logo signing to Amtrak stations as described below. For other types of rail passenger stations such as those of a Public Transit Authority, a specific logo may be cooperatively developed with Public Transit Authority and department approval, and installed as described below.

(a) Conventional Roadways

• Use Amtrak symbols or other approved logo signs in the trailblazer format with the appropriate directional arrows.

(b) Multilane Highways

- If there is enough space to install an individual sign, the Amtrak symbol plaque or other approved logo may be placed on a green background panel with either of these messages: NEXT RIGHT or EXIT XXX (Appendix 2-23, part a).
- If there is not enough space to install an individual sign, the Amtrak symbol plaque or approved logo sign may be installed below the advance exit or the exit directional sign, on the post closest to the traveled way (Appendix 2-23, part b).
- If the sign cannot be installed as above, the Amtrak symbol plaque or approved logo sign may be installed below the supplemental guide sign, on the post closest to the traveled way (Appendix 2-23, part c).
- Install Amtrak trailblazer signs or other approved logo signs along freeway ramps or at ramp terminals. All trailblazer signs must be in place before any mainline signs are installed.

• The Amtrak symbol plaque or other approved logo sign may be installed as part of a multi-modal transportation logo board, along with approved symbols for other modes of transportation.

(3) Business Route

BUSINESS ROUTE signs (M4-3) direct motorists to alternate routes passing through the business portion of a city or through a district of continuous business development. BUSINESS ROUTE signing is generally installed at the request of a local agency. It is not permitted where MOTORIST INFORMATION (MIS) signing is installed.

Any addition or deletion of an Interstate or US highway segment as a Business Route must first be approved by AASHTO. Proposals to add or delete such routes should be sent to the department's GeoMetrix Office.

Designated Business Routes may be signed as follows:

- Install signing on a state highway business route only if it passes adequately and logically through a business district.
- BUSINESS LOOP (M1, 2, or 3) trailblazers along the route are installed and maintained by the local agency which has jurisdiction over the business route. A written agreement clarifies the jurisdiction.

(4) Colleges and Universities

Supplemental signing may be considered for a State College or University, their satellite campuses, other regional public or private colleges and universities, and technical schools if they meet the guidelines below and if sign spacing requirements can be met.

Signing is installed from the state highway nearest the campus and is limited to the nearest and most direct interchange or intersection. Signing may also be installed from a freeway or expressway to a conventional state highway where the conventional highway is used primarily by local traffic. Signing is not provided from a freeway or expressway to another freeway or expressway.

Supplemental signing may be installed when:

- The school is accredited in Washington State. Accredited schools are listed on the Northwest Commission on Colleges and Universities (NWCCU) agency website at www.nwccu.org.
- The main or satellite campus is located within 5 miles of a state highway.
- Enrollment criteria are met. Call the Higher Education Coordinating Board at 360-753-7800 for the current enrollment figures.

Enrollment criteria (including part time and full time) based on any semester or quarter within the last school year:

- 4,500 students in a major metropolitan area (50,000 or greater).
- 2,500 students in an urban area (5,000-49,999).
- 1,000 students in a rural area.

In metropolitan and urban areas where two or more colleges or universities share a common campus, enrollments may be combined. The enrollment for the minor school should be at least 1,000 students. Metropolitan and urban area boundaries can be determined from the state urban boundary map.

If school enrollment falls below the minimum number for one year, the school will be given written notice that the highway signing will be removed if the following fall semester or quarter enrollment does not reach the minimum number.

Two schools may not share the same sign, if they do not share a common campus. If two schools are located in the same area, but do not share a common campus, determine which school is shown on the sign by the following order of priority:

- State university.
- State college.
- Private university or college.
- Technical college or school.

University Mascot Logos – At a University's request, a University mascot logo may be installed on guide signs under the following conditions:

- It is a State University.
- The university name is already displayed on the guide sign.
- Mascot logos may be added only on signs for main campuses.
- The university must supply the logos and pay all costs including engineering, fabrication, installation, and traffic control.
- Maximum logo size is 30" x 30".

If there is insufficient space to display a mascot logo on the sign face, the logo will be installed directly above the upper left-hand corner of the guide sign. If the university wants the logo incorporated onto the face of the guide sign, they have the option of paying for a complete new guide sign to include the logo.

When the guide sign is due for replacement, it may be enlarged to incorporate the mascot logo onto the sign face at no cost to the university.

(5) Event Venues, Arenas, Auditoriums, Convention Halls, Fairgrounds, Stadiums

Event venues may be considered for supplemental guide signs using the following criteria, but only where MUTCD spacing guidelines are met.

- In a major metropolitan area of 50,000 or greater population, the venue must be within 2 miles of the state highway, and the annual attendance at the facility must be at least 300,000.
- In an urban area of 5,000-49,999 population, the venue must be within 2 miles of the state highway, and the annual attendance at the facility must be at least 250,000.
- In rural areas, the venue must be within 5 miles of the state highway, and the annual attendance at the facility must be at least 200,000.
- Signs may be installed directing venue traffic from one state highway to another.

(6) Industrial Parks

Supplemental guide signing to an industrial park may be considered using the following criteria, but only where MUTCD spacing guidelines are met.

- The industrial park has at least 500,000 square feet of space available for lease (may include a mix of manufacturing, service, and warehouse facilities).
- The industrial park is within 5 miles of the state highway.

(7) Natural, Historic, and Cultural Attractions

(a) General Criteria – Consider supplemental guide signing to natural, historic, and cultural attractions if the attraction meets guidelines shown below, but only where MUTCD sign spacing guidelines can be met. Signing is not provided if the attraction is readily visible from and has direct access to the state highway. Privately operated commercial attractions (i.e., Wild Waves) are signed as part of the Motorist Information Sign (MIS) program as a Tourist Activity.

Periodic reviews by region personnel ensure that signing is displayed only for attractions that meet eligibility criteria and that signs are removed or covered when the attraction is closed for the season, no longer meets criteria, or is no longer in operation. Reviews may also identify new attractions that meet eligibility criteria.

Natural, historic, and cultural attractions must meet the following general criteria to be considered for supplemental signing:

• The attraction must have regional or national significance and meet destination or traffic generator guidelines. Do not sign attractions that are primarily of local interest.

• The attraction must be located within 10 miles of the interchange or intersection being signed. Signing is installed only on the state highway nearest to the attraction. Any necessary follow-through signing shall be in place prior to installing state highway signs.

- The attraction must be open without appointment to the general public.
- Attractions must be accessible by a two-lane, all-weather road as a minimum.
- The attraction must be maintained in good repair and presented in a professional manner.
- If the attraction charges an entrance fee, the activity is responsible for all costs for fabrication, installation, maintenance and replacement. A co-signed agreement with the business or organization establishes the approximate costs and payment method. Examples are Fort Vancouver Historic Site and Maryhill Museum.
- If the activity is operated by a governmental agency or organization, the department will install the signs at no cost to that agency or organization.
- The signs shall be white letters on a green background. This color change increases the reflective service life of the signs. All existing white on brown signs should be replaced with white on green as normal service life expires. Signing for Heritage Markers, State Parks, National Parks, or U.S. Forest Service facilities will remain white on brown.
- For attractions located more than 1 mile from the interchange or intersection, display mileage information on the ramp terminal or direction signs.
- For seasonal operations, signs must be removed or covered with a CLOSED plaque during the off season. See Figure 2-1 for example
- (b) **Natural Attractions** In addition to the general criteria above, consider signing to natural attractions if they are unique or of a type not generally accessible to the public. Examples of natural attractions are the Palisades Rock Formation, the Ice Caves west of Trout Lake, Hurricane Ridge, and the Snake River Canyon.
- (c) **Historic Attractions** In addition to the general criteria above, historic attractions may be considered for signing if:
 - They are included in the Washington Heritage Register as designated and maintained by the Washington State Department of Archaeology and Historic Preservation.
 - They have been approved by the Washington State Historical Society.
 - The attraction includes one or more of the following features at the site:
 - 1. An interpretive center and/or a guided tour.
 - 2. Visible historic buildings, features, or ruins with interpretive markers.

Examples of historic attractions are the Whitman Mission, Steptoe Battlefield, Jackson House, Fort Simcoe, and the Monticello Convention Site. The application form (Appendix 2-24) may be used to document if the attraction meets the eligibility criteria.

Determine if the attraction is included on the Washington Heritage Register at www.dahp.wa.gov/pages/historicsites/washingtonheritageregister.htm.

To determine if the Washington State Historical Society has approved the attraction, contact:

Washington State Historical Society Outreach Services Division 211 21st Avenue SW Olympia, WA 98501 360-586-0219

- (d) **Cultural Attractions** In addition to the general criteria above, consider signing to cultural attractions if they are similar to, or fall within, one of the following categories:
 - **Museums** Endorsed by the Washington State Historical Society.
 - **Religious** Sites, shrines, etc., that are of a unique religious nature and provide visitor facilities or tours.
 - **Educational** Centers other than public or private schools, vocational schools, or colleges and universities that are of outstanding educational value and provide visitor facilities or tours.
 - **Scientific** Locations used for research or scientific advancement that provide visitor facilities or tours.

Examples of cultural attractions are the Maryhill Museum, St. Mary's Mission, the Forest Learning Center near Mount St. Helens, and the Goldendale Observatory. The form in Appendix 2-24 may be used as an application for cultural attractions.

(8) Heritage Markers

HERITAGE MARKER signs (I5-103/104) guide motorists to historical or other interpretive markers located along state highways (see Section 7.11). They are used where there is a marker but no building or other facility. Use both the advance sign as well as the "at point" sign to give adequate guidance and time for a motorist response. HERITAGE MARKER signs are white on a brown background and replace existing HISTORIC MARKER and ROADSIDE ATTRACTION signs. Examples of HERITAGE MARKER sites include Willy Keil's Grave, the Bridge of the Gods, and Earthquake Point north of Entiat.

Do not use a HERITAGE MARKER sign to direct motorists to a historical site on either the national or state registers. These sites are signed using Historical attraction criteria and signing.

(9) Ports/Port Districts

Supplemental guide signing to Ports or Port Districts may be considered if sign space is available per the MUTCD, using the following criteria:

- The facility is served by two or more modes of transportation and is generating commercial traffic.
- Goods move in and out of the facility.

(10) Recreational Activities and Areas

Supplemental guide signs to specific recreation activities open to the public (such as Emerald Downs racetrack, Cheney Stadium, or Northwest Trek) may be considered if MUTCD spacing guidelines are met, together with the following attendance criteria:

- Major Metropolitan Area 300,000
- Urban Area 250,000
- Rural Area 100,000

Install RECREATION AREA (D7-7701) signing to guide motorists to public or private recreational activities that meet the criteria below. Display a maximum of four activity symbol plaques below the RECREATION AREA and direction message.

- The activity is not readily visible from the highway, and has no direct access to the highway.
- The activity is within 10 miles of the interchange or intersection being signed, and is served by at least a two lane, all-weather road.
- The activity is open to the public, without appointment, at least eight hours a day, five days a week including a Saturday and/or a Sunday.
- The destination facility must be maintained in good repair and presented in a professional manner.
- Location shall include free public restroom facilities with a sink and running water for hand washing, a flush toilet, toilet tissue, and sanitary towels or other hand-drying devices. Restroom facilities shall contain appropriate locks for occupant security and must be ADA accessible.
- If the activity charges an entrance fee, all costs for fabrication, installation, maintenance, and replacement are paid by the activity or organization.
 A co-signed agreement with the business or organization establishes the approximate costs and method for payment.
- Privately owned or operated recreational activities should be signed under the Motorist Information Signing Program, where applicable.
- Signing is installed only on the state highway nearest to the attraction. Follow-through signing shall be in place prior to installing state highway signs.

• For activities more than 1 mile from a freeway interchange, display mileage information on the ramp terminal sign. On conventional roads, show the mileage on the direction signs. The hours of operation may also be shown.

• Recreation signs without symbols shall be white letters on a green background. Replace existing brown and white signs as service life expires.

Northwest Trek Wildlife Park RIGHT 1/2 MILE

Figure 2-2

• For seasonal operations, signs must be removed or covered with a CLOSED plaque during the off season.

Along non-access controlled city streets that are part of the state highway system, within incorporated cities or towns with populations over 25,000, the local agency has jurisdiction for this signing.

Supplemental guide signs to specific **recreation areas** may be considered when the area is of regional significance such as Quinault Recreation Area. Signs and the symbol plaques shall be white on brown. See Figure 2-3.



Figure 2-3

Public Recreation Areas – Display the AREA NAME (e.g., CAPITAL FOREST).

Multiple Agency Recreation Areas – Display the AREA NAME (e.g., CUSHMAN-STAIRCASE RECREATION AREA) and each agency's logo. Do not include recreational activity symbols on multi-agency signs. Requesting agencies shall coordinate installation of follow-through signing with local road jurisdictions.

The following symbol plaques may be used:

Recreational Activity	Sign Fabrication Number			
Picnic Area	D7-2201			
Fishing	D7-1301			
Trailer Camping	D9-3a			
Boat Launch	D7-1101			
Swimming	D7-1401			
Hiking*	D7-501			
Skiing	D7-2001			
Snowmobile Area	D7-2101			
Public Golf Course	D7-701			
Public Beach Area	D7-1402			

^{*}Note: Sign trails of regional or statewide significance such as the Pacific Crest Trail, the John Wayne Trail, the Willapa Trail, and the Pacific Northwest Trail. Trail signs shall be a white on brown trail symbol with trail name below. Provide additional arrows and/or distance information as necessary.

(11) Tribal Reservations

- (a) Reservation Boundary Signing ENTERING/LEAVING and (NAME OF) RESERVATION signs may be installed at reservation boundaries where the state highway passes through a tribal reservation. The boundary limits indicated are to be the original treaty boundary limits. If the reservation has a "patch work" boundary layout, place the boundary signs to encompass the entire patch work layout rather than installing individual sets of signs for each boundary crossing location. Signs shall be white letters on a green background.
- (b) **Directional/Distance Signing** As sovereign nations, a tribal reservation may be considered as a primary or supplemental destination along with other local jurisdictions (a city or town). Tribal logos may be incorporated on directional signs. Any wording that refers to or implies a commercial enterprise is not allowed. Directional and distance signs shall be white letters on a green background.

Signing may be from one state highway to another if sign space is available. Ramp follow-through signing should show the mileage if the reservation is more than 1 mile away. Additional signing for the Tribal Center or Community Center may be considered at the nearest and most direct interchange or intersection, if it meets heritage, cultural, historic, or museum criteria.

Examples:

(NAME OF) RESERVATION (NAME OF) TRIBAL CENTER NEXT RIGHT or "X" Miles NEXT RIGHT or "X" Miles

(12) United States Forest Service (USFS) Facilities

Supplemental guide signing to a USFS facility (campground, Visitor's Center, or a Headquarters building) may be considered if distance criteria are met and sign space in accordance with the MUTCD is available.

The facility must be located within 1 mile of an interchange or intersection in a major metropolitan or urban area, and within 10 miles in a rural area. These signs are white letters on a brown background per agreement with the USFS (MOU NFS 00-MU-11060000-040). Contact the Headquarters Traffic Office for further guidance.

2.16 Unwarranted Traffic Generators/Destinations

Guide signs to activities operated by private entities for profit, and to other activities not of general interest to the traveling public are not permitted on state highways.

Traffic generators that do not warrant guide signing include:

Businesses

TV/Radio Stations

Theaters

Casinos

Nurseries

Cemeteries

Local or State

Private/Public

Military (exception: A National Cemetery or VA Granted Cemetery, as designated by the U.S. Dept. of Veteran Affairs, that is located within 10 miles of the nearest intersection or interchange, may be signed.)

Communities

Civil Centers

Libraries

Churches

Subdivisions

Neighborhoods

Governmental

Research/Experimental Facilities
County Facilities
Courthouses
Vehicle Emissions Testing Facilities
Drivers and Vehicle License Centers
Transportation Buildings
Civil Defense Facilities
Maintenance Facilities
Power Plants

Schools

Grade/High Seminaries

Medical

Mental Facilities
Research Facilities
Sanitariums
Infirmaries or Treatment Centers
County, Fraternal, or Nursing Homes
Retirement Facilities
Humane Facilities

Military Sites or Detachments

Armories Arsenals

Tree Nurseries/Arboretums

Camps

Scout, Church, 4-H, Youth, and YMCA/YWCA (because these are not open to the public).

2.17 Follow-Through Signing

Follow-through signing provides motorists (after being directed off the state highway) with confirmation to destinations. Signs are installed and maintained by the agency responsible for the local roadway and must be in place before any directional signs are installed on the state highway.

When considering a destination for a supplemental guide sign, determine whether the local agency will install follow-through signing on the local roadway and coordinate the signing plan with them. Provide MUTCD guidelines for follow-through sign sizing to local agencies. Use 6-inch D series letters in high traffic volume or high speed areas. Use 5-inch C series letters, as a minimum, on lower volume or slower speed roadways. Include directional information or arrows as part of the legend.

Install follow-through signing in advance of decision points where route changes are required. Additional trailblazer signs may be placed at mandatory stop locations, but do not install these signs in combination with regulatory or warning signs.

2.18 General Motorist Service Signs (MSS)

(1) General

The MUTCD directs States to establish signing guidelines for several types of motorist services. Install GENERAL MOTORIST SERVICE (MSS) signs where the services are not readily apparent to the motorist and where they meet the criteria noted below. GENERAL MOTORIST SERVICE signs are not installed along a designated business route.

Do not combine GENERAL MOTORIST SERVICE signing and MOTORIST INFORMATION (MIS LOGO) signs on the same back panel. If a specific MIS back panel is in place do not also install GENERAL MOTORIST SERVICE signs for that service. (e.g., if a FOOD back panel exists then a general MSS food sign will not be installed). A specific business can join the MIS program instead.

Periodic reviews by region personnel ensure that signing is displayed only for services and facilities that meet eligibility criteria and that signs are removed or covered when the service or facility is closed for the season or no longer in operation.

The following motorist service signs may be installed:

Sign Symbol	Sign Fabrication Number		
Gas	D9-11		
Food	D9-8		
Lodging	D9-9		
Phone	D9-1		
Hospital	D9-2		
Emergency Medical Care Facility	D9-13		
Camping	D9-3		
Recreational Vehicle Park (text only)	D9-301		
RV Sanitary Station	D9-12		
Restrooms	D9-7		
Propane	D9-15		

Table 2-8

Install one GENERAL MOTORIST SERVICE sign assembly at an interchange or intersection, with a maximum of four plaques. Combine the MOTORIST SERVICE message with a directional message such as NEXT RIGHT, SECOND RIGHT, or the EXIT NUMBER (D9-101, D9-102, or D9-103).

The NEXT SERVICES ____ MILES (D9-1601) sign may be placed below the MOTORIST SERVICE sign if the next services are more than 20 miles away.

A separate word message VISITOR INFORMATION sign may be installed under the GENERAL MOTORIST SERVICE sign.

When services are not readily visible from an interchange, install follow-through signs at ramp terminals, using the same legends or symbols as on the mainline signs. If the services are located more than 1 mile from the interchange or intersection, display the distance to the services on the ramp terminal or direction sign respectively.

Signs have white symbols or letters on a blue background.

GENERAL MOTORIST SERVICE plaques may be installed in conjunction with other **guide** signs:

- On ground mounted signs, install the plaque on either post below the sign.
- If more than two MOTORIST SERVICE plaques are required, place them on a bracket below the guide sign, in a manner that does not interfere with the breakaway safety features of the sign structure.
- On overhead signs, a MOTORIST SERVICE plaque is installed above the guide sign.

The department uses the following criteria to determine if a motorist service sign is warranted. The State Traffic Engineer can approve minor deviations on a case-by-case basis.

(2) Gas, Diesel, and/or L-P Gas

- Vehicle services must include fuel, oil, and water.
- Location shall include free ADA accessible public restroom facilities with a sink and running water for hand washing, a flush toilet, toilet tissue, and sanitary towels or other hand-drying devices. Restroom facilities shall contain appropriate locks for occupant security.
- A free potable water drinking fountain and free cups as necessary must be supplied for public use.
- The facility must operate for at least 16 uninterrupted hours per day, seven days per week.
- A telephone must be available to the public.
- The facility must be within 1 mile of an interstate highway interchange, or within 5 miles, and not readily visible from a noninterstate highway.

(3) Food

• The facility must be licensed or approved by the appropriate county health agency.

- The facility must operate for at least 12 uninterrupted hours per day, seven days per week, and serve breakfast, lunch, and dinner.
- Location shall include free ADA accessible public restroom facilities with a sink and running water for hand washing, a flush toilet, toilet tissue, and sanitary towels or other hand-drying devices. Restroom facilities shall contain appropriate locks for occupant security.
- A telephone must be available to the public.
- Seating capacity for a minimum of 20 patrons and parking for a minimum of ten vehicles, or drive-in service facilities must be provided.
- The facility must be within 1 mile of an interstate highway interchange, or within 5 miles, and not readily visible from a noninterstate highway.

(4) Lodging

- The facility must be licensed by the Washington State Department of Health. Check licensed facilities at https://fortress.wa.gov/doh/facilitysearch/.
- Facilities signed from an interstate highway must have 12 units or more, each with a private bath.
- Facilities signed from non-interstate highways must have six units or more, each with a private bath.
- A telephone must be available to the public.
- The facility must be within 1 mile of an interstate highway interchange, or within 5 miles, and not readily visible from a noninterstate highway.

(5) Phone

- Phone must be available 24 hours per day, seven days per week.
- The phone must be located within 1 mile of an interstate highway interchange.
- Phone signing is not required if another service near the interchange has met the phone criteria as part of qualification.

(6) Hospital

- Continuous emergency care service must be available, with a doctor on duty, or on immediate call 24 hours per day, seven days per week.
- Written certification of emergency care capability must be obtained from the Washington State Department of Health and provided to the department prior to sign installation.
- The hospital must be located not more than 20 minutes driving time from the interchange or intersection.

• For an area with two or more qualifying hospitals, provide signs to the closest facility, by approach direction, located within 20 minutes driving time from the interchange or intersection.

• Follow-through trailblazer signs are required from the highway to the hospital. They shall be installed and maintained by the local agency.

(7) Emergency Medical Services Facility

- The facility must operate continuously 24 hours per day, seven days per week.
- Written certification of emergency care capability must be obtained from the Washington State Department of Health and provided to the department prior to sign installation.
- The facility must at all times have:
 - A Physician, a Registered Nurse, or a Paramedic on duty.
 - Or, an Emergency Medical Technician on duty, plus a Physician, Registered Nurse, or Paramedic on immediate call.
- Emergency transportation capabilities must be available.
- The facility must be located within 20 minutes driving time of the highway.
- For an area with two or more qualifying emergency care facilities, install signs to the closest facility (by approach direction).
- Do not use the Emergency Medical Services Facility sign if a hospital sign is installed at that intersection or interchange.

(8) Camping

- Must be licensed or approved.
- Campground facilities must be within 5 miles of an interstate highway interchange, or within 8 miles of, and not readily visible from a non-interstate highway.
- Facilities must have at least 20 camping sites, 10 of which will accommodate tents.
- Facilities shall provide free ADA accessible public restrooms with a sink and running water for hand washing, a flush toilet, toilet tissue, and sanitary towels or other hand-drying devices. Restroom facilities shall contain appropriate locks for occupant security.
- Facilities shall provide free potable drinking water and free cups, as necessary, for public use.
- Camp area facilities must be available 24 hours per day with a full-time attendant on duty.
- For seasonal operations, the department removes or covers the sign with a CLOSED plaque during the off season.

(9) Recreational Vehicle Park

 Recreational vehicle parks must be licensed or approved by the appropriate county office.

- Adequate parking must be provided for at least 10 recreational vehicles (camper truck, motor home, or recreational trailer).
- Facilities shall provide free ADA accessible public restrooms with a sink and running water for hand washing, a flush toilet, toilet tissue, and sanitary towels or other hand-drying devices. Restroom facilities shall contain appropriate locks for occupant security.
- Facilities shall provide free potable drinking water and free cups, as necessary for public use.
- All facilities must be available 24 hours per day.
- A telephone must be available to the public.
- The RV Park must be within 5 miles of either an interstate highway interchange or a non-interstate highway.
- For seasonal operations, the department removes or covers the sign with a CLOSED plaque during the off season.

(10) Police (Local or State)

- The law enforcement agency must have an officer on the premises at all times, or a dispatcher on duty with an officer within radio or local telephone contact.
- The law enforcement agency must be located within a reasonable distance from the state highway.

(11) Visitor Information Centers (VIC)

VISITOR INFORMATION CENTER (VIC) signs direct the unfamiliar traveler to a facility whose sole function is to provide tourist information and that meets the following criteria:

- The Visitor Information Center must operate a minimum of eight hours per day, seven days a week from Memorial Day to Labor Day, or during the months that tourists customarily visit the area. The region traffic engineer may approve different operating hours if the Visitor Center operators can document that a variance is reasonable and justified.
- The VIC must be operated by a nonprofit organization; however, the center may be sponsored by a commercial enterprise. For example, the VIC could be located within a commercial establishment such as a mall or shopping center provided the VIC is visibly separate from the commercial activity.
- Literature and information on visitor attractions must be provided to the public free of charge
- The VIC must have either a full-time attendant on duty during the hours of operation, whose primary duty is to provide visitor information, or a functioning electronic means available to answer visitor questions.

 The VIC must be large enough to accommodate the anticipated number of visitors and provide the necessary display space for material of local and statewide interest.

- Parking space, for both cars and recreational vehicles, must accommodate the expected number of visitors.
- A telephone must be available to the public during operating hours.
- The VIC must be within 1 mile of an interstate highway interchange, or within 5 miles of a non-interstate highway, and not readily visible from it. Follow-through signing is required if the VIC is not visible from the interchange or intersection.
- During hours of operation, the center shall provide free ADA accessible public restroom facilities with a sink and running water for hand washing, a flush toilet, toilet tissue, and sanitary towels or other hand-drying devices. Restroom facilities shall contain appropriate locks for occupant security.
- Facilities shall provide free potable drinking water and free cups for public use.

Only one Visitor Information Center may be signed from an interchange or intersection. Where more than one facility requests signs, work with each to determine which best serves the public. Consider which VIC provides the most complete information, the ease of travel from the highway to the Center, and the amenities of each facility. Request that the signed VIC provide motorists with information including directions to the other.

The VISITOR INFORMATION CENTER sign can be combined with a second message for either a museum, historical, cultural, or recreational attraction, if that attraction meets the appropriate guidelines. The VIC must provide information about the attraction, through an on-premise outdoor kiosk or within the Center.

For seasonal operation, remove the sign or cover with a CLOSED plaque. VIC supplemental signing must meet MUTCD sign spacing criteria. Where there is not adequate sign space available, a VIC text message plaque may be installed on an existing ground mounted sign.

The department generally provides VIC signing. However, if a Center changes locations within a one or two year period, it may be asked to pay for all relocation costs.

2.19 Other Essential Guide Signs

(1) Street Name and Advance Street Name Signs

STREET NAME (D3 Series) signs are useful navigational tools for the roadway user and are installed at roadway intersections. Street name signs are white letters on a green background. Upper and lower case letters are used.

Signs showing the historical street name may be used in conjunction with a current street name sign. All costs associated with the historic street name shall be the responsibility of the local agency making the request.

In urban areas, STREET NAME signs are installed at the intersection. For significant cross streets, channelized intersections, and at signalized intersections, ADVANCE STREET NAME signs should also be installed. Place them 200 feet or more in advance of intersections to alert motorists to the upcoming roadway and the possibility of turns or lane changes, etc. A directional chevron may be used on the street name sign indicating the direction of the side street.

In rural areas, where a county road intersects the state highway, a STREET NAME sign identifying the state route is installed above the state installed STOP sign. The county is responsible for the original installation, and the department maintains these signs.

Where ADVANCE INTERSECTION WARNING signs are used, (primarily in rural or suburban areas) it is WSDOT policy to install the black on yellow ROAD NAME (D3-201) sign above or below the INTERSECTION WARNING sign.

On city streets that are part of state highways, the local agency shall install and maintain street signs within the corporate limits (RCW 47.24.020).

Use this table to determine appropriate letter size for street name signs:

Roadway Type	Single or Multilane	Single Lane	Single Lane	Multilane	Multilane	Signal Mast Arm
Posted Speed Limit (mph)	25	30–45	50+	30–40	45+	N/A
Street Name Letter Size	4"/3"	6"/4.5"	6"/4.5"	6"/4.5"	8"/6"	12"/9" #
Advance Street Name Letter Size	6"/4.5"*	6"/4.5"	6"/4.5"	6"/4.5"	8"/6"	N/A
Fabrication Number	D3-101 D3-102	D3-101 D3-102 D3-103 D3-201 D3-301 D3-302** D3-401	D3-101 D3-102 D3-103 D3-201 D3-301 D3-302** D3-401	D3-101 D3-102 D3-103 D3-201 D3-301 D3-302** D3-401	D3-101 D3-102 D3-201 D3-301 D3-302** D3-401	D3-501

^{*}Use only at urban signalized intersections and channelized intersections with exclusive turn lanes.

Table 2-9

(2) Canadian Customs

Several Canadian Customs border crossing stations have limited hours of operation and are closed to motorists outside these hours. For these crossing stations, install signing to inform motorists of the hours of operation and locate the signs to provide them an opportunity to find an alternate route or to delay their crossing. Place the sign in advance of the closest exit before the border where overnight accommodations are available.

^{**}Use at Advance Street Name sign installations only.

[#]For posted speed limits less than 40 mph, 8"/6" letter heights may be used.

Canadian Customs at 24-hour border crossings do not need advance signing showing hours of operation.

(3) City and County Entrance

The department is responsible for installing CITY and COUNTY ENTRANCE signs (I2-201/301) on state highways (RCW 47.36.120). The signs shall be white on green. These signs are placed at city and county boundary limits and are different than CITY ENTRANCE MARKERS discussed in Section 2.18(3).

Instead of the standard ENTRANCE (I2-201/I2-301) sign, the city or county may supply and maintain a sign with a political jurisdiction logo, per the MUTCD.

(4) Unincorporated Community

COMMUNITY ENTRANCE signs (I2-301) may be installed on each non-limited access state highway approach to an unincorporated community that includes:

- A United States Postal Service office.
- At least two motorist services, which may be any combination of gas, food, or lodging.

Supplemental destination guide signing to the community may be considered if it is within 10 miles from a rural state highway interchange or intersection. Do not install destination signing to unincorporated communities from an urban area interchange.

(5) City Center

Historically, the department has provided CITY CENTER signs at the request of local governments, to direct motorists to local government buildings (i.e., city hall, courthouse). Currently, requests for CITY CENTER signs often come from local business communities to direct motorists to business areas within a city. CITY CENTER signing requests should include the following information:

- Description and location of all city center exits within the corporate limits.
- The interchange or intersection name of the proposed sign location.
- Verification of local agency agreement on the location of the city center.

When reviewing CITY CENTER signing requests, conduct a field review to determine the effectiveness and feasibility of sign locations and confirm other details of the request letter. Include the local government, business community, and other interested groups to assure agreement on the location of the city center.

All costs for sign fabrication and installation are the responsibility of the city making the signing request.

(6) Milepost Markers

MILEPOST MARKERS are numbered location markers installed along all state highways and used primarily for reference purposes. The Statewide Travel and Collision Data Office establishes each milepost location, which is signed with a MILEPOST MARKER in accordance with the following criteria (adopted from rescinded department Directive D32-20).

- On two-lane roadways, install the double-faced MILEPOST MARKER (D10-101, D10-102, and D10-103) on the right side of the roadway, in the direction of increasing milepost.
- On multilane highways, install the single faced MILEPOST MARKER (D10-1, D10-2, and D10-3) for each roadway direction, on the right side of the roadway.
- MILEPOST MARKERS on spur routes display the letter "S" below the mileage figure.
- MILEPOST MARKERS must be installed within 50 feet of their designated location. If that is not physically possible, do not install that MILEPOST MARKER.

When a milepost marker is relocated it must be documented in the Traffic Sign Maintenance System (TSMS). Headquarters Traffic supplies this information to the Roadway Data Office annually so the milepost marker can be accurately relocated in the State Highway Log. See *Standard Plan* G-10.10-00 and G20.10-00 for installation details.

(7) Highway and Freeway Entrance

Install the HIGHWAY ENTRANCE sign (E12-101) on two-lane two-way undivided highways where interchanges are provided at intersecting crossroads. Install signs on both sides of the on-ramp, facing approaching traffic, to clearly identify the entrance to the on-ramp.

Install the FREEWAY ENTRANCE sign (E12-201) on both sides of each freeway or expressway on-ramp, facing approaching traffic, to identify the ramp entrance.

(8) Other Agencies

Consider installation of supplemental guide signs to facilities of other federal, state and local agencies when space is available per the MUTCD. Sign colors are determined by the type of sign destination (recreation, emergency, or direction).

- **Department of Natural Resources Campgrounds** White letters on brown background.
- State Patrol White letters on blue background.
- State Public Fishing Areas White letters on brown background.
- Government Fish Hatcheries Open to the Public White letters on green background.
- **Department of Corrections Facilities** White letters on green background.

2.20 Miscellaneous Signing

(1) Adopt-a-Highway

ADOPT-A-HIGHWAY (AAH) signs are installed to recognize both volunteer groups and businesses that sponsor litter pick up or other roadside enhancement activities as part of the AAH program. The program is administered through the Headquarters Maintenance Office, with regional coordinators assigning locations to groups. Adopted roadside sections can include one or both sides of the roadway.

AAH signs are placed at or near the beginning of an adopted section. Lateral placement of the AAH signs may be up to 50 feet from the edge of the travel lane, if right of way is available and the signs are still visible from the traveled lanes. All AAH signs mounted on the same post must be the same width. The name displayed on the AAH recognition sign shall be the official name of the organization, individuals, or business sponsoring the section and must be pre-approved by the department.

Volunteer adoption sections are signed as follows:

- Sections adopted by volunteer groups are signed using I6-901, I6-901A, I6-902, I6-902A, I6-904, and I6-905A signs.
- If the section includes both directions of travel, install signs for each.
- On divided highways, AAH signs are installed on the right shoulder only.

Sponsored adoption sections are signed as follows:

- Sections adopted by businesses are signed using an I6-906 sign.
- On divided highways, AAH signs may be installed on either the median or the right shoulder.
- The sponsor's logo/name plaque is provided to the region for WSDOT installation on the AAH sign. The plaque will be an 0.050 inch aluminum overlay.
- Size requirements are a maximum of three lines, with 20 spaces per line. If a sponsor's name will not fit within the sign width, the letter height will be reduced until it can.

AAH recognition signs may also be installed for special enhancement projects such as landscaping at interchanges, or other areas. In these cases, the smaller sign shall be used and the region traffic engineer shall determine sign placement on a case-by-case basis.

Spacing between AAH signs and other traffic control signs shall conform to MUTCD Section 2H.08. AAH signs are shown in Appendices 2-25 and 2-26.

(2) DUI Victim Memorial

The Headquarters Traffic Office administers the DUI Victim Memorial signing program and approves all locations for signing. Refer citizen requests for Victim Memorial signs to the Headquarters Traffic Office.

Install the PLEASE DON'T DRINK AND DRIVE (I20-201) sign with the IN MEMORY OF (I20-203) or SPONSORED BY (I20-204) plaque at approved locations.

Specific sign locations are determined on an individual basis during the review of the sign request. In general, along non-interstate highways, one sign is installed for each direction of travel. Install the sign near the physical crash location, while considering sign spacing, sight distance, and other factors that may preclude using the exact crash site.

For the Interstate system, one sign is installed along the on-ramp nearest to the collision scene, in the direction of travel that the collision occurred.

Information on the Victim Memorial program is available at www.wsdot.wa.gov/operations/traffic/signs/duisign.htm.

(3) City/Community Entrance Markers

WSDOT may allow cities or communities, either by permit or agreement, to construct and maintain city/community entrance beautification areas on state highway right of way. The agreement may include a CITY or COMMUNITY ENTRANCE MARKER.

On a state highway, one ENTRANCE MARKER may be installed for each direction of travel near where it enters a city or community. Any landscaping associated with the marker shall be in compliance with the WSDOT *Roadside Classification Plan* M 25-31, and approved by the region Landscape Architect.

An ENTRANCE MARKER for a neighborhood community that lies within the corporate limits of a city or town may be allowed if the city or town approves the neighborhood's marker. This marker will count as one of the two allowed per city or town.

An ENTRANCE MARKER visible to any state highway must meet these guidelines:

- Be simple, dignified, and devoid of advertising.
- Be positioned so it is not a roadside safety hazard, is not likely to be struck by an errant vehicle, and is not an obstruction to sight distance.
- Shall not interfere with, nor distract from any existing or future traffic control or safety device.
- Any lighting associated with the marker shall comply with RCW 47.36.180.
- Be sponsored by the city or a community group in which it is located.

The city or community group is responsible for maintaining the marker and any associated landscaping. Inadequate maintenance of either, as determined by the department, may result in marker removal.

If a highway project (such as roadway widening) will displace an ENTRANCE MARKER, the city or community group is responsible for relocating and/or removing it. Markers not relocated shall be removed by WSDOT, with removal and disposal costs billed to the city or community group.

(a) Entrance Markers on Limited Access Highways – The total marker area shall not exceed 100 square feet, and the message area shall not exceed approximately 60 square feet. At highway interchanges, the marker must be oriented so it can be read by the motorist leaving the ramp and not by the motorist on the highway mainline.

Non-Profit Service Club Plaques (i.e., Kiwanis, Lions, Rotary) may not be installed on ENTRANCE MARKERS within limited access highways. These signs are considered to be Type (1)(c) signs and are regulated under the Scenic Vistas Act (RCW 47.42 and WAC 468-66).

- 1. Interstate ENTRANCE MARKERS installed on Interstate right of way require FHWA approval. The State Traffic Engineer reviews the design and placement of city ENTRANCE MARKER requests on interstate roadways before recommending approval to the FHWA. If approved, the marker is placed between the interchange ramp and the right of way line, in the area of the ramp terminal with the connecting city street, and not visible to mainline traffic.
- 2. **Non-Interstate** The region traffic engineer approves the design and placement of the marker on non-interstate routes. If there are any deviations from the guidelines above, the design must be submitted to the State Traffic Engineer for approval. For undivided highways, the marker is placed just inside corporate limits, or at the far side of an intersection located inside corporate limits.
- (b) Entrance Markers on Non-Limited Access Highways The total marker size shall not exceed 150 square feet, including the border and trim, and service club plaques. The service club plaque area of the sign shall not be disproportional to the marker message. The maximum size for each service club plaque is 24" x 24".

Non-Profit Service Club Plaques (i.e., Kiwanis, Lions, Rotary) may be installed on a city ENTRANCE MARKER along a state highway if the marker is located within corporate limits and is not within a limited access area. These signs are considered to be Type (1)(b) signs and are regulated by the Scenic Vistas Act (RCW 47.42 and WAC 468-66).

The region traffic engineer shall approve the design and placement of the marker. If there are any deviations from the guidelines, the design and placement must be submitted to the State Traffic Engineer for approval.

Install the city ENTRANCE MARKER inside the city limits, beyond the curb line or outside edge of the roadway. ENTRANCE MARKERS for unincorporated communities may be considered for placement on state highway right of way. The marker must be located beyond the clear zone if it does not meet break-away standards.

(4) Carpool Information

CARPOOL INFORMATION signs (D12-201, D12-202) may be installed along conventional two-lane roads, on-ramps to multilane highways, and in park and ride lots. They should not be placed on the mainline of multilane facilities. Transit logos may be included in the sign design in accordance with MUTCD Section 2D-48. These signs are considered incidental and can be removed if sign space is needed for a higher priority sign.

The requesting agency is responsible for sign fabrication and initial installation costs. WSDOT is responsible for the sign maintenance.

Sign spacing:

- Use a 300-foot spacing between signs on conventional two-lane, high-speed roadways.
- Use 150-foot spacing for freeway on-ramps, and for both multilane and two-lane, low-speed roadways in incorporated areas.

(5) Commercial Dump Prohibition

Some rest areas along state highways provide Recreation Vehicle dump stations for use by noncommercial vehicles. Install the COMMERCIAL VEHICLE USE PROHIBITED (I8-704) sign in the rest area at these RV dump sites. This is the only valid application for this sign on state highways.

(6) Fire District Boundary

The ENTERING FIRE DISTRICT and LEAVING FIRE DISTRICT signs (I8-804) may be installed at Fire District boundaries along state highways using these guidelines:

- Upon region approval, signs shall be installed and maintained by the jurisdiction requesting the sign(s). A General Permit issued by the area maintenance office is required.
- Signs should be installed at the district boundary, if possible, or no further than 1,000 feet from the boundary.
- Signs may be placed away from the roadway near the edge of the right of way. They shall not obstruct a driver's view or constitute a hazard by their location.
- Mounting posts shall be of wood, no larger than 4 inches x 4 inches, or they may be perforated square steel. Mounting height shall be 7 feet to the bottom of the sign.
- The sign color shall be white letters on blue background.
- A jurisdictional logo may be included on the sign.

(7) Fire Danger Information

FIRE DANGER INFORMATION signs (with arrow indicator) are requested or sponsored by either the Department of Natural Resources (DNR) or the local fire district authority who submits a written request to the region Traffic Office.

DNR or the fire district shall be responsible for the sign fabrication, installation, and maintenance costs, as well as for the daily message changes. WSDOT can fabricate and/or install the sign via a J Agreement, or the fire district can fabricate and install the sign if the department approves. A General Permit issued through the area maintenance office is required.

The fire district must agree to properly maintain the sign and to cover it during the winter when there is no fire danger, or to replace the sign when the message or colors begin to fade or fail.

Signs are not allowed on Interstate right of way. Install the FIRE DANGER sign at or near the right of way line. If the sign is within the clear zone, it must have appropriate safety breakaway features. Mounting posts shall be of wood, no larger than 4 inches x 4 inches, or they may be perforated square steel. Mounting height shall be 7 feet to the bottom of the sign.

(8) Fire Hydrant Marker

FIRE HYDRANT MARKER (I7-401) signs may be installed on limited access highways to help fire department personnel locate fire hydrants that are outside of the right of way. The sign shall be placed parallel to, and facing the roadway. The sign shall be visible from the shoulder, mounted either on the right of way fence or on a post, and shall display the distance from the edge of traveled way to the fire hydrant. If requested by the fire department, a 24-inch plaque may be added below the sign to indicate the nearest street or intersection.

The region traffic engineer shall contact local fire departments to determine signing needs for fire hydrants located near limited access highways. The department is responsible for installing and maintaining these signs.

(9) Apple Maggot

Many people carry homegrown fruit throughout the state without realizing that they may also be transporting harmful pests, such as the apple maggot, thereby increasing the insects' range. Washington State Department of Agriculture (WSDA) established specific geographical boundaries where the transport of homegrown fruit is prohibited. At their request, signs were installed at several locations throughout the state in an effort to stop the transport of homegrown fruit. Sign fabrication, installation, and maintenance costs are paid for by WSDA through an Interagency Agreement. Contact Headquarters Traffic before replacing any apple maggot signs. Signs locations and messages are:

State Borders and Quarantine Area Borders	"Entering/Leaving apple maggot quarantine area"
Within Quarantine Areas	"Do not transport homegrown fruit"

(10) Landscape and Vegetation Acknowledgement

Community, local groups, or businesses sometimes install and/or maintain landscaping or vegetation plantings within state highway right of way, generally as part of beautification of a community entrance. A General Permit issued by the department is required.

One sign acknowledging the group may be allowed as described below:

- The sign design, including size, message layout, color, and sign fabrication material is submitted to the region Traffic Office for review and approval.
- Sign size is limited to 3 feet x 3 feet; letter size is limited to 2 inches. This is not considered a highway sign and is not intended to be read by motorists.
- The sign shall not contain any advertising or service club information, or resemble a city/community entrance sign.
- The sign is installed at or near the right of way line. On limited access facilities, the sign is placed between the ramp and right of way line, and not visible to mainline traffic.
- The sign sponsor shall be notified and instructed to replace the sign when needed. The sign shall be removed if it is not replaced in a timely manner.
- When the General Permit expires without renewal, or the landscaping/vegetation is no longer maintained, the sign shall be removed.

(11) Limited Access

For state highways that operate with intermittent access control, install ENTERING LIMITED ACCESS AREA (I2-601) and LEAVING LIMITED ACCESS AREA (I2-701) signs in accordance with RCW 47.52.110. Fully controlled limited access highways do not need signs.

(12) Litter Control

Install LITTER AND IT WILL HURT signs (I6-102) in areas where littering is a common problem and where a minimum sign spacing of 300 feet is available. Use the appropriate logo below the sign:

- Install the THROWING AWAY BURNING MATERIAL PROHIBITED (16-301) sign in areas where fire hazards are known to be high.
- Install the DEPOSIT LITTER _____ MILE (I6-101) sign in advance of the deposit site.
- The LITTER (I6-201) symbol sign should be located at the litter barrel site, facing approaching traffic.
- Install the AUTOMOBILE LITTER ONLY (I6-801) sign adjacent to the litter barrel. This sign is intended to discourage the deposit of litter that is not normally accumulated by a motorist.

Note: The litter symbol is a registered trademark. All signs utilizing the symbol shall have a small ® located near the lower right corner of the symbol.

(13) Post Offices

Post offices may be signed from state highways in unincorporated areas if the post office is not visible from the state highway and there is a demonstrated need for the sign (D1-101). Cities or towns may sign for post offices inside incorporated limits.

(14) Private Roads

WSDOT does not supply, fabricate, install, or maintain STOP signs or STREET NAME signs for private roadways that intersect with state highways. Citizens may install their own signs at such intersections, in accordance with the MUTCD, and working with the area Maintenance Superintendent. A general permit is required when a STOP sign or private ROAD NAME sign is installed on WSDOT right of way at a private road approach. The citizen requesting the sign must secure the permit and coordinate installation details with the area Maintenance Superintendent. Maintenance for private road signs is the responsibility of the citizen installing the signs.

Private road name signs (D3-104) shall be fabricated in accordance with the *Sign Fabrication Manual* and must indicate the road is private either by a sign header or by words ("Private" or "PVT") on the sign. White letters on a green background is the preferred color but a local jurisdiction may determine that white on blue or black on white are acceptable.

(15) Refuse Station

REFUSE STATION signing may be installed under the following conditions:

- The site must be county or city owned and open to the general public. Private refuse stations will not be signed.
- The site must be a major refuse station, not just a drop-off location.
- Signs are not installed on any freeway facility.
- The refuse station must be located within ½ mile of the state highway.
- Use the word "Refuse" instead of the word "Transfer" to avoid possible confusion with transportation hub centers that may also be called Transfer stations. The word "Garbage" is not used.
- The REFUSE STATION sign shall be a 24 inch x 24 inch white on green plaque.
- Install the plaque below any ground mounted guide or information sign at the intersection. If there are no signs, the plaque may be placed on its own sign post.
- A city or county may install a REFUSE STATION sign on its right of way at an intersection, instead of a highway sign. The sign would be considered a Type 1 sign under the Scenic Vistas Act (WAC 468-66-050).

(16) Salmon and Other Fish

WSDOT receives requests from fish related user groups to sign a stream or body of water with a specific fish related message. Signs related to preserving the fish habitat may be installed along a state highway; however, only one type of fish related sign will be allowed for a location. Where several user groups (i.e., salmon, steelhead, or trout) request signing in a location, suggest that they work together to develop a single fish related sign message and to seek support from the local jurisdiction. An overall signing plan with support documentation should be submitted to the region Traffic Office, preferably by the local jurisdiction or by an official organization or agency.

- The stream crossing or body of water must be year round.
- Multiple signs, supported, endorsed, or maintained by different user groups (i.e., salmon, steelhead, and trout) will not be allowed.
- The requesting user group is responsible for the sign fabrication, installation costs, and all maintenance and replacement costs. A J account can be set up to administer the funds. Sign installation and removal will be by WSDOT personnel.
- Sign size will be 18" x 24", 24" x 24", or 24" x 36", dependant on the fish logo and line message approved by WSDOT.
- Sign colors are white letters on a blue background.

(17) Water Crossing

A STREAM NAME or WATER CROSSING (I3-101) sign may be installed on a state roadway to identify a body of water that traverses or parallels a state highway, using these guidelines:

- The body of water must be identified by name on a USGS map.
- If the body of water traverses the highway, the water way must be bridged by a highway structure. A single culvert crossing or a seasonal stream does not qualify for a sign.
- Sign color shall be white on green.
- Maximum sign height is 24"; the sign width is variable.
- On conventional roadways, letter height is 6" upper case and 4½" lower case letters.
- On expressways or freeways, letter height is 8" upper case and 6" lower case letters.

(18) Water Related Signs NOT to Be Installed

The following water related signs shall not be installed on any state highway:

- Conservation District Boundary Area
- Drainage Basin

- Drinking and Ground Water Management Area
- Groundwater Protection Region or Area
- Groundwater Conservation Region or Area
- Surface Water Management Area
- Watershed Signs (this includes entering/leaving signs)
- · Wellhead Protection Area

These signs do not assist motorists in their driving, but can be treated as Type 1 signs (WAC 468-66-050) and installed off the state right of way. Type 1 signs must be supported by an official agency or organization.

(19) Watchable Wildlife

The WILDLIFE VIEWING (D5-907) signs may be installed for locations that are open to the public and within 10 miles of the state highway. Install the sign on the highway exit or intersection nearest the viewing area. Use the BINOCULARS symbol sign for a trailblazer and for site identification if no other signing is posted. Signs are white on a brown background.

(20) Evacuation Route

Install EVACUATION ROUTE (I25-101, I25-201) symbol signs to indicate the route that people should follow to leave an area when a tsunami, volcanic eruption, fire, or other hazard is threatening. Region Traffic Offices are to coordinate the location of Evacuation Route signs with City, County, or Tribal Emergency Management personnel.

2.21 Variable Message Signs

Variable Message Signs (VMS) are traffic control devices designed to display diverse messages to alert roadway users about specific conditions or situations. VMS are part of WSDOT's Traffic Management System and are operated by each region Traffic Management Center (TMC).

VMS are located on many highways throughout the state. Some are used exclusively to provide information about variable speed limits, lane use restrictions, active traffic management, or traction requirements. Others may provide information about:

- Traffic incident information.
- Traffic restrictions or emergency conditions.
- Special event related traffic impact information.
- Upcoming road closures or other impacts.

Operation of the Variable Message Signs is coordinated by the region's TMC and is governed by the Variable Message Sign Use Procedures at wwwi.wsdot.wa.gov/maintops/traffic/pdf/vmsusepolicy.pdf.

2.22 Highway Advisory Radio (HAR) and Traveler Information Station (TIS) Signing

HAR and TIS systems are low power AM radio stations installed to provide the traveling public with traffic alerts or traveler information. They are sometimes used in conjunction with a Variable Message Sign (VMS). Both HAR and TIS installations must comply with Federal Communications Commission (FCC) requirements and must be approved by and coordinated through the WSDOT ITS and Communications office. HAR and TIS system messages are governed by the HAR/TIS procedures which can be found at wwwi.wsdot.wa.gov/maintops/traffic/pdf/harpolicy.pdf.

HAR and TIS signs are secondary to official traffic control signs (i.e., regulatory and warning signs, guide signs) and are installed only when MUTCD and WSDOT sign spacing requirements can be met.

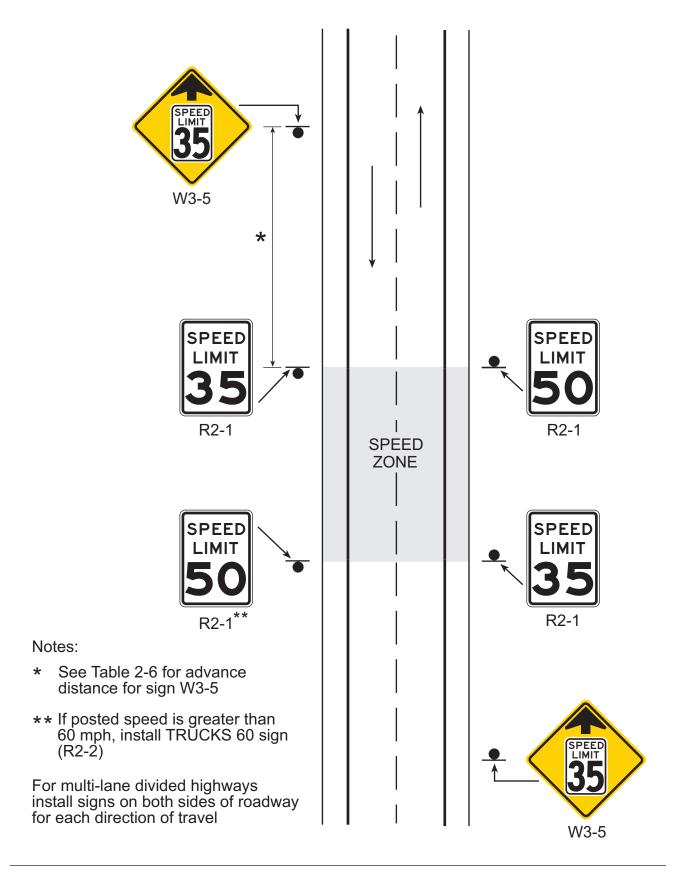
(1) Highway Advisory Radio (HAR) System Signs

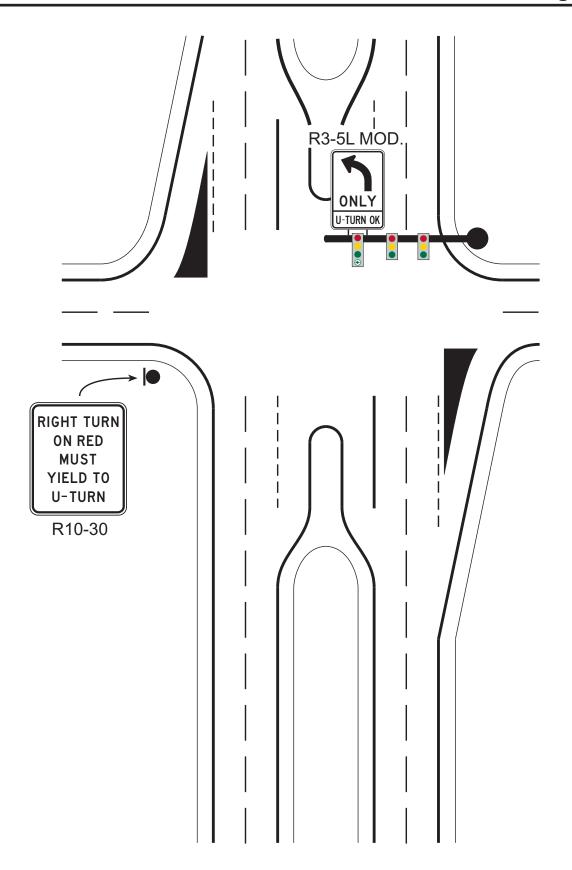
- Install a TRAFFIC ADVISORY TUNE XX AM WHEN FLASHING (I35-101) at each HAR location.
- Install flashing beacons above the sign to be activated by the TMC when some message types are being broadcast.
- HAR signs, Traffic Alert/Traffic Advisory signs, and Mountain Pass Information/Road Conditions signs shall be a non-reflective black legend on a reflective yellow background.

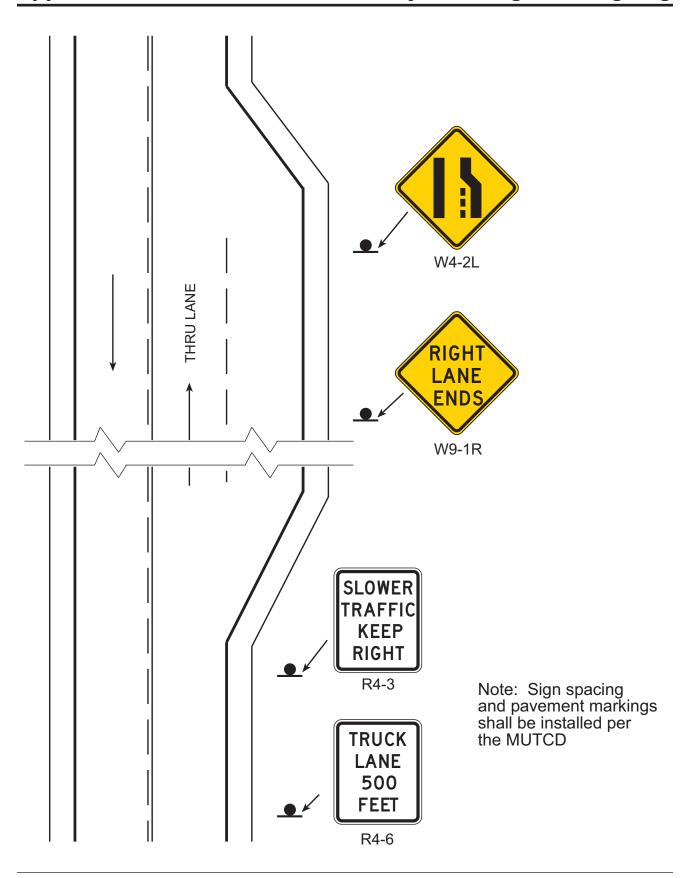
(2) Traveler Information Signs (TIS)

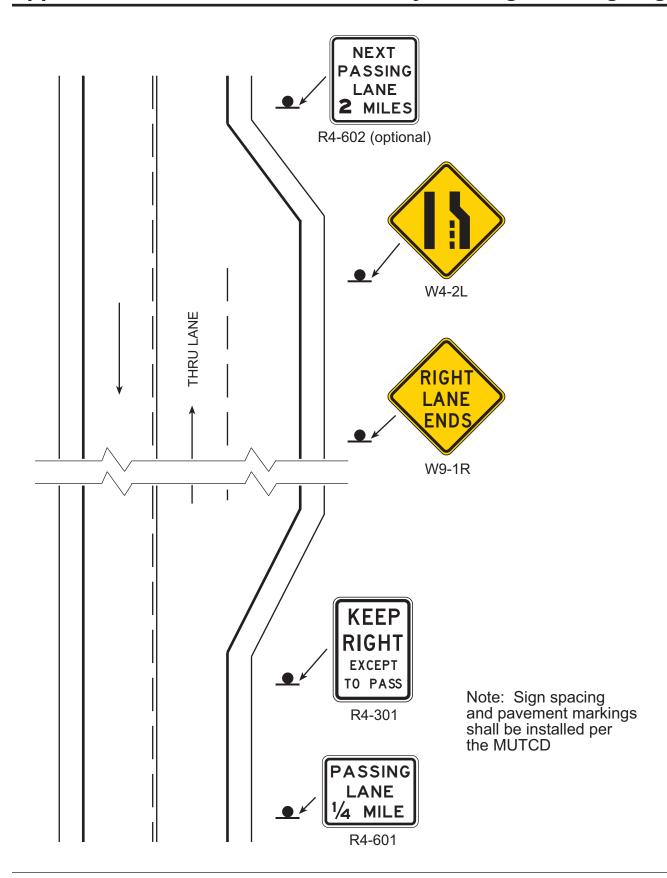
TIS systems give tourist and recreational information.

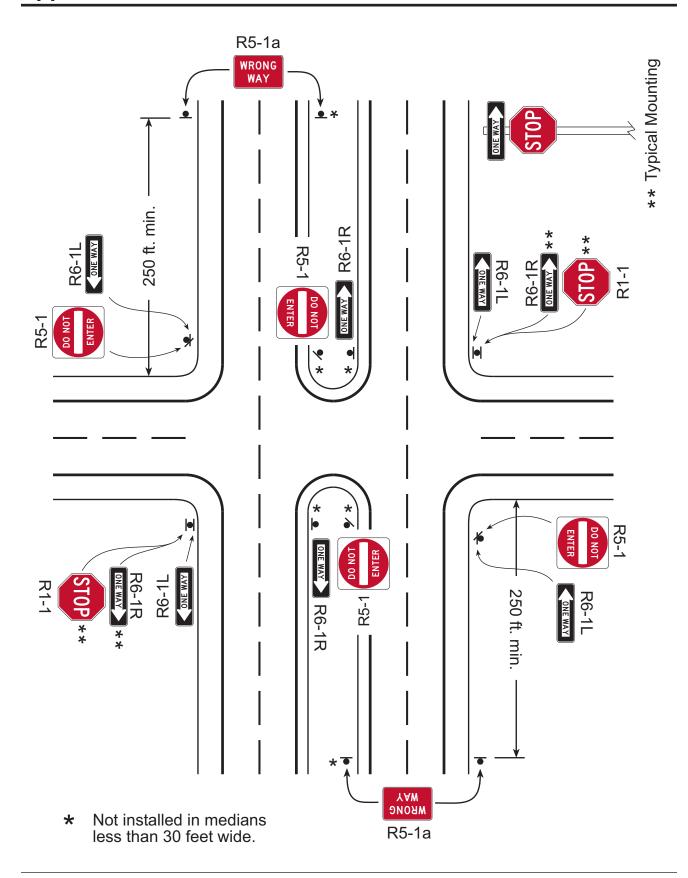
- Install a "TRAVEL INFORMATION TUNE (XXXX) AM" at any TIS location.
- The sign shall be a reflective white legend on a reflective blue background, with the exceptions of TIS signs for recreation in National Parks, National Forests, and National Historic Reserves. These are the **ONLY** TIS signs that may be a white reflective legend on a brown reflective background. As well, these agencies may incorporate their official agency logo on the TIS sign.
- When the preemptive message EMERGENCY INFO WHEN FLASHING
 is included in the TIS sign, it shall be a non-reflective black message on
 a reflective yellow background. Flashing beacons shall be installed to be
 activated by the TMC when emergency messages are being broadcast.
- All TIS sign fabrication, installation, and maintenance costs are the responsibility of the requesting agency. Signs will be fabricated to WSDOT standards and may only be installed by WSDOT crews.

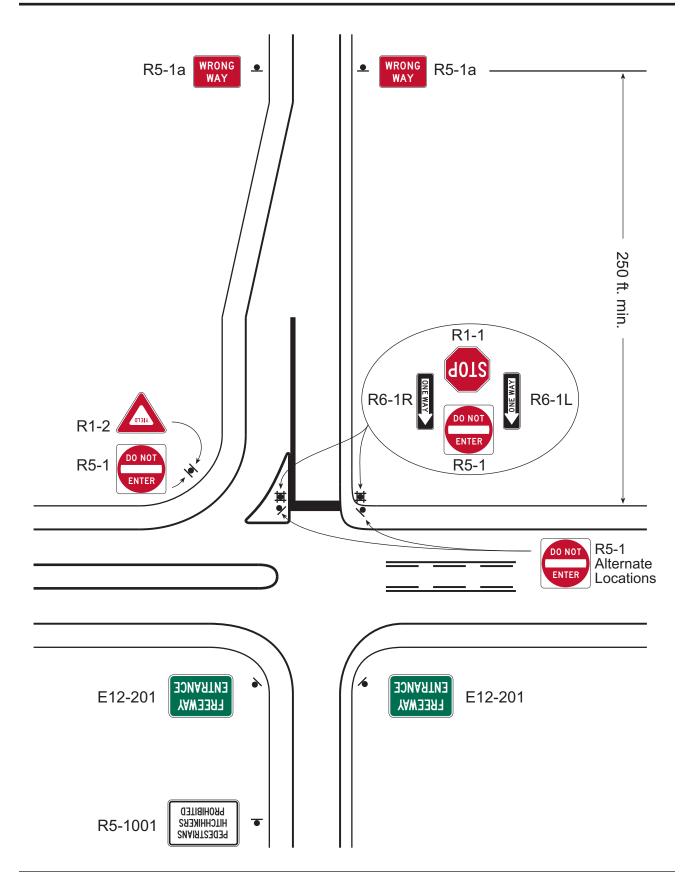


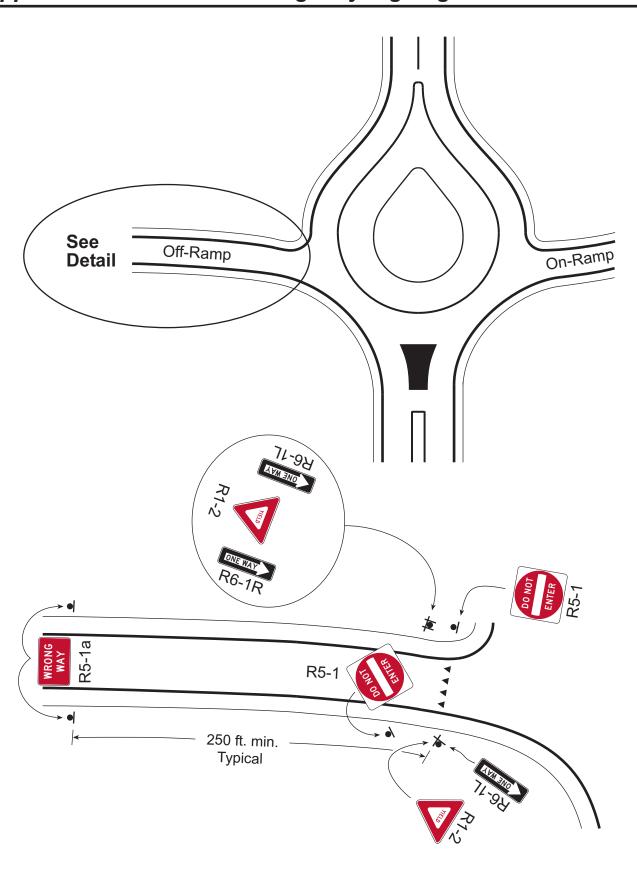


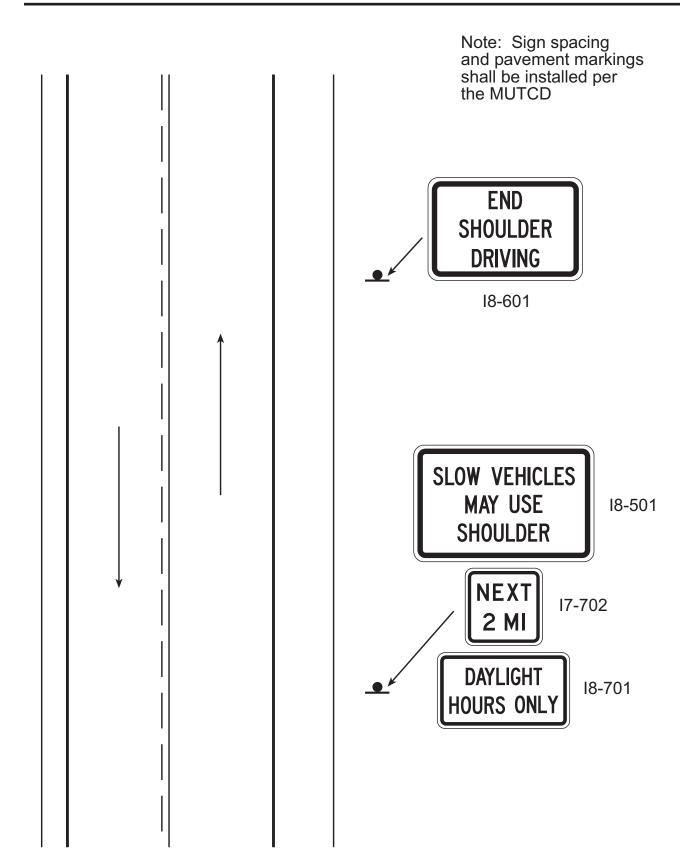


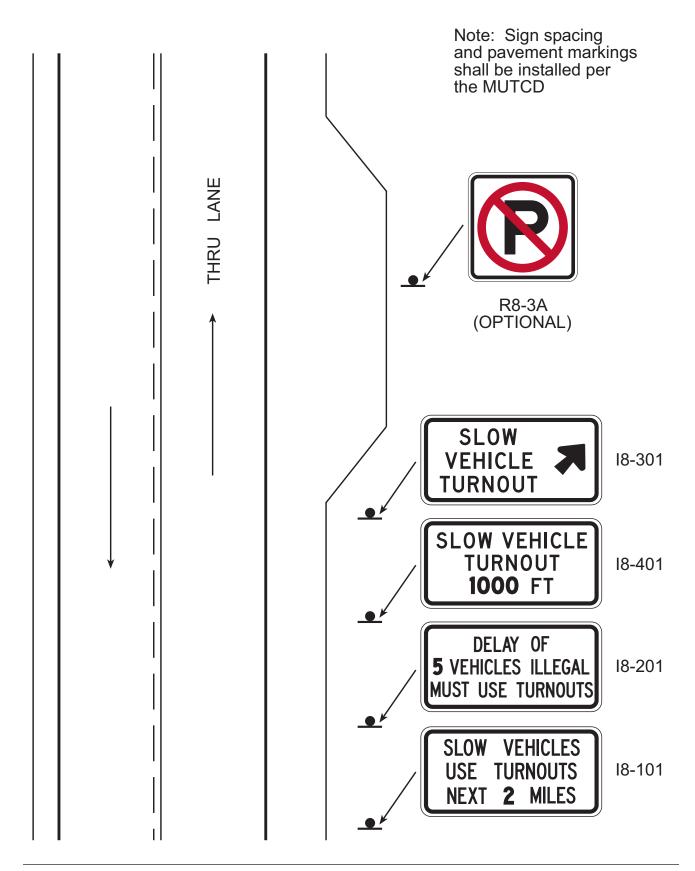


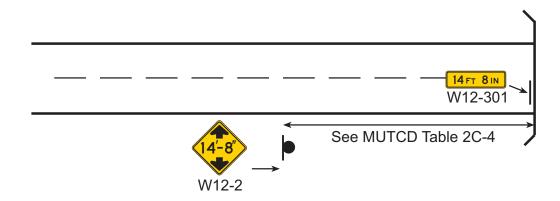




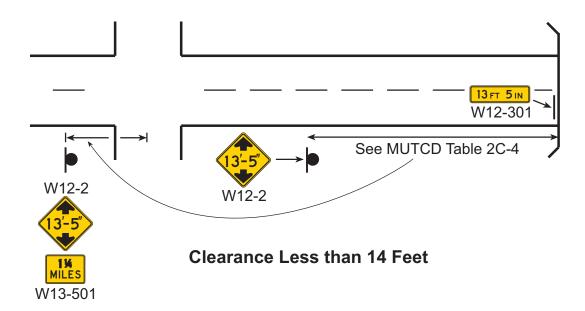


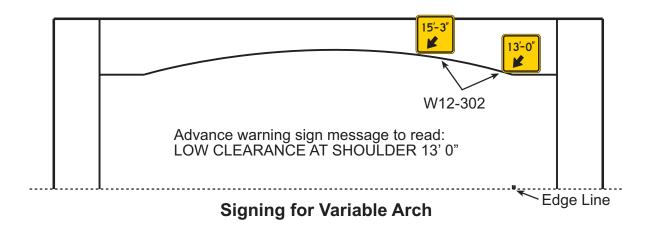


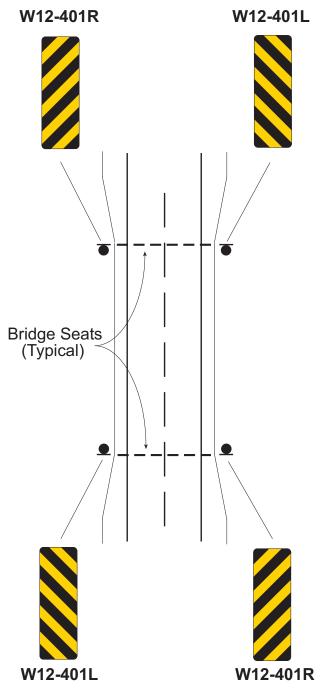




Clearance From 14 Feet to 15' 3"







Notes:

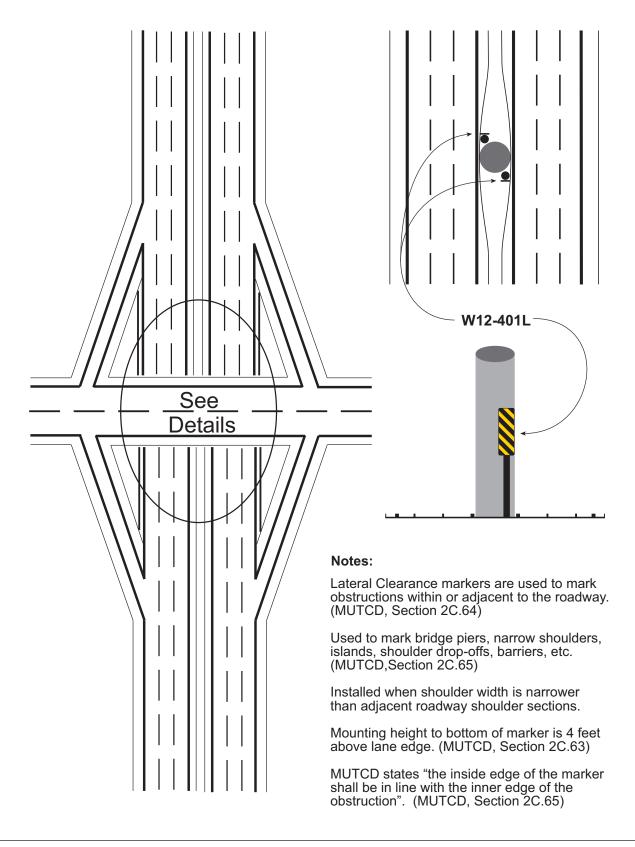
Lateral Clearance markers are used to mark obstructions within or adjacent to the roadway. (MUTCD, Section 2C.64)

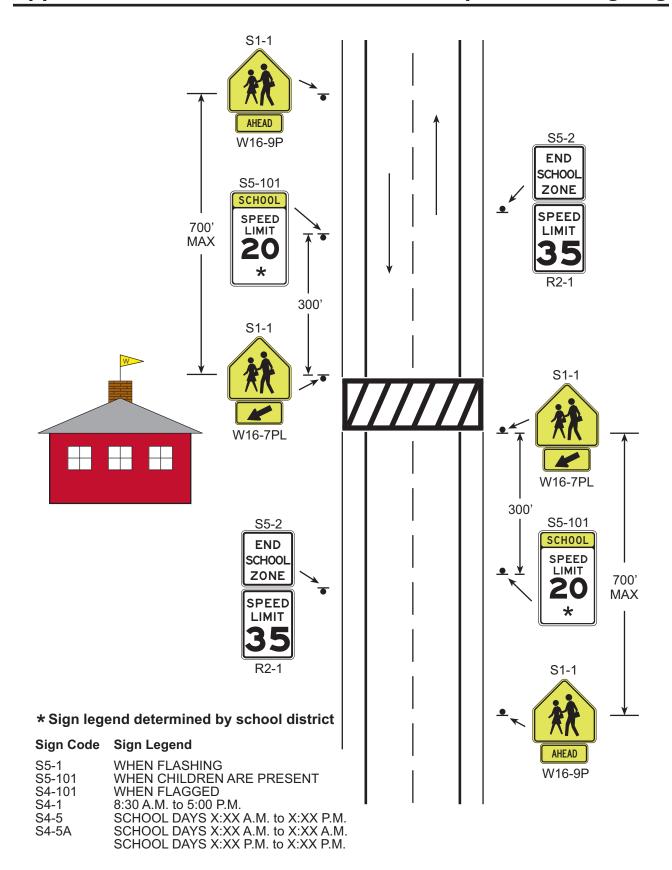
Used to mark bridge piers, narrow shoulders, islands, shoulder drop-offs, barriers, etc. (MUTCD,Section 2C.65)

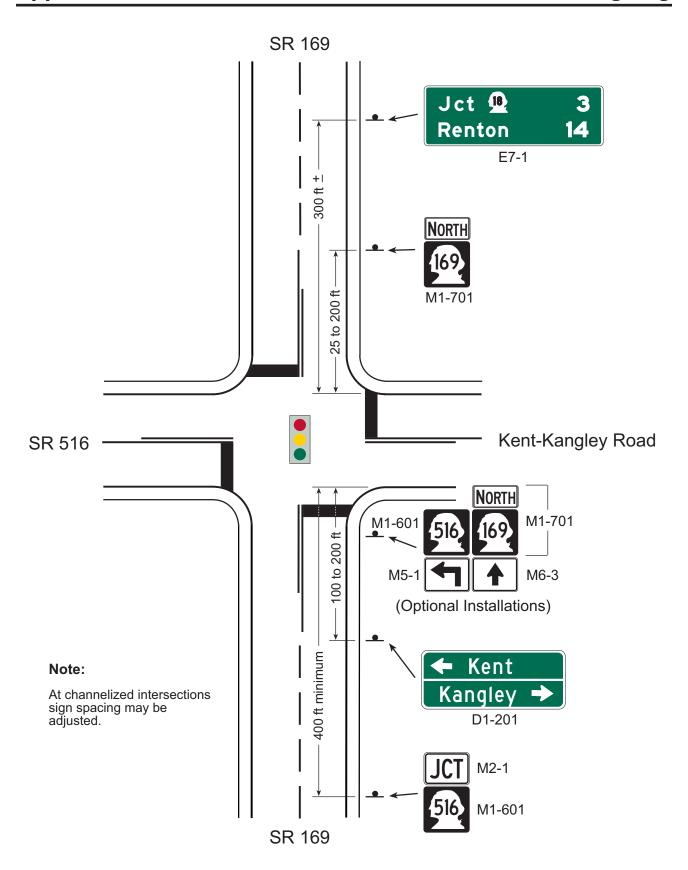
Installed when shoulder width is narrower than adjacent roadway shoulder sections.

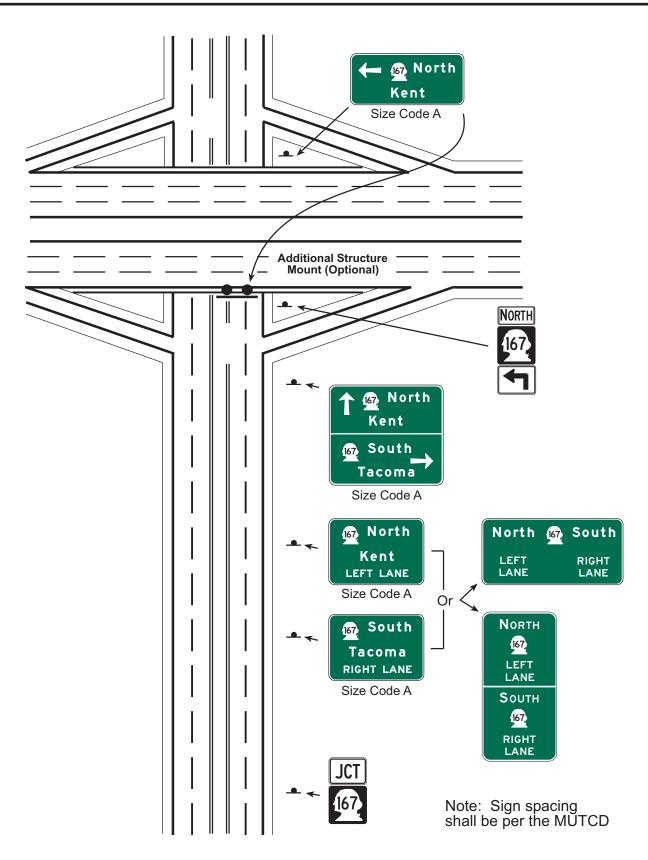
Mounting height to bottom of marker is 4 feet above lane edge. (MUTCD, Section 2C.63)

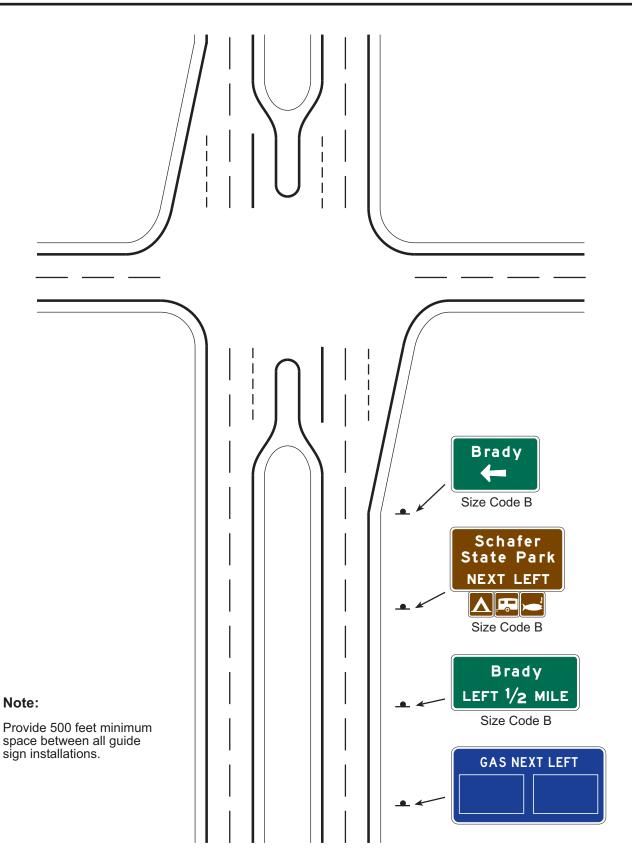
MUTCD states "the inside edge of the marker shall be in line with the inner edge of the obstruction". (MUTCD, Section 2C.65)

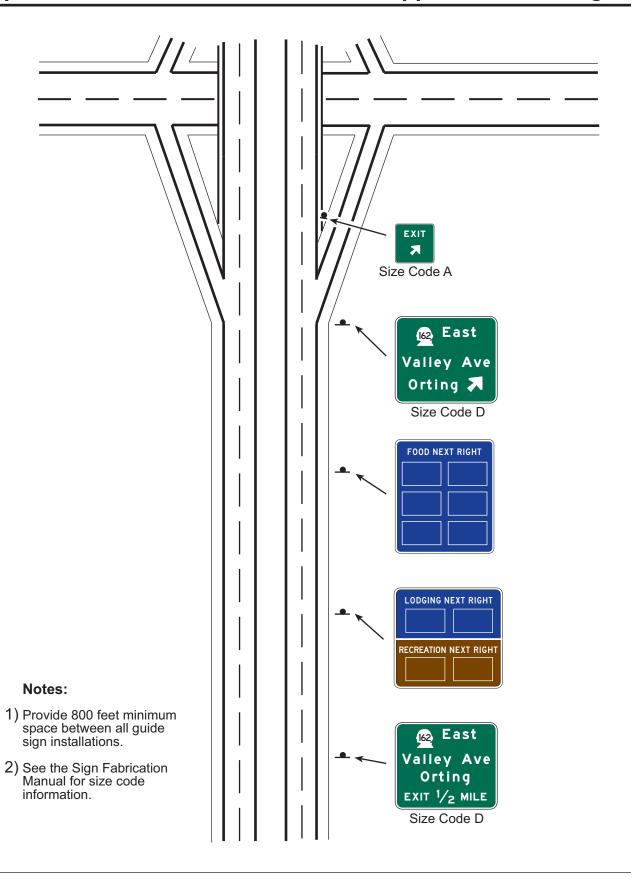


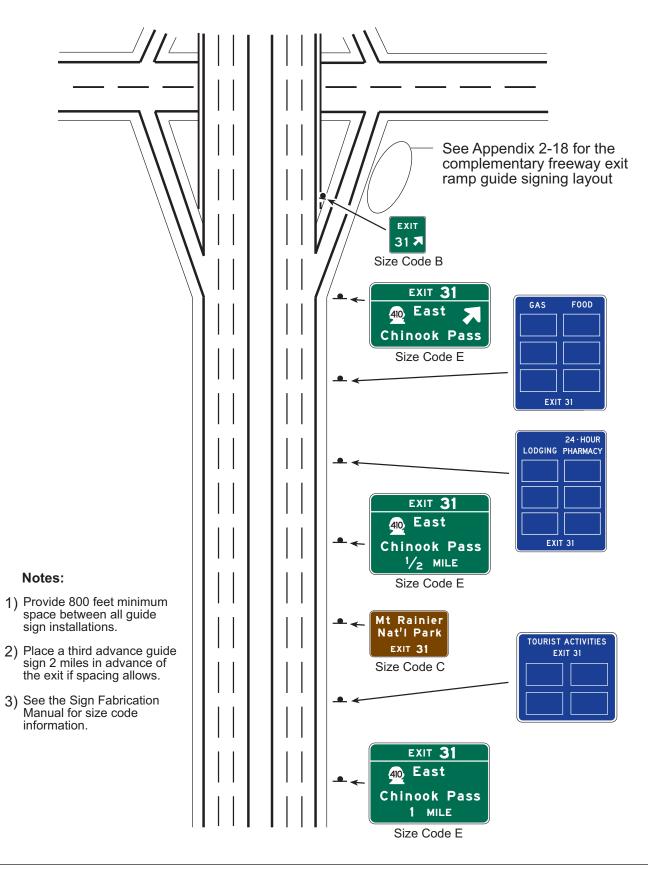


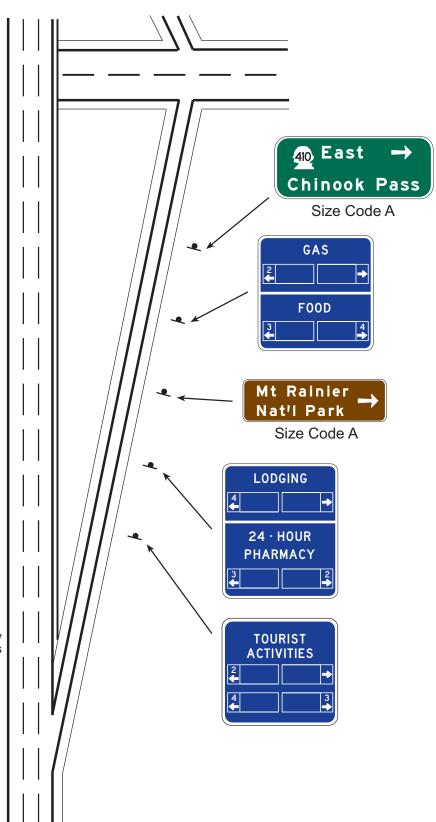






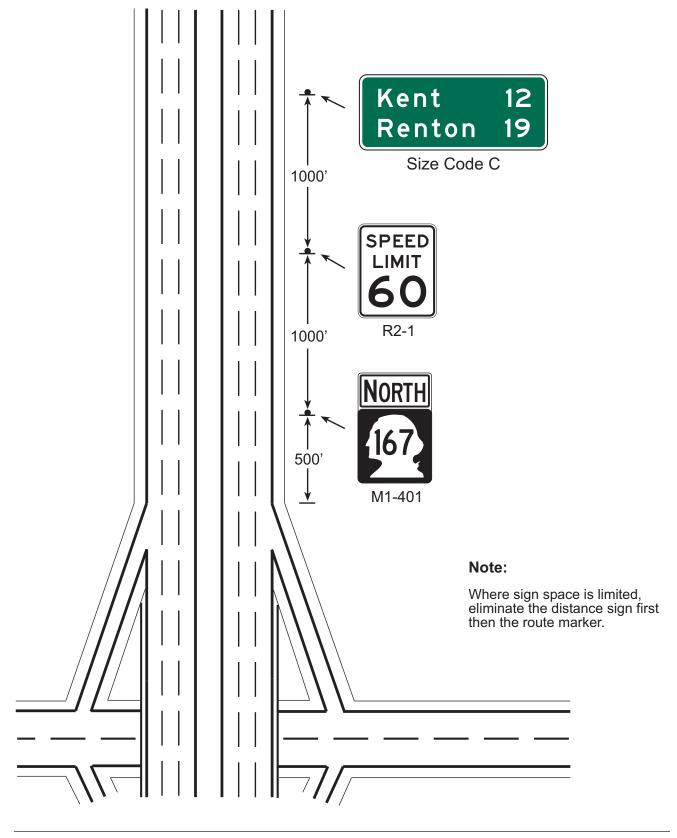


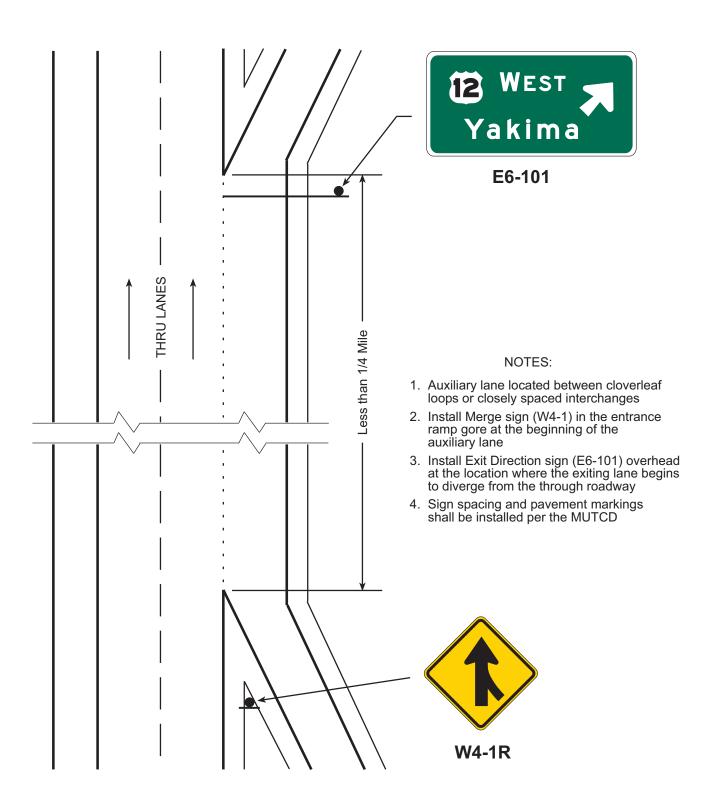


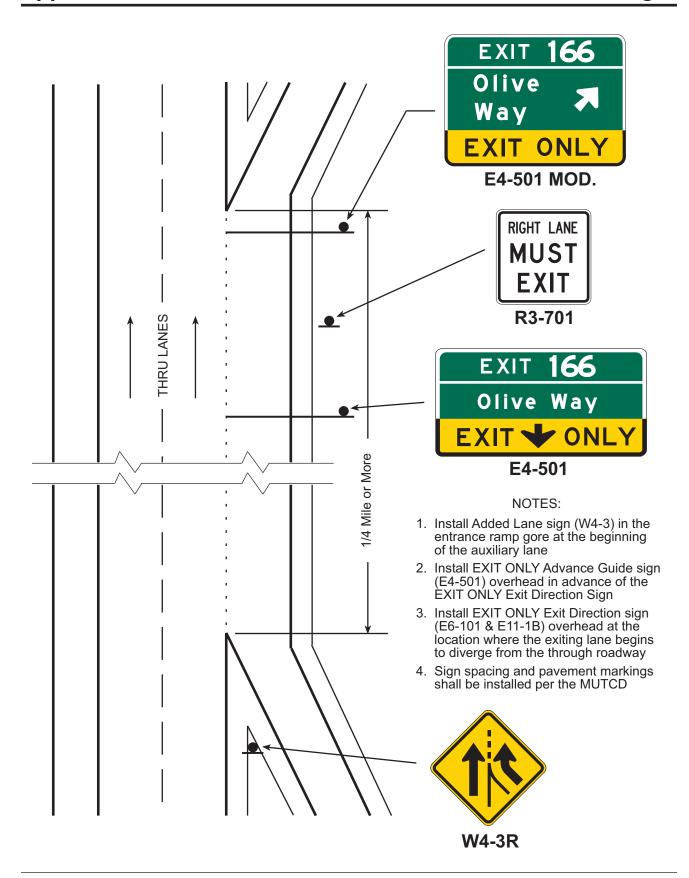


Notes:

- Provide 100 feet minimum space between all guide sign installations.
- 2) See the MUTCD for regulatory signing and marking examples to deter wrong-way entry.
- 3) See the Sign Fabrication Manual for size code information.







Criteria for Selecting Traffic Generators as Destinations on Supplemental Guide Sign

Type of Generator	Specific Criteria	Major Metro Area ¹	Urban Area ²	Rural Area
Airports	Regularly scheduled commercial flights per day.	35	20	15
(destination name only, not symbol)	Distance from Interchange (miles).	5	5	5
	Paved and lighted runway > 2,500 ft long ³ .	_	_	_
Colleges, Universities, and Branch	Must be accredited. Total enrollment, full- and part-time students.	4,500	2,500	1,000
Campuses	Distance from Interchange (miles).	5	5	5
Regional Shopping Centers			-	_
	Distance from Interchange (miles).	1	1	1
Industrial Parks	500,000 sq ft of leasable space ⁵ .	_	-	_
	Distance from Interchange.	5	5	5
Ports/Port Districts Served by two or more transportation mod (water, highway, rail, air).				
	Distance from Interchange.	5	5	5
Event Venues	Annual attendance.	300,000	250,000	200,000
	Distance from Interchange (miles).	2	2	2
Major Recreation Areas	Annual attendance (open to public).	300,000	250,000	100,000
National Parks	Sign from major junctions; case by case.			
State Parks ⁶	Distance from Interchange (miles).	15	15	15
USFS Facilities (Campgrounds, HQs)	Distance from Interchange (miles).	1	1	10

¹Population greater than 50,000.

²Population 5,000–49,999.

³See Section 2.15(1) for additional criteria.

⁴See WAC 468-95-140 for additional criteria.

⁵Leasable space can be a mix of manufacturing, service, and warehouse facilities.

⁶Per RCW 47.36.290.















Application for Historic/Cultural Sign

	Mailing Address (if different)
Name of Authorizing Official (include title, i.	e., Director, Trustee)
Address of Authorizing Official	Telephone Number
	E-mail Address
Has your organization been granted nonprofit	t status (IRS 501(c)(3))? Y N
Please provide the following information abo What are your visitation hours and when (note any seasonal variations to schedule)	are you open to the general public
 Is the facility readily visible from the hig If not, how far is your facility from the st Is the road serving your facility a two-lar 	tate highway on which the sign is being requested?
Please describe where you would like the number and milepost or distance to the n	e sign to be located. Be specific, include the state highway earest important intersection or junction.
	nistoric site:
 Please answer the following questions for a h Is your site included in the Washington F Is there an interpretive center or guided t Has your facility been approved by the F Washington State Historical Society? Y 	Heritage Register? Y \(\simeg\) N \(\simeg\) Heritage Resource Center of the
 Is there an interpretive center or guided t Has your facility been approved by the H	Heritage Register? Y \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \

Two Lane Highway (All Speeds)
Multi-Lane Highway (50 mph or less)



Multi-Lane Highway (55 mph or greater)

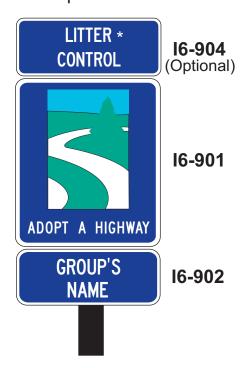


 Message may be modified to read: WILDFLOWERS, TREE PLANTING or as specified.

Highway Median Sections



Ramp Sections



Multi-Lane Highway (55 mph or greater)



16-906

6.3 Regional Traffic Regulations

Some types of traffic regulations address specific local traffic and geometric characteristics, without statewide implications. The Regional Administrators are delegated the authority to approve those regulations, which include the following:

A. Traffic Signal Installation Permits. Traffic control signals are addressed in the *Manual of Uniform Traffic Control Devices* (MUTCD) M 24-01, Part 4. Discussion includes advantages and disadvantages of signals, possible alternatives to signals, and the warrants under which signals are justified.

Signal permits are required for the following signal types, prior to installation:

- conventional traffic signals
- · emergency vehicle signals
- hazard identification beacons, when installed overhead at an intersection
- intersection control beacons
- lane control signals
- · movable bridge signals
- ramp meter signals
- pedestrian signals
- · temporary signals
- school crossing signals

Permits are **not** required for:

- hazard identification beacons that are not installed overhead at an intersection
- speed limit sign beacons
- stop sign beacons
- lane assignment signals at toll facilities
- portable signals

Complete an engineering and traffic investigation of the proposed signal location to determine if a traffic signal is warranted per the MUTCD. If a signal is warranted, submit a Calendar Agenda Form (Figure 6-1) with the documentation below to the Regional Administrator for approval. Include:

 A vicinity map showing SR/MP location of the proposed signal, and a detailed sketch showing traffic volumes, lane distribution, and other data relative to the request.

- Photos of the location and surrounding area, if possible.
- A complete warrant analysis per MUTCD, Section 4C based on accurate traffic volumes, collision experience, and other traffic conditions.
- A capacity analysis and other justification if volume warrants are not met but a signal appears necessary to resolve operational problems.
- Collision data summary for the last three years and whether the proposed signal location is at a High Accident Location (HAL), High Accident Corridor (HAC), or Pedestrian Accident Location (PAL) or is scheduled for improvement in the latest priority array.
- A statement detailing local agency funding and maintenance responsibilities, if applicable.
- All city, county, fire district, and citizen requests, along with copies of other pertinent documents and correspondence.
- The history of previously tried corrective countermeasures.
- Other supporting data such as proximity to schools, shopping centers, pedestrian traffic, etc.
- A Signal Application Checklist (Figure 6-3).

Once a signal is approved, a Statewide Signal Permit Inventory number is obtained from Headquarters and noted in part "F" on the permit form (Form 242-014). Send a copy of the completed permit to Headquarters for final documentation.

Where signal removal is being considered, refer to Section 6.6, Rescinding Existing Traffic Regulations.

- B. Reduced Regulatory Speed Construction/Maintenance Zones. The Regional Administrator may reduce speed limits in construction or maintenance zones, following the complete guidelines given in Secretary's Executive Order E 1060.00 and *Traffic Manual*, Chapter 5, Appendix 5B. Some speed limit reductions must be approved by the State Traffic Engineer.
- C. Regulatory Speeds in Rest Areas, Weigh Stations, and Ferry Terminals. The department is authorized (RCW 46.61.405) to set speed limits on any part of the highway system and at ferry terminals. Rest areas and weigh stations are included in the definition of a state highway (RCW 46.04.197).

Identify appropriate speed limits at these locations through an engineering and traffic investigation that considers:

- existing speed characteristics
- foot traffic patterns

6.4 Headquarters Traffic Regulations

Some types of traffic regulations address conditions that have statewide implications. To assure uniformity, these are approved by the State Traffic Engineer, and include the following:

A. Regulatory Speed Limits – Outside Construction and Maintenance Zones. Maximum speed limits for state highways, county roads, and city streets are mandated in the Rules of the Road (RCW 46.61.400). The department may raise or lower state highway speed limits based on an engineering and traffic investigation (RCW 46.61.405 and 46.61.410). The MUTCD, Section 2B.13 also addresses establishing speed limits.

Regions may initiate speed limit revision requests for many reasons including roadway realignment, urban growth, strip development, or other changes in roadway environment. Requests to change a speed limit may also come from a city, a tribal government, law enforcement, or citizens' group.

Conduct an engineering and traffic investigation to determine the appropriate speed limit. If a change is warranted, submit to the State Traffic Engineer as a calendar agenda item (Figure 6-2) and include the following supporting information:

- A memo outlining the reasons for the proposal, and any previously tried corrective measures and results.
- A description of the roadway characteristics including geometrics, lane and shoulder width and condition, grade and sight distance, etc.
- A map showing SR/MP, speed study locations and results, including 85th percentile speeds. Show pedestrian walkways, schools, accesses, significant traffic generators, newly developed areas, etc. Show locations of existing and proposed speed limit signs and curve or turn warning signs and applicable speed advisories. The map may be CADD generated, hand drawn, or ortho-photo based.
- Collision history for the past three years together with the critical collision rate. Note if the highway section is a High Accident Location (HAL), High Accident Corridor (HAC), or Pedestrian Accident Location (PAL).
- Description of changes in geometrics, sight distances, lane widths, and shoulders, if the proposal is based primarily on realignment.
- A copy of any local agency ordinance required for a managed access highway segment within an incorporated city or town.
- Copies of any citizen petitions or other letters regarding the proposed speed zone.

• Narrative on how any tribal considerations are addressed (see Section 2 below).

- Copies of WSP and/or local police agency concurrences.
- Speed Limit Request Checklist (Figure 6-4).
- An environmental review of the State Environmental Policy Act (SEPA) if the proposed speed limit is being raised to above 55 mph (see Section 6 below).
- A copy of the project results, if the "US Limits" speed zoning software is used.

When the engineering and traffic investigation does not support a speed limit revision, implement other potential corrective measures such as traffic calming revisions, warning signs, and public information campaigns. Observe and document the results of these measures before submitting a speed zone proposal. In most cases, the State Traffic Engineer will consider speed limit revisions that are within 5 mph of the 85th percentile speed, and that comply with MUTCD, Section 2B.13.

The State Traffic Regulations Specialist maintains a statewide speed limit inventory.

- 1. **Speed Limits for Schools and Playgrounds.** State law includes two parts to address reduced 20 mph speed zones for schools or playgrounds.
 - RCW 46.61.440(1) establishes a 20 mph speed zone at a marked school or playground crosswalk when the crosswalk is posted with standard school or playground speed limit signing.
 - RCW 46.61.440(2) allows a county or incorporated city or town to establish a 20 mph speed zone on a roadway **bordering a** marked school or playground.

Part 1 establishes a 20 mph speed zone at a marked school or playground crosswalk, when the crosswalk is posted with standard school or playground signs. School or playground crosswalk speed zones are addressed in WAC 468-95-330 and 468-95-340 and discussed in Chapter 2, Part 2.09(3). Signing is shown in Appendix 2-12. Uses of supplemental flashing beacons or flags to increase compliance with the speed zone are also discussed.

The 20 mph speed zone shall extend a full 300 feet in either direction from the marked school or playground crosswalk, unless there is less than 300 feet to the terminus of the roadway. School or playground speed zones established under this law do not require a traffic regulation.

The 20 mph speed zone may extend more than 300 feet from the crosswalk; however, the distance beyond 300 feet requires a traffic regulation based on an engineering and traffic investigation. Where school crosswalks serve an elementary school, the engineering and traffic investigation should consider the school's Walk Route Plan. The Superintendent of Public Instruction limits the number of school crossings and allows only one entrance-exit from each block to and from the school.

Part 2 allows a county or incorporated city or town to establish a 20 mph speed zone adjacent to and extending up to 300 feet beyond the border of a school or playground property. The zone may only include the area consistent with active school or playground use (WAC 468-95-330). A marked crosswalk is not necessary to establish a 20 mph speed zone under RCW 46.61.440(2). For city streets that are also state highways, the department must approve the city ordinance that creates the school or playground speed limit (RCW 47.24.020(11) and RCW 46.61.415(5)).

The regions may also receive requests for reduced speed limits at intersections without a marked crosswalk. Conduct an engineering and traffic investigation for the speed zone request. If study results warrant establishing the speed zone, submit a request to the State Traffic Engineer as required for regulatory speed limit changes. If the engineering and traffic investigation results do not support the request, consider other solutions such as adult crossing guards, focused law enforcement, playground fencing, and warning signs. Establishment of a crosswalk may also be considered.

- 2. **Speed Limits on State Highways Within Tribal Reservation Boundaries.** Beginning in 2009, state law (RCW 46.61.480) affirms that tribal authorities may determine the speed limit on the portions of nonlimited access state highways that pass within tribal reservation boundaries. The speed limit must be based on an engineering and traffic investigation and is not effective until approved by WSDOT, and appropriate signing is posted.
- 3. **Speed Limits on Ocean Beaches.** Ocean beaches are under the jurisdiction of the Washington State Parks and Recreation Commission (RCW 79A.05.610). The Commission has set the maximum speed limit on beaches at 25 mph (WAC 352-37-130).
- 4. **Minimum Speed Limit.** Although RCW 46.61.425(2) authorizes the department to post a minimum speed limit on a highway segment, the Rules of the Road do not mandate a statutory minimum speed limit for state highways. RCW 46.61.415 states in part that minimum speed limits on local roadways may not be set lower than 20 mph. Further, RCW 46.61.440 sets 20 mph as the speed limit at marked school

or playground crosswalks. For consistency with these statutes, it is suggested that 20 mph be the lowest speed limit that the department will consider. Lower speed limits may be considered in unique situations such as weigh stations, ferry terminals or rest areas (see Section 6.3, C). Consult with the State Traffic Engineer's Office for guidance.

- 5. Vehicle Specific Speed Limits, Trucks. The maximum speed limit for trucks is 60 mph (RCW 46.61.410). The department may set lower maximum limits by vehicle class if determined necessary for safety reasons (RCW 46.61.405). Trucks are defined as vehicles over 10,000 pounds gross weight and all vehicles in combination (except auto stages). RCW 46.04.130 defines a combination of vehicles as every combination of motor vehicle and motor vehicle, motor vehicle and trailer, or motor vehicle and semi trailer.
- 6. **Environmental Review Process.** SEPA requires an environmental review of any proposal to raise the speed limit on a highway to above 55 mph. Contact the Regional Environmental Manager's Office for information on the environmental review process and to determine if the proposed speed limit change area falls within an air quality maintenance area (non-attainment area) for carbon monoxide or ozone. A completed review must accompany the traffic regulation request package. For further information, consult the *Environmental Procedures Manual* M 31-11.

Either of two review procedures will be required:

- If none of the proposed change area is located within an air quality maintenance area, the reviewer completes the Non-project Environmental Checklist and the Determination of Non-Significance. Include a copy of each in the traffic regulation package, and provide copies to the Headquarters Environmental Services Office. It is not necessary to provide a copy to any other jurisdiction, nor does SEPA require a comment period.
- If any part of the proposed change area is located within an air quality maintenance area, the local Metropolitan Planning Organization (MPO) must model impacts from the proposed speed limit increase. If the modeling shows that the carbon monoxide and ozone allowances are not exceeded, follow the same procedures outlined for areas outside air quality maintenance areas. If the modeling shows that the carbon monoxide and ozone allowances will be exceeded, the impacts must be mitigated before the speed limit may be increased.

B. **Bicycle Restrictions.** Bicycles are defined as vehicles under state law (RCW 46.04.670) and treated and addressed as part of highway traffic. Bicycle restrictions may be implemented at specific locations due to speed differentials between bicyclists and other traffic, extremely high traffic volumes, roadway geometrics, or other safety considerations. Where bicycle restrictions are necessary, alternate routing suitable for bicycles must be available.

When considering an area for bicycle restriction or prohibition, conduct an engineering and traffic investigation and involve the regional bicycle coordinator, the bicycling community, and local agencies. Their input assures that bicycling interests are considered and that bicycle commute corridors remain intact.

Document the investigation and submit the proposed regulation to the State Traffic Engineer as a calendar agenda item. Include:

- A vicinity map and strip map showing SR/MP of the area.
- Location and descriptions of available alternate routes.
- Copies of documents, correspondence, and citizen requests.
- Narrative on how bicycle interests are addressed.
- Collision data involving bicycles.
- Copies of WSP and/or local police agency concurrences.
- Description of operational complexities (e.g., restricted shoulder width, interchange configurations) which identify the need for the regulation, as they relate to the following guidelines approved by the Bicycle and Pedestrian Advisory Committee (BPAC):
 - 1. Routes over 100,000 motor vehicles per day (ADT), or
 - 2. One or more of these criteria:

20,000 to 100,000 ADT		
Criteria	Condition and/or Consideration	
Shoulder Width	Less than 4 feet when ADT between 20,000 and 60,000 or 8 feet when ADT exceeds 60,000 ADT.	
Double On/Off Ramps	Consider forced exit and return.	
Interchange Spacing	Less than 2 miles with ramp volume greater than 10,000 ADT, use forced exit and return.	
Tunnels/Bridges	Consider restriction when alternate routes are available.	

The State Traffic Engineer will coordinate with the department's Bicycle and Pedestrian Program Manager to arrange for review of the restriction with the BPAC. Comments from the BPAC will be included in the regulation review.

- C. **Truck Restrictions.** Truck restrictions may be imposed by statutory mandate (RCW or WAC), or by approval by the State Traffic Engineer through a calendar agenda item. Truck restrictions are either as lane restrictions or route restrictions and designations.
 - 1. **Left-Lane Restrictions.** As mandated by RCW 46.61.100(3) and WAC 468-510-020, no vehicle towing a trailer or no vehicle or vehicle combination over 10,000 lbs. may use the left lane of limited access highways having three or more general purpose lanes in one direction.

Lane restrictions for trucks may also be imposed on other highway sections through a State Traffic Engineer Calendar Action. Although rare, these restrictions may be necessary to improve traffic flow on facilities having two general purpose lanes in one direction.

Truck route restrictions and designations are normally implemented together to establish a preferred truck route through a corridor. Route restrictions and designations may be initiated by a local agency for city streets that are also state highways.

An engineering and traffic investigation is conducted to determine the need for the restriction and route designation.

Document the investigation and submit the proposed regulation to the State Traffic Engineer as a calendar agenda item. Include:

- A vicinity map and strip map showing SR/MP of the area.
- Description of operational characteristics which identify the need for the restriction.
- Copies of speed studies, volume studies including vehicle classification, and a three year collision history.
- Copies of documents or correspondence from citizen groups.
- A copy of the local agency ordinance if the restriction is for a city street that is also a state highway.
- Copies of WSP and/or Washington Trucking Association concurrences.

Refer questions concerning WAC 468-510-020 to the State Traffic Regulations Specialist.

2. **Hazardous Material Route Restriction.** Some highways, due to operational characteristics, may be restricted for certain classes of vehicles, such as those carrying hazardous or flammable materials.

Conduct an engineering and traffic investigation and document the condition warranting a restriction. Submit as a calendar agenda item to the State Traffic Engineer with the following supporting information:

- A vicinity map showing the SR/MP of the restriction.
- Summary document detailing operational characteristics (tunnels, high traffic volumes) of the highway warranting the restriction.
- Copies of WSP and/or local agency concurrences.
- D. **HOV Lane Designation.** High Occupancy Vehicle (HOV) lanes are exclusive traffic lanes limited to carrying public transportation vehicles, private motor vehicles with the number of occupants specified on posted signs, motorcycles, and emergency vehicles (WAC 468-510-010). HOV lanes are typically a characteristic of urban freeways, but may also be designated on expressways, urban arterials, and highways serving major transportation hubs such as airports. The HOV lane objectives are:
 - Increase the people-carrying capacity of highway corridors.
 - Reduce total travel time.
 - Improve the efficiency and economy of public transit operations.
 - Reduce fuel consumption.
 - Improve air quality.

Designated HOV lanes are established through a regulation approved by the State Traffic Engineer. Conduct an engineering and traffic investigation, document the condition, and submit the following information as a calendar agenda item:

- A vicinity map and strip map identifying the SR/MP limits, and showing the locations of ramps within the proposed section.
- The proposed minimum number of occupants per vehicle, and engineering documentation to support that minimum.
- Projected lane occupancy rates for both the HOV lane and the adjacent general purpose lanes.
- Proposed hours of HOV operation.
- Copies of design data.
- For proposed shoulder HOV lanes, include Design Office concurrence that the shoulder has adequate structural strength to support the HOV lane.

• On highways where bicycles are allowed on the shoulder, a narrative on how bicycle traffic will be accommodated if a shoulder HOV lane is approved.

E. Angle Parking on State Highways

1. **Statutory Requirements.** Angle parking may be requested by a city or town for a city street that is also a state highway (RCW 46.61.575(3)). Local authorities, by ordinance or resolution, may permit angle parking on such a street, if the department has determined that the roadway is of sufficient width to permit angle parking without interfering with the free movement of traffic.

Conduct an engineering and traffic investigation of the location. If angle parking is determined appropriate, submit as a calendar agenda item to the State Traffic Engineer with the following supporting information:

- Vicinity and strip map showing the SR/MP of the proposed regulation.
- Narrative describing the need for angle parking, including speed limit and traffic volumes.
- Collision data for the past three years.
- Copy of the city or town ordinance establishing angle parking.
- Parking plan layouts.
- A demonstration (using a passenger vehicle for design purposes) that the parking maneuver can be accomplished without interfering with the free movement of traffic. Use video or pictures.
- 2. **Pre-existing Angle Parking.** Angle parking was installed along some state highways prior to approval through the traffic regulation process, or before it was designated as a state highway. Further, these locations may not allow for the angle parking maneuver to be performed without interfering with the free movement of traffic, as required by law.

To address unapproved angle parking, the region may establish an inventory of the locations and then undertake a "housecleaning" project. The project can be region wide, or can encompass a specific area such as a state route or a county. The purpose is to bring unapproved locations into compliance with the law through a traffic regulation, or work toward removing those that cannot comply.

Where it is necessary to initiate removing angle parking, it is important to partner with local agencies (for city streets that are also state highways) and/or the business community to establish a mutually acceptable time frame. In many locations, angle parking may be

the only parking available to business patrons. In these cases, a comprehensive approach to providing other parking must be part of any effort to remove angle parking.

F. Parking Restrictions for Park and Ride Lots and Other Parking Facilities. Within the department's park and ride facilities, parking is limited to a maximum of 48 hours, when posted with signs (R8-1201). The State Traffic Engineer established this restriction through an official calendar agenda action on January 8, 1982. Local agency police can enforce parking regulations in WSDOT park and ride lots if the city or town has adopted an ordinance similar to the department's 48 hour parking maximum.

For other parking restriction requests, such as at ferry terminals or chain-up areas, conduct an engineering and traffic investigation of the location and document the condition. Submit the proposed restriction as a calendar agenda item to the State Traffic Engineer, together with copies of all correspondence associated with the request.

G. **Regulation of Sales within State Parking Facilities.** The use of state parking facilities for sales of vehicles or other merchandise is not allowed.

The supporting enforcement statutes are as follows:

- RCW 46.55.070 specifies the posting requirements for public parking facilities.
- RCW 46.55.010(14) defines an unauthorized vehicle and the required period of time prior to impoundment for posted public parking facilities.
- RCW 46.55.080 authorizes that police officers may direct the impoundment of unauthorized vehicles.
- RCW 47.32.120 makes it unlawful to "merchandise" in a manner that requires the use of any portion of state highway right of way.
- RCW 46.55.240(1)(a) provides a city, town, or county the authority to adopt the provisions of RCW 46.55 by ordinance or resolution.
- WAC 308-330-436 of the Model Traffic Ordinance (MTO) may be used by local agencies who have adopted the MTO, for park and ride lots located within their jurisdiction.
- H. **Permanent Weight Restrictions.** Permanent weight restrictions may be imposed where the pavement and base structure of a given section of roadway or a bridge structure will not support the maximum legal load. An example is a weight restriction on a road segment not built to WSDOT standards but acquired as a state highway. The State Bridge Condition Office will normally initiate bridge weight restrictions.

Investigate and document the need for the restriction and submit it to the State Traffic Engineer. Include:

- A narrative describing the road or bridge condition leading to the restriction.
- The appropriate maximum weight limit for a restricted section of roadway, as determined by the department's Materials Laboratory.
- A determination of the appropriate bridge weight limit, as set by the department's Bridge Condition office.
- Citizen or local agency correspondence.
- A copy of WSP concurrence.

Weight restrictions are signed with the appropriate R12 series signs illustrated in the *Sign Fabrication Manual* M 55-05.

6.5 Other Traffic Restrictions

Compression Brake Prohibition. The department does not regulate compression brake use; compression brake regulations are enacted by local agencies and may be signed on state highways as described in the *Traffic Manual*, Chapter 2.

6.6 Rescinding Existing Traffic Regulations

Occasionally changes to the highway or roadside environment create the need to rescind a traffic regulation. The Regional Administrator or State Traffic Engineer accomplishes this through a calendar action. Removing the signs or posted notices of the regulation does not rescind the regulation.

- A. **Regional Traffic Regulations.** Use the following guidance when rescinding regional traffic regulations:
 - 1. When **removing a traffic signal**, complete Section E, Report of Change, on the regional copy of the Traffic Signal Permit. Part of Section E provides documentation for the date of removal, together with the engineer's name, title, and reporting date. A copy of that permit is then sent to the Headquarters Traffic Regulations Specialist for retention in the signal permit file.
 - 2. Reduced regulatory speeds in construction or maintenance areas may be implemented under certain conditions specified within Secretary's Executive Order E 1060.00 and *Traffic Manual*, Chapter 5, Appendix 5.B. The guidance states that when the warranting conditions no longer exist, the reduced regulatory speed limit is no longer justified. Generally, this is at the end of the project and is noted in the Work Zone Speed Reduction Request. The permanent speed limit signs are then reinstalled, uncovered, or turned toward traffic, as applicable.

3. The Regional Administrator, using the regional calendar agenda process, rescinds all of the following regulations if they are no longer needed:

- Stop control on state highways.
- Turn prohibitions.
- Pedestrian prohibitions on partial or modified access controlled highways.
- Roadside parking restrictions (except for angle parking, and restrictions for park and ride lots and other parking facilities).
- Tow-away zones.
- Prohibitions of fishing or jumping from bridges.
- Weight or closure restrictions.

Conduct an engineering and traffic investigation and document the condition requiring the rescinding of the regulation. Removing the regulatory signs does not rescind the traffic regulation, but renders it unenforceable under RCW 46.61.050(2).

- B. **Headquarters Traffic Regulations.** The State Traffic Engineer, using the calendar agenda process, rescinds the following regulations if they are no longer needed:
 - Bicycle prohibitions.
 - · Truck restrictions.
 - HOV lane designations.
 - Angle parking on state highways.
 - Parking or sales restrictions for park and ride lots and other parking facilities.

Permanent regulatory speed limits may only be amended.

Provide documentation to support rescinding the traffic regulation to the State Traffic Engineer's office. As with the regional traffic regulations noted above, removing signs does not rescind the traffic regulation, but renders it unenforceable under RCW 46.61.050(2).



Transportation Building 310 Maple Park Avenue S.E. P.O. Box 47300 Olympia, WA 98504-7300 360-705-7000 TTY: 1-800-833-6388 www.wsdot.wa.gov

DATE:

TO: Regional Administrator (or Designee)

FROM:

ITEM: Approval of Traffic Regulations

Attached is (are) the above-reference item(s) for inclusion on your calendar for approval and/or execution at calendar meeting to be held (place calendar agenda date here).

A. Traffic Signal Permits:

1. SR 404

Milepost 16.50 Permit Number 3,013

Submitted by the Regional Traffic Engineer, based on Warrant 1, Eight-Hour Vehicular Volume, and Warrant 6, Coordinated Signal System. The State Patrol and the Articulating Transit Authority concur with the proposal.

- B. Turn Prohibitions:
- C. Pedestrian Prohibitions:

- 3. Signs may be in place only for the duration of the special event.
- 4. Messages should consist of "Name of Event" or other simple message and a directional arrow. No commercial advertising is allowed.
- D. Pre-event Signing. Advance notice signing is sometimes installed to advise regular highway users of an upcoming event that will affect normal traffic operations. It is a courtesy to any communities or highway users affected by a special event to alert them about potential traffic impacts and delays.
 - 1. Pre-event signs, if required, are addressed in the Letter of Agreement.
 - 2. Sign size, material, message, and locations are noted in the Letter of Agreement. Sign color shall be black letters on an orange background.
 - 3. Sign message is limited to name and date of event and a traffic control message such as "Use Alternate Route" or "Expect Delays" or more specific directional information as applicable. No commercial advertising is allowed.
 - 4. Signs and supports must be of crashworthy materials. Types include roll-up signs on approved portable bases, signs mounted on approved posts, and Portable Changeable Message Signs (PCMS). Allowance is made for crashworthy sign materials such as corrugated plastic.
 - 5. Post mounted signs shall be installed and removed per MUTCD installation standards. Signs shall not be installed on existing regulatory or warning sign posts. Signs may be installed on existing guide or informational sign posts.
 - 6. Pre-event signing shall be installed between seven and ten days before the event and removed within three days after the event.

Additionally, when a roadway is to be closed for an event, pre-event "Road to be Closed" signs must be posted a minimum of three days in advance (RCW 47.48.020). The signs will give the date(s) and time(s) of closure.

7.7 Banners

The department receives requests from public agencies, civic organizations, and event sponsors, to install banners for a variety of informational purposes on state highway right of way.

Most installation requests are for horizontal suspension over the roadway, using span wire, and are the focus of this section. The occasional requests for vertically mounted banners, such as on luminaire poles, are processed case-by-case.

Some installations may require a wind load analysis prior to approval (see Section D).

A. **Statutory and Regulatory Overview.** The term "banners" means the signs, banners, and decorations described in state law (RCW 47.36.030) and the Washington Administrative Code (WAC 468-95-148). WAC 468-95-148 establishes approval criteria (see Section C) that allow the department to permit banners visible to state highways. RCW 47.42.020(10) exempts banners from the Highway Advertising Control regulations, if the banners do not display commercial advertising.

On city streets that are also part of the state highway system under RCW 47.24, the cities are responsible for approving banner installations that are more than 20 feet above the roadway surface. The department only has the authority to prohibit banners up to a vertical height of 20 feet above the roadway surface (RCW 47.24.020(3)).

- Thus, requests for banners on city streets that are also part of the state highway system are referred to the city for approval.
- On state highways in unincorporated areas, the department has the authority to regulate banners.
- The department maintains authority on limited access roadways, in both incorporated and unincorporated areas.
- B. **Permit Administration in Unincorporated Areas.** Banner permits are administered through the region Traffic Office, using a Banner Placement Permit (Figure 7-1) issued by the regional signing authority. This permit may be modified to accommodate requests for vertically installed banners.

The region Maintenance Office having jurisdiction over the proposed banner location receives a copy of the completed permit, for their information when processing over-height vehicle permits.

The region Traffic Office also coordinates any required wind load review or analysis with the headquarters Bridge and Structures Office.

For a banner attached to utility company-owned poles, the sponsor must provide the region with a copy of the utility company's permitting correspondence. This practice assures the department that the utility company's wind load and banner attachment considerations have been addressed.

Temporary poles may be installed in department right of way outside the clear zone, after the sponsor secures a department-issued General Permit. This practice assures the department that the installation won't interfere with department operations or underground utilities, and that traffic control considerations are addressed. A Banner Placement Permit is also required.

As a matter of practice, the department does not allow horizontally suspended banners to be attached to WSDOT-owned traffic signal poles or luminaire poles. Adding banners to signal poles may interfere

with or obstruct the view of traffic control devices, in conflict with RCW 47.36.030 and WAC 468-95-148. Regarding luminaire poles, it's likely that significant debris on the roadway would result from a knockdown. Banners should not be attached to crossing structures because a disconnection could cause a banner to fall onto the roadway.

Some cities have installed permanent banner poles on city-owned property outside the clear zone

- C. **Approval Criteria.** The department may approve banner installations in unincorporated areas that promote a community sponsored event in accordance with the following criteria:
 - 1. Banner messages are limited to name, date, and event sponsor. Commercial advertising is not allowed (RCW 47.42.020 and WAC 468-95-148).
 - 2. At least 20 feet of vertical clearance must be maintained from the roadway surface to the bottom of the banner (RCW 47.36.030 and WAC 468-95-148).
 - 3. Banners are not permitted to be visible from Interstate highways, or any other state highways having a posted speed limit of 50 mph or greater (WAC 468-95-148).
 - 4. Banners shall not interfere with or obstruct the view of any traffic control device, or impair the operation of transportation management systems or illumination (RCW 47.36.030 and WAC 468-95-148).
 - 5. For temporary events, banners may be installed not more than 30 days before the event and shall be removed not more than three days after the event (WAC 468-95-148). The duration of informational banners is determined case by case.
 - 6. The department will not permit a sign, banner, or decoration to be mounted over any multi-lane (four or more lanes) highway. Vertical mounting on luminaire or signal poles is permitted, provided such installations meet wind load requirements (see Section D) specified by the department (WAC 468-95-148).
 - 7. The department does not allow banners to be illuminated in any manner (RCW 47.36.180).
- D. **Wind Load Analysis.** Standard size banner installations do not require a wind load analysis. Standard banner sizes range from two to four feet vertically by 20 to 24 feet horizontally, with three feet by 20 feet about average. Banner manufacturing incorporates wind slits or wind ports to minimize wind stress.

For larger banners consult with the Headquarters Traffic office to determine if the proposed installation warrants a wind load analysis. The Bridge and Structures Office will need 30-60 days for the wind load review if an analysis is necessary and may charge the event sponsor. As an alternative, the event sponsor may submit wind load calculations, performed and stamped by an engineer licensed in Washington State, to verify the compatibility of the installation.

7.8 Special Event Pavement Markings

WSDOT allows placement of temporary directional pavement markings (commonly called "Dan Henrys" in the bicycle community) to indicate the special event route. These markings give direction to event participants and are located at points where a route decision must be made.

- 1. All pavement markings must use non-permanent, chalk based or "fade-away" paint. Permanent marking paint is prohibited.
- 2. Markings should be placed only just before, at, and just after directional decision-making points.
- 3. Route confirmation markings are permitted at major intersections.
- 4. For bicycle events, markings are placed to the right of the edge line where riders have a good rideable shoulder. Otherwise, they are located in the ordinary line of riding.
- 5. For running events, pavement markings are placed on the shoulder facing traffic.
- 6. The markings should be visible to event participants but placed so they are unobtrusive to others. A guideline is to make these marks no larger than 12×18 inches.
- 7. Markings must be placed away from traffic control pavement markings and existing construction or survey pavement markings.

7.9 Transit Vehicle Stop Zones

Region Traffic offices receive and review requests from transit agencies for approval of transit stops on state highways. The "Transit Vehicle Stop Zone Guidelines" (Appendix 7-2) provides a standard process for managing requests for transit stops outside incorporated areas. The department has a commitment to making transit stop locations more viable and user friendly as well as safe. The guidelines consider the operational needs of the department and transit authorities as well as public safety. See the *Design Manual* M 22-01 for information about incorporating transit vehicle stops into the project design process.

When the department receives a transit stop request, conduct an engineering and traffic investigation to find a location where the transit vehicle may stop entirely off the highway when loading or unloading passengers (WAC 468-46-010). If there is no location off the highway, then the review should establish a safe transit vehicle stopping area where suitable roadway geometrics allow.

Additionally, the investigation considers pedestrian amenities such as sidewalks, roadway crossing opportunities, security lighting, and shelters. The Americans with Disabilities Act guarantees access to public facilities (i.e., transit) for all persons; therefore, the review process must consider the needs of all transit users at each stage of transit use, including both before and after using the transit service.

Once the review has been completed, the stop location is either approved or denied. Approval is by the Regional Administrator or designee and an Agreement between the transit agency and WSDOT is written. If a location is denied, a letter stating the reasons is issued by the region.

The Rules of the Road provide general restrictions and privileges concerning transit vehicle stops:

1. RCW 46.61.560 provides that, outside of incorporated cities or towns, no one can stop, park, or leave a vehicle upon the roadway. An exception is granted for public transit vehicles stopped to receive or discharge passengers at a marked transit stop approved by the department or the county on their respective facilities.

Beginning in 2009, it further allows public transit vehicle drivers to momentarily stop to receive or discharge passengers at unmarked stop zones under the following circumstances:

- Stop in a safe and practicable position.
- Activate four-way flashing lights.
- Stop only where there is an unobstructed view, for an adequate distance to not create a hazard for other drivers.

The statute anticipates transit stops on the roadway within incorporated cities or towns where stops are frequent and operating speeds are typically lower. (Note that RCW 46.04.500 excludes the shoulder from the definition of roadway.)

2. RCW 46.61.570 specifies several locations where it is illegal to stand or park a vehicle, except temporarily to load or unload property or passengers, and authorizes other limitations or restrictions by city ordinance, county resolution, or department order (traffic regulation).

3. RCW 46.61.575 authorizes the department to place traffic control devices that prohibit, limit, or restrict, stopping, standing, or parking. This authority is granted for locations where the department has determined by regulation that stopping, standing, or parking will endanger highway users or interfere with the free movement of traffic.

7.10 School Bus Stops on Limited Access Highways

School bus stops must be located where there is a minimum of 500 feet sight distance to the bus stop, to provide adequate visibility. If feasible, locate stops off the state highway. The state regulations noted below further govern locations.

- A. WAC 468-58, Limited Access Highways. WAC 468-58-030 and RCW 47.52 regulate school bus stops along limited access highways and prescribe the department's related duties.
 - 1. School bus stops are not allowed along fully controlled limited access highways. Exceptions may be authorized at interchanges where the department has provided a location and along the mainline where there is a separated facility.
 - 2. The department must approve school bus stops located along partial and modified control limited access highways in rural areas
 - 3. Department approval is not required along modified control limited access highways in urban areas.
 - 4. All approved school bus stops shall be signed in accordance with the MUTCD.
 - 5. The State Traffic Engineer will maintain an inventory of approved stops.

See Section 7.13 for information about pedestrians crossing limited access highways.

- B. WAC 392-145, Additional Rules for School Bus Drivers. The Superintendent of Public Instruction Office (OSPI) adopted WAC Rules that regulate school bus stopping. Consider these rules when reviewing school bus stops on limited access highways:
 - 1. Buses are not allowed to stop on a curve or a hill where visibility is less than 500 feet. Any existing bus stop locations that have less than the minimum 500-foot visibility must be moved to a compliant site to provide safety to the bus riders and roadway users. If no other stop location is possible, it shall be signed with a "SCHOOL BUS STOP AHEAD" sign (S3-1).
 - 2. No school bus may pull over to the left hand side of the road to load or unload children

- 3. School children are not allowed to cross any roadway having three or more marked traffic lanes, or any highway divided into separate roadways, as described in RCW 46.61.150.
- C. Coordination With School Districts and Approval Process. The department works cooperatively with the OSPI to implement a school bus stop approval and inventory process based on the WAC rules. The region works with the individual school districts to assure that school bus stops on limited access facilities meet those requirements. Figure 7-2 provides a sample Proposed School Bus Stop Worksheet that the regions and the school districts may use cooperatively to assess and approve potential bus stops on partial or modified access controlled routes. The worksheet also provides the basic information the State Traffic Engineer's office needs to maintain the required bus stop inventory. Figure 7-3 illustrates the school bus stop approval and inventory process.
- D. School Bus Stop Inventory. WAC 468-58-030 instructs the department to maintain an inventory of all school bus stops on limited access highways. The regions update the Limited Access school bus stop inventory on a regular basis, often after the start of each school year. The information is provided to the State Traffic Engineer. Regions also update school bus stop information when new stops are established and when existing stops are relocated or removed.

7.11 Interpretive Signs/Markers

Agreement GM 869 (Appendix 7-3) between the department and the Washington State Parks and Recreation Commission provides the procedures and guidelines for developing and maintaining interpretive signs and markers placed along the state highway. These markers depict the state's natural and manmade history and are often located at designated pullouts or rest areas. The agreement documents the department's responsibilities in locating and providing access to these markers. Use this process when new roadways, viewpoints or rest areas are being constructed or where a construction project includes an interpretive marker location. Contact the regional Accounting Services Office for agreement information.

7.12 "Memorial" Highways and Bridges

The Transportation Commission may, by resolution, name a highway or bridge to commemorate a person significant to Washington's history. Typically, the Commission will only consider naming a facility after receiving a resolution of the Washington State Legislature. This practice assures the Commission that:

- Local and state officials jointly agree the facility should be named.
- There is agreement on which name should be used.
- Residents near the road or bridge agree.

The Regional Administrator may also nominate a person to be honored through the naming process. Supporting information is supplied to the Office of the Secretary who reviews the request and forwards it to the Transportation Commission. The subsequent Commission Resolution may either request or require legislative support by Joint Resolution or Joint Memorial, and may defer placing memorial plaques or signs until legislative support is secured.

Another type of memorial designation is the "Blue Star" Memorial Highway. It was first initiated after World War II to memorialize veterans, and now honors all members of the armed services. "Blue Star" Memorial Highways are a project of the National Garden Clubs and requests often originate from a local club. The Regional Administrator must present requests for designation to the Transportation Commission. Markers are not installed until the designation is received.

Marker plaques are 41×45 inches. The sign mounting and base size, style, and location are determined on an individual basis and approved by the region.

Plaques or signs memorializing highways or bridges are typically installed in rest areas, scenic overlooks, recreational areas, or other appropriate locations with a parking area, and where the installations are not visible to mainline traffic. Where there is no appropriate site off the main roadway, the MUTCD provides that one memorial sign per direction may be installed along the mainline, provided it does not affect safety or efficiency of traffic flow.

The Governor or the legislature approves requests to dedicate a facility to a cause, rather than a person.

7.13 Pedestrians Crossing Limited Access Highways

WAC 468-58-030 contains provisions concerning the approval of pedestrian crossings of limited access highways. These provisions:

- 1. Prohibit at-grade pedestrian crossings of fully controlled limited access highways.
- 2. Permit crossing of multi-lane partially controlled or modified control limited access highways only where grade crossings are provided.
- 3. Permit crossing of two lane, partially or modified control limited access highways at mailbox locations.
- 4. Permit crossing of two lane, partially or modified control limited access highways at points designated for school children to cross as follows:
 - On two lane highways, at the school bus, when the bus is stopped in the traveled lane to load or unload students, and its sign and signal lights are displayed as required by RCW 46.61.370.

• On two lane highways, at least 100 feet from a school bus loading zone which is adjacent to the traveled lane and was established by school district and department personnel who determined that stopping in the traveled lane is hazardous.

7.14 Shoulder Driving for Slow Vehicles

Regional Administrators may designate sections of a two lane state highway to be a "shoulder-driving area" to allow slow-moving vehicles to drive onto improved shoulders so faster vehicles can pass (RCW 46.61.428).

Specific highway characteristics are required for designating shoulderdriving areas:

- 1. A minimum length of 600 feet of paved shoulder must be available.
- 2. The structural strength of the paved shoulder must be adequate to support traffic. Contact the region Materials Lab for an evaluation of the structural capacity of the shoulders.
- 3. The shoulder width must be 8 feet or more; except, shoulder widths of 6 to 8 feet may be utilized after review of the following considerations:
 - · Horizontal and vertical alignment.
 - Shoulder slope from pavement edge.
 - Absence of passing opportunities.
 - Character of traffic (recreation, logging, or other slow-moving traffic).

Signing requirements for designated shoulder driving zones are shown in the *Traffic Manual*, Chapter 2.



Transportation Building 310 Maple Park Avenue S.E. P.O. Box 47300 Olympia, WA 98504-7300 360-705-7000 TTY: 1-800-833-6388 www.wsdot.wa.gov

	······································	
Date	e	
	RE: Placement on SR	
~	ne eet Address v, State, and Zip Code	
Dea	ır	
This	s letter is in response to your request to place a banner across SR, at or r milepost, for your event.	
PEI	RMIT TO PLACE BANNER	
	Washington State Department of Transportation conditionally approves your request to the a banner, only under the conditions following:	
1.	The banner message is limited to name, date, and event sponsor. Commercial advertising is not allowed (RCW 47.42.020 and WAC 468-95-148). <i>Non-commercial informational messages not associated with an event are allowed.</i>	
2.	A vertical clearance of at least 20 feet must be maintained between the roadway surface and the bottom of the banner (RCW 47.36.030 and WAC 468-95-148).	
3.	The banner may not be installed more than 30 days before the event and shall be removed not more than three days after the event (WAC 468-95-148). (Note: the duration for informational banners is determined and stated here case by case.)	
4.	The banner may not interfere with or obstruct the view of any traffic control device, or impair the operation of transportation management systems or illumination (RCW 47.36.030 and WAC 468-95-148).	
5.	The banner may not be directly illuminated in any manner (RCW 47.36.180). Incidental illumination from existing street lights is allowed.	
6.	If the banner is to be attached to utility company-owned poles, include a copy of the utility company's completed permitting correspondence when you sign and return this permit to the department.	
7.	Write in the company names of the manufacturer and/or supplier for newly manufactured banners and the installer. (You may omit the names of the manufacturer and/or supplier if the banner has been used in previous years, and you note that on the first line.)	
	Manufacturer/Supplier:	
	Installer:	

Sample Permit to Place Banner Figure 7-1

By signing below, (event sponsor) agrees to indemnify and hold harmless the State of Washington and the Washington State Department of Transportation, its officers and employees from any and all claims, actions, or damages of any type or nature which may accrue to be or be suffered by any person, persons, or property, by reason of the action or omissions of the event sponsor, its agents, employees, contractors, or any person whomever, arising out of or in connection with any acts or activities authorized by the Permit for injuries, bodily injury, death, or property damage, including all costs of defense and attorneys' fees. This obligation shall not include such claims, costs, damages, or expenses which may be caused by the sole negligence of the State or its officers or employees.

If (event sponsor) agrees to these terms, please have the duly authorized representative of (event sponsor) or (name of city or town) sign this permit and return it to the Washington State Department of Transportation at (mailing address or fax number).

Sincerely,	
(Regional Signing Authority) (Title)	
Signature and Title of Authorized Official	
Phone Number and E-mail Address	
Place	
Date	
	perjury under the laws of the State of Washington nsor) to the terms and conditions of this Permit.

Sample Permit to Place Banner Figure 7-1 (continued)

XX:yy cc: File

> Headquarters Maintenance Area

WAC 468-58 School Bus Stop Inventory

Partial and Modified Limited Access Controlled Highways

Inventory Items – School District Information

Date:	
DOT Region:	
School District:	
School District Contact Person (Phone #, Mailing and E-mail Addresses	s)
State Route Number:	_
Milepost (and approximate distance and direction to nearest intersection	n)
Direction of Travel:	
Stop on/off Roadway:	_
Bus Stop Times: a.m./p.m.:	
Inventory Items – WSDOT Informa	tion
Limited Access Type	_
Stopping Sight Distance	
Signed – "School Bus Stop Ahead"	
Regional Approval	Date
Ву	

Proposed School Bus Stop Worksheet Figure 7-2